
ARTICLE · JUNE 2013
DOI: 10.3390/laws2030244

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Received: 5 July 2013; in revised form: 19 August 2013 / Accepted: 28 August 2013 / Published: 29 August 2013

Abstract: A dramatic rise in arrest rates for girls over the past decade has led to an increasing interest in understanding gender differences in the risk factors that are associated with delinquency. Moreover, the call has been made for the implementation of gender-specific or gender-responsive interventions in order to effectively divert girls from an antisocial course. However, questions have been raised about three key assumptions underlying the gender-responsive approach to girls involved in the juvenile justice system: is there unequivocal evidence for gender-specificity in the risk factors that contribute to girls’ delinquency; is there clear evidence that existing non-gender-responsive evidence-based interventions for delinquency are less effective for girls than boys; and is there well-grounded evidence that interventions specifically tailored for girls are differentially effective? This article reviews the available research regarding each of these questions and proposes an agenda for future research into the development of effective interventions for juvenile justice-involved girls.

Keywords: delinquency; girls; trauma; adolescents; gender; intervention; evidence-based

1. Introduction

As data derived from national FBI records attest [1], arrest rates for girls have risen sharply in the past decade, particularly for violent offenses, even at the same time that rates for boys have been
decreasing. Although the reasons for these changes are debated and girls’ overall rates of delinquency remain lower than boys’, these trends have alerted researchers and social policy experts to the need to better understand the factors that account for the involvement of girls in the juvenile justice system. To this end, a number of scholars recently have given due consideration to the question of whether there are gender differences in the factors accounting for boys’ and girls’ delinquency and, in particular, whether these might suggest the need for gender-specific, also termed gender-responsive, interventions for girls involved in the juvenile justice (JJ) system [2–16].

The historical and legal catalyst for these efforts derives from the Juvenile Justice and Delinquency Prevention Act of 1992, in which a focal point was the attempt to reform the juvenile justice system in ways that were responsive to the needs of girls. To this end, the Act made funding eligible for states to develop programs that reduced gender bias and ensured that girls had access to a full range of services. In 1998, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) reissued recommendations for interventions for girls, including calling for gender-specific programming that took into consideration issues, such as girls’ self-esteem, body image, feelings of empowerment and interpersonal relationships. Programs were guided to strive to provide separate interventions for girls, while treating girls in the least restrictive and close-to-family settings as possible, to be based upon an understanding of female development and the importance of relationships, including those between girls and JJ staff and to attend to the special needs of girls who are or are becoming parents. Subsequently, the American Bar Association [2] and the Annie E. Casey Foundation [17] provided important overviews of the pathways girls take toward, and the needs that ensue upon their involvement in, the JJ system. Sherman [17] also contributed a list of core elements that became frequently cited in definitions of what constitutes gender-responsive interventions (see Table 1), including that they are integrative across systems, address trauma, promote resilience and provide opportunities for girls to engage in relationships with positive female role models.

Table 1. Recommendations for gender-responsive interventions for juvenile justice-involved girls.

- Valentine Foundation [18]:
  - Space that is physically and emotionally safe and removed from the demands for attention of adolescent males
  - Time for girls to talk, for girls to conduct emotionally “safe,” comforting, challenging, nurturing conversations within ongoing relationships
  - Opportunities for girls to develop relationships of trust and interdependence with other women already present in their lives (such as friends, relatives, neighbors, church members)
  - Programs that tap girls’ cultural strengths rather than focusing primarily on the individual girl (i.e., building on Afrocentric perspectives of history and community relationships)
  - Mentors who share experiences that resonate with the realities of girls’ lives and who exemplify survival and growth
  - Education about women’s health, including female development, pregnancy, contraception, diseases and prevention, along with opportunities for girls to define healthy sexuality on their own terms (rather than as victims)
  - Opportunities to create positive changes to benefit girls on an individual level, within their relationships and within the community
Table 1. Cont.

- Giving girls a voice in program design, implementation and evaluation
- Adequate financing to ensure that comprehensive programming will be sustained long enough for girls to integrate the benefits
- Involvement with schools, so that curriculum reflects and values the experience and contributions of women

- Girls Incorporated [19]:
  - Designed to meet the unique needs of females
  - Value the female perspective
  - Celebrate and honor the female experience
  - Respect and take into account female development
  - Empower young women to reach their full potential

- OJJDP [11]:
  - Compreh ensive: deal with behavior in context, so as to enable each girl to focus on her individual needs, understand how risk factors have shaped her development and address issues that arise in her relationships with others, including family, peers, community and society
  - Assist all girls in positive female development: take into account the developmental needs of girls at adolescence, a critical stage for gender identity formation; nurture and reinforce "femaleness" as a positive identity with inherent strengths
  - Provide girls with decision-making and life skills that will assist their development into womanhood: given the importance that girls place on relationships, gender-specific programming teaches positive relationship-building skills; empowerment teaches girls to use their voice, to speak for themselves and to recognize that they have choices
  - Recognize the dangers and risks that girls face because of gender; acknowledge that the lives of girl offenders may have been affected by sexism, victimization, poverty and racism

- Bloom, Owen and Covington [20]
  - Acknowledge that gender makes a difference
  - Develop policies, practices and programs that are relational and promote healthy connections to children, family, significant others and the community
  - Address substance abuse, trauma and mental health issues through comprehensive, integrated and culturally relevant services and appropriate supervision
  - Provide women with opportunities to improve their socioeconomic conditions
  - Establish a system of community supervision and reentry with comprehensive, collaborative services

- Sherman [17]:
  - Comprehensive: integrate family, community and systems
  - Safe: promote healing from trauma
  - Empowering: encourage leadership and the development of strengths
  - Relational: support ongoing, positive relationships with older women, family and peers
  - Community and family-focused: based in the community, foster positive family relationships and facilitate sustainable community connections

- Matthews and Hubbard [21]:
  - Utilize assessment instruments that are calibrated to measure the risks, problems and assets specific to delinquent girls
  - Base interventions on a helping alliance, ideally with female staff
Table 1. Cont.

- Modify the process of cognitive-behavioral interventions to take into account girls’ needs for support, safety and intimacy; and adapt the process to attend to gender-specific cognitive vulnerabilities (e.g., self-blame, excessive concern for others’ opinions, rumination) and strengths (e.g., empathy, social intelligence)
- Promote healthy connections with others, particularly prosocial females
- Recognize heterogeneity amongst girls, including the presence of mental health problems, such as PTSD and depression, as well as sexual orientation, culture and social class.

- Walker, Muno and Sullivan-Colglazier [13]:
  - Holistic: consider individual differences, build on natural supports and address needs in multiple areas of life
  - Safe: integrate trust development, trauma-informed care and awareness of power differentials
  - Skills-based, strength-based: increase engagement, confidence and competencies
  - Relational: recognize ways that female development hinges on positive, mutual relationships
  - Culturally responsive: address girls’ needs and risk in the context of identified culture and identity based on gender, race, ethnic, religious, class, ability and sexual orientation

- Ravoira, Graziano, Glesmann and Baker [22]:
  - Training for JJ staff regarding:
    - Understanding the impact of trauma on development and identifying and responding to abuse
    - Communicating and forming relationships with angry and challenging girls
    - Working with teen parents
  - Better communication, affirmation, respect and “understanding” in the system’s responses to girls
  - Gender-informed protocols for strip searches, interviewing, and risk assessments
  - Sensitivity related to sexuality
  - Attention to mother-daughter relationships
  - Respect for girls’ own agency
  - Family involvement
  - Reduce “traumatizing” effects of JJ system, especially for girls with mental health needs
  - Gender-responsive curricula focusing on issues, such as abuse, trauma, violence and healthy dating relationships
  - Female mentors

- Watson and Edelson [23]:
  - Attend to girls’ needs, including:
    - Aftereffects of trauma
    - Mental and physical health problems
    - Needs of girls who are pregnant and/or parenting.

- National Girls Institute [24]:
  - Provide trauma-informed care: recognize that girls’ pathways into the justice system may be different from boys and that girls typically have high rates of abuse and trauma.
  - Understand the role of relationships: girls often state that they just need someone to listen to them; they often look to staff to be positive role models; effective practices with girls will involve paying attention to and understanding the significant relationships they have in their lives
  - Respecting girls’ differences: while many girls share similar experiences as females, there are important differences, which must be acknowledged; being culturally responsive and aware of differences in class, sexual orientation, race/ethnicity, gender expression and other differences is a key to effectively working with girls.
Following upon this, one of the most significant contributions to the effort to reform the JJ system for girls was the formation of the Girls’ Study Group (GSG). Initiated by the OJJDP in 2004, the GSG comprised a collaboration among some of the leading scholars in the fields of gender studies and delinquency. The GSG conducted an exhaustive review of the available research and, although acknowledging that the evidence base was limited by a lack of systematic attention to gender differences in large-scale longitudinal studies, as well as an over-reliance on small, non-representative samples of community populations, the group derived conclusions to guide a series of recommendations regarding gender-specific interventions for delinquent girls [4,15,25,26]. Gender-responsive interventions were called for that took into account issues, such as mental health problems, troubled interpersonal relationships and victimization, which are particularly implicated in girls’ delinquency [15,27].

Matthews and Hubbard [21] subsequently offered a thoughtful review of how the available evidence regarding “what works” might inform intervention programs for JJ-involved girls, arguing for the incorporation of five “essential points:” utilizing assessment instruments that are calibrated to measure the specific needs of delinquent girls, building a helping alliance, modifying the process and content of interventions to take into account girls’ relational and cognitive strengths and vulnerabilities, promoting healthy connections and recognizing the various sources of heterogeneity amongst girls.

Even more recently, the National Girls Institute [22], a joint project of the OJJDP and the National Council on Crime and Delinquency Center for Girls and Young Women, conducted 64 “listening sessions” around the country in order to obtain the perspectives of girls, caregivers and diverse stakeholders regarding the strategies that are effective or harmful in working with delinquent girls. The qualitative data that emerged were complex and indicated some divergent priorities, but identified in particular the perceived need from the front-line staff who work with JJ-involved girls to receive more training regarding understanding the impact of trauma and PTSD on development, identifying and responding to abuse, communicating and forming relationships with angry and challenging girls and working with teen parents. JJ-involved girls themselves called for better communication, as well as affirmation, respect and “understanding” in the system’s responses to girls and, also, noted numerous justice system policies that they perceived as harmful, including lack of same-sex protocols for strip searches and interviewing, lack of gender-informed protocols, such as risk assessments, and insensitivities related to sexuality, including the assumption that girls are heterosexual. Attention to mother-daughter relationships and respect for girls’ own agency were cited as two of the most helpful elements in any intervention. Parents, in turn, highlighted a need for more family involvement and overall expressed concern that the JJ system was itself “traumatizing,” especially for girls with mental health needs. In turn, regarding “what works,” program staff suggested gender-responsive curricula focusing on issues, such as abuse, trauma, violence and healthy dating relationships, as well as the provision of female mentors for girls.

In the same year, the Georgetown Center on Poverty, Inequality and Public Policy [23] issued its seminal report on Improving the Juvenile Justice System for Girls, which was based on a two-year policy series that included many stakeholders, including not only reform advocates, national policy experts and researchers, but JJ-involved girls themselves. This group noted that, whereas girls are the fastest-growing segment of the JJ population, they are not only “low risk” in comparison to boys, with arrests overwhelmingly for status offenses (e.g., running away, truancy, underage drinking) and
technical violations (e.g., violating conditions of their probation, failing to keep an appointment with a probation officer), but girls also are “high need,” with disproportionate levels of mental health problems, physical ailments, family dysfunction and instability and histories of trauma. In addition, the Georgetown group noted that girls are ill-served in the JJ system by detention facilities that are not equipped to provide for their needs, including the aftereffects of trauma, mental and physical health problems, as well as the needs of girls who are pregnant and/or parenting. The Georgetown report went on to provide inspiring case studies of the ways in which several state systems have been reformed in girl-responsive ways and articulates the elements of their success. Importantly, however, the group’s recommendations concluded by highlighting the absence of high-quality empirical evaluations of any of these efforts: “There is a growing consensus that while there is a significant literature base on girls’ pathways into criminality, far less work has been done to evaluate what works in gender-responsive programming. Indeed, a recent report by OJJDP documents an apparent ‘disconnect’ between the literature identifying the causes of female delinquency and the literature that focuses on the principles of effective intervention. Reformers and researchers need to close this gap” ([23], p. 34).

Taken together, the results of these efforts suggest that, despite important advances in our understanding of the underlying issues that might inform more effective interventions for girls’ delinquency, there remain some key questions that have not been fully addressed in the reviews of the literature to date. The first concerns whether there, in fact, is strong evidence that existing evidence-based treatments for delinquent youth are differentially effective for girls and, thus, are inadequate to the task. On the other side of the coin, the second issue concerns whether there is sufficient quality and quantity of evidence in support of the premise that gender-specific interventions for girls are efficacious and effective.

To these ends, the goal of this paper is to critically evaluate the empirical basis for the development of gender-responsive interventions for delinquent girls. The first section of the paper provides a brief overview of key risk and protective factors identified in previous authoritative reviews (e.g., [6,23,25]) that support the argument that interventions should be tailored for girls, including discussion of the factors that have been identified as differentially accounting for an increased risk of delinquency or desistence amongst girls and which, thus, suggest that gender-specific intervention targets would most effectively divert girls from an antisocial course. The second section discusses what is known about gender differences in the effectiveness of established “best practices” interventions for delinquency and their relative effectiveness for boys versus girls. A third section reviews the available evidence supporting the effectiveness of gender-informed interventions that have been developed specifically for JJ-involved girls. The final section of the paper discusses what still needs to be done to answer these questions about gender-responsive treatments and points to directions for future research.

However, first, a note on nomenclature: although the term “delinquency” is used in various ways in the literature, such as to refer to youth who endorse misbehaviors on self-report questionnaires or are rated high by others on measures of conduct problems, for the purposes of this article, we use the term in its legal sense, to refer specifically to youth who are involved in the juvenile justice system through arrest, diversion, probation, detention or incarceration. Therefore, our review is focused on those youth who have been referred to as being in the “deep end” [28] of the JJ system, and we do not attempt to provide a comprehensive review of the vast literature devoted to gender differences among community youth in problem behavior, conduct disorder, aggression and the like.
2. Is There Evidence for a Gender-Specific Pathway to Delinquency for Girls?

2.1. Theoretical Frameworks for Studying Girls’ Delinquency

Before examining the evidence in support of the proposition that girls earn the label “delinquent” for different reasons than boys, it is helpful to consider the various theoretical frameworks that have informed this research. Early theoretical discussions of gender differences in delinquency derived from a feminist perspective, which posited that women and girls have been marginalized in much of the mainstream theory of crime, which has been defined by male criminal behavior. According to this perspective, because men’s and boys’ criminal activities and outcomes have shaped societal associations about antisocial behavior, women and girls have been either ignored or viewed as peripheral to the “real” problem [29]. Feminist theory, in contrast, focused the discussion on the intersection of gender and inequality, with gender shaping girls’ outcomes based on their place in the social hierarchy.

Gender role socialization theory also has provided an important theoretical perspective and has been incorporated into more general theories of delinquency in order to offer insights into the gender-specific risk and resilience factors for girls. For example, general strain theory is a widely cited theory of delinquency, which posits that stress leads to negative emotions, such as anger and depression, that pave the pathway to antisocial behavior [30]. Broidy and Agnew [31] subsequently expanded the theory to take into account gender differences in how boys and girls experience stress and how they behave in response to the same emotions, which may be either constrained by or conform to societal expectations for acceptable gender behavior. In particular, theorists from this perspective propose that because it is less acceptable for girls to express anger, when they do so, they are met with disproportionately negative social and legal responses [32].

In contrast, and almost paradoxically, gender convergence perspectives have suggested that, with the success of the women’s movement and increasing gender role parity in US society, girls are beginning to catch up with boys [33]. With inhibitions against violence falling more generally and stereotypical sex-role socialization pressures on girls lifting more specifically, it is suggested that a logical consequence is that girls are beginning to act more like boys. Thus, with increasing disinhibition of aggression and other problem behaviors, girls are beginning to enter the juvenile justice system in greater numbers. In support of this assumption, the rising rates of arrests for girls during the past decade, at the same time that rates for boys have been declining [34], may seem to suggest that gendered patterns for violent behavior and drug use are indeed converging. Upon closer scrutiny, however, evidence suggests that the gender convergence perspective does not provide an accurate explanation for the upswing in arrests among girls [33]. Instead, changes in public attitudes and law enforcement policies appear to account for the rise in girls’ arrests more than does an actual upsurge in female violence [35]. More specifically, evidence suggests that the rise in girls’ arrests is attributable to a recategorization of what were previously lower-level offenses into higher level offenses with more severe penalties. This “net-widening” [1] or “up-criming” [35] of offenses is driven in particular by “zero tolerance” policies for domestic violence charges and mandatory arrest policies associated with substance use, both of which account for a large proportion of the charges levied against girls. For example, although charges of “domestic violence” suggest that girls are
engaged in serious misbehavior, detailed analyses of their actual arrest reports indicate that these episodes often involve girls engaging in low-level forms of aggression (e.g., throwing objects) perpetrated in the context of “mutually combative” [36,37] exchanges with angry parents, parents who then levy charges against their daughters. Suggestively, even when girls are arrested for truly violent offenses, these are more likely than those of boys to involve altercations in the context of personal relationships with family members [35,38]. Thus, family dysfunction may not only increase the risk for delinquent behavior in girls, but problematic relationships with parents may be directly responsible for girls’ arrests and incarcerations [6]. Overall, the offenses committed by girls continue to involve less serious forms of violence than do those of boys; moreover, girls are almost twice as likely as boys to be detained for status and “technical” offenses, behaviors that are illegal only because of their status either as minors or probationers [23]. In addition, some studies find that girls systematically receive harsher punishments than boys for such status offenses, including those—such as running away—that can be linked directly to an abusive home life [39–41]. In turn, technical offenses, such as non-compliance with probation, may lead to girls being caught in a “revolving door,” in which entry into the juvenile system for one low-level offense leads to multiple subsequent arrests for technical violations without the youth having committing any actual additional crimes. Thus, taken together, evidence suggests that family and systemic responses to girls’ behavior play a stronger role in the increase in girls’ arrest rates than do changes in girls’ behavior, per se. Nonetheless, in a number of respects, girls appear to earn the label of “delinquent” and to be subject to detention for different reasons from boys.

The fourth overarching theoretical framework that has informed recent thinking about girls’ delinquency is a developmental psychopathology perspective, which integrates an understanding of the psychological, social, biological and environmental risk and protective factors that operate to shift girls’ developmental trajectories toward or away from delinquency [4,15,26,42,43]. It is to a review of these factors that we turn next.

2.2. Are There Gender-Differentiated Mechanisms of Risk for Girls’ Delinquency?

2.2.1. Family Discord

A number of studies indicate that, compared to boys, girls in the JJ system experience more adversity in their family relationships, including neglect, abuse, abandonment, hostility, conflict and rejection and that these factors are differentially predictive of girls’ delinquency and aggression [27,44,45]. In particular, mother-daughter relationships characterized by mutual hostility are related to daughters’, but not to sons’, delinquency [46]. In contrast, delinquent girls’ relationships with fathers appear to be differentially characterized not so much by hostility as by withdrawal [46], absence [47,48] or perceived rejection [49]. Negative relationships with fathers also may contribute to girls’ delinquency indirectly by affecting their choice of romantic partners; for example, by increasing the likelihood that girls will turn to “bad boyfriends” who encourage antisocial behavior [28]. Parallel findings have not emerged regarding father-son relationships, suggesting that this may comprise a unique risk factor for girls.

Exposure to family conflict and maltreatment, in turn, increases the likelihood that girls will exhibit the kinds of behavioral problems that increase the likelihood that they will become involved with the
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JJ system, whether through status offenses, such as truancy or running away; “survival crimes” associated with living on the streets, such as theft, selling drugs or engaging in prostitution, or more serious offenses, like domestic violence aimed at family members [50]. The “cycle of violence” in the home appears to have a strong direct association with girls’ arrests. Whereas boys’ violence tends to be directed outside the home, when girls are violent, the aggression is most often directed at a family member, and the family victim or authority figure assaulted is typically female; in fact, arrest rates for the assault of parental authority figures are over twice as high for girls as for boys [38,51]. However, as noted above, whereas the violence between mothers and daughters is most often reciprocal and even initiated by the parent, the endpoint of that cycle often is the daughter’s—not the parent’s—arrest.

2.2.2. Mental Health Problems

Although the numbers vary across studies, the literature is consistent in showing that delinquent girls evidence significantly higher rates of diagnosed mental health disorders than do delinquent boys or girls in the general population [52–54], including conduct disorder, major depressive disorder, generalized anxiety disorder and attention deficit hyperactivity disorder [52,55]. Suicidality and self-harm also are more prevalent amongst delinquent girls than boys, likely due to a host of interrelated risk factors [56]. Overall, it is estimated that as many as 75% of incarcerated girls have comorbid disorders [55], making them potentially “the most psychiatrically impaired population in today’s juvenile justice system” ([52], as well as one of the most challenging to treat. Moreover, even though girls are more likely to be court-referred for mental health services than boys [57], only about 20% report ever receiving services [56].

Whereas the majority of this research involves cross-sectional comparisons at a single time point, gender-responsive theories posit that mental health problems might differentially lead to delinquency amongst girls by increasing maladaptive behaviors, such as acting out, risk-taking or self-medicating through illicit drug use [6]. Some support for this proposition has been offered; for example, in a prospective longitudinal study that tested specifically for moderation by gender, Copeland and colleagues [58] found that for girls, but not boys, there was an association between childhood anxiety disorders and later criminal behavior.

2.2.3. Trauma

Among the mental health problems that have been shown to be predictive of girls’ delinquency, one that has been the subject of particular interest is posttraumatic stress disorder (PTSD). Although trauma exposure and posttraumatic stress disorder also are prevalent amongst JJ-involved boys and not all youth who are traumatized go on to behave in antisocial ways, a number of studies find that they are disproportionately characteristic of delinquent girls [59,60]. A wide range of adverse childhood experiences have affected these youths’ developmental trajectories and, although certainly family violence and child abuse are among them, the majority are characterized by polyvictimization and the cumulative effects of multiple, chronic and ongoing traumas [61]. In addition, research suggests that, in comparison to boys, girls in the JJ system have experienced more specific types of trauma, particularly interpersonal traumas in the context of close relationships with family members and peers, such as physical abuse, sexual assault and abandonment by caregivers. For example, in comparison to
boys, JJ-involved girls are more likely to live with a parent who has mental health problems or abuses substances, to have experienced multiple changes in caregivers, to have been removed from the home due to neglect or abuse and to have been a direct victim rather than only an observer of domestic violence [6,28,62,63]. Research also suggests a gendered sensitivity of girls to the effects of these forms of interpersonal adversity, including a greater propensity to developing symptoms of PTSD in their aftermath [64]. PTSD may contribute to girls’ delinquency through a variety of underlying developmental mechanisms, including dysregulation in affective, cognitive and interpersonal processes, alterations in brain functioning and neurochemistry, distorted appraisals and interpersonal dysfunctions [59].

2.2.4. Sexual Trauma

Moreover, one gender difference that emerges consistently across studies of trauma exposure among delinquent youth is the disproportionate extent to which girls have experienced every form of sexual victimization, including childhood molestation, incest, intimate partner violence and rape (see the review in [6]). Girls who have been sexually abused evidence exacerbations of the behavior problems that are associated with delinquency, including academic failure, substance use, risky sexual behavior and aggression [65]; most significantly, longitudinal research shows that childhood sexual abuse is one of the strongest predictors of delinquent behavior amongst adolescent girls [66–68].

As Walsh, Galea and Koenen [69] point out, sexual trauma has uniquely pernicious effects on the development of a young person, many with direct relevance for delinquency, including the use of maladaptive affect regulation strategies, such as substance use, risk-taking behavior and sexual acting-out. Moreover, although certainly some experience rape at the hands of strangers, for the majority of girls in the JJ system, sexual assault takes place in the context of a close personal relationship, and research has documented that such interpersonal traumas are those most strongly linked to psychological dysfunction [6]. For example, in a large study of JJ youth, Wasserman and McReynolds [60] found that girls were significantly more likely than boys to report not only having experienced a violent sexual assault, but to have had an interpersonal relationship with their offender; not surprisingly, these girls were also substantially more likely to meet criteria for a diagnosis of PTSD. Freyd [70] has proposed that interpersonal traumas, such as rape, involve a betrayal of trust that undermines the capacity of the victim to retain a positive view of the self or of relationships and, thus, interfere significantly with adaptive development; recent research confirms that the experience of traumas associated with personal betrayal is more prevalent amongst women than men [71] and is associated with the most pervasive and severe mental health problems among delinquent girls [42].

Both because the violation occurs in the context of an ongoing relationship with the abuser and because sexually maltreated girls are highly likely to be revictimized, sexual abuse often comprises a repeated form of trauma that results in a particularly pervasive and debilitating set of symptoms, termed complex PTSD [72]. In addition to the classic symptoms of “simple” PTSD, including re-experiencing, avoidance and hyperarousal, girls who have endured repeated assaults over the course of development are likely to demonstrate additional dysregulations in the areas of emotional, cognitive, behavioral, somatic and interpersonal functioning [73]. Moreover, the cluster of complex trauma symptoms associated with dissociation and emotional numbing are not only more evident as sequelae of sexual
abuse than other forms of trauma, but these posttraumatic reactions have been hypothesized [59,74] and, to some extent, demonstrated [42] to be particularly associated with delinquent behavior and disinhibitions against aggressing against others. As Watson and Edelson [23] also point out, unknown numbers of girls in the JJ system have not only been sexually molested, but also have been commercially sexually exploited or trafficked, forms of abuse that are likely to be especially degrading and traumatizing, but which are not included on most commonly-used instruments that assess for trauma exposure. Therefore, there are a number of reasons to suspect that sexual trauma plays a significant role in the onset or the maintenance of delinquency amongst girls.

Disconcertingly, sexual revictimization also is one of the iatrogenic effects that can result from girls’ involvement in the juvenile justice system. Among incarcerated girls, rates of sexual abuse at the hands of fellow detainees or staff are high according to both youth self-report [36] and national investigations [75,76]. The effects on girls of this kind of betrayal, not only by a trusted individual, but by an entire system of care, have not been studied.

2.2.5. Troubled Peer Relationships: Friendships and Social Relations

Another risk factor that appears to play a particular role in girls’ delinquency is difficulty maintaining positive relations with peers, particularly same-sex peers. Although low social competence and peer rejection are risk factors for both boys’ and girls’ delinquency, aggressive girls are, in general, more disliked and isolated by peers than are aggressive boys, perhaps because of the violations of gender roles involved in such behavior [77]. Whereas rule-violating might be admired and attributed to boldness when exhibited by a boy, the female peer group has different expectations for its members and severe consequences for violations of those expectations: “An aggressive girl who is out of step with her female peer group may come to see its members as hostile and rejecting. The peer group, in turn, attributes hostile intention to the aggressive girls’ awkward and unskilled interactions” ([77], p. 17). Perhaps as a consequence of rejection from her normative peer group, delinquent girls tend to have more opposite-sex than same-sex friendships in comparison to boys or to community girls [78,79]. For example, in a qualitative study, Miller and colleagues [80] reported that adjudicated girls described a “deep mistrust” of same-sex friendships, referring to their female peers as “backstabbing, untrustworthy, drama queens.” Although the correlational studies to date leave open the question of cause and effect—of whether, for example, girls on a delinquent trajectory initiate rejection of, or are reacting to rejection by, their prosocial peers—the absence of supportive same-sex friendships may deprive girls of an important protective mechanism that has been demonstrated to reduce the risk of antisocial behavior in a number of contexts [81–83].

2.2.6. Troubled Peer Relationships: Romantic Partners

When there is conflict, maltreatment and violence within the home, girls are likely to seek emotional and social support outside the family [38], and often, this takes the form of precocious involvement in romantic relationships [84]. Moreover, the partners chosen by girls from troubled homes tend to be older—by an average of two [28] to six [85] years—and to be involved in delinquent activities. Dating older boys is associated with increases in girls’ delinquency [86–88], substance use [89,90], risky sexual behavior [91] and dating violence, which, in turn, increases girls’ risk of
offending [92]. Moreover, although it is unlikely that the influence of dating partners alone is responsible for girls’ delinquency [93], evidence indicates that this “bad boyfriend” [28] effect is gender-specific: a number of longitudinal studies have found that having an antisocial partner predicts the persistence of antisocial behavior amongst girls, but not boys [88,94], and that encouragement of antisocial behavior by partners predicts delinquency only among girls [28]. Conversely, research has shown that a prosocial romantic partner can serve as a protective factor, reducing a girl’s risk for additional offenses and facilitating a trajectory away from crime [95].

2.2.7. Sexuality

Although a subtext rather than an explicit target of much of the empirical research to date, a number of studies and observations point to a unique role that sexual behavior—and societal responses to it—might play in girls’ delinquency. The association of girls’ delinquency with overt sexual behavior—the “crime of precocious sexuality” as Schlossman and Wallach [96] term it—has long been noted in the history of criminal justice in the US. Early in this century, institutions were established for “wayward” or “degenerate” girls deemed either guilty of “moral crimes” or merely “in danger of becoming morally depraved”, due to behaviors that were offenses only because they were unmarried and female, such as openly engaging in sexual activity (see [97] for a review). However, evidence suggests that the courts’ role in benevolent patriarchy and the protection of society from the dangers of unbridled female sexuality is not only a thing of the distant past [40,98,99]).

Moreover, developmental research also suggests that overt sexuality needs to be considered as a potential risk factor for—and not merely a correlate of—girls’ delinquency. For example, whereas early puberty is a strong predictor of delinquency amongst girls [100] and the underlying cause for this association may relate to individual biological processes, a girls’ precocious physical maturation also has significant social implications. Early puberty has a potential “signal value” to rapacious males, particularly antisocial males drawn to younger and more vulnerable targets, while at the same time serving to distance girls from the normative female interpersonal circle of their more typical on-time age-mates [42]. Moreover, the likelihood that girls will engage in risky sexual activity—including early onset of intercourse, sex with multiple partners and strangers, failure to use birth control or placing themselves in situations in which the possibility of sexual assault is high—is increased by all the adversities described previously in this review that are associated with female delinquency [6]. Girls who have undergone childhood maltreatment, been sexually abused or exploited, come from neglectful or emotionally abusive homes or have experienced a prior sexual assault are at higher risk for engaging in precocious and risky sexual behaviors that might inspire a protective or punitive response from parents, adults and authority figures and, thus, lead to their involvement in the juvenile justice system. Additionally, girls who run away from depriving or abusive homes are at risk for resorting to “survival crimes”, such as prostitution as a means of living on the streets, and, also, are vulnerable to becoming ensnared by sex traffickers [101]—in this way, as well, girls may become caught in a vicious cycle of victimization, sexualization and delinquency.

Precocious sexualization not only emerges as a consequence of sexual abuse and increases the likelihood of delinquency, as noted above, but also can affect girls’ behavior in ways that have implications for how they are responded to once they are involved in the JJ system. Although we have
not found studies that have investigated this empirically, the observations recorded in the National Girls Institute Listening Sessions [22] corroborate the candid comments we have heard made by detention staff and probation officers, suggesting that some view girls who act out sexually as “provocative,” “over-sexed” and “manipulative”, rather than as victims of abuse. In consequence, responses to this behavior may be more punitive than compassionate.

Another dimension of sexuality that has emerged as a differential risk factor for girls’ delinquency is sexual minority status (SMS). SMS girls are disproportionately represented in the juvenile justice system, with girls in detention settings identifying as SMS at rates that are twice as high as girls in the general population and five times higher than their male peers [102,103]. Moreover, in data drawn from the National Longitudinal Study of Adolescent Health, Himmelstein and Brückner [104] found that, even after accounting for their higher levels of minor transgressive behavior overall, SMS girls experienced more severe sanctions (e.g., were suspended by school staff, stopped by police, arrested or charged in court) than all other youth. Moreover, self-reported same-sex attraction or experiences alone increased the odds of sanctions for girls, suggesting that an open SMS identity was not necessary to propel this process. As the authors conclude, “Mere exploration of nonheterosexuality, regardless of self-identification, places youth at risk for sanctions” ([104], p. 54).

What remains unclear, and is ripe for further research, is whether the “double standard” underlying gender differences in the harshness of sanctions provided to girls in the JJ system is associated specifically with sexuality or rather with broader patterns of gender non-conformity, of which overt sexual behavior or homosexuality are only manifestations. Other types of gender non-conforming behavior that fall under the category of status offenses also receive harsher sanctions from parents, schools and courts when committed by girls as compared to boys [39–41], in concert with the trend toward “up-criming” of girls’ misbehavior more generally [1,35,105]. Moreover, these effects may be exacerbated by race, with black and Hispanic girls receiving even harsher consequences than their white counterparts [106]. The possibility that gender-role nonconformity is a factor is suggested by research demonstrating that gender atypicality accounts for the relationship between abuse and PTSD amongst SMS youth [107]. However, these phenomena are difficult to study as they relate to juvenile justice involvement in that sexual or gender-role-inappropriate behaviors rarely are named or documented explicitly in court proceedings or juvenile justice records involving such status offenses and can only be inferred as underlying the more legalistic labels they are given, such as “incorrigibility.”

2.3. Summary and Conclusions

As this literature review suggests, the argument that girls have different treatment needs relative to boys is buttressed by a number of findings regarding gender differences in the risk factors for delinquency. In particular, in comparison to boys involved with the juvenile justice system, girls come from more conflictual and dysfunctional families, experience particularly troubled relationships with mothers, have more severe mental health issues, have experienced more significant trauma exposure, particularly sexual trauma, and receive disproportionate sanctions for low-level forms of antisocial behavior, such as status offenses and provocative sexual behavior. These risk factors also appear to be dynamically interrelated, with trauma and family adversity increasing the likelihood that girls will act out, engage in risky behaviors, run away and resort to “survival crimes” that, in turn, lead to
involvement in the JJ system. Moreover, even if these risk factors are not demonstrated to “cause” girls’ delinquency, it is possible that they act as potentiating variables that affect girls’ responsiveness to treatment and, thus, are valuable to consider in the design of effective interventions for girls.

However, it must be acknowledged that although girls overall demonstrate certain characteristics more than boys, more often than not, these factors also are found to contribute to boys’ delinquency, as well, and therefore, some have questioned whether the correct conclusion to draw from these results is one of “uniqueness” for girls [108]. For example, some investigators have argued that there is a significant “overlap between developmental risk patterns for female and male delinquents” ([109], p. 148) and that the developmental trajectories of girls’ and boys’ delinquency appear to be more similar than different [41,110,111]. In one particularly significant study utilizing a large database of over 10,000 youth involved in the Texas juvenile court system, Johansson and Kempf-Leonard [112] investigated whether five of the factors cited in the literature on gender-specific risks for delinquency—child abuse, mental health problems, running away, gang involvement and spending time in detention—differentially predicted serious, violent or chronic offending for girls versus boys. Their results indicated no such gender effects, with all the variables, with the exception of child abuse, acting as predictors in a gender-neutral fashion. Moreover, it has been argued that the diversity amongst girls is such that “no single pathway could be attributed to a majority of girls” [26]. Therefore, an alternative conclusion that has been drawn is that the research evidence calls for the development not of gender-specific interventions, but of treatments aimed at underlying factors common to delinquent youth regardless of gender.

Consequently, although a compelling case can be made, the jury is still out regarding whether the research evidence provides unequivocal support for the argument that girls experience gender-specific risk factors that call for tailored treatments. Given this debate in the literature, another way to assess the validity of the gender-specificity hypothesis is to examine the empirical basis in support of the proposition that existing evidence-based treatments, many of which were developed on the basis of models of boys’ delinquency, are not equally effective for girls. It is to that question our review turns next.

3. Is There Evidence That Non-Gender-Responsive Interventions are Ineffective for Delinquent Girls?

A wide variety of interventions for JJ-involved youth currently are being implemented in the community, most of which are not gender-specific and most of which are implemented with samples that include both boys and girls. Ideally, this would allow a basis for comparison regarding whether the effects of these interventions differ by youth gender. However, evidence regarding the differential effectiveness of delinquency reduction programs across genders is difficult to muster. For example, among the 392 non-gender-specific programs for youth reviewed in the GSG meta-analysis [25], only six of those involving youth in the JJ system also conducted analyses of effects separately by gender. Therefore, there are few data available on which to base a generalization about their effectiveness for girls. Nonetheless, it is notable that, of the six interventions that reported gender differences, five presented evidence of equally positive outcomes for girls and boys. In fact, for the only intervention for which gender differences reliably emerged, the Maricopa County Drug Court, the direction of effects was for more positive outcomes for girls than boys.
However, a major shortcoming noted in previous reviews of interventions for JJ-involved youth is that many of those that are widely implemented in the community are not evidence-based, and in many cases, no outcome studies have been conducted to examine their effectiveness [25,113]. Thus, our ability to examine the question of whether the interventions are differentially effective for boys and girls is hampered by the fact that information is not available about whether the interventions are effective at all.

Moreover, when those data are available, disconcerting findings emerge regarding the effectiveness of the most commonly utilized interventions for delinquency. For example, Bell, Terzian and Moore [114] recently compiled outcome data from 106 “social interventions” drawn from Child Trends’ online database that were either specific to girls or provided outcome data separately for girls. Overall, their analysis established that only 51 of these 106 had a positive effect on at least one of the outcomes identified, whereas 27 had mixed findings and 28 were ineffective. Among the 11 programs that measured outcomes specific to delinquency, only one (Job Corp) was found to have a positive impact on girls; two were mixed, and eight were found to be ineffective. Because only one intervention targeting delinquency “worked,” the reviewers were unable to derive any common characteristics associated with effective programming. However, they were able to do so for interventions targeting other related outcomes. For the seven out of 26 programs reviewed that were effective for reducing aggression amongst girls, key ingredients appeared to be the inclusion of community-based components and combining parent training with social skills training. For those effective for reducing internalizing mental health outcomes, the six out of 21 that had a positive impact were most likely to be cognitive-behavioral, to include parents, to have professionally trained staff and to be brief and strategic.

An important limitation to Bell and colleagues’ review for our present purposes is that the outcomes for girls were not compared to those for boys—therefore, the majority of these interventions may well be ineffective generally, rather than being less effective for girls specifically. Another significant caveat is that although among the interventions included were some with a respectable research pedigree (e.g., Safe Dates, Second Step), it is notable that the majority were not evidence-based. Moreover, only one of those included for adolescents (i.e., Big Brothers Big Sisters) is among the interventions listed as a “model,” “best practices” or “blueprint” program in any of the major widely-respected reviews of interventions for delinquency (e.g., Centers for Disease Control and Prevention, National Institute of Justice, National Institutes of Health, the Substance Abuse and Mental Health Services Administration, Helping America’s Youth, Blueprints for Violence Prevention, Strengthening America’s Families Blueprint Programs). Therefore, in this respect, as well, the interventions included in Bell and colleagues’ review may have been, although widely used in the community, not the most efficacious alternatives intervention science has to offer.

3.1. The Case for Focusing on Evidence-Based Treatments

Although in common usage, the term “evidence-based” has come to be applied to a wide range of interventions that are loosely “based” on procedures or principles for which there is some sort of “evidence” [115]; more accurately, the term refers to interventions that meet scientific standards for demonstrating that they achieve beneficial effects that are measurable, replicable and beyond those that
can be accounted for by “non-specific” factors, such as positive attention [116]. In addition, interventions deemed to be evidence-based are expected to adhere to guidelines regarding the methodological rigor of the studies deemed to provide evidence for their effectiveness [116,117]. The most rigorous, and thus persuasive, designs are randomized controlled trials (RCTs) in which the effects of an intervention are compared to a comparison treatment (often “treatment as usual” as offered in the community) amongst participants who are randomly assigned to each condition. In general, a well-replicated finding is that rigorously-designed outcome studies are those most likely to demonstrate treatment success, just as are designs that ensure ongoing fidelity of implementation of the treatment under investigation [118].

Moreover, as Kazdin [119] argues, the onus is on evidence-based model developers to make a convincing case to community stakeholders that the considerable investment of time and expense required to implement and sustain these treatments is warranted; that is, they offer “value added” beyond the benefits that might be achieved by non-specific factors already available in “treatment as usual.” To achieve this goal, evidence-based treatments must go beyond simply establishing positive outcomes and must also demonstrate that the key change mechanisms targeted by the treatment are in fact responsible for those outcomes. Although the argument for establishing these links among the intervention’s theory of change, its process and its outcomes is compelling, few studies to date regarding the treatment of delinquent youth have met Kazdin’s challenge.

Despite these shortcomings and challenges, there are a number of reasons that investigators in the field might be hesitant to rush to the conclusion that existing interventions are not up to the task of intervening with girls’ delinquency until the case is made convincingly. The process of developing, validating, disseminating and ensuring fidelity in the implementation of new evidence-based interventions for delinquency in real-world settings is a highly time-consuming, labor-intensive and expensive process [118]. Consequently, the call to develop new gender-responsive interventions for girls—if those interventions are to be evidence-based and proven effective before their dissemination—will necessarily require a significant investment of time and effort. On the other hand, evidence suggests that non-evidence-based treatments for delinquency may be ineffective [114] and, thus, even may do harm by demoralizing, demotivating and making increasingly treatment-resistant the families who participate in them [120]. Therefore, a closer look may be warranted at those “best practices” or “model programs” that have a long-standing and proven record of effectiveness in the field.

Among the evidence-based interventions that have been developed for delinquent youth, the most well-validated are those which have achieved the status of “model” programs through the Blueprints for Violence Prevention Project [121]. In addition, of those programs on the Blueprints list designed for early prevention among young children, three interventions for juvenile justice-involved adolescents have achieved Blueprints status: Multidimensional Treatment Foster Care (MTFC), Multisystemic Therapy (MST) and Functional Family Therapy (FFT). In addition, since the last Blueprints review, two highly promising interventions have emerged that warrant attention, Connect and Trauma Adaptive Recovery Group Education and Therapy (TARGET). Therefore, we turn next to a review of each of these widely-disseminated interventions, including summarizing any available evidence related to their differential effectiveness for girls, as well as considering the ways in which the interventions might have the potential to incorporate recommended principles related to gender sensitivity (i.e., [13,17,22–24,27]) (see Table 1).
3.1.1. Multisystemic Therapy (MST)

MST was developed to provide a family-focused intervention for chronic and violent juvenile offenders. Inspired by Bronfenbrenner’s social ecological theory, MST takes the perspective that risk factors for conduct problems operate in multiple environmental settings of a youth’s life. Consistent with this theoretical foundation, MST posits that antisocial behavior is multi-determined and associated with risk factors at every level in the adolescence social ecological environment (e.g., peer, home, school, community) and that the family is the system of change [122].

Although originally designed as a treatment for adolescent boys and girls have represented between zero and 39% of the participants in treatment trials conducted to date, a number of outcome studies have demonstrated positive results of the intervention with girls, as well. Among the thirteen randomized clinical trials that have demonstrated the effectiveness of MST [123], four analyzed gender as a moderator and found MST to be equally effective for girls and boys [124,125]. Moreover, a recent study followed up with adults who were enrolled in the original RCT of MST conducted by Bourdin and colleagues [126]. After 21.9 years had elapsed, the investigators found no gender differences in the positive outcomes associated with MST [127]. Compared to those who had received individual therapy, both male and female MST participants evidenced equally lower rates of felony recidivism, misdemeanor reoffending and family-related legal problems. The latter finding, in particular, suggested that improvements in family relations made during treatment may have been related to decreased interpersonal problems in adulthood, although this mechanism of effect was not directly tested.

However, some investigations have examined the underlying change mechanisms that are associated with MST’s effectiveness. Consistent with its theoretical formulation, MST has identified caregivers’ empowerment and ability to make strategic changes in the youth’s social environment to constitute two measurable underlying change mechanisms that account for positive outcomes [123]. Specifically, increased caregiver consistency and follow-through on discipline, as well as a reduction in caregiver disapproval and negative perception of the youth’s friends have been linked to a decrease in antisocial behavior [128–130].

In sum, the available research suggests that MST has demonstrated effectiveness for the treatment of girls’ delinquency. Moreover, the targets of the treatment, particularly improvements in family relationships, as well as attention to the larger social ecology of the youth are not inconsistent with the risk and protective mechanisms that have been identified as playing a key role in girls’ delinquency.

3.1.2. Functional Family Therapy (FFT)

Although not included in the GSG’s [25] review of interventions for delinquency, FFT [131,132] is a Blueprints model program designed to provide an empirically-grounded family intervention for at-risk youth who are at risk or engaging in delinquent behaviors. Like MST, FFT is a strength-based treatment based on family systems theory. The first phase of the FFT treatment process is engagement, in which family strengths and protective factors are emphasized to engage and retain the families in treatment. The second phase, motivation, is designed to reduce maladaptive reactions and beliefs and to build alliances and hope for change. The third phase, assessment, allows the clinician to tailor the
intervention to the specific relational functions that are exhibited by family members. The fourth phase, behavior change, consists of a range of interventions tailored to the family’s individual needs, commonly including communication, problem-solving, contingency management and parenting skills. The fifth phase, generalization, assists the family in consolidating its gains and disseminating the changes made in contexts outside the family system.

Unlike many of the interventions developed for delinquency, early efficacy studies of FFT recruited samples in which at least 50 percent of the target youth were female [133–135]. Therefore, in contrast to the often-cited truism that existing evidence-based interventions were developed with boys in mind only, FFT was developed on a foundation that included both genders. A substantial body of research on these mixed-gender samples shows that youth who complete treatment have lower rates of recidivism when compared to treatment as usual [131]. Simultaneously, FFT has been shown to be associated with improvements in family functioning, communication and increased positive interactions between family members, as well as reduced delinquency among siblings.

Although rarely have gender differences in the effectiveness of FFT been examined in these publications, among those reporting comparisons by gender, all effects have been equivalent for boys and girls [136]. For example, no gender differences were found for FFT’s effectiveness in reducing rates of family defensive communication patterns [137], for the positive effects of therapist reframing on family processes [136] and for the benefits of FFT in reducing substance abuse among delinquent youth [138].

FFT researchers also have taken some steps to establish that the “effective ingredients” of the intervention operate according to its theory of change. For example, reframing is a key technique used in the early phases in order to engage and motivate families, and research has established that reframing of negative statements in the first treatment session is associated with lower defensive behavior among family members [136,139]. However, as Henggeler and Sheidow [118] point out, these observations fall short of providing incontrovertible evidence that reframing acts as a change mechanism, given that the research did not demonstrate that increased positive statements and a reduction in defensive behaviors were linked to successful treatment outcome. In addition, another purported key change mechanism in FFT is the establishment of a balance alliance in which the therapist is equally aligned with each family member. In another study of the FFT therapeutic process, Robbins and colleagues [140] found that unbalanced alliances (e.g., high therapist-parent alliance and low therapist-youth alliance or vice versa) were associated with higher dropout rates. However, consistent with the above-cited outcome research, gender differences were not investigated in these process studies.

In sum, the lack of systematic comparisons by gender leave open questions about the consistency of FFT’s effectiveness with girls and boys, and certainly, absence of evidence is not evidence of absence. However, the fact that FFT from its earliest clinical trials was developed to include girls and that the few gender comparisons conducted to date have been insignificant suggests that a case would be difficult to make that FFT has been established as a gender-ineffective treatment. As with MST, FFT’s attention to quality family relationships provides a good fit to at least one of the primary risk factors associated with girls’ delinquency. In addition, the individualization involved in the treatment, both in terms of the matching to family members’ relational functions in the engagement and motivation phases and the tailoring of the treatment targets to the unique needs of the youth and family in the
behavior change phase suggest that there would be a number of opportunities to incorporate into the FFT model principles associated with gender-responsive programming.

3.1.3. Multidimensional Treatment Foster Care (MTFC)

MTFC is a treatment targeted to youth with histories of chronic and severe antisocial behavior, delinquency or severe mental health problems that leave them at high risk for further incarceration or psychiatric hospitalization. The treatment was originally developed as a community-based alternative to placing youth in residential or group care [141]. “MTFC grew out of evidence for the effectiveness of behavioral parent training approaches and a clinical need for programs to address the behavior of delinquent adolescents who have been found to be beyond parental control. MTFC starts with a focus on the need to return the adolescent to the family and community, and, thus, the program stresses the generalization of treatment effects” ([142], p. 120). Foster parents were trained to implement a behavioral program in their homes and received ongoing support from a clinical team. MTFC targets the most relevant factors for individual youth, their family situation and other people in the youth’s life within their various settings. The four key effective ingredients of the intervention include adult supervision, implementation of fair and consistent discipline, a positive relationship with a mentoring adult and less association with delinquent peers, particularly during unsupervised interactions.

In contrast to MST and FFT, MTFC has been specifically adapted for working with the gender-specific problems associated with girls’ delinquency. Moreover, this adaptation grew out of the model developers’ observations of the differential effects of disadvantaged girls referred to the treatment. Although the initial MTFC studies were conducted with boys, eventually girls began to be referred to the intervention in increasing numbers. As Chamberlain and colleagues [143] note, although girls and boys in the program had similar arrest outcomes, girls exhibited different reactions to the intervention. Boys tended to gradually reduce their rates of daily problem behaviors over time, whereas girls started out with relatively low rates, but evidenced greater problem behavior over time. Thus, the investigators concluded that there was a different set of dynamics at play for boys and girls. Notably, the researchers observed that girls had higher rates of mental health problems, more chaotic family histories, higher rates of parent criminal involvement and more out-of-home placements than boys—for example, girls had experienced an average of 16 parental transitions (i.e., caregivers coming in and out of their lives) over their brief life course.

In response, Chamberlain and associates [143] created an augmented version of MTFC designed specifically for intervening with troubled girls. Gender-specific foci of the intervention included targeting “feminine” styles of antisocial behavior, such as relational aggression, helping girls to stabilize their relationships with adult caretakers and friends, preparing them for their futures by setting goals and planning and addressing previous trauma and abuse to increase their ability to manage problems in daily living. More specifically, the five adaptations made to MTFC that directly address girls’ specific risks include: (1) providing girls with strategies for coping with and avoiding social and relational aggression; (2) working with girls to develop and practice strategies for emotional regulation, such as recognizing their feelings of distress and enlisting constructive coping strategies; (3) helping girls develop peer relationship building skills, such as initiating conversations and modulating their level of self-disclosure to fit the situation; (4) teaching girls strategies to avoid and
deal effectively with sexually risky and coercive situations; and (5) helping girls understand their personal risks for drug use, including setting priorities using motivational interviewing and provision of incentives for abstinence monitored through random urinalysis [109].

In one- and two-year follow-ups, girls who participated in MTFC had fewer incarcerations, reduced arrest rates and lower self-reported delinquency than girls referred to treatment as usual. However, older girls had better outcomes than younger girls; therefore, girls’ age was also a reliable predictor of outcomes [144]. However, a later study showed that the rehabilitative effects of MTFC were evident when age and baseline arrest rates were held constant [109]. In consideration of the high proportion of girls in this population with co-occurring delinquency and histories of trauma exposure, a further adaptation of MTFC for girls has been developed incorporating Trauma-Focused Cognitive Behavioral Therapy [145] and has, to date, demonstrated positive effects in a small pilot study [146]. Intriguingly, recent research also shows positive spill-over effects of MTFC onto other important relationships in the lives of delinquent girls, with boyfriends’ trajectories of delinquent behavior declining over the course of 18 months when their partners participate in the treatment [147].

3.1.4. Connect

A relatively new, but highly promising, intervention for delinquent youth, Connect [148], takes a unique approach in that it is a group intervention targeted at the parents of adolescents who exhibit antisocial behavior. Connect is based on attachment theory and strives to enhance the quality of the parent-child relationship by promoting parental attunement, empathy and reflective functioning.

In an initial pilot study including parents of both boys and girls, the intervention took place within a program that addressed multiple aspects of family and adolescent functioning; therefore, the change observed over the course of the program could be attributed to multiple elements in addition to the attachment component [149]. Subsequently, several other studies have shown promising results. In a pre-post design, parents reported significant increases in their own parenting competence and satisfaction. Parents also reported a reduction in their adolescent’s aggressive behavior, internalizing and externalizing problems and less avoidant attachment in their relationship with their adolescent [150,151]. In a subsequent study comparing treatment to a wait list group, parents who participated in Connect reported increased satisfaction and efficacy in their parenting and reductions in their adolescent’s aggression, antisocial behavior and mental health problems [151]. Connect was then transported to a large community intervention with a one year follow-up [151]. Similar results were achieved in parenting satisfaction and efficacy and a reduction of negative behaviors and mental health problems for adolescents. In a small-scale trial conducted in Italy, parent’s participation in Connect also has been associated with reductions in adolescent alcohol consumption [152]. A randomized control trial has been conducted in Sweden with promising results, although these results are not yet published [153].

Additional research from the Connect group also has been devoted to testing hypotheses regarding the key change mechanisms underlying its effects, particularly parents’ internal representations of their relationships with their adolescents. Over the course of treatment, parents’ representations of themselves and their adolescents evolved. Parents gained more understanding of how their own thoughts and actions contributed to their parenting and became more competent parents who were less
likely to self-sacrifice. Parents had more trust, confidence and understanding of their adolescent and their adolescent’s abilities. Furthermore, parents’ representations of their adolescents were richer and more elaborate in the present, as well as projected into the future. Posttreatment interviews with parents revealed increased security and positive feelings associated with the parent-child relationship, as well as a greater sense of partnership and mutuality with their adolescent. Parents specifically reported decreases in intrusive behaviors and role-reversal, while, at the same time, setting more appropriate boundaries, increased autonomy granting and parental monitoring. Overall, parents perceived that their teens were more accepting of their authority and reported reduced conflicts, power struggles, pain, worry, anger and guilt [154]. Due to the small sample size, gender differences were not explored. Subsequently, Moretti and Obsuth [8] demonstrated that decreases in dysregulated affect and attachment avoidance were associated with lower rates of externalizing problems, whereas decreases in affect dysregulation and attachment anxiety were associated with fewer internalizing problems when both boys and girls were included in the analyses. However, there were gender differences in that reduced attachment avoidance predicted decreased externalizing problems only for girls; the results for boys alone were significant. Although the authors concluded that there were more common than unique factors for girls and boys, these results suggest that an avoidant attachment style may play a particular role in girls’ pathway to delinquent behaviors.

Although parents of both sons and daughters have been included in these trials and the study described above is suggestive of different processes involved for boys and girls, consistently missing in the outcome research has been examination of differential effectiveness by gender. It is possible that the small numbers of participants in these studies did not provide sufficient power to analyze for gender differences, and therefore, it is not possible to determine whether or not the effects of the intervention are moderated by gender. Nonetheless, there are reasons to hypothesize that Connect might be equally effective in intervening with the parents of delinquent girls and boys. The focus of the parenting intervention is on increasing security in the parent-child relationship, encouraging parents to be more responsive and sensitive to their adolescents’ needs and reducing negativity and conflict in the family, thereby addressing one of the key risk factors associated with girls’ delinquency.

3.1.5. TARGET

Another promising treatment that has emerged on the scene since the GSG review, TARGET [155] is a model that was developed specifically for intervening with symptoms of complex trauma [156]. Although this might seem to be a narrow focus on a specific diagnostic subgroup, a well-replicated finding from diverse samples indicates that over 90 percent of youth in the juvenile justice system have experienced adverse events that meet diagnostic criteria for trauma exposure, and as many as a third of boys and half of girls in JJ settings exhibit significant symptoms of posttraumatic stress [6,59]; therefore, this is a highly ubiquitous and almost universal target for intervention. Moreover, rather than focusing narrowly on those youth who meet DSM criteria for a diagnosis of posttraumatic stress disorder, the TARGET model takes a broad view of what constitutes trauma, particularly in the light of evidence that chronic, long-standing, repeated, interpersonal adversities that begin in the early childhood years—the kinds of traumatic backgrounds that overwhelmingly describe
youth in the JJ system—have pernicious and pervasive effects that go beyond those listed in the PTSD diagnosis.

TARGET is based on the theoretical model that chronic and repeated early life stress affects the development of the central nervous system. The constant state of hypervigilance ensuing from survival threat impairs self-regulation, particularly in the domains of emotional, cognitive and interpersonal functioning [157]. In contrast to other trauma treatments that focus on processing past events, TARGET “mirrors the neurobiology of adaptive development” by leading the individual through a sequence of skill-building exercises to increase adaptive functioning and enhance capacities for self-regulation. TARGET also provides multiple modalities of treatment, including group, individual, family and milieu interventions for youth in detention or residential settings [158].

TARGET has demonstrated efficacy in reducing PTSD symptoms among JJ-involved boys and girls in detention facilities, where it has been associated with reducing the number of infractions requiring disciplinary action and seclusion [159], but not with reducing post-detention recidivism [158]. Of particular interest for the present article was a randomized control trial comparing TARGET to a wait-list control condition for a sample of JJ-involved girls treated in an outpatient clinical setting, in which significant improvements were demonstrated in symptoms of PTSD and affect regulation; however, due to participant unavailability to follow-up, recidivism and maintenance of treatment gains could not be assessed [160,161].

Although gender differences have not been assessed in the trials conducted to date with mix-sexed groups, the TARGET model is designed to be sensitive to gender preferences and interests, and the manual promotes the use of gender-specific activities, while avoiding sex-role stereotypes. Whereas, to date, the model developers have not examined underlying mechanisms of change, they do report contemplating this next step for future research [158]. This will be of value in that, even if treatment outcomes appear similar for boys and girls, the underlying mechanisms that account for treatment effect may differ by gender.

In sum, TARGET has been demonstrated to be a promising treatment for reducing increasing affect regulation and reducing posttraumatic symptoms for delinquent youth who have endured chronic and repeated trauma, which is a common experience among JJ-involved girls. TARGET also may have the advantage of being accessible to a wide range of youth, including those who do not have the support or cooperation of their families to participate in treatment and those who are detained away from home. However, given that reduction in recidivism is a highly prized goal for the JJ system, results that generalize beyond improvements in mental health and demonstrate reductions in antisocial behavior will enhance the likelihood that TARGET will become more widely adopted as a treatment for delinquent youth.

3.2. Summary and Conclusions

To summarize, there has been a surprising lack of attention to the issue of gender differences in the research supporting the most well-validated and most-promising interventions for delinquency in the literature to date. Although the absence of evidence is not evidence of absence, it is notable that, particularly in the case of FFT and TARGET, intervention trials supporting the treatment’s effectiveness have come from samples including a high proportion of girls, and particularly in the case
of MST, the rare studies that have looked for gender differences in effectiveness have found none. Nonetheless, anecdotal reports are suggestive that for some of these interventions, MTFC in particular, gender differences have been observed and have inspired the development of girl-specific adaptations. Given the importance of this issue, due both to the increasing numbers of girls entering the JJ system and the implications of suggestions that these interventions be abandoned in favor of newly-developed gender-responsive programs, the need for implementers and disseminators of these models to include gender in their assessments of treatment effects is clear.

4. Is There Evidence for the Differential Effectiveness of Gender-Responsive Interventions for Delinquent Girls?

4.1. Non-Evidence-Based Practices Developed for Girls

In their seminal review of the effectiveness of existing interventions designed specifically to address girls’ delinquency, the GSG [25] identified 62 programs described in the literature, for which only 18 had undergone even a single evaluation. Therefore, it is fair to say that the majority of these interventions are not evidence-based, and the absence of evaluation research devoted to these interventions represents a major impediment to our ability to assay their overall impact on girls. Moreover, among the 18 programs for which Zahn and colleagues [25] uncovered evaluation data, not only was the evidence for their effectiveness mixed at best, but the interpretability of that evidence was severely hampered by the poor quality of the designs used and measurements taken. Generally speaking, the patterns of results found indicated that programs designed for girls tended to show beneficial effects in academic and interpersonal functioning, but recidivism was not reliably reduced; further, surprisingly, the most rigorously designed studies failed to show long-term maintenance of any gains.

Although descriptive information is available for a number of other curricula for girls that have been implemented in JJ settings, including Girls Circle, Girls Moving On and Voices, these, although viewed positively by staff [22], have, to date, not reported any outcome data. As noted above, this is a pervasive problem in the field [25], and unfortunately, the state of community-implemented interventions for girls’ delinquency appears to have not advanced since [113] noted that, whereas program planning and training efforts have been boosted by the original Juvenile Justice and Delinquency Prevention Act, there has been little attention given to research and evaluation.

4.2. Evidence-Based Practices Developed for Girls

Given that the call for gender-responsive programming has been made only recently, few interventions for delinquent girls, to date, have gone through a process of rigorous empirical validation. Many of the interventions that have been developed target only one specific problem faced by JJ-involved girls, such as teen pregnancy, dating violence, substance abuse or gang involvement, and few address delinquency per se and are comprehensive in addressing the interconnecting risk factors that are associated with girls’ involvement in the JJ system [17]. Therefore, we focus in this review on interventions designed to target delinquency as broadly defined and those for which there are outcome data available that allow for an evaluation of treatment efficacy.
4.2.1. Working to Insure and Nurture Girls Success (WINGS)

In their meta-analysis of gender-specific interventions for reducing recidivism amongst girls [25], identified only two of nine gender-informed programs that used randomized controlled designs, one of which was Working to Insure and Nurture Girls Success (WINGS) in San Diego County, CA. However, results of the one outcome study conducted indicated that WINGS did not demonstrate sustained benefits. Initially, girls who participated in WINGS evidenced lower recidivism rates compared to the control group, but their recidivism rates were higher in 12- and 18-month follow-ups. While enrolled in the program, WINGS girls attended school twice as often as the comparison group, but this behavior did not persist to a six-month follow-up. The study noted that upon exit from WINGS, girls demonstrated an increase in protective factors and fewer risk factors, but there was no follow-up to see how long these changes remained. After the initial period, the WINGS program lost funding for continued research or implementation; however, modified parts of WINGS were folded into another juvenile justice program in San Diego County [162].

4.2.2. Reaffirming Young Sisters’ Excellence (RYSE)

Reaffirming Young Sisters’ Excellence (RYSE) in Alameda County, CA, was the second rigorously tested intervention identified in the GSG [25] meta-analysis. RYSE is an intensive community treatment and intervention program designed to target gender-responsive services to adjudicated females ages 12 to 17. RYSE has been designated as a “promising” program by the OJJDP Model Programs Guide, Gender-Specific Programming [163], but not the Blueprints for Violence Prevention.

One random assignment study has been conducted comparing RYSE to traditional probation services with outcome data at post-treatment, six-, 12- and 18-month follow-ups [164]. Outcomes from the study were mixed. Overall, girls in the treatment group were over 50% more likely to complete probation during the intervention than girls receiving traditional probation services. Similar rates of recidivism were found for both groups during the treatment period, at six months and 12 months; however, there was a promising trend observed between 12 and 18 months, with RYSE girls evidencing lower rates of recidivism (18% compared to 39%) and committing less severe offenses when they were rearrested than the comparison group. Contrary to predictions, there were no significant group differences for school completions, and girls in the comparison group actually demonstrated more improvement in educational problems. Race appeared to moderate the effects as well, with African American and Hispanic girls who participated in RYSE showing lower recidivism rates than their peers in the probation treatment group, whereas white and Asian girls fared better in traditional probation than RYSE. Given that RYSE was designed to target African American girls, who constitute a large proportion of JJ-involved youth in the community, its differentially positive effects for that subsample may reflect that the target is achieving its aim. However, the ethnicity-specificity of the treatment effects also highlights a challenge for those attempting to design gender-responsive interventions: the more specific the target population, the less generalizable the treatment may be overall.
4.2.3. Stop-Now-And-Plan Girls Connection (SNAP® GC)

Although not included in the GSC review [25], Stop-Now-And-Plan Girls Connection (SNAP® GC; Child Development Institute, 2007) is an early preventative intervention for aggressive preadolescent girls who may be at risk for delinquency. SNAP® GC is based on cognitive-behavioral principles and designed to teach effective self-control and social problem solving to girls and their caregivers [165]. In keeping with the intervention’s goal of helping girls avoid incarceration, the majority of the girls engaged in this intervention are not yet involved in the juvenile justice system; nonetheless, a small proportion have already been involved with the legal system by age 12.

Interestingly, as with the developers of MTFC, the originators of SNAP® GC were inspired to create an adaptation specifically for girls after observing that girls not only did not achieve gains, but experienced negative outcomes, including increased aggression and treatment drop-out, after participation in a “gender-neutral” family treatment for antisocial behavior. Therefore, based on a developmental contextual perspective, SNAP® GC was created to focus on the risk and protective factors that are specific to aggressive girls [165]. As the authors note, whereas early in development, girls and boys share similar risks that contribute to aggression and those exposed to such risks have similar outcomes in childhood, these patterns diverge as boys and girls move through adolescence, suggesting that girls have different intervention needs [166]. In particular, girls’ aggression is more often comorbid with other mental health problems, such as depression. In addition, given their affiliative tendencies and need for belonging, of particular concern are the ways in which girls’ physical and relational aggression is expressed in the context of intimate relationships with friends, family members and, later in development, their own children. Consequently, child-focused aspects of the intervention target skills in emotion regulation, anger management and interpersonal problem-solving, as well as enhancing girls’ ability to accurately interpret and respond to social cues. In addition, the developers note the special role that mothers play in the development of antisocial behavior amongst girls and the consequent need to enhance not only parenting skills, but the quality of the mother-daughter attachment. Further, sexuality is identified as a unique risk factor for girls and is incorporated into the intervention by encouraging mother-daughter discussion and problem-solving regarding romantic relationships.

In an outcome study utilizing random assignment to treatment versus wait-list conditions for a sample of early-onset aggressive girls, girls in the treatment group showed significant levels of improvement in their problem behaviors, and their parents reported improved parenting skills [111]. In a subsequent report, Rubin-Vaughn, Pepler, Walsh, Levene and Yuille [165] followed 80 families in their original evaluation group over the course of four years following treatment and found that, despite expected spikes in problem behavior around puberty, the intervention was associated with downward shifts in the trajectories of girls’ internalizing and externalizing symptoms.

4.3. Summary and Conclusion

Although the evidence base for gender-responsive programming for girls is in its infancy and it would be rash to draw hasty conclusions based on the available data, it is striking that many of the even most well-regarded “promising practices” have not demonstrated reliably maintained effects,
particularly for reductions in recidivism. Although not widely disseminated and not included in prior reviews of gender-responsive treatments, SNAP® GC appears to be highly promising and particularly beneficial given its emphasis on early intervention, as well as targeting the troubled mother-daughter relationships that characterize so many JJ-involved girls.

5. Toward an Agenda for Future Research on Intervening in Girls’ Delinquency

As noted above, to date, the evidence base mustered in support of gender-responsive programming for girls’ delinquency is equivocal, as is evidenced by the fact that widely disseminated evidence-based interventions have differentially poor outcomes for girls. However, one of the intriguing facts emerging from this review is that, although published studies of evidence-based interventions for delinquency do not systematically demonstrate reduced effectiveness for girls as opposed to boys, anecdotal reports indicate that such discrepancies have been observed in the field and, in fact, that such observations have inspired the development of gender-responsive treatments based on generic, but well-established, evidence-based interventions for delinquency. The developers of both MTFC [143] and SNAP® GC [166] report having observed iatrogenic effects in which “gender-neutral” interventions were associated with negative outcomes for girls and responded accordingly by creating gender-responsive versions.

Further, although the call has been made to focus our efforts on developing new interventions targeted exclusively at girls, the MTFC example demonstrates that an intervention originally designed for boys can be successfully accommodated to address girls’ specific needs. The term accommodation is used mindfully in this respect. Accommodation refers to the core principle of evidence-based practice [167,168] that manuals should be used flexibly, while with fidelity to the underlying theoretical framework. In this way, interventions can enhance their capacity to match the needs and characteristics of a diverse clientele [169,170]. In contrast, the development of an adaptation of an evidence-based treatment involves changes to the underlying structure that requires the gathering of new evidence to establish its equivalence to the original treatment [131]. In this respect, the development of gender-responsive accommodations to existing evidence-based interventions may facilitate their dissemination and adoption by community agencies, due to the economic advantage they would confer, allowing facilities already trained in a core intervention to “add on” gender-responsive modules, rather than having to invest in re-training staff in a completely separate manualized treatment. Therefore, a promising next step might be to conduct studies examining how gender-responsive effects for girls can be enhanced within already proven-effective youth interventions. Efforts may be well-directed to investigating those interventions that provide a strong foundational basis for addressing delinquency and have flexibility built into the model to allow for effective accommodations to be made for girls [8].

As Kazdin suggests [68], the next wave of research for evidence-based treatments will need to not only demonstrate that the treatment is effective, but to identify the underlying key mechanisms of change that account for its effects. Whether or not evidence emerges that evidence-based interventions are differentially effective for delinquent boys and girls, are there key intervening variables that differentially moderate the effectiveness of evidence-based interventions by gender? To answer this question, an important next stage in the maturation of this research will be the inclusion of
theory-driven investigations into the processes and key mechanisms of change underlying evidence-based treatments for JJ-involved girls.

Conflicts of Interest

The authors declare no conflict of interest.

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