Introduction

PSYCHOLOGY OF BOYS AT RISK: INDICATORS FROM 0-5

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This special issue on *Boys at Risk: Indicators from 0-5* developed out of a conference convened in Santa Fe, New Mexico in November 2015. All of the authors’ articles introduced here were offered in a preliminary form then. The overarching purpose of the event was to combine the growing focus on infant mental health of the last forty years with a concern about a collection of social problems that is often referred to as the *boy crisis* (Golding & Fitzgerald, 2016). This same concern led President Obama in 2014 to inaugurate the “My Brother’s Keeper” initiative to draw attention and funding to the problems of boys and young men of color (White House, 2014). Both of these efforts have followed several decades of attention to the disturbing phenomenon of boys in childhood and adolescence failing at school, finding themselves in conduct related problems including juvenile delinquency and criminality, and showing signs of certain boy-predominant psychopathologies such as attention deficit hyperactivity disorder and autism spectrum disorders.

The boy crisis takes place against a broader concern about the environment that many children are growing up within these days. One-third al all children in the US are exposed to 1-2 adverse childhood experiences, and 11 percent are exposed to 3 or more (Fig. 1). The three leading adverse experiences across all age levels are low income (including poverty), separation/divorce, and familial substance abuse and marital conflict.
For infants and toddlers, cascading effects of adverse childhood experiences have profound effects on mental/behavioral health, with increasing evidence that such effects may have more consequential long-term negative influences on neurobiological and regulatory processes in boys than in girls.

As society has come to understand and accept the likely early roots of many of these troubling issues, the infant mental health field has also begun to study gender distinct outcomes by examining the unique epigenetic (Drury, Theall et al., 2012; Kim-Cohen, et al., 2006), neurobiological (Schore, 2016), attachment (Paquette & Dumont, 2013), and social-contextual experiences (Bolger, Patterson, Thompson & Kupermidt, 1995; Buu, et al., 2009) of very young boys and relating these to the later consequences. This special issue on Boys at Risk: Indicators from 0 to 5 is a continuation of that overall effort and concern.

John Bowlby (1973) maintained that the adaptive function of attachment has largely to do with an infant’s wanting protection, regulated by proximity seeking. Posada et al.’s (2013) study involving nine countries provides convincing evidence that toddlers use mother as a secure base when exploring their environments and meeting strangers, supporting the universality of Ainsworth’s original reports (1967). However, contemporary researchers are finding a more complex picture; one that involves, among other things, gender differences in the processes of attachment, especially under adverse caregiving circumstances, which may be aggravated by poverty, unsafe and unhealthy neighborhoods (Fitzgerald, McKelvey, Schiffman, & Montanez, 2006), single parenthood (Ryan, Martin, & Brooke-Gunn, 2006), and the absence of supportive public policies for childcare, for example. Moreover, it is not yet clear whether the relationships between
fathers and infants organize via the same dynamic processes as those for mothers and infants (Bretherton, 2010), or that they service the same adaptive function (Paquette & Dumont, 2013). Often these differences by sex are manifested in “development, antecedents, correlates, and consequences of different forms of psychopathology in girls and boys” (Zahn-Waxler, Shirtcliff, & Marceau, 2008, p. 276). This body of research has been striking in the differences that have been found between the sexes in the early years. For example, according to the Centers for Disease Control, summarizing the most recent Mental Health Surveillance Among Children, United States, 2005-2011 (2013):

Boys were more likely than girls to have most of the disorders, including ADHD, behavioral or conduct problems, ASD, anxiety, Tourette syndrome, and cigarette dependence, and boys were more likely than girls to die by suicide. Girls were more likely to have an alcohol use disorder, and adolescent girls were more likely to have depression.

Statistically defining the negative outcomes that have come to delineate this boy crisis, in addition to those for the psychopathologies mentioned above, is useful. Dropping out of high school, while not exclusively a boy problem, has become a phenomenon in which boys predominate. The National Center for Educational Statistics (Stetser & Stillwell, 2014) estimates 22% of boys fail to graduate on time in the United States compared to 15% of girls. The male presence on US college campuses has been in a proportional decline since the late 1970s, and in 2013 only 44% of students enrolled in undergraduate courses were men (Kena, et al, 2015, p. 92). Finally, with regard to antisocial behavior, America’s incarcerated population is over ninety percent male (U.S. Department of Justice, 2015a) and in 2014 the juvenile arrest rate for boys for violent crime was four times the female rate (U.S. Department of Justice, 2015b). This pattern of poorer male performance exists within most of the major racial and ethnic groups for
which such statistics are usually presented, including African-American, Native-American, Hispanic, and White. The one group where these statistics comparing males and females are approximately equal is Asian-Americans. That said, there is a school of thought that focuses on boys of color who are African-American, Native-American, and Hispanic and who are deemed to be in special need of attention in this particular area of gender studies because of adverse social conditions including racism, historical trauma, and patterns of discrimination and resulting disproportionately negative outcomes (Campbell & Evans-Campbell, 2011; García-Coll & Vásquez García, 1995; Leary, 2005). Honoring this tendency, the conference and this special issue have included a section for research papers on the cultural issues of boys from these backgrounds.

As mentioned above, in the infant mental health field, researchers have also been finding differences between male and female outcomes for very young children for quite some time. One of the most extensively studied areas has been the response of infants to post-partum maternal depression. Many studies describe boys as more vulnerable to negative outcomes, and further that the results are distinctly different for boys than for girls (Carter, Garrity-Roukous, Chazan-Cohen, Little, Briggs-Gowan, 2001; Hammen, Hazel, Brennan, & Najman, 2012; Murray, Arteche, Fearon, Halligan, Croudace, & Cooper, 2010; Shaffer, Yates, & Egeland, 2009; Shaw & Vondra, 1995; Weinberg, Olson, Beeghly, & Tronick, 2006). Another area where differences have been observed is in children who display disorganized attachment patterns. Boys seem to be more punitive in their relations with caregivers and more susceptible to developing social problems later (Beebe & Lachmann, 2014; David & Lyons-Ruth, 2005; Hazen, Jacobvits, Higgins, Allen, & Jin, 2011). Similarly, several researchers have looked into measures of school
success and attempted to relate these to early attachment-related experiences. Along these lines, Fearon and Belsky (2011), for example, reported that disorganized attachment in boys, with high levels of contextual risk, manifested increases in behavioral problems over their primary school years; similar problems were not observed for girls. In another example from a Dutch study, poor performance on tests of executive function at four years was more likely for boys, but not girls, when maternal sensitivity tested low 2-3 years earlier. Boys, who most acted out their frustration, are those who often suffered from insensitive caregiving. (Mileva-Seitz, Ghassabian, Bakermans-Kranenburg, et al, 2015). It is notable that, given these earlier findings, researchers of the *Minnesota Study of Risk and Adaptation from Birth to Adulthood* (Sroufe, Egeland, Carlson, & Collins, 2005), having followed 180 children from birth in high risk circumstances in 1978, found, when considering their major unexpected findings after 25 years, that they were surprised that patterns of influences and outcomes were so different for boys and girls. It was as though we actually conducted two studies. This might seem obvious now, but no one was talking about the genders as two distinct subcultures in the early 1970s. (p. 301)

Differences in early childhood between boys and girls indicating the importance for the infant mental health field to understand early gender proclivities have also been confirmed from outside the spheres of psychology and child development. Several economic analyses of the past 3 years have called public policy attention to the overwhelming evidence that this decline of boys has its origins very early in the life of males. Using a large sample of 20,000 from the US Department of Education, Bertrand and Pan (2013) have offered that the problems of boys growing up in single-mother households, where “parental inputs” such as the amount and quality of attention provided
to boys before they start kindergarten, appear to be related to problems of school expulsion in the eighth grade. Chetty, Hendren, Lin, Majerovitz, and Scuderi (2016) relied on millions of tax records to propose a strong relationship between the environment of childhood and the later likelihood of finding adult employment. According to their study, boys growing up in poor, single-parent families were less likely to be legally employed in their twenties than females raised under similar circumstances. Autor, Figlio, Karbownik, Roth and Wasserman (2015) studying more than a million children born in Florida between 1992 and 2002 observed that relative to their sisters, “boys born to low-education and unmarried mothers have a higher incidence of truancy and behavioral problems throughout elementary and middle school” (p. 1).

Exactly who are the children being reared by single parents? Table 2 summarizes data compiled by Kid’s Count for a five year period for children under 18 being reared in single parent families categorized by race. Twelve to seventeen years ago, all of these children were from 0 to five years old. Using a different definition than Kid’s Count, the US Census estimates that there were 11,874,000 single parent families; 83% of them with mother as the caregiver, and 17% with father as caregiver, particularly among Black and Hispanic men (Livingston, 2013). Regardless of definition, an enormous number of children in the United States are being reared without a residential biological or social father present in the home. The extant literature on the effects of father absence on child development overwhelmingly is linked to both externalizing (boys) and internalizing (girls) behavior problems (Fitzgerald, et al., 1993, poor social-emotional skills, poor academic achievement, and a wide range of risky behaviors (Cabrera, Fitzgerald, Bradley
Moreover, because single parent families tend to have poor financial resources, children are also reared in low-income or poverty circumstances, often in troubled neighborhoods, and many are at risk for eventual substance abuse disorders and delinquency with the criminal justice system. According to the US Census, 48% of children under 3 years of age live in low-income families, including 25% of whom live in poverty.

In sum, considerable precedence exists for finding different susceptibilities to caregiving inadequacies experienced early in life depending on whether a child is a boy or a girl. The theme of the articles presented in this special issue—the uniqueness of the development of very young boys receiving inadequate caregiving which seems often to be related to social economic status—thus rests on a well-established foundation of research, especially under early caregiving conditions that might be associated with risk for problematic behavior as children grow up. We hope that the articles included in this issue of the Infant Mental Health Journal will help further elucidate what may be behind the difference for boys and thus lead to more effective interventions with ameliorative efforts like My Brother’s Keeper.

**Neurobiological Indicators of Risk**

Most of the articles in this special issue on boys examine the problems of boys in infancy as these become manifest in later difficulties such as in school or in conduct disorders in ethnically/racially diverse populations. The issue starts, however, with Allan Schore’s (2016) examination, at the most fundamental level, of the distinct neurobiology
of boys in utero and for the first two years of life. He thus addresses the question of how the developmental processes in boys might be inherently different from those of girls and how these differences might lead to unique susceptibilities for very young boys in ways that may explain later problems, especially under conditions of environmental stress. For this, Allan Schore focuses his affect regulation theory (Schore, 1994; Schore, 2012) on patterns that are more prevalent with boys. His article draws attention to certain underlying possible points of vulnerability in the development of the neurobiological structure of children in utero and after birth, especially with regard, for example, to the amygdala, the limbic system more generally, and to the functional organization of the HPA axis. These combine with possible stressful social and physical environments (from, for example, attachment failure and/or endocrine disruption from environmental contamination) to create in boys a particular risk for developmental problems. He strongly suggests that these problems are often associated with the increases over the last few decades in male-predominant psychopathologies such as attention deficit hyperactivity disorder, autism spectrum disorders, and others.

**Longitudinal Indicators of Risk**

This special issue is fortunate to be able to include several examples of research based on longitudinal studies. Through a retrospective analysis of a large sample of 310 boys growing up in a low-income and urban environment, Daniel Shaw and Mary Gilliam (2016) found they could predict conduct problems and antisocial behavior in childhood, adolescence, and early adulthood as a result of inadequate caregiving in early childhood. They also noted that evidence of the caregiving insult observed in early childhood corresponded to morphological alternations in related brain structures of boys.
at age 20 in MRI examinations. They provide a very strong argument for the early effects of caregiving inadequacies that seem mostly related to maternal depression (as low maternal responsiveness), for the greater vulnerability of boys to these early inadequacies, and for the need to institute early interventions to prevent the behavior from becoming almost impossible to rectify later. These same associations might be found for girls, but the authors declare that it seems “reasonable to infer that boys are at heightened risk relative to girls for showing serious forms of antisocial behavior during adolescence as a result of adverse family context in early childhood” (p. 23).

Another significant longitudinal study is presented by Puttler, Fitzgerald, Heitzeg, and Zucker (2016). They review the major findings of more than 30-year history of the Michigan Longitudinal Study to understand the risk factors for boys who are exposed early to paternal alcohol abuse. A major finding is that boys seem to be more adversely affected growing up in families where the father has an alcohol use disorder (AUD), particularly when co-morbid with other psychopathology. The behaviors which such boys, by and large, seem to be more likely to engage in are hyperactivity, risky temperament, lower IQ and lower academic achievement, poor abstract planning, and poor attention capability when they are young (Fitzgerald et al., 1993). They are also more likely themselves to develop an AUD when they become adolescents (Loukas, Fitzgerald, Zucker, & von Eye, 2001). In this article, the authors offer a rich discussion of how development of the self and self-other relationships might be affected by familial psychopathology prime the child to express similar outcomes of the life course.

Dayton and Beeghly Category
Cultural and Racial Perspectives on Risk

For years researchers have attempted to understand the increasingly divergent outcomes between boys and girls of color in the areas of education, health, crime, and psychopathology (Antonio, Johnson, Borden, & Villarruel, 2011; Garcia-Coll & Vizquez Garcia, 1995; Hughes, McGill, Ford & Tubbs, 2011; Leary, 2005; West & Newman, 2011). In this issue, researchers have come forward with examples of these efforts—one about Latino boys, another about African-American boys, and a third about Native American boys. In the first two studies, most of the focus has been on comparing school readiness for kindergarten for the Latino children and preschool performance for the African-American children. In both cases the results were also compared with those of White boys. In general the authors have found inconsistent evidence of difference between African-American girls and boys and between Latino children, leaving open the question of why there exists later significant differences in educational outcomes between boys and girls of color. Both conclude that social and economic status has a lot to do with the poorer performance with regard to White boys.

In examining this question, Cabrera, Aldoney, and Kuhns (2016) focused on Latino boys and compared their early social emotional development to White boys and Latina girls in a sample of assessments collected by the National Center for Education Statistics of children at 9 and 24 months of age and at preschool (48 months) and kindergarten (60 months). They found that there were some differences among Latino boys and girls with girls having a slight advantage over Latino boys from 24 months to
preschool in social skills. They also found that early measures of sensitivity to, engagement with, and negativity to mothers were significantly worse for Latino boys than Latina girls. However, by the time of entering kindergarten, differences having to do with cognitive school readiness skills were not significant between Latino boys and girls students with regard to math and language abilities (except for emergent literacy skills (25)).

With regard to African American children, using data collected through the US Department of Education’s Early Childhood Longitudinal Study—Birth Cohort, Iheoma Iruka sought to show how differences in the 0-2 period between the experiences of Black boys and Black girls compared to White boys seemed to influence their performance in preschool on certain cognitive outcomes having to do with emergent language/literacy and math/numeracy, expressive language, and color knowledge. She found that the following characteristics of experience in the first two years were positively related to some or all of the academic outcomes: maternal education, higher income, residence in a better neighborhood, and more positive parenting. Another somewhat anomalous finding was that children who were reported by parents to be more difficult, did better academically. A last finding was that children of depressed parents did worse.

[Para on Sarche article]

Clinical and Policy Implications for Infant Mental Health

Deborah Weatherson (2016) offers this special issue a personal essay on reflective relational practice in the infant mental health field in the context of a general concern about boys. She outlines some of the connections with the subject of this special issue to draw attention to how the additional element of gender needs are brought into the bigger
picture of infant mental health. In the process, she emphasizes the role of the father as especially important for boys’ development. She also highlights the need of the field to become more open to working with fathers.

Para on McKinney

**Future Directions for Research and Conclusions**

The fields involved in the study of the unique development of boys in infancy are themselves still at an early stage. Nonetheless, the research provided here, we hope, will help to point to where further data collection, research, and methodological refinement might be in order. Perhaps most important for the future is to indicate more evidence-based intervention strategies that can be used to ameliorate boys’ unique and problematic development issues so that they may be detected and addressed early. Our basic objective in offering this conference and special issue is to begin to demonstrate the underlying bases of the problems that show up as part of the boy crisis.

References


Table 1. Prevalence of Specific Reported Adverse Childhood Experiences (ACEs), Total and Age. Percent of children nationally with 0 (54%), 1-2 (35%) or 3+ (11%) adverse experiences (aged birth to 17).

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<th>Adverse Childhood Experiences</th>
<th>National Percentage of Children</th>
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<tr>
<td></td>
<td>All 0-5 6-11 12-17</td>
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<tr>
<td>Low Income</td>
<td>26 25 26 26</td>
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<tr>
<td>Separation/Divorce</td>
<td>20 10 22 28</td>
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<tr>
<td>Family Alcohol/Drug problems</td>
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<td>Family Mental Illness</td>
<td>9 6 8 12</td>
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<tr>
<td>Witness Neighborhood Violence</td>
<td>9 3 8 14</td>
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<tr>
<td>Witness Domestic Violence</td>
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<tr>
<td>Parent Incarcerated Sometime</td>
<td>7 5 8 8</td>
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<td>Parent who Died</td>
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Definitions: Children under age 18 who live with their own single parent either in a family or subfamily. In this definition, single-parent families may include cohabitating couples but do not include children living with married stepparents. Children who live in group quarters (for example, institutions, dormitories, or group homes) are not included in this calculation. © 2016 The Annie E. Casey Foundation. With permission according to web-based use description.

Every son quotes his father, in words and in deeds. — Terri Guillemets