Preventing Violence and Trauma in the Next Generation

GAIL RYAN
University of Colorado School of Medicine

Research in recent times has clearly demonstrated that violence is predictable and preventable; however, the primary prevention of abusive and violent behavior will not occur without personal, interpersonal, and social change. This article reviews the empirical research supporting hypotheses for primary prevention of many risks associated with children becoming abusive.

Keywords: *child development; perpetration prevention; child abuse prevention; violence prevention*

The most important thing learned in the past 20 years is that interpersonal violence is predictable and preventable. We still need to learn to overcome the impediments to prevention. Prospective study demonstrates our ability to foresee and mediate the risk of violence, yet much of the knowledge that exists is not being put to use. The science exists to raise a much less violent generation. What seems lacking is a collective sense of adult responsibility to raise a generation of children who are nonviolent. Primary prevention must ensure that children acquire the skills and knowledge to support success and insist that they not be abusive (Ryan, 2002, 2003).

Interpersonal violence is a multidimensional and dynamic phenomenon. No single intervention will ensure prevention. However, risks and protective factors are known that moderate or exacerbate the likelihood that a person will behave violently. Because traumatic experience (the sense of helplessness without hope of rescue; Terr, 1990) is a product of violence and a trigger for its occurrence, it is inextricably linked to the risks of victimization and perpetration (Ryan, 1989; Van der Kolk & Greenberg, 1987).

Anger and aggression are defenses that rise up in the face of danger. Animal instincts sense danger as a threat to physical safety and life itself. The human intellect senses psychological danger as well: threats to self-image and one's sense of control. The memory's role in learning from past experience creates the cognitive and emotional infrastructure of each unique indi-

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vidual. Past experience and learning drive emotional reactivity, defensive coping, and dysfunctional responses. Memories of traumatic experience often drive defensive anger even in the absence of present danger, perceiving threat in experiences reminiscent of the past (Ryan, 1989). Protecting children from traumatic experiences and increasing protective factors that enable them to cope with life's stresses will reduce victimization and violence.

Retrospective studies identify precursors: circumstances and stressors overwhelming one's ability to cope, or emotional reactions that trigger an impulsive or explosive outburst of aggression. Tertiary strategies seek to reduce stressors and increase functional coping skills to moderate the power or frequency of precursors. The dynamics of dysfunction reveal the absence of protective factors that constitute primary prevention.

Violence requires the capacity to be abusive and the absence of effective inhibition (Finkelhor, 1995). Interactions create opportunities for violence to occur, and yet not all humans are violent. Opportunity is neither predictive nor preventable. Anyone interacting may experience conflict or frustration that threatens physical or psychological safety. Primal defenses dictate "fight or flight": to avoid the irritant or use aggression to assert control. Although temporarily adaptive, neither strategy resolves the source of stress.

Reproduction and infant survival are dependent on interpersonal interaction. These imperatives create the opportunity for domestic violence and child abuse. The need for cooperation increases opportunities not only to benefit from interaction but also to be hurt by it. Empathic recognition and responses allow effective communication and the reciprocity of attachment and bonding in human interactions. Secure attachment moderates the irritation of conflicting needs while insecure or disorganized attachment increases the perception of threat. Interpersonal violence can result from defensive anger and the lack of empathy and reciprocity, characteristics of insecure attachment.

PROSPECTIVE AND RETROSPECTIVE RESEARCH

Many studies describe the incidence and prevalence, trauma and toll, of interpersonal violence and factors overrepresented in perpetrators and victims of violence (Peters, McMahon, & Quinsey, 1992). Retrospective reviews articulate the risks that put children in harm's way (Krugman, 1997; U.S. Advisory Board 1990, 1995;); prospective studies identify protective factors associated with children becoming successful, resilient, and not violent (Bremer, 1998). We know what children need to do well, and we know what puts them at risk.

Too often, the community's attention to children is reactive to their behavior rather than a real assessment of children's needs. Violence continues to occur in homes where children are witnessing, experiencing, and perpetrating interpersonal violence, and most interventions are tertiary, occurring after some harm has been done (Johnson-Reid 1998; Kashani, Daniel, Danaoy, & Holcomb, 1992). Retrospective identification of variables predictive of violent recidivism provides evidence of the most potent risk factors in the development of abusive individuals, and many of those factors are static because they are in the past (Hanson & Harris, 2000, 2002; Prentky, Harris, Frizzell, & Righthand, 2000; Worling & Curwen, 2000). For the newborn infant, few variables are static. The most promising perpetration prevention strategies will begin at birth.

Prospective studies of children, from birth (Gray, Cutler, Dean, & Kempe, 1979; Olds, Henderson, et al., 1998; Olds, Eckenrode, et al., 1997), or following a particular event or experience, (Terr, 1983, 1988; Widom & Williams, 1996), or youth in the general population (Elliot, Huizinga, & Morse, 1986; Scales & Leffert, 1999), follow an identified cohort and track outcomes of interest. Findings contribute to the validation and revision of hypotheses regarding what children need and what puts them at risk and are particularly relevant when multiple studies arrive at the same conclusions. Tracking the developmental trajectory and recording events and experiences makes it possible to isolate those variables that differentiate those who subsequently perpetrate violence and abuse from those who do not. When factors in prospective and retrospective studies intersect, preventing those factors becomes the goal.

Testing the validity of preventive interventions is a slow, expensive, and methodical science, requiring large samples, random assignment to a preventive intervention or control groups, and long-term follow-up (e.g., Olds, Henderson, et al., 1998). Resources flow toward problems, more than prevention, perpetuating reactive rather than proactive strategies. Preventing the risks associated with children becoming violent and abusive is possible. The impediments are a matter of priorities and competing needs, not a lack of knowledge.

INTERSECTIONS IN CURRENT KNOWLEDGE: PRESCRIPTION FOR PREVENTION

Research shows that the years from conception to age 5 are responsible for critical aspects of human development (Karr-Morse & Wiley, 1997). Brain growth and neural pathways, attachment, the internal model for relation-

ships, self-image, and the skills for successful functioning in childhood and adolescence, develop most rapidly in the earliest years (Ainsworth, 1985; Bowlby, 1977; Brazelton & Cramer, 1990; Chess & Thomas, 1984; Cicchetti, 1987; George & Solomon, 1989; Strayhorn, 1988). The seeds of aggression and interpersonal violence may be sown in the earliest days and years of life and be moderated or exacerbated, nurtured or culled, in the context of subsequent development and experience (Kurtz, 1984; Rivera & Widom, 1990; Ryan & Associates, 1998). A combination of prevention strategies will moderate risk:

1. *Prenatal*: Exposure to drugs or alcohol in utero, low birth weight, prematurity, and conditions causing chronic physical distress create risk at birth but may be moderated or prevented with prenatal care.
2. *Mother infant interaction*: Certain factors place mothers and their infants at risk: Young, single, and isolated are examples of known risk factors (Gray et al., 1979; Main & Goldwin, 1984). Olds and colleagues (Olds, Eckenrode, et al., 1997; Olds, Henderson, et al., 1998) have empirically tested specific nurse home visitation interventions for at risk mother-infant dyads and show significant changes in (a) mother's own life course; (b) cost savings from decreased services required over time; (c) more success for the child in school, and (d) less delinquency among as adolescents. Abusive, aggressive, and impulsive behaviors are represented in definition of delinquency.
3. *Empathic care*: Most home visitation interventions for new moms (including the Olds, Eckenrode, et al, 1997; Olds, Henderson, et al., 1998 model) foster sensitive or empathic parenting that is responsive to the affective cues of emotions and needs of the child (Krugman, 1993). Research shows that infants who are cared for in that way (care being provided in response to the infants' cues) begin to demonstrate emotional recognition and empathic responses toward others around 18 months (Landry & Peters, 1992). Subsequently, empathic recognition and response reduces the risk of abusive behaviors (Gilgun, 1996; Monto, Zgourides, & Harris, 1998; Marshall, Hudson, Jones, & Fernandez, 1994; Prentky, Worling, et al., 2001; Ryan, 1998, 2000; Ryan & Steele, 1991; Worling & Curwen, 2000).
4. *Parent-child attachment and bonding*: Home visitation programs for new mothers also assess and enhance the quality of attachment and bonding of the infant or toddler and caregiver, to decrease the risk of attachment disorders. Insecure or disorganized attachment is a risk factor in adolescent-adult aggression (Bowlby, 1985; Radke-Yarrow et al., 1995), juvenile-adult sexual offending (Marshall, Hudson, & Hodkinson, 1993; Marshall & Mazzucco, 1995; Ward, Hudson, Marshall, & Siegert, 1985; Ward, Hudson, & Marshall, 1996) and delinquency or criminality. Disorganized behavior such as early-onset acting out, chronic misbehavior in school, control issues, insulting attitudes, insensitivity, and prepubescent delinquency suggest disorganization in the parent-child relationship and the internal working model of relationships. Empathic care by a trustworthy caregiver increases secure attachment, and pediatric and child care settings can respond to attachment problems and early

childhood dysfunction (Crittendon, 1992; Erickson, Korfmacher, & Egeland, 1992).

5. *Parent-child, and siblling relationships*: Inconsistent care and parental loss are overrepresented in the early life experience of juveniles who sexually offend (Prentky, Knight, et al, 1989; Ryan, Miyoshi, Metzner, Krugman, & Fryer, 1996). Murray (1995), O'Keefe (1994), and Hunter (in press) studied the role of absent and negative relationships with father figures of abusive young people and found a lack of emotional recognition and responses. Exposure to adult criminality and the absence of positive, prosocial male role models is related to a wide range of risks, including early-onset delinquency and adult criminality.

Child protection has focused on adult-child relationships, yet we know that more than 40% of all juvenile-perpetrated child sexual abuse is perpetrated in sibling relationships (Ryan et al., 1996). We have much less data on the physical abuse and emotional intimidation that occurs among siblings because there is rarely intervention, despite Wiehe's (Wiehe, 1996; Wiehe & Herring, 1991) findings regarding the negative sequellae of sibling abuse.

6. *Exposure*: Domestic violence (Crittendon, 1992; Kashani et al, 1992), trauma (Van der Kolk, 1987; Van der Kolk & Greenburg, 1987), non-normative sexual environment (Gilgun, 1988), neglect (Widom & Williams, 1996), and a spectrum of maltreatments (Finkelhor, 1995; Hunter, 1996) are overrepresented in sexual and violent offenders. Numerous authors cite antisocial or hyper-masculine attitudes and criminality of family members related to the risk of delinquency and sexual offending (Righthand & Welch, 2001).
7. *Genetics and heritability*: Genetic research has identified a marker of predisposition for aggression; however, aggression was only manifest by children who had also experienced early childhood maltreatment as compared to those with the same genetic marker but receiving adequate care (Caspi et al, 2002). Theories of multigenerational transmission of abuse and interpersonal violence must consider genetic and experiential influences: nature and nurture.
8. *Neurological vulnerabilities*: By studying the living brain to see how it grows and changes over time, science has documented the effects of neglect and trauma on the infant brain and discovered that brain development is use dependant (Karr-Morse & Wiley, 1997); that is, parts that are not used or stimulated do not develop (effects of neglect or deprivation) and parts that are overused develop out of proportion to the need (effects of abuse and trauma such as emotional reactivity and hyper-vigilance), proving that preverbal experiences have lasting effects. The rapid growth and pruning of the infant brain from age 0 to 3 years (and again the pubescent brain at age 11 or 12 years) underscore the need for maximum nurturing and protection during those developmental times (Koplewicz, 2002). Preverbal infants must not be moved about like baggage, to anyone willing to shelter and feed them, and parents of the young teen who threatens to spin out of control often need education and support to manage the reality and complexity of adolescent instability.

9. *Brain injury*: Otnow-Lewis, Shanok, and Pincus (1981) found significant head injuries in the history of juveniles on death row, convicted for crimes of extreme interpersonal violence. The risk of aggression and dysregulation in brain injury patients is well documented (Kotulak, 1997), Cognitive impairments attributed to learning disabilities may relate to the neurological history of the child.
10. *Psychiatric differences*: Both the structure and functioning of the brain contribute to psychiatric symptoms including disorganized thinking, impulsivity, emotional reactivity, chemical dependency, and aggression (Kotulak, 1997). Depression and anxiety in childhood can be effects of trauma, neglect, separation, and loss that have changed the growing brain (Van der Kolk 1987; Karr-Morse & Wiley, 1997). Mood disorders and inherited disorders such as attention deficits or bipolar depression (Koplewicz, 2002; Papolos & Papolos, 1999), often manifest symptoms even in the preschool years (Harmon, 1995; Frankel, Klapper, & Harmon, 2002) and can be treated before behavioral symptoms cause problems for others (Becker, Kaplan, Tenke, & Tartaglini, 1991). Age-specific diagnostic criteria for infant mental health and child psychiatry recognize differences in brain functioning that impede success (Cummings & Cicchetti, 1990). Yet there is still resistance to early diagnosis of unchangeable differences in brain functioning for fear of stigma, and education is needed to suggest that not all solutions lie in better parenting or the child's effort to overcome. Advances in pharmacology provide more effective prescriptions; however, current treatments do not actually rebuild or reprogram permanent neurological differences. Success cannot be viewed as "getting off the meds" that have proven helpful.
11. *Prevention Policy*: The risk of death or permanent physical disabilities led to significant efforts to prevent childhood brain injuries, such as car restraints and recreational helmets—perfect examples of preventive public health policies responding to recognized risks. Just as physical risks have resulted in widespread prevention, such as vaccinations and seat belt laws, public health policy must address developmental, emotional, and psychological risks.

We have empirical knowledge about how human beings grow and develop; how the brain functions; how the individual interacts with, depends on, and is influenced by all that surrounds him or her; and factors associated with optimal versus dysfunctional outcomes (Bremer, 1998; Gilgun, 1996; Strayhorn, 1988). Risks and protective factors are known. Mobilizing the community and the culture (the neighbors of every child) to reach out to every parent and to model empathy and concern for every child will require global social change. To reach out to one parent and one child requires only one person's resolve.

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Gail Ryan is director of the Kempe Perpetration Prevention Program at the Kempe Center, with a faculty appointment in the Department of Pediatrics, University of Colorado Medical School. She has worked, since 1975, with abusive parents and abused children, treating 11- to 17-year-old boys who have molested children since 1986. Her emphasis has been on studying primary and secondary prevention.