



Parent-Child Connectedness

Implications for Research, Interventions, And Positive Impacts on Adolescent Health

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**This literature review was made possible
with funding from the Annie E. Casey Foundation.**

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ETR Associates and Citation Information

ETR Associates (Education Training Research Associates), established in 1981, is a national, nonprofit organization whose mission is to enhance the well-being of individuals, families and communities by providing leadership, educational resources, training, and research in health promotion with an emphasis on sexuality and health education.

ETR's Program Services Division offers comprehensive services for the research, development, implementation, evaluation, and dissemination of critical public health initiatives. The division works directly with community-based programs, state and local education agencies, health care providers, health educators and public health organizations to implement these comprehensive services.

ETR's Publishing Division produces authoritative health education and health promotion resources that empower young people and adults to lead healthier lives. Hundreds of ETR pamphlets, books and other materials are used in thousands of health care settings, schools and workplaces across the United States and around the world.

For more information about ETR, visit: www.etr.org.

Suggested citation:

Lezin, N., Rolleri, L., Bean, S. & Taylor, J. (2004). Parent-child connectedness: Implications for research, interventions and positive impacts on adolescent health. Santa Cruz, CA: ETR Associates.

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Funding for this literature review was provided by:
The Annie E. Casey Foundation (<http://www.aecf.org/>) and the Centers for Disease Control and Prevention, Division of Adolescent School Health (<http://www.cdc.gov/nccdphp/dash/about/index.htm>).

Acknowledgements

The directors of ETR Associates' Parent-Child Connectedness BRIDGE Project and the authors (Nicole Lezin, Lori Rolleri, Steve Bean, and Julie Taylor) of this literature review would like to acknowledge the following organizations and individuals for their contributions to this publication:

Funding for all of the major activities of the PCC BRIDGE project is provided by The Annie E. Casey Foundation. Foundation oversight and support for the project was provided with wit and wisdom by Senior Associate, Debra Delgado.

Partial funding for the think tank meeting and funding for dissemination of the literature review to its constituencies was also provided by the Centers for Disease Control and Prevention: Division of Adolescent School Health. Funding for ETR's online Resource Center for Adolescent Pregnancy (ReCAPP), through which project results are being disseminated, is provided by the David and Lucile Packard Foundation.

We would like to thank our three colleagues who served as advisors to the project through its first year: Douglas Kirby, PhD, ETR's Director of Training Linda Fawcett and Carol Cassell, PhD.

Fifteen colleagues from across the nation lent their time, energy and expertise to reviewing the first draft of this literature review and to considering the entire scope of parent-child connectedness during our think tank meeting in July, 2003. These think tank participants, in alphabetical order, were:

- Robert Blum, MD, PhD, MPH: University of Minnesota, Minneapolis, MN
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- Pamela Wilson, MSW: Consultant, Oxon Hill, MD
- Patty Wipfler, BA: Parents Leadership Institute, Palo Alto, CA

The completion of this literature review and the convening of our think tank meeting was due in large part to the efforts of several ETR staff: to Rebecca Rubin, Nicole Jayne and Susan Boes, who handled logistics, recorded the proceedings of the think tank and who continue to lend expertise and support anywhere it is needed, to Lara Zeidberg, who unearthed almost all of the articles and book chapters that were reviewed for this publication and to Pat Rex, for editing and formatting.

On a personal note, the authors of this literature review would like to acknowledge some of the important sources of connectedness in their lives...

Nicole Lezin would like to take this opportunity to thank Marsh Kreuter for his generous mentoring, his friendship, and his constant, creative and enthusiastic connecting of people and ideas (also known as “Kreuter capital!”)

Lori Rolleri, the only child of John and Carmen Rolleri, dedicates her work on this project to her parents and to her four god children: Luis Fernando Cerrato Zapata, Lori Dayanara Erazo Flores, Daniel Michael DelValle and Eric Jordan DelValle.

Steve Bean would like to acknowledge his mother, Barbara Post, who has dedicated over thirty years of service to the field of family planning as a Nurse Practitioner for Planned Parenthood of Dutchess and Ulster Counties, New York.

Julie Taylor would like to dedicate her work on this project to her mother, Kathryn Taylor, and to the numerous mentors who provided encouragement, support and belief in her abilities during her childhood, adolescence and early adulthood. All these influences demonstrate the positive impact of adult-child connection.

Foreword

All parents, regardless of socioeconomic status, struggle with finding enough quality time with their children. Parents need and crave time with their children to share hopes, dreams, values and expectations while also communicating about the more mundane realities of 21st century life, such as scheduling medical appointments for immunizations and meeting with teachers to discuss report cards. The challenge increases for parents as their children move through adolescence. For a variety of reasons, most parents assume that their role and influence diminishes as teen children grow and form stronger bonds with peers. However, there is growing evidence that parents, or caregivers acting in a parental role, really do matter for young people. This literature review is designed to highlight the positive and important role that parents play to help teens successfully transition into adulthood.

Parent-Child Connectedness: Implications for Research, Interventions and Positive Impacts on Adolescent Health helps to describe the many ways that parents matter in improving their teen children's odds for success. It provides a comprehensive review of the research literature, plus offers some practical insights about how and why "promising approaches work." Most importantly, it provides a contemporary framework for talking about parents and children. This document is not just about two-parent households in homogenous communities. Consistent with current demographics in the United States, the families and programs described cut across ethnic, racial, socioeconomic and gender distinctions. Moreover, this document is written to help program operators, policymakers, funders and researchers reflect upon what works and begin to think creatively about what else needs to be done to ensure that all parents have what they want and what they need to form powerful, positive and productive connections with their children.

Debra Delgado
Senior Associate
The Annie E. Casey Foundation

PCC BRIDGE Project Background

Emerging research from the fields of public health, psychology, education and others demonstrates that the condition of "parent-child connectedness" (PCC) serves as an important protective factor for a variety of adolescent health outcomes, including the prevention of adolescent pregnancy, STI and HIV. Program developers at ETR Associates found the prevalence of parent-child connectedness in the health behavior research literature to be compelling.

If parent-child connectedness is documented over and over again as an important protective factor, then what can we do as practitioners to strengthen it? After ETR's program developers revisited the literature and spoke with several experts in the field, they found little information about the factors that determine PCC, and even less information about how to design interventions to strengthen it. ETR's program development staff saw this gap in the field as an interesting and important opportunity to shed light on this protective factor that appears to have such a strong and widespread impact on adolescent health.

In January 2003, ETR Associates was awarded funding from the Annie E. Casey Foundation to study the construct of "parent-child connectedness." The objectives for Year One of ETR's project titled "Parent-Child Connectedness: Bridging Research and Intervention Design" (PCC BRIDGE) are listed below.

At the completion of Year One (1/03-12/03), the PCC BRIDGE project will:

1. Increase awareness and understanding of how parent-child connectedness serves as a protective factor in adolescent reproductive health;
2. Increase awareness and understanding of the factors that determine or influence parent-child connectedness; and
3. Identify characteristics of interventions that have the potential to increase parent-child connectedness.

In support of these objectives, four activities were completed during Year One of this project.

These activities include:

1. A **comprehensive literature review** that: 1) establishes the protective influence of PCC on a variety of adolescent health outcomes; 2) describes close to 100 possible determinants of PCC; 3) proposes a new model that describes how PCC is established; and 4) reviews existing interventions that have had an affect on PCC.
2. A two-day **think tank meeting** held in July 2003 in Baltimore, MD and attended by researchers and practitioners with expertise in parent-child connectedness. More information about the think tank meeting is presented on page 2.
3. An **on-line survey** examining how parent-child connectedness is understood by users of the Resource Center for Adolescent Pregnancy Prevention (ReCAPP) website. A summary of survey finding is available at:
www.etr.org/recapp/research/AuthorPaperPCCSurvey0104.htm
4. A variety of **dissemination activities** including a ReCAPP edition dedicated to PCC, presentations at conferences and other meetings, and an on-line forum discussion.

In future years, the PCC BRIDGE Project plans to develop and/adapt interventions specifically designed to increase PCC, pilot and evaluate these interventions, and lastly disseminate effective interventions through written products, training and technical assistance.

Executive Summary

“All happy families are alike,” wrote Leo Tolstoy in the opening line of *Anna Karenina*, “but all unhappy families are unhappy in their own ways.”

Tolstoy meant this as a criticism of happy families, which were far too conventional and uninteresting to catch his novelist’s eye. More recently, researchers – novelists of a different sort – have redressed this literary imbalance by exploring the encouraging world of happy families and how they work.

At the core of a happy family are parents and children, connected to one another in a way that is mutually satisfying, pleasing, and enduring. This elusive quality, described in detail in this literature review, is parent-child connectedness, or PCC. PCC has gone (and probably will continue to go by) many other names: mutual attachment, family strength, and parent-child bonding, to name just a few. But what exactly do we mean by "parent-child connectedness?"

PCC is characterized by the *quality* of the emotional bond between parent and child and by the degree to which this bond is both *mutual* and *sustained* over time. When PCC is high in a family, the “emotional climate” is one of affection, warmth, satisfaction, trust, and minimal conflict. Parents and children who share a high degree of connectedness enjoy spending time together, communicate freely and openly, support and respect one another, share similar values, and have a sense of optimism about the future.

PCC has emerged in recent research as a compelling “super-protector” – a feature of family life that may buffer young people from the many challenges and risks they face in today's world. As evidence accumulates about PCC being a protective factor for the prevention of a variety of health and social problems (e.g. drug use, violence, unintended pregnancy), attention has naturally turned to the specific mechanisms by which PCC works, so that it can be promoted more deliberately, systematically, and proactively.

The first step in understanding PCC is to define and measure it. As this review documents, many researchers – representing a wide variety of disciplines and lines of inquiry – have contributed to a more specific, in-depth understanding of the different components of PCC. Their research has centered on at least eight different components of PCC that could serve, collectively, as early constructs or even determinants of PCC. These eight different components are listed below.

- Attachment/Bonding
- Warmth/Caring
- Cohesion (closeness and conflict)
- Support/Involvement
- Communication
- Monitoring/Control
- Autonomy Granting
- Maternal/Paternal Characteristics

Identifying these components offers many clues about how PCC works. However, despite PCC's potential, we lack a theory or model of how PCC's various elements interact to protect children. (ETR has proposed a model that attempts to explain how PCC is established, which is presented later on in this paper.) Likewise, few interventions currently exist that build on existing research and models to promote PCC in a more tailored and effective way.

The results of two decades of research, an emerging consensus about PCC's parameters, and optimism about its potential all converge to create an opportunity for applying our understanding of PCC to children, parents, and families. Before this can occur, several questions still need to be answered. They include:

- Which families are most at risk?
- Which families could benefit the most from interventions?
- Which parenting practices and styles are amenable to change, and how?

- When and how should interventions be offered and disseminated?

The purpose of this literature review is to summarize existing measures, research, theories, models, and interventions and to set the stage for discussions that will explore the questions listed above. This literature review will guide ETR and other organizations in developing or adapting interventions that can build on what we already know and tap into PCC's evident potential for children, adolescents, and their parents.

We welcome your feedback on this document. Please email Lori Roller at lorir@etr.org with your comments and/or questions.

Introduction

As human infants, we arrive in the world unable to care for ourselves. For sheer survival, we depend on our parents for food, for protection, and for both physical and emotional warmth. The latter type of warmth – the sense of security, the bond, the attachment between parent and child – is the subject of this literature review.

As described in the executive summary of this review, the unique bond between parents and their children has enormous appeal, tremendous potential, and a lengthy, overlapping list of synonyms to describe it. The term that seems to best capture the scope and meaning of this concept is “parent-child connectedness,” or PCC for short.

Parent-child connectedness, or PCC, has emerged in recent research as a compelling “super-protector” – a feature of family life that may buffer young people from the many challenges and risks facing them in today's world. Much of this research, as described below, has been retrospective, matching different characteristics of parents and children with a variety of positive and negative outcomes. As evidence accumulates about PCC acting as a protective factor for the prevention of a variety of health and social problems (e.g. drug use, violence, unintended pregnancy), attention has naturally turned to the specific mechanisms by which PCC works so that it can be promoted more deliberately, systematically, and proactively.

Purpose

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Methods, Organization and Caveats

Two methods were used to gather information for this literature review. *First*, a comprehensive literature search was conducted which surfaced over 600 documents. This literature search is described below. *Second*, ETR conducted a two-day Think Tank meeting with 15 national experts (both researchers and practitioners) in PCC on July 21-22, 2003 in Baltimore, MD. Think Tank participants were asked to read the literature review and make suggestions for its improvement. Many of their suggestions were used to conduct additional literature searches, identify and write additional content, and improve organization of this document. To review the two-day Think Tank meeting agenda see Appendix A. To review the set of questions used to guide Think Tank participants' feedback on the literature review, see Appendix B.

ETR's PCC project team – including social science researchers, public health specialists, educators, social workers and librarians – met on several occasions to develop a list of key terms to be searched for this literature review. These key terms are listed below.

- Attachment
- Child abuse
- Child development
- Child neglect
- Family resiliency
- Family strengthening
- Parenting
- Prevention
- Protective factor
- Parent-child communication
- Parent-child connectedness
- Parent-child involvement
- Parent-child relationship
- Risk factor

The project team then searched five databases for these terms, including MedLine, ERIC, PsychInfo, Popline, FINE Network and the World Wide Web, eventually yielding over 600 journal articles, reports, program descriptions and book chapters. Generally, these documents covered the last two decades of research and were restricted to the United States although some findings from other English-speaking, developed countries are also included. A full bibliography is available separately on the ReCAPP website at:
www.etr.org/recapp/research/PCCBibliographyAL.htm.

While this literature search was thorough and comprehensive, some caveats are in order. The topic of PCC touches on many fields and disciplines, including developmental and community psychology, public health, sociology, and anthropology. Furthermore, it covers virtually the entire human lifespan. Infants, school-age children, adolescents, and their parents are all taken into account, not to mention their respective cultures, family structures, and environments. As Barber put it, “Research on parent-child relationships is voluminous, complex, redundant, fragmented, and at times confusing and/or contradictory (Barber 1999).” Finally, each type of consequence – from drug use to risky sexual behavior to conduct disorders – has its own set of theories, models, studies, and interventions.

Each of these consequences or outcomes deserves its own literature review, or even its own book-length exploration; a review like this one cannot hope to do justice to these many fields and perspectives. Instead, for purposes of discussion, our goal is to provide a brief, readable synopsis of related research in these many lines of inquiry and to spare the reader from full immersion in the extensive body of literature. We hope that this document will serve to jump-start discussions among participating experts from many different fields. This review is intended very much as a starting point, rather than a definitive end point.

The review is organized into the following main sections:

- **Parent-Child Connectedness: Definitions, Measures, and Risk & Protective Factors.** This section differentiates PCC from its roots in attachment theory, explains the importance of parenting styles as a pivotal feature of PCC, and then explores the constructs and measures that various researchers have used to capture different components of PCC.
- **Outcomes Related to Parent-Child Connectedness.** This section reviews the growing evidence base that PCC matters, whether the outcome of interest is overall adjustment and functioning, school achievement, drug use, sexual behavior, conduct disorders, suicide, or violence.

- **Parent-Child Connectedness Frameworks.** Given the growing evidence that PCC matters and affects so many outcomes, how exactly does it work? Several models/theoretical frameworks, many with similar constructs and relationships among them, seek to explain the specific mechanisms for PCC's effectiveness.
- **Parent-Child Connectedness Interventions.** What do the constructs, evidence base, and models suggest about broader PCC interventions? What do we know about existing interventions?
- **Implications for Research.** Where are the gaps in what we currently know and in what we need to know to move forward?

Parent-Child Connectedness: Definitions, Measures, and Risk & Protective Factors

As noted in the introduction, PCC is a composite concept, drawing upon many different disciplines, models, and terms. In this section, we briefly review some of the key theories, models and insights that have informed research on PCC before turning to a discussion of specific scales and constructs that have been used to measure it.

The Theory of Attachment: PCC's Roots

It is not surprising that the word “attachment” surfaces repeatedly in the emerging literature on PCC, since research on the bonds between children and parents has its formal roots in the theory of attachment. Attachment theory is based on the idea that an infant’s first attachment experience (initially to his or her mother) profoundly shapes the social, cognitive, and emotional developments that follow (Bowlby 1969).

A mother who responds with sensitivity and consistency to her child’s needs, the theory suggests, sends a series of important messages to her infant that build trust and security: “I am here for you.” “You can count on me.” “I am interested in you.” “Your actions matter.” And last but certainly not least, “You are loved.” (Chase-Lansdale, Wakschlag et al. 1995). This responsiveness helps the infant learn the important developmental skill of self-regulation as distress is soothed, needs are met, and alertness enhanced (Bridges 2002). From this initial trusting and secure base, the infant (and then the toddler) develops a variety of skills that are essential to healthy development: self-regulation of emotions (Egeland & Erickson 1999), socialization, a sense of mastery and competence, and an internal working model of how relationships with others work (Chase-Lansdale, Wakschlag et al. 1995), thus shaping future relationships with peers and, eventually, with romantic partners.

For a variety of reasons – ranging from pathology and addiction to physical illness or death – the early, powerful attachment between mother and infant can be derailed or severed. Instead of sensitive, responsive nurturing, an infant may face inconsistency or neglect. Instead

of security, the infant experiences apprehension and confusion. Not surprisingly, these parental cues often lead to what researchers refer to as avoidant, anxious, or insecure attachment, which have, in turn, been linked to a variety of adverse outcomes.

Although attachment theory is not exclusively used (nor intended) to describe relationships between mothers and their infants, this early interaction has dominated the literature on attachment. In its pure form, attachment theory could be described as a “unilateral” model in which parents play the dominant and active role in determining parent-child relationships (Kuczynski 2003).

The concept of PCC overlaps considerably with that of attachment, but PCC is broader. To use Kuczynski’s terms, PCC can be thought of as “bidirectional,” seeing the interaction of parents and children not just as individuals but as part of an ongoing, dynamic relationship. In the broader view of PCC that is emerging from child development research, both parents and children are acknowledged as active players, or agents, (Maccoby 1983). In essence, PCC is characterized by the *quality* of the emotional bond between parent and child and by the degree to which this bond is both *mutual* and *sustained* over time.

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Blum and Rinehart define parent and family connectedness as “the highest degree of closeness, caring, and satisfaction with parental relationship . . . feeling understood, loved, wanted, and paid attention to by family members (Blum 1997).” As Brook observes in a discussion of mutual attachment (another PCC synonym), it is “an enduring bond between parent and child, characterized by nurturance, little conflict, and the child’s identification with the parent (Brook, Brook et al. 1990).” In a later study, Brook, Whiteman et al. describe four dimensions important to the attachment relationship between parent and child:

- **Identification** (the child’s identification with the parent’s values)
- **Lack of conflict** (a function of open communication and joint, effective problem-solving)

- **Warmth** (an intense, lasting, affectionate bond)
- **Involvement** (a reflection of the parent's "child-centeredness" (Brook, Whiteman et al. 1993).

When PCC is high in a family, the "emotional climate" is one of affection, warmth, satisfaction, trust, and minimal conflict (defined by some researchers as "cohesion"). Parents and children enjoy spending time together, communicate freely and openly, support and respect one another, share similar values, and have a sense of optimism about the future. This package of desirable family attributes also has been called "family strengths (Moore 1993)."

In the flip side scenario, when PCC is very low, the emotional climate is harsher. Instead of affection, parents and children alike experience hostility and anger, sometimes to the point of violence (either directly or as witnesses). Unresolved conflict is high between parents themselves and between parents and children. Communication, understanding, and respect are absent. Instead of mutual attachment, there is something more akin to mutual *detachment*. A series of adverse consequences may follow, from association with deviant peers to risky behaviors to difficulties forming one's own intimate attachments later in life.

Parent-child connectedness can be thought of as the family equivalent of social capital. Social capital has been defined in various ways (Coleman 1990; Putnam 1996; Fukuyama 1999), but one relatively brief and useful definition is Putnam's: "the features of social life – networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives (Putnam 1996)." A hallmark of social capital (and of financial capital, hence the term) is that the very processes that create it in the first place – in social capital's case, trust, reciprocity, and networks – are the ones that strengthen one's capacity to create even more, in a self-sustaining and self-perpetuating cycle. Its protective, positive effects derive from a wonderful irony: the more one creates, the stronger one becomes – and thus the less one needs to draw upon the reserves.

The mutual attachment, resilience, support, and optimism that seem to characterize high PCC seem to function in a similar way, giving both parents and children a day-to-day life relatively free of conflict and animosity, while buffering them from many kinds of adversity.

Just as Fukuyama calls trust the “lubricant” of social capital, making the running of any group more efficient (Fukuyama 1999), so may PCC serve as a lubricant that fuels social competence, self regard, and cohesive family functioning. As discussed in a later section, this may have important implications for both models and interventions – particularly in terms of PCC’s importance as an antecedent or precursor that helps other interventions succeed or fail.

Parenting Styles and Practices

Like attachment theory, examinations of PCC focus quickly and inevitably on the role of parents. In attachment theory, parents set the developmental stage by responding (or not responding) to cues from infants – such as crying or other sounds that request attention, comforting, or other responses. Examinations of PCC also have explored the ongoing dynamics of how parents and children influence one another, not only in infancy but well into adolescence. These dynamics often are described in terms of overall parenting styles and the parenting practices they inspire.

Authoritative vs. Authoritarian:
Confusing Terminology

Researchers on children and families are comfortable using the term “authoritative” parenting, but it is confusing because of its similarities to another term used to describe parenting styles: “authoritarian.” As described in this section, *authoritative* parenting describes an optimal blend of high warmth and moderate control. *Authoritarian* parenting, on the other hand, is characterized by high levels of control, usually through a focus on rigid and strict rules, obedience, and conformity.

The parenting style most frequently and solidly associated with healthy, well-adjusted children in the existing literature is **authoritative parenting**, which has become the benchmark for comparing and assessing different styles. Authoritative parenting combines high levels of warmth with moderate levels of control. It is often contrasted with permissive parenting (high or low warmth, combined with low levels of control) and *authoritarian* parenting (high levels of control).

Authoritative parenting reflects a combination of two scales: warmth and responsiveness on one scale, and control and “demandingness” on the other (Baumrind 1971; Maccoby 1983).

The warmth scale captures affection, attachment, and involvement at one end of the spectrum and rejection and neglect at the other. The demandingness scale captures parental expectations and control (or regulation) of their children's behavior. It includes a rigid *authoritarian* type of discipline at one end and permissiveness at the other. The ideal balance – high warmth, moderate control– is referred to as authoritative parenting.

When parents are very emotionally warm, available, and affectionate *and* balance these qualities with consistently high expectations and a firm but fair disciplinary style, they create an emotional context or climate in which children thrive. Children from these homes tend to be secure, well-adjusted, and generally healthier and safer than their peers raised in other combinations (such as warm/permissive, or detached/authoritarian.) Steinberg, in a review of authoritative parenting studies, reports that adolescents from homes where authoritative parenting is the norm achieve more in school, report less depression and anxiety, and tend to score higher on measures of self reliance and self esteem. They are also less likely to engage in antisocial behaviors (such as delinquency and drug use) (Steinberg 2001).

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How does authoritative parenting work? Steinberg goes on to highlight three ways that authoritative parenting yields healthier children and adolescents:

- Nurturing and parent involvement make children more receptive to their parents' influence.
- The combination of support and structure help children develop self-regulatory skills and competence.
- Verbal give-and-take between parents and their children fosters cognitive and social skills (Steinberg 2001).

Degrees of Control

Several PCC-related insights stem from the authoritative parenting model. The first has to do with the nuances of control. Several researchers, beginning with Baumrind herself, have noted that the optimal combination is not high warmth-high control, but rather high warmth-moderate control. Indeed, extremely high levels of parental control create a curvilinear effect – that is, the benefits of control erode if the level of control is too high (Miller 1986; Miller 2001).

Several researchers, beginning with Baumrind herself, have noted that the optimal combination is not high warmth-high control, but rather high warmth-moderate control.

In part, researchers believe that moderate control, combined with warmth, allows for incremental and appropriate granting of psychological autonomy to children and adolescents so that they can become more competent (Steinberg 1994). In their review of social competencies in adolescents, Hair et al. found that the parent-child relationship was the key factor in adolescents' development of skills such as conflict resolution and intimacy – skills that are crucial not only within families, but in other relationships as well (Clark 2000; Hair 2002). Extreme and rigid control is not only coercive (Miller 2001), but is also at odds with some of the positive effects of warmth and affection – such as trust, flexibility, shared optimism, autonomy and other characteristics described above. For example, extreme or rigid control might be characterized by parents who give their children little or no latitude in making decisions about how they spend their time and with whom – regardless of whether or not the child's decisions seem to put him or her in danger. As discussed in more detail below, the type of control exerted by a parent has a great deal to do with how it is perceived and accepted.

Types of Control

Control is further subdivided into *behavioral* control and *psychological* control, each of which has distinctive consequences (Barber 1996). The hallmarks of **behavioral control** are monitoring and supervision – terms that are sometimes used interchangeably, but in fact refer to slightly different actions. (Supervision, when it is differentiated, refers to an adult or older teen on the premises, while monitoring – for example, via phone calls – need not involve someone's

physical presence.) As described below in the section on the evidence base for PCC, many studies have linked monitoring and/or supervision to improved outcomes for children and adolescents. Again, this seems to occur via multiple and reinforcing mechanisms, both direct and indirect. For example, monitoring and supervision can directly reduce the opportunities for risky or deviant behavior and indirectly influence peer relationships (Ary, Duncan et al. 1999). In a context of authoritative parenting, one study found monitoring well-accepted by teenagers (Sartor 2002).

Psychological control, in contrast, has as its goals not safety and protection, but intrusion, guilt, pressure and manipulation (Silk et al. 2003). As described by Conger et al., parents who rely on psychological control tend to criticize their children’s ideas, make them feel guilty, ignore them, threaten them, criticize them, fight and argue instead of trying to solve problems, and generally make their children feel unworthy and unvalued. The result can be an increase in adjustment problems and a decrease in self-confidence (Conger 1997).

Another control dichotomy is described by Chambers et al., who note that some types of control are designed to increase the development of autonomy, while others are more rigid and overprotective. Using the Parental Bonding Instrument and measures of psychological distress, the researchers noted that across cultures, the combination of high control and low caring by parents predicted psychological distress in children and that punishing control was linked to aggressive behavior (Chambers, Power et al. 2000). The same study noted differences in the reaction to low care by mothers and fathers.

Psychological Autonomy Granting

In effect, then, authoritative parenting extends the “secure base” concept from infant attachment, giving older children and teenagers a similar secure base from which to safely explore and learn (Clark 2000; Sartor 2002). This extension of attachment and a secure base beyond childhood and into adolescence is an important one, for it contradicts the conventional wisdom that adolescents naturally pull away from their parents as part of their developmental task of

“The individuation process that is vital in the development of identity is not disrupted by parental support, but rather nourished.”

Sartor & Youniss 2002

becoming individuals and experience heightened conflict as they do so. This view has pitted autonomy and connection against one another as mutually exclusive features of adolescent family life, but an expanding body of research suggests that both features can and do co-exist. As Sartor and Youniss observe, “The individuation process that is vital in the development of identity is not disrupted by parental support, but rather nourished (Sartor 2002).”

Instead of pulling away in opposition to their parents, some researchers note, adolescents are forming their identities by renegotiating their place in the family, evolving to a more peer-like status with their parents (Steinberg 1994). For this status change to occur, however, the parents must be open, flexible, willing and able to reason with their child, and seek and abide by at least some of the child’s input. The child, in turn, must have developed the basic social competencies and self-regulation (with his or her parents’ considerable help, of course) that earns their trust. The end result, Chase-Landsdale et al. maintain, is “a separate identity, a strong sense of autonomy, nested in peer-like, close emotional bonds (Chase-Lansdale, Wakschlag et al. 1995).” Indeed, some researchers have noted that psychological autonomy granting, while an important feature of authoritative parenting at all stages of development, assumes even greater importance during adolescence (Silk et al. 2003; Hill 1987). Both warmth and control scales interact with psychological autonomy granting, as described above. All three converge to explain why the context that authoritative parenting creates – of mutual satisfaction, reciprocity, and trust – has the potential to change the tone and impact of other parenting practices. Later sections of this review explore in greater detail why this might be the case.

Culture and Parenting

The authoritative parenting model and its elements – warmth, control, and psychological autonomy granting – clearly capture something important about ongoing interactions between parents and children. Moreover, this effect appears to apply across different races and ethnicities within the United States (Steinberg 1990), as well as across cultures outside the United States (Barber 1999; Brook, Brook et al. 2001).

Some researchers have explored the idea that *authoritarian* parenting – that is, stricter rules and higher levels of control – is not only more prevalent in some racial/ethnic groups, but is also adaptive or responsive to the dangers posed by disintegrating neighborhoods. In response, Steinberg suggests that these studies show that African-American (and in some cases Asian-American) adolescents are not as negatively affected by *authoritarian* parenting. This is different from saying that authoritarian styles are a net benefit to these adolescents (Steinberg 2001). In fact, he argues, “minority children raised in authoritative homes fare better than their peers from nonauthoritative homes with respect to psychosocial development, symptoms of internalized distress, and problem behavior (Steinberg 1991).” An exception is the link between authoritative parenting and school achievement – but again, there is no evidence that minority students achieve less if raised by authoritative parents or more raised in another way (such as by authoritarian parents).

Exploring the same question of whether authoritative parenting applies across cultures, Bean et al. looked at the contributions of each component of authoritative parenting – maternal support, behavioral control, and psychological control – in populations of African-American and European-American adolescents. By looking at the individual contributions of these components to measures of adolescent functioning (particularly self esteem and academic achievement), the researchers were able to provide a more detailed analysis of how authoritative parenting may work in different populations. They found that maternal support predicted both self esteem and academic achievement in African-American adolescents, whereas behavioral control was a significant predictor of academic achievement and self esteem in European-American adolescents. “This suggests,” they concluded, “that it is not all three parenting dimensions, in combination, that influence adolescent behaviors; rather, each of the parenting dimensions appears to be related to youth functioning in unique and specific ways (Bean et al. 2003).”

Gender and PCC

Parenting roles differ by gender, and so do the relationships between mothers and daughters, fathers and daughters, mothers and sons, and fathers and sons. Each of these permutations is important to understanding and promoting PCC. For example, girls generally are

more prone to outcomes that are often referred to as “internalized” or “quiet” – such as depression. Boys, on the other hand, are prone to react to difficulties by externalizing – acting out, being aggressive, and the like. Mothers are more typically primary caregivers and tend to spend more time with their children, while fathers are more likely to participate in leisure activities with their children (Paikoff & Brooks-Gunn 1991). Because of these differences, some elements of PCC may function differently, depending on both giver and recipient, and on the developmental stage in which interactions occur. Barber and Thomas examined differential effects by gender of four dimensions of parental support: general support, physical affection, companionship, and sustained contact. They found that parents tend to provide more companionship to the same-sex child. The self-esteem of daughters was predicted by general support from their mothers and physical affection from their fathers. In sons, self-esteem was predicted by companionship from mothers and sustained contacts with fathers (Barber & Thomas 1986).

Formoso et al. explored the role of family conflict in both internalized and externalized behaviors among boys and girls and found that both maternal and paternal monitoring mediated the effects of family conflict on child outcomes. However, maternal attachment differed. It served as a significant moderator for girls, but as a risk factor for boys. The researchers speculate that modeling may play a role in this finding, with boys more likely to model their fathers’ aggression, especially in a high-conflict setting (Formoso, Gonzales et al. 2000).

Characteristics of Parents Themselves

Long before parents develop or fall into any particular parenting style or set of parenting practices, they bring their own characteristics, family histories, ideals, and problems to the table. (The table, in this case, includes the many other relationships that are operative in a family, in addition to that between parent and child - between two biological parents, current partners and/or ex-partners, parent and siblings, parent and family of origin – to name just a few.) These characteristics, singly and together, have many implications not only for the children parents

eventually raise, but also for the interventions designed to help people become better, more effective parents. As several researchers have observed, both strong and weak parenting has multi-generational effects, adding to the potential impact of interventions.

The tasks required of authoritative parents – a balance of warmth and behavioral control – are made easier when parents are well-adjusted themselves, experience low levels of conflict with one another, have models for effective parenting from their own families, and have resources to draw upon for support.

What makes authoritative parenting – and thus PCC – harder for some families?

Personal Characteristics of Parents

In 2001, over six million children lived with at least one parent who abused alcohol or illicit drugs or was dependent on them in the previous year; substance abuse by parents involved up to 10 percent of children aged five and younger (NHSDA 2003).

...a parent's personal characteristics (e.g. anxiety, ego integration, communication patterns and skills) are antecedents for parenting style.

In a longitudinal study of 248 young adults, Brook et al. assessed parental personality, upbringing, and marijuana use in terms of their links to parent-child attachment. Those with high levels of sensitivity, low drug use, and close relationships with their own mothers were more likely to form close parent-child attachments with their own children (Brook, Richter et al. 2000). Other studies quoted by Brook et al. support the idea that a parent's personal characteristics (e.g. anxiety, ego integration, communication patterns and skills) are antecedents for parenting style.

In a study of 601 11- to 14-year-old boys and girls, Johnson, Su et al. found that a parent's chronic mental disease amplified the risk of deviant behavior by the children, but these effects were differentiated by gender and by age (Johnson 1995). In a study of depressed mothers and children, Stein et al. found that maternal depression decreased a child's perception

of feeling protected and cared for. If the child (but not the mother) was depressed, the child reported maternal over-protection. When both mother and child showed signs of depression, the likelihood of parent-child bonding decreased even further (Stein, Williamson et al. 2000).

One consequence of depression and negative moods in a parent is a low or compromised sense of control and competence (Weinberger & Schwartz 1990). These problems, as well as restraint problems (such as aggression and outbursts) are linked to poor parenting practices (Patterson et al. 1992). In a study of fathers and sons, D'Angelo et al. found that the sons of fathers who exhibited low self-restraint experienced a variety of poor outcomes, including low grades, truancy, poor peer relations, drug and alcohol use, multiple sex partners, poor conflict resolutions skills, and symptoms of depression (D'Angelo, Weinberger et al. 1995).

Parents who suffer from drug abuse, mental illness, poor self-esteem and poor communication skills may find it that more challenging to create meaningful attachments with their children. In addition to these personal characteristics, conflict between parents can challenge their ability to bond with their children.

Relationship Conflict

Given the prevalence of divorce in American society, a number of studies have examined relationship and marital conflict and its aftermath as factors in PCC. Hetherington et al. have identified five factors that contribute to the adjustment of children in divorced families or those with step-parents: individual vulnerability and risk, family composition, stress (including poverty), parental distress, and disrupted family processes. They concluded that all these factors contributed to children's adjustment process and should be taken into account in any models or interventions to help children adjust to divorce and remarriage.

While Hetherington et al. examined an interacting set of risk and protective factors, other researchers have examined more specific effects of conflict and separation. For example, Krishnakumar et al. examined youth perceptions of interpersonal conflict in European-American and African-American adolescents, describing a "spillover" effect in which parental conflict

carries over from the marital (or relationship) realm into parent behaviors and thus youth well-being (Krishnakumar et al. 2003).

Chase-Landsdale et al. have hypothesized that marital discord creates a type of emotional “flooding” in children who witness frequent and sustained hostility between their parents. Adverse consequences for children include an impaired ability to read emotional cues, difficulties developing empathy, and thus problems developing social skills and peer relationships (Chase-Landsdale et al. 1995; Hanson et al. 1996).

Conflict need not occur within a household to be damaging. As Hanson et al. noted in their study comparing inter-household versus intra-household conflict, children in step-families experience less well-being than their counterparts in original two-parent families with the same level of conflict. In part, this may be because children in step-families experience a double dose of conflict – that between both former and current partners. Moreover, they may find conflict more threatening and upsetting, since they associate it with a parent’s previous divorce (Hanson et al. 1996).

Some studies have suggested that divorce is among the many aspects of family life with differential effects (both emotional and behavioral) on boys and girls (Newcomer 1987). Simons et al. found that the quality of maternal parenting mediates the association between divorce and children’s adjustment problems for both boys and girls (although boys in their study remained depressed regardless of the mother’s actions because their fathers had left the family). The researchers found cause for optimism in the fact that divorcing parents may be able to substantially reduce the developmental and adjustment problems experienced by their children by reducing conflict and concentrating on effective parenting (Simons, Lin et al. 1999).

One study suggested that a challenge for parents and their adolescents during divorce and its aftermath is an unfamiliar parallel in their trajectories, as both explore new romantic relationships (Whitbeck 1994). At the same time, a divorcing or divorced parent may have attention diverted from a child – for economic and/or personal reasons (Belsky & Isabella 1988).

Conflict in the home and between parents (or those playing a parenting role) causes distress and disruption for both the parent and child, weakening the opportunities for connection and bonding.

Family Configurations

Several aspects of family structure are associated with PCC. These include the configuration of parents (two biological parents, a single parent, or a biological and step-parent combination), the role of fathers and stepfathers, gay parents, and the number of children in a family.

Single Parents: Reviewing data from the National Longitudinal Study on Adolescent Health (Add Health), Franke found that across racial and ethnic categories, family structure was significantly related to the risk of adolescent involvement in a serious physical fight, injuring someone, pulling a knife or gun on someone, or shooting or stabbing someone. As the severity of the violence increased, so did the likelihood of a single-parent home. The same study, it should be noted, found that family cohesion served as a protective factor for all four types of violence (Franke 2000).

Studies of single mothers repeatedly show that being a single parent often coincides with poverty and other stressors, compromising the time and energy that single parents have left for elements of parenting (McLanahan 1991).

While single parenthood surfaces consistently as a possible risk factor for less-than-optimal parenting practices, it does not always function that way. Baumrind found that if the single parent maintains an authoritative parenting style, children from such families do not differ from their counterparts in two-parent authoritative parenting families (Baumrind 1991). Steinberg's study of 5th, 6th, 8th, and 9th grade children's susceptibility to antisocial peer pressure found that those with two biological parents showed the least susceptibility, but that the combination of a parent and step-parent was not different from a single parent alone (Steinberg

1987). Kotchnick found that single mothers who conveyed strong abstinence values and monitored their children demonstrated the same protective effect (regarding teen pregnancy) as dual parent households (Kotchnick 1999).

Adding a step-parent to a single parent home can harm family connectedness, rather than strengthen it. Studies of family structure and child abuse suggest that there are too many situations in which a two-parent family becomes harmful, finding the addition of a step-parent to *increase* a child's risk of abuse - a risk factor associated with parent-child connectedness. One study found a two-fold increase in risk in families with a biological parent and surrogate father, compared to families with both biological parents – even after controlling for material deprivation, numbers of siblings, AFDC status, and maternal education (Radhakrishna, Bou-Saada et al. 2001).

Gay Parents: A number of studies have found that children of gay parents do not differ significantly from those of heterosexual parents in terms of gender identity, gender role, sexual orientation, and social adjustment (Schwartz-Gottman 1990) and that children of gay parents have positive relationships with their parents and are well-adjusted (Golombok et al. 2003).

As Stacey and Biblarz have pointed out, however, research on the effects of parents' sexual orientation on their children has suffered from the controversial nature of its topic (Stacy & Biblarz, 2001). In a review of 21 studies, they found that researchers tended to downplay findings about children's gender and sexual preferences – possibly in response to research on adverse consequences for children that has been cited in attempts to block gay parents from adopting children (such as Cameron and Cameron 2002). Indeed, in response to the latter set of conclusions, Brubaker notes that for children of gay parents, the adverse consequences are more likely to be associated with the teasing that comes from being part of an atypical family – consequences that may be difficult to contend with, but that are unlikely to cause lasting psychological damage or lack of family connection (Brubaker 2002).

The Role of Fathers: Fathers have gotten short shrift in the research on parents and children, much of which historically has focused on mothers as primary caregivers. Gottman and others have pointed out how negatively fathers are often depicted in popular culture as well as in

research on families – as incompetent, bumbling “jungle gyms” suitable for play and financial support, but little else (Gottman 2003).

A Child Trends Research Brief summarizes the different ways that fathers are involved in their children’s lives: through direct contact (engagement), making themselves available (access), and taking responsibility for a child’s care and welfare (responsibility). The authors note that while mothers and fathers may behave differently (for example, in the ways they play and interact with their children), they show strong similarities in terms of helping their children develop a moral sense, competence in social interactions, academic achievement, and overall mental health (Child Trends 2003).

These relationships are echoed by Lamb, who points out that the differences between mothers and fathers appear to be far less important than their similarities – at least as far as their “buffering” effects against adverse outcomes are concerned (Pruett 1997). More important than gender itself may be the parenting behaviors – warmth and support, school involvement, limit setting, and monitoring – that reflect authoritative parenting.

Rohner and Veneziano found that father love is not only as important as mother love to children’s adjustment and well-being, but it may even be a better predictor of some outcomes – including personal and psychological adjustment, conduct and delinquency disorders, and substance abuse (Rohner & Veneziano 2001).

Evidence for the “quality vs. quantity” argument comes from data on non-resident fathers, who are less likely than co-resident fathers to spend time with their children. In their meta-analysis of 63 studies on non-resident fathers and child well-being, Amato and Gilbreth found that child support, closeness, and authoritative parenting were associated with measures of child well-being – but that these did not depend on the frequency of contact. Amato and Gilbreth point out, nonresident fathers may have fewer opportunities to practice authoritative parenting, opting instead to use their time with their children to go to restaurants and movies instead of helping with homework, talking about problems, and setting limits. Although adopting an authoritative parenting role may be more difficult for nonresident fathers than for those living in

the same household, it is not impossible. “Motivated non-resident fathers,” they conclude, “find ways to act like authoritative parents rather than adult companions and when they do, children may benefit (Amato & Gilbreth 1999).”

Closeness between fathers and children was only modestly correlated with frequency of visitation. Indeed, Amato and Gilbreth suggest that studies measuring frequency of visitation – as opposed to the strength of emotional ties – are exploring the wrong dimension of ties between fathers and their children. As Pruett puts it, “To the child, emotional paternity is what matters (Pruett 1997).”

Ecological Factors

Poverty and Neighborhoods

Poverty affects large numbers of American families and children. In 2002, the official poverty rate rose to 12.1 percent of the population (from 11.7 percent in 2001), translating to 34.6 million people living below the official poverty line. Poverty rates for children rose to 9.6 percent, from 9.2 percent (Census Bureau 2003). Given that the official poverty level is \$18,392 for a family of four, these figures do not account for the large numbers of families living near poverty.

“The key process by which economic hardship affects children is via the effects on parenting.”

McVey 2002

Both family and neighborhood poverty have the potential to affect PCC– by increasing family stress, forcing a family to move to or remain in a more dangerous neighborhood, or requiring a parent to work more hours and thus be less available for family activities and supervision (Taylor et al. 2002; Klebanov et al. 1994; Paschall & Hubbard 1998; Voydanoff 1998). As one researcher put it, reflecting the views of many, “The key process by which economic hardship affects children is via the effects on parenting (McVey 2002).”

Because poverty is often concentrated within neighborhoods, many researchers have explored the interaction of neighborhoods, support networks, peer influences, and family

environments. Klebanov et al. looked at family processes as mediators of neighborhood effects, focusing on the cognitive stimulation provided to children at home, the actual physical environment within the home, the mother's warmth toward the child, mother's mental health and coping style, and social support she received. They found that living in poor neighborhoods and in ethnically diverse neighborhoods were each associated with homes that were less cognitively stimulating, as were lower family incomes, one-parent households, and lower maternal education (Klebanov, Brooks-Gunn et al. 1997).

Denner et al. analyzed eight poor communities with low or high birthrates for 15- to 17-year-old Latinas and found that zip codes with low teen birthrates had higher proportions of Latino residents, stronger social networks, and more ties to their countries of origin than residents living in zip codes with high teen birthrates (Denner et al. 2001).

As with single parenthood, however, the formidable obstacles of poverty need not be destiny, at least in terms of PCC. A growing body of research on resilience has explored why some children are able to overcome the effects of adverse neighborhood and home environments. Resilience has been defined as "the capacity to rebound from adversity strengthened and more resourceful . . . it is an active process of endurance, self-righting, and growth in response to crisis and challenge (Walsh 1998)."

As Walsh and others have pointed out, resilience is more than merely surviving adversity and obstacles; it can be thought of as "struggling well." Seligman has described the phenomenon of "learned optimism," in which children develop a set of key beliefs about the reasons for their successes and failures (Seligman 1995). In resilient children with high self-esteem, success is perceived as largely due to their own efforts, resources, and abilities and they develop a sense of personal control over what happens to them. Walsh suggests that by providing the organizational process of flexibility, connectedness, and social and economic resources, families can function as "shock absorbers" in even the most trying circumstances.

Jarrett found that family and parent strategies buffered African-American children in impoverished neighborhoods from a variety of risks, including dropping out of high school and early pregnancies. Using strategies such as isolating their children from negative influences in the neighborhood, chaperoning them at all times (either by an adult or an older sibling), and

exerting strong influence on their children's choices of peers, parents in these neighborhoods were able to create a protective shield (Jarrett 1997).

In several studies of social mobility among African-American youth, Jarrett found five characteristics common to this path out of poverty, which collectively are described as a "community-bridging family" pattern. They include a supportive adult network structure, restricted family-community relationships, stringent parental monitoring strategies, strategic alliances with mobility-enhancing institutions, and adult-sponsored development (Jarrett 1995).

Some studies have noted that stricter, authoritarian parenting is both more common in low-income and minority families and neighborhoods and that this style of parenting may be adaptive in various ways. For example, parents who work in low-income occupations may instinctively socialize their children to adapt to environments where conformity is valued and conflict is not freely expressed (Hill 1987). In other cases, parents are adapting to dangerous neighborhoods or peers within them. In her national tri-ethnic study of variations in adolescent pregnancy status, McBride Murry notes that Hispanic girls who had never been pregnant were much more likely than their pregnant or parenting counterparts to describe their parents as "very strict" (McBride Murry 1998). Some have suggested that this heightened control and restriction, while well-intentioned, inadvertently undermines a growing need for autonomy, especially among adolescents (Collins et al. 2000).

As Jarrett notes, the achievement of social mobility out of dangerous neighborhoods, while admirable, often comes at great cost to both parents and their children: "Social mobility requires adults to single-mindedly, and in the absence of sustained institutional support, single-handedly concentrate on the welfare of their children, often at the expense of personal needs and goals. Children whose safety, if not survival, depends on the constriction of their social worlds may forego a broader range of developmental experiences (Jarrett 1997)."

In a study of predominantly minority alternative high school students (who engage in risky behaviors at higher rates than their counterparts in regular high schools), Markham et al. found that family connectedness was a protective factor regarding sexual risk-taking, even among this very high-risk population

If the parents' social network included other parents of school-age children, their involvement in school activities increased – as did their access to emotional and social support.

(Markham et al. 2003). And in the even more extreme deprivation of homelessness, PCC can still make a difference. Miliotis et al. studied 59 homeless African-American families to learn how parent-child closeness, parental involvement in education, and firm discipline affected the children's school performance (in terms of grades and behavior at school). The parents' educational levels, intellectual functioning, psychological distress, and disciplinary style were not related to school achievement, but parent-child closeness was. It took exceptional parenting for these children to reach average levels of school success, the researchers concluded, but parent-child closeness was protective to a population of disadvantaged children at high risk for academic and behavioral problems (Miliotis 1999).

Access to Support and Resources

The social support networks available to parents – and whether or not they draw upon these resources – have been linked to family functioning and child well-being. Sheldon et al. found the size of a parent's social network predicted the parent's degree of involvement, both at home and at school. In part, parent involvement in school was based on their beliefs about whether or not they could influence their child's education. Yet even after beliefs were taken into account, the size of the parent's network still predicted their level of involvement. If the parents' social network included other parents of school-age children, their involvement in school activities increased – as did their access to emotional and social support. The researchers found that the average size of parent networks was relatively small (two other people) – so increasing the size of the network might involve modest increases. To do so, they recommended more attention to intervening with isolated parents to connect them to others (Sheldon 2002).

Jarrett's examinations of the family characteristics of socially mobile (i.e., moving up from one's social class) youth consistently point to the role of supportive adult networks. In fact, Jarrett refers to this constellation of family characteristics as the "community-bridging family" pattern – one that allows families of youth at risk to avoid dangerous neighborhoods and influences to take advantage of mainstream opportunities (Jarrett 1995). In particular, Jarrett points to adults linked by kinship and friendship to family members and friends outside impoverished neighborhoods, many of whom provide parenting functions and extend a single parent's influence (Jarrett 1995).

Looking more specifically at the pathways to child neglect, Burke et al. also identified a lack of social support as one of the main antecedents (along with poor parenting skills and functioning, lack of resources, and poor family management skills) of neglect. Viewing child neglect as a pattern of parent behavior, they noted deficiencies in neglectful parents' capacity to draw upon the knowledge, support, and resources required to carry out their parenting roles. Many of these parents, they added, demonstrate low social skills, high degrees of boredom and depression, and high rates of substance abuse (Burke, Chandy et al. 1998).

To address this deficiency, Burke et al. recommend an emphasis on creating more informal support networks for parents at risk for the extreme inadequate parenting that constitutes neglect, empowering them with the skills they need to develop and pursue the resources that may be available to them (Burke, Chandy et al. 1998).

Runyan et al. combined five measures of child well-being – a two-parent household, maternal social support, two or fewer children in the household, and ties to neighborhood and church – to develop a composite “social capital” index. Together, these components of the indicator were strongly associated with child well-being of participants in the study, more so than any one indicator. Moreover, the components had an amplifier effect: one indicator improved child well-being scores, on average, by 29%; two by 66%. This pattern held regardless of which specific indicators were involved (Runyan, Hunter et al. 1998).

PCC Measures and Possible Risk and Protective Factors

Attachment theory, parenting styles (including the dimensions of warmth, control, and autonomy), family strengths, and personal characteristics of parents provide plenty of fodder for potential scales and measures. Reflecting the research summarized above, measures of PCC tend to fall in the following categories (many of which overlap):

- Attachment/Bonding
- Warmth/Caring
- Cohesion (closeness and conflict)
- Support/Involvement
- Communication
- Monitoring/Control
- Autonomy
- Maternal/Paternal Characteristics.

Table 1 shows 71 examples of measures (listed in bold type) from each of the eight categories. These measures may be possible risk and protective factors of PCC (“+” indicates possible protective factor and “-” indicates possible risk factors. In addition, 27 other possible risk and protective factors are listed for which measures were not found, but are supported in the

literature as influences on the PCC construct (listed in regular type). An additional category, titled “Environment,” has been added to capture some of these influences.

Appendix C lists instruments that researchers have used to capture the measures listed (bold type) in Table 1. In general, their scales and topics cover the features of PCC identified at the outset: the quality of the parent-child bond, its mutual nature (i.e., as perceived by both parents and children), and its sustainability.

Table 1: Measures and Possible Risk and Protective Factors of PCC

Attachment/ Bonding	<ul style="list-style-type: none"> • Parent and child share thoughts and feelings (+) • Parent and child feel close (+) • Child wants to be like mother/father (identification) (+) • Parent and child seem “in tune” (+) • Mutual warmth (+) • Happy emotional tone, smiling, laughing (+) <p><i>6 possible factors</i></p>
Warmth/Caring	<ul style="list-style-type: none"> • Parents help child (+) • Parents understand what child needs and wants (+) • Empathy (+) • Affection (+) • Reciprocity (+) • Rejection (-) • Coldness, indifference (-) • Parent’s “child-centeredness” (+) • Perceived caring (+) • Feeling loved and wanted (+) • Neglect (-) • Acceptance (+) • Understanding (+) • Respect (+) • Responsiveness (+) <p><i>15 possible factors</i></p>
Cohesion (Closeness and Conflict)	<ul style="list-style-type: none"> • Mutual satisfaction with relationship (+) • Spend time together; joint activities (+) • Arguments (-) • Supportiveness (+) • Togetherness, get along well (+) • Commitment (+) • Religious values (+) • Family stresses (+) • Keep in touch with relatives (+) • Family rituals (+) • Joint decision making (+) • Problem-solving (+) <p><i>12 possible factors</i></p>
Support/	<ul style="list-style-type: none"> • Parent affirms child’s ideas, perspectives, stories (+) • Encouragement (+)

Table 1: Measures and Possible Risk and Protective Factors of PCC

<p>Involvement</p>	<ul style="list-style-type: none"> • Appreciation (+) • Attend school, sports events (+) • Help choose courses (+) • Meet with teachers/counselors (+) • Parents set high expectations (+) • Parents provides guidance (+) <p><i>8 possible factors</i></p>
<p>Communication</p>	<ul style="list-style-type: none"> • Intrusiveness (parent interrupts, dominates child’s conversation) (-) • Use of explanation and reasoning (+) • Frequency of discussions (+,-) • Spend time talking together (+) • Share thoughts and feelings (+) • Clarity of messages about risk behaviors and values (+) • Child’s comfort discussing problems with parent (+) • Openness; listening (+) <p><i>8 possible factors</i></p>
<p>Monitoring and Control</p>	<ul style="list-style-type: none"> • Rules: bedtime, homework, TV, alcohol/drugs, dating; clarity of rules, agreement with parent rules (+) • Monitoring: child calls if late, parents know if not home, child can reach parents, parents know where child is after school and with whom; parents know child’s friends (+) • Child’s perception of parents’ knowledge of where he/she goes and whom he/she is with (+) • Parent’s presence (before and after school, dinner, bedtime, weekends) (+) • Child’s perception of parent’s strictness (+,-) • How often child goes where told not to (-) • How difficult it is to know where child goes (+,-) • Adult supervision of children’s parties (+) • Overprotectiveness; “babying” (-) • Controlling behavior (blame, guilt, rejection/withdrawal, erratic emotional behavior) (-) • Punishment; type of punishment (restrict activities, slapping/hitting, arguing, name-calling) (+,-) • Parents knowledge of child's friends, activities and whereabouts (+) • Parents’ awareness of child's risk behaviors (+) • Consistency in rules and discipline (+) <p><i>14 possible factors</i></p>

Table 1: Measures and Possible Risk and Protective Factors of PCC

<p>Autonomy</p>	<ul style="list-style-type: none"> • Child makes own decisions (+) • Child's perception of parent's noncoercive, democratic discipline (+) • Encouragement of child's own ideas (+) • Intrusiveness (-) • Locus of control (+,-) • Voice in family decisions (+) • Trust (+) • Respect for child's individuality (+) <p><i>8 possible factors</i></p>
<p>Maternal/Paternal Characteristics</p>	<ul style="list-style-type: none"> • Hostility (-) • Depression (-) • Aggression (-) • Restraint (+) • Maternal nurture (+) • Social support (+) • Personality and self-image (+,-) • Health (+) • Pregnancy attitude (+,-) • Substance use (-) • History of violence/abuse (-) • Emotional/mental health (+) • Availability (+) • Poverty (-) • Unemployment (-) • Crisis (-) • High conflict (-) • Two biological parents (+) • Happy marriage (+) • Single parent (-,+) • Divorce (-) • Loss of parent (death, separation) (-) <p><i>22 possible factors</i></p>
<p>Environment</p>	<ul style="list-style-type: none"> • Parent has support system (+) • Parent has social network (+) • Parent has school connection (+) • Dangerous neighborhood (-) • Child has antisocial peers (-) <p><i>5 possible factors</i></p>

Now that measures of PCC have been identified, an important next step is to consider how these risk and protective factors affect PCC, in which sequence and configuration, and how they can be used to measure PCC more accurately, promote it, and/or ameliorate its absence.

An Operational Definition of PCC

Authoritative parenting appears to be an important way that parents and children develop a strong bond that confers protection and builds competence. PCC can be thought of as both an element of authoritative parenting and one of its outcomes. Echoing the features of authoritative parenting, Barber highlights three central conditions of parenting that have been shown to be important to healthy child development:

Connection – characterized by a positive, stable, emotional bond. It is measured by acceptance, spending time together, the parent’s availability to the child and enjoyment of being with the child. When connection is high, the child learns to trust adults, values himself or herself, and becomes willing and able to initiate social interaction outside of the home.

Regulation – the placement of structure (rules, regulations, supervision, and monitoring) around a child’s behavior. Consistent, age-appropriate regulation helps children learn what types of behavior is appropriate so that they can regulate their own behavior and protect themselves from negative influences outside the home.

Psychological autonomy – opportunities for a child to develop his or her own thoughts, feelings, and ideas and to express these. (This is in contrast to psychological control, which is intrusive, manipulative, and conditional.)

To help operationalize PCC, we have combined: 1) the constructs and measures described in this literature review (such as the work of Barber above), 2) findings from on-line survey conducted with practitioners, and 3) feedback from participants in the July 2003 Think Tank meeting. Think Tank participants were asked to use their expertise and experience to

What is an “Operational Definition?”

An operational definition is a more detailed, fuller definition that explains key elements and how they work, singly and collectively, to create the quality or element being defined (e.g., parent-child connectedness). The operational definition directs us to what we should observe in order to know we have achieved an outcome.

prioritize the 98 risk and protective factors found in the literature (listed in Appendix C) based on strength of impact and viability for change. Clearly, the results of this prioritization exercise are not as convincing as a study that analyzes the strength of each factor - a study that to date has not been conducted - however it does offer an educated estimate of the most important factors that comprise PCC. Interestingly, these prioritized factors were echoed by the 599 practitioners that completed an on-line survey on PCC in May 2003.

ETR's definition of PCC has come to be: “Parent-Child Connectedness is characterized by the *quality* of the emotional bond between parents (or those with a parenting role) and their children, and by the degree to which this bond is both *mutual* and *sustained* over time.” ETR's proposed operational definition of PCC includes key elements that appear to increase the chances that such a bond will develop and endure. This definition is described below and diagramed on the next page.

From the beginning of a parent’s role, he or she fosters and provides:

- A **climate of trust**, including physical and emotional support, openness, protection, and encouragement;
- **Communication** that signals (verbally or otherwise) love, affection, and warmth and allows for the exchange of feelings and ideas;
- **Appropriate structure**, discipline, monitoring, and guidance that leads to independence; and
- **Shared time together** that combines meaningful interaction, guidance, and support with laughter, play, and fun.

The result is a **lasting bond** between parent and child based on mutual respect, trust, love, and affection – all demonstrated in day-to-day interactions and expressed freely as both parent and child move through their relationship together.

Exceptions

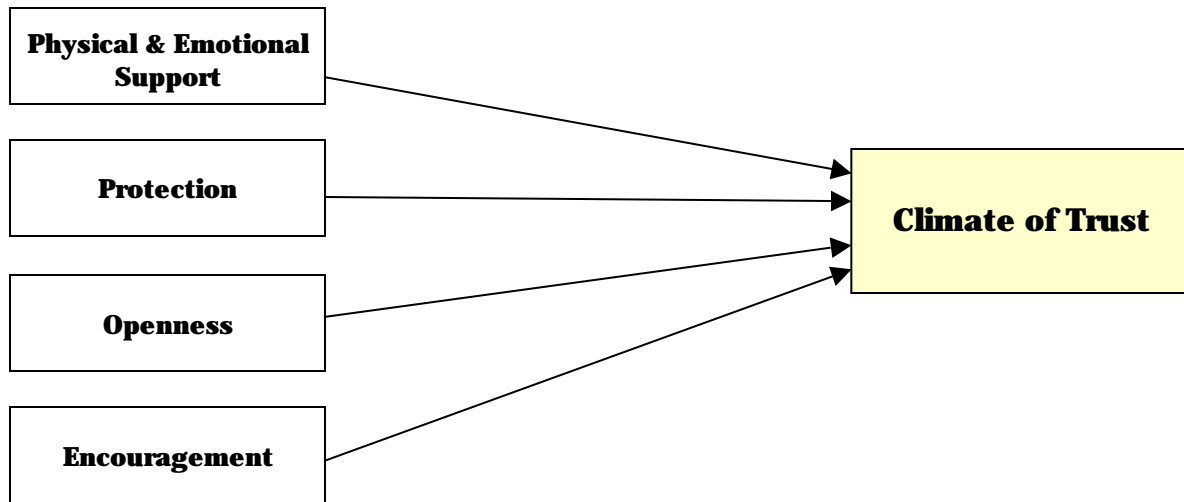
Of course, as with any human bond, an enduring, mutually satisfying bond between a parent and child can take many different forms and is influenced by variations in personality, family history, culture, and other factors. We recognize that each of these elements may be present in different degrees without necessarily compromising the presence or overall quality of PCC. In general, however, our hypothesis is that a parent-child duo that experiences all or most of these elements, as early in a child's life as possible, and consistently from that point onward, is far more likely to demonstrate the type of connection PCC tries to capture than if these elements were absent, inconsistent, or initiated later in a child's development.

How is PCC Developed?

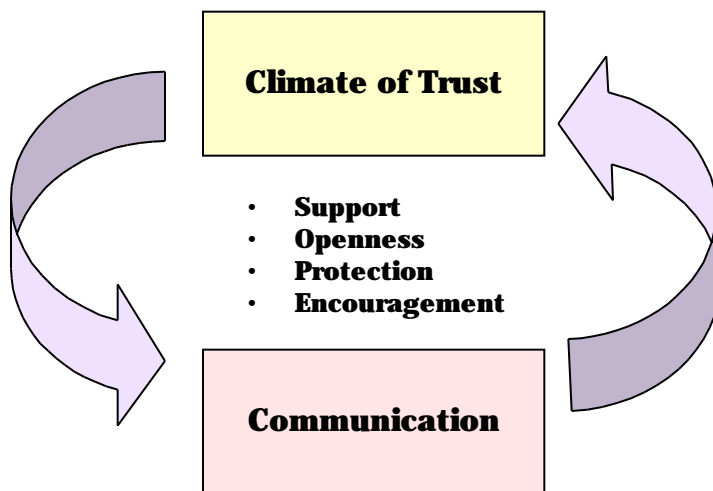
From the start of his or her parenting role, a parent creates a:

Climate of Trust

How? By offering physical and emotional support, openness, protection, and encouragement.

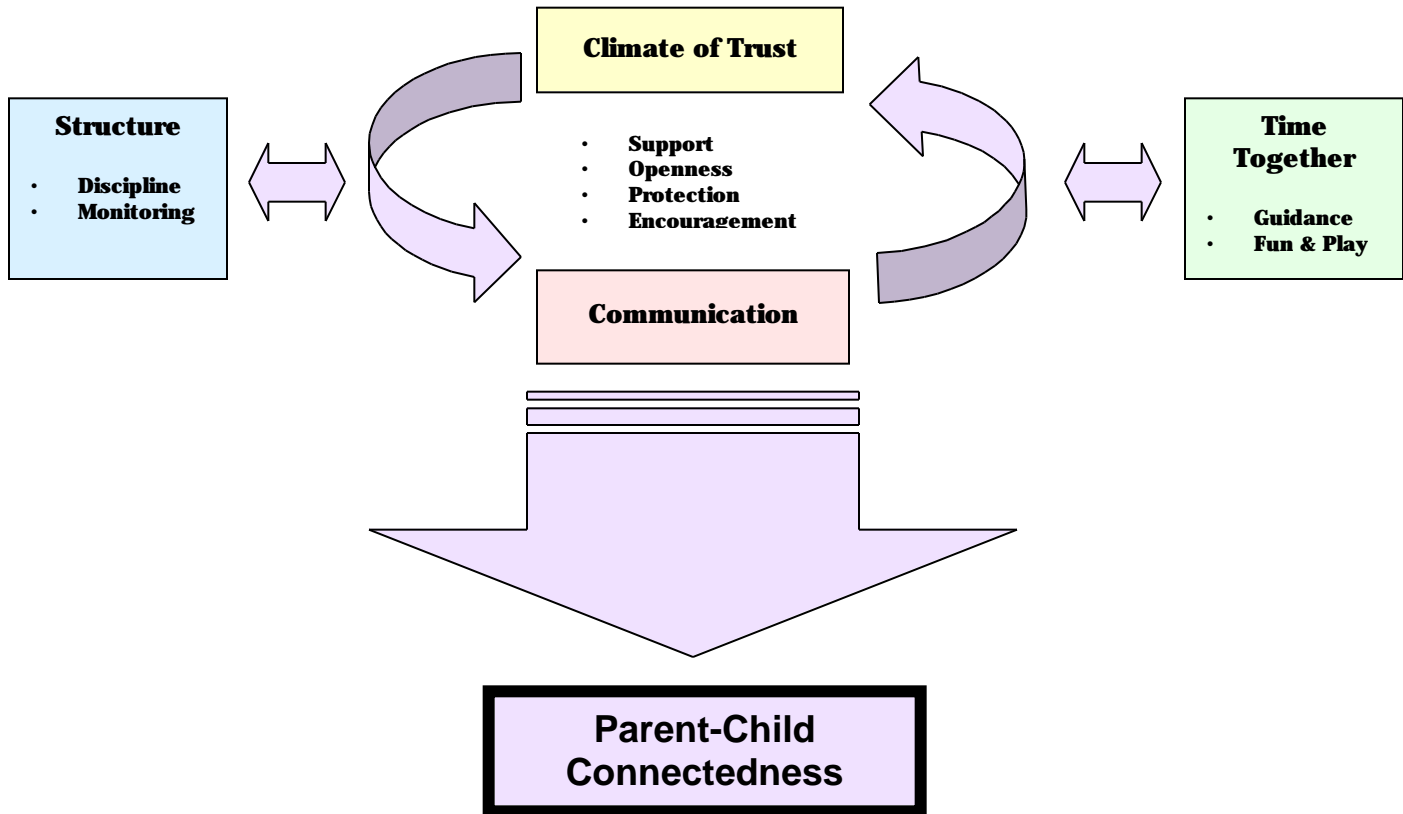


But how does the child know and perceive this climate of trust? The support, openness, protection, and encouragement all are communicated – verbally or otherwise. Not only are love, warmth, and affection expressed, but feelings and ideas also are exchanged and acknowledged. This has an iterative effect: the more these elements are communicated, the more they contribute to a climate of trust that, in turn, makes future communication constructive and even resilient.



Both communication and an underlying climate of trust become particularly important as parents offer structure, discipline, monitoring, and guidance. Communication and trust also influence the mutual enjoyment of spending time together – which in turn becomes yet another

opportunity for communication, for fun as well as serious interaction, and for even more incremental building of trust. The result is a bond between parent and child that is mutual, sustained over time, and resilient.



Methodological Issues

As the discussion above indicates, measuring PCC is a complex, tricky endeavor. Not only does PCC span many different stages of development, from infancy to adulthood, but it is also influenced by a large number of potentially confounding variables: race and ethnicity, culture, age, family composition, mental health, drug use, economic and other adversity, and of course communities and institutions that surround families. The permutations are seemingly endless.

To complicate things even further, the stability of PCC over time seems important. As discussed below, strong PCC in early adolescence seems to have a proactive effect well into adolescence. Because of this, a one-time snapshot – no matter how accurate – may not yield the most useful insights.

Furthermore, measures of PCC generally rely on self-reported, subjective perceptions about the quality of interactions between parents and children (and on self-reported sexual, violent, drug using, or other behaviors), subject to all the vagaries of such data. However, researchers have tried to overcome these problems – in some cases, using interactive computer technology (rather than a face-to-face interview) - to ensure privacy and encourage candor.

A more difficult and persistent methodological issue is that of differentiating between mothers and fathers. The attachment literature naturally concentrated on mothers as primary caregivers. In fact, mothers still assume a higher proportion of child care and family management duties in many households. For a combination of reasons – a mother’s central role in a child’s life, as well as her accessibility to researchers – mothers have tended to occupy center stage (or at least the parent side of the stage) in existing PCC research. This scrutiny may not necessarily lead to more understanding. Kuczynski cites a 1985 study that examined mother-blaming in 125 articles published in 1970, 1976, and 1982 – 82% of which assigned causal responsibility to mothers for everything from bed-wetting to schizophrenia.

Whether fathers are fully engaged partners in parenting, emotionally or physically absent, or somewhere in between, they clearly play an important and different role in a child’s perception of warmth, support, and parental control – as several studies have documented. Even

when fathers were included in the studies reviewed here, however, their differential contributions may have been obscured. For example, some studies collected data from both mothers and fathers, but then combined their responses into a composite scale or score. Others, when finding discrepancies between maternal and paternal views of family dynamics, opted for the higher score.

Another methodological issue, noted above, is the applicability of existing measures and scales to parenting styles within different cultures, races, and ethnicities. As some studies have noted, the family and parenting dynamics of white families explained well by the authoritative parenting model may require different scales or subsets for other effective combinations of warmth, control, community, and agency.

Developing valid measures for PCC that are generalizable to mothers, fathers, different ages of children, and different cultures is likely to be a difficult task. ETR has taken what is presently known about PCC (as demonstrated in the literature and as suggested by our Think Tank participants) to propose an operational definition of PCC. Should funding become available, future project would be to develop measures for our definition and test them with a sizeable sample of parents and their children.

Outcomes Related to Parent-Child Connectedness

This section summarizes the evidence that PCC serves as a protective factor for many risky behaviors and adverse events and likewise, that the absence of PCC adds or even multiplies risk for negative outcomes.

PCC has been linked to a wide variety of outcomes, including personal traits (self confidence, coping skills, motivation, overall well-being,) mental health (depression, suicide, adjustment, identity), specific risk behaviors (violence, drug and alcohol use, tobacco use, unprotected sex), pregnancy, HIV/STI infection, conduct disorders (aggression, delinquency), school achievement or performance, and social skills (including the quality and stability of peer and intimate relationships). The home environment clearly makes a difference in the health of American youth. When teens feel connected to their families and when parents are involved in their children's lives, teens are protected (Blum 1997).

“The home environment makes a difference in the health of American youth. When teens feel connected to their families and when parents are involved in their children’s lives, teens are protected.”

Blum 1997

Evidence in four areas is emphasized in the literature:

- Risky sexual behavior
- School achievement
- Drug use
- Violence

This section summarizes the literature in these areas and notes the evidence for the overall or cumulative impact of PCC.

Risky Sexual Behavior

Blum's recent review of mothers' influence on teen sex notes that "numerous studies conducted over the past 20 years on what protects teens from early initiation of sexual intercourse report that two constants may make a difference in the lives of teenagers: connectedness (parental warmth, support, and closeness to a teenage child) and parents' attitudes and values about sex (Blum 2002)."

In his synthesis of research on family influences on adolescent pregnancy, Miller notes that among 20 studies investigating the relationship between adolescents' sexual behavior and the family variables incorporated in PCC (warmth, support, closeness, attachment to and regard for parents), only *one* failed to link PCC to a reduced risk of adolescent pregnancy (Miller 1998). The same review found that studies of parental monitoring and supervision reported inverse relationships with teen pregnancy risk (including not having sex, delaying sexual debut, having fewer partners, and using contraception) – echoed by subsequent studies (e.g., Romer, Stanton et al. 1999).

Approximately 30 studies on parent-child communications about sexuality reviewed by Miller revealed mixed results, as others have (Miller 1998) - mixed results meaning that parent-child communication about sexuality leads to a delay in sexual onset or use of contraception in some families, but in other families communication about sexuality does not appear to have an affect on sexual onset or contraceptive use. Miller and others have suggested explanations for these mixed results, including the timing, quality, content, triggers, and values associated with various communications (Miller 2001). In his review of approaches to parent-child communication about sexuality, Kirby notes that while many programs increase communication itself, none actually reduced sexual risk-taking among adolescents. A combination of weak evaluation designs, modest (as opposed to intensive) interventions, and intervention designs that failed to address potentially important antecedents could account for the weak impact (Kirby 2002). Among these antecedents, he highlights developing closer relationships between parents and teens, as well as monitoring and supervision, as family characteristics that combine with parent-child communication to reduce sexual risk behaviors (Kirby 2002).

Some researchers have focused on communication style – the way both verbal and nonverbal signals dictate how the content of a particular message is received and interpreted (Mueller & Powers 1990). Several of these explanations point to the significant role played by PCC. The first is that the benefits of communications between parents and adolescents seem to depend on both parental values *and* the closeness between parents and adolescents. Without a close bond, the message – no matter how strong – stands less of a chance of being accurately perceived, accepted, and acted upon (Weinstein 1989; Jaccard, Dittus et al. 1996). The other hints at the emotion behind words – that a combination of warmth, listening, and respect may make it possible for messages about values and risk behaviors to gain more traction than they would in other emotional climates.

Without a close bond, the message – no matter how strong – stands less of a chance of being accurately perceived, accepted, and acted upon.

More recent studies have corroborated these findings. Perrino et al. found that mothers tend to underestimate their children’s engagement in risky behaviors, while adolescents tend to underestimate their mothers’ disapproval (Perrino et al. 2000). Dittus and Jaccard found that for younger teens, connectedness with parents influenced the accuracy of their perceptions of maternal disapproval. Eight and ninth graders who felt connected to their mothers were half again as likely to perceive their mother’s disapproval, but this effect faded as the adolescents aged (especially among girls), leading the researchers to conclude that “the protective power of connectedness appears to be related to adolescent gender and age (Dittus & Jaccard 2000).”

Crosby et al. found that a supportive family environment increased condom use and confidence in negotiating condom use – and that this effect held independent of monitoring and parent-child communication (Crosby 2002).

The absence of PCC may influence early and risky sexual activity. It has been suggested that sexual intimacy is often sought as a replacement for PCC. As discussed in the section on pathways or models, below, several researchers have suggested that some female adolescent sexual activity may constitute a search for intimacy and attachment – particularly when these feelings of closeness and support are not available or offered within the family (Barnett 1991; Black, Ricardo et al. 1997).

School Achievement

Schools are almost a vortex for measuring PCC outcomes. They conveniently collect children, peers, parents, and other important adults in one place. They offer several outcomes of adaptation and success – such as grades, attendance, and college aspiration. Schools even have their own growing body of connectedness research and results, paralleling and reinforcing the work on connectedness in families.

One of the ways researchers have used schools to gauge PCC is to assess the type and extent of parents' involvement in their children's educations. Many studies have used Epstein's six types of parental involvement in schools:

- Creating a positive learning environment at home
- Communicating with the school regarding a child's progress
- Participating or volunteering at the school
- Communicating with the school about a child's learning activities at home
- Becoming involved in a school's decision-making or governance bodies
- Accessing community resources (Epstein 1992).

Although a number of studies have supported the connection between parent involvement and school achievement, a recent review of parent involvement programs found little empirical support for this (Mattingly 2002). The authors concluded that the studies were plagued by design, methodological, and design flaws – which may or may not mean that parent involvement is effective.

Parent involvement – as perceived by the student – predicted a “mastery” orientation to learning, characterized by persistence, seeking new challenges, and overall satisfaction.

Gonzalez 2002

In a study of the contribution of parent involvement to the motivation of 196 students in two Florida high schools, Gonzalez et al. found that parent involvement – as perceived by the student – predicted a “mastery” orientation to learning, characterized by persistence, seeking new challenges, and overall satisfaction (Gonzalez 2002).

Darling and Steinberg have suggested that parenting style may account for variations in the overall positive effects of parent involvement. For example, they have shown that among families where parent involvement led to greater adolescent school achievement, the effectiveness of parent involvement was greater among families practicing authoritative parenting styles than those that were not (Steinberg, Lamborn, et al. 1992). This difference may be explained, they suggest, by the quality of parent involvement. That is, in authoritative families, the parent’s school-related interactions with a child might involve more encouragement and autonomy-granting. “This is an example of how style may enhance the effectiveness of a specific parenting practice,” they observe in a later reflection, “making it a better practice than it would be in a different stylistic context (Darling 1993).” This observation is similar to the explanations for how PCC may account for variations in the effectiveness of parent-child communications about sex.

Another way to gauge PCC’s role in school achievement is to study its absence. Using parent and child interviews, teacher ratings, and school records, Kurtz et al. studied 139 school-aged children and adolescents, 22 of whom had been physically abused and 47 of whom had been neglected. The abused children exhibited “pervasive, severe academic and socioemotional problems,” according to the study authors. This group was more likely to drop out of school, experience teen pregnancies, or be institutionalized. The neglected children fared better in terms of socioemotional development, but had severe academic delays – in part because they were not performing at grade level in math, reading, or language, and in part because of extremely high rates of absenteeism (21.35 days, on average, compared to the non-abused/non-neglected children in the cohort – a 5-fold difference). Not surprisingly, the neglected children repeated grades and had low educational aspirations (Kurtz, Gaudin et al. 1993).

Again, some caveats are in order. Immigration status and history affect how well the parent-involvement model predicts outcomes. In a study of family environments and achievement among Mexican high school students, Rodriguez explored the different contributions of family involvement, monitoring, control, and familism (defined as the perceived worth of spending time with one's family). Family monitoring and involvement were related to grades and school achievement, with family involvement a strong predictor of grades. However, the patterns differed significantly according to the family's immigration status. Third generation students had higher rates of monitoring and involvement than first or second-generation students, but lower grades. The researchers concluded that current models may not be equally appropriate to all immigration histories (Rodriguez 2002).

Furthermore, Tinker reports that in some cultural collisions, non-involvement may be misinterpreted as indifference or lack of caring. For example, in Tinkler's review of the connection between parent involvement and school achievement, Latino parents held such respectful views of their children's teachers that they hesitated to interact with them, lest this be construed as contradicting and thus disrespecting them (Tinkler 2002).

Drug Use

The research on how PCC affects drug use has centered on the effects of parental monitoring (Steinberg 1994), how parents influence their children's association with different types of peers (Brook, Brook et al. 1990), and how parents transmit conventional values (Brook, Whiteman et al. 1993). Steinberg and colleagues combined these questions in their study of parental monitoring and peer influences on adolescent substance abuse. The study, which uniquely collected data from both adolescents and their peers, focused on four questions:

- Does parental monitoring deter adolescent drug use?
- Does peer drug use increase adolescent drug use?
- Does the relative influence of parents and peers differ by stage of drug use?

- Does parental monitoring work even after an adolescent is engaged with drug-using peers?

Because of monitoring's direct effects on levels of drug use and on choices of peers, the researchers concluded that "strongly monitored adolescents are, in essence, doubly protected from involvement in drug use."

Steinberg 1994

The researchers concluded that parental monitoring is indeed an effective tool in preventing and ameliorating drug use. Monitoring discouraged both boys and girls from initial use of drugs and encouraged boys who were heavy users to lessen their drug use. Likewise, girls who were experimental drug users stopped drug use under the influence of parental monitoring. However, peer group allegiances complicated the picture. For example, boys who used drugs in a pattern similar to that of their peer group

were not influenced by parental monitoring. Girls were influenced by both peers and parents and seemed more susceptible to influences from their parents. Because of monitoring's direct effects on levels of drug use and on choices of peers, the researchers concluded that "strongly monitored adolescents are, in essence, doubly protected from involvement in drug use (Steinberg 1994)."

Blum and Rinehart's analysis of Add Health data found that among both older and younger teens, those who felt very connected to parents and other family members reported less frequent use of cigarettes, alcohol, and marijuana (Blum 1997). The presence of parents at home during key times of the day was associated with a lower likelihood of smoking cigarettes or drinking alcohol among older teens (those in grades 9 – 12) and with a lower likelihood of marijuana use among both older and younger teens. The researchers noted that the parental presence did not need to occur at a particular time of day; instead overall access to parents and supervision in general seemed to be the significant factors (Blum 1997).

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(Blum 1997)

Parents of drug-using children, like those of sexually active teens, tend to underestimate their children's involvement in risk behaviors. If parents are unaware, or in denial, of their

children's risk behaviors, then their level of responsiveness is essentially meaningless. For example, Bogenschneider et al. studied 199 white mother-teen dyads and 144 father-teen dyads. All of the teens reported regular alcohol use, but only a third of their parents were aware of the teens' drinking. (The one-third proportion was generous, since the 6% who said they were unsure were included in the "aware" group.) Commenting on the responsiveness of mothers in their study, the authors note that "responsiveness, although widely considered optimal, may actually have adverse consequences if mothers are not aware of their adolescents' involvement in potentially risky behaviors (Bogenschneider 1998)." This suggests that in many cases, an accurate awareness of both actual and potential risk is an important prerequisite for appropriate monitoring and supervision. Otherwise, parents may fail to monitor and supervise appropriately, mistakenly believing that their children will not benefit from these parenting practices.

Violence

The body of research on antecedents of violent behavior is vast, covering the gamut from early aggression, witnessing violence in homes and neighborhoods, to being a victim and then a perpetrator of violence. When conditions in opposition to connectedness are present such as harsh discipline, lack of parental involvement, family conflict, parental criminality, child abuse and/or neglect, and rejection, they form a climate in which, according to some, children may be "literally trained to be aggressive during episodes of conflict with family members (Forgatch & Patterson 1998)."

Protective factors include attachment to one or more family members who have high expectations and healthy behaviors of their own (Catalano, Loeber, et al. 1999). Using Add Health data, Franke found that differences between young people involved in an escalating spectrum of violent behaviors (a physical fight, injuring someone, pulling a knife or gun, and shooting/stabbing someone)

Witnessing violence creates its own chain of adverse events – including irritability, immature behavior, sleep disturbances, emotional distress, fear of being alone, difficulty concentrating in school, aggression, depression, anxiety, and even post-traumatic stress disorder.

Osofsky 1999; Buka, Stichick et al. 2001

were at least partly related to family cohesion, family structure, gender, and race/ethnicity – with

family cohesion serving as a protective factor in all four types of violence, across racial/ethnic groups (Franke 2000).

As with drug use, associations with deviant or prosocial peers are important direct determinants of risky behavior, and again parents can indirectly influence the behavior by influencing the choice of peers. Smith et al. found that among 384 low-income, African-American youth (aged 10-15), the presence of prosocial friends was a stronger factor for adolescent violence avoidance, compared to younger children. However, the closeness of the parent-child bond was an important factor in choosing friends for both age groups (Smith, Flay et al. 2001).

Children trapped in abusive families are doubly or even triply jeopardized. Not only are they at risk as potential victims themselves, but witnessing violence creates its own chain of adverse events – including irritability, immature behavior, sleep disturbances, emotional distress, fear of being alone, difficulty concentrating in school, aggression, depression, anxiety, and even post-traumatic stress disorder (Osofsky 1999; Buka, Stichick et al. 2001). Finally, the protective factor that would help most – a strong relationship with a competent, caring, positive adult, preferably a parent – may not be available if the parent is either the perpetrator of the violence or another victim (Osofsky 1999).

Some researchers have focused on attachment – or rather, the lack of attachment – that occurs in child abuse as a possible explanation for the inter-generational nature of abuse (Bacon & Richardson 2001; Finzi, Har-Even et al. 2002). This situation is complicated by the fact that the aggression, isolation, “compulsive self-reliance,” and avoidant attachment seen in abused and neglected children are, in that context, adaptive survival skills (Zolotor, Kotch et al. 1999; Finzi, Har-Even et al. 2002).

Across the Board

While PCC is implicated as a protective factor in each of the areas outlined above (or, in its absence, as a risk factor), the most encouraging aspect of PCC is that its presence may confer protection across the board – not only in terms of the outcomes listed here, but in terms of

overall adjustment and healthy relationships across the life span. As Blum and Rinehart note in their review of family, school, and individual connections in the lives of youth:

Time and time again, the home environment emerges as central in shaping health outcomes for American youth. Controlling for the number of parents in a household, controlling for whether families are rich or poor, controlling for race and ethnicity, children who report feeling connected to a parent are protected against many different kinds of health risks, including emotional distress and suicidal thoughts and attempts; cigarette, alcohol, and marijuana use; violent behavior; and early sexual activity (Blum 1997).

Using Add Health data, Resnick et al. summarized family, school, and individual characteristics that protected adolescents in eight areas: emotional distress, suicide, violence, use of drugs (alcohol, cigarettes, and marijuana), sexual debut, and pregnancy. A parent-family connection – as measured by closeness to parents, perceived caring, satisfaction with the relationship, and feeling loved and wanted – was protective against seven of the eight risk areas. A history of pregnancy was the only exception. In addition to overall connectedness, a parent’s presence, shared family activities, and high expectations served a protective function. As the authors note, these findings offer “consistent evidence that perceived caring and connectedness to others is important in understanding the health of young people today (Resnick, Bearman et al. 1997).”

Parent-Child Connectedness Frameworks

Several models and theories have been suggested to explain how PCC influences behavior. The models – family interaction theory, social context, social control, and ecological systems – have many features in common and have informed much of the research summarized above. Each is briefly summarized in this section to set the stage for a discussion of intervention and research questions.

Family Interaction Theory

Family interaction theory (Brook, Brook et al. 1990) was developed originally to explore the factors that led some children to drug use as adolescents. The model has three major characteristics:

- The adolescent's family is viewed as a system, consisting of the child (the potential adolescent drug user), his or her siblings, and parents. Within this system, the mutual attachment between parent and child is paramount and is characterized by the child's identification with the parent, affection, and lack of conflict. This relationship is central to the family domain and to the model as a whole.
- The family system domain, in turn, interacts with other significant domains: ecological factors (e.g., the school environment), the adolescent's personality and behavior traits, peer group attributes, and drug context (e.g., availability).
- The relationship among these various domains creates a pathway to drug use or circumventing it.

A typical sequence would be along these lines: Ecological factors influence the parent-child mutual attachment; this affects the adolescent's personality and behavior; which, in turn, contributes to the adolescent's choice of peers, which affects the drug context domain. In

addition, personality and family domains have a direct effect on drug use (beyond the sequential one just described).

As noted above, the parent-adolescent relationship is central – both to the family domain and to the model itself. Referred to by Brook et al. as “mutual attachment,” this bond (if strong) increases the probability that the child will absorb a parent’s conventional values and behave accordingly by imitating them. This close bond is a precondition for transmitting parental values as well as for the adolescent’s identification with them. Identification, modeling, and reinforcement become the mechanisms for transmitting the parent’s conventional values.

Moving to the adolescent’s personality domain, the mutual attachment with a parent leads to psychological well-being – another protective factor against drug use. The adolescent then chooses (because of his or her conventionality, personality, and attachment) a group of more achieving and less deviant peers who do not use drugs, insulating them from the drug context domain.

Using this model, Brook et al. have hypothesized that some protective factors – such as identification with a parent – could offset risk factors (such as peer deviance). Although the model held for some populations, the peer domain did not operate as proximally as the researchers expected in their study of African-American and Puerto Rican teenagers (Brook, Whiteman et al. 1992) – in contrast not only to their previous work but also to several other studies. This may mean that the peer and personality domains interact more than the model anticipated.

Primary Socialization Theory

Like other theories related to deviant adolescent behavior, primary socialization theory (Oetting & Donnermeyer 1998) sees youth surrounded by several influential domains: their families, a cluster of peers, and a school environment. Strong bonds with parents and families, the theory holds, are protective because they communicate prosocial norms. However, the communication of norms is not automatic, the authors note: “Bonds must be used to

communicate norms.” Weak bonds, on the other hand, open the door to peer influence and thus become a risk factor for deviance.

Norms are a somewhat moving target, according to Oetting & Donnermeyer. They are not necessarily consistent from one developmental period to the next, influence a narrow range of behavior, are influenced by social and historical forces, and are culturally bound.

The primary socialization theory may be used to determine how and when parents communicate norms, how these interact with peer clusters and the bonding that occurs within them, and how changes in norms affect deviant behaviors.

Social Ecology Model

The social ecology model stems from the observation that the most immediate, direct predictor of adolescent substance abuse is association with deviant or antisocial peers. Kumpfer and Turner found the precursors of peer attachment are self-esteem and perceived self-efficacy, along with school connectedness. PCC (called “family climate” in the model) plays a role by influencing self-esteem and self-efficacy. The model “explains the buffering effects of positive family and school environments on involvement with negative peers,” note its authors (Kumpfer and Turner 1990).

The role of parents in the selection of prosocial peers, while a common feature of many models of adolescent behavior, has drawn some scrutiny and some detractors. The assumption is that parent bonding transmits conventional values, which, in turn, protect against association with deviant peers. A corollary is that inadequate bonding turns adolescents towards deviant, antisocial peers for support, and substance abuse and other risk behaviors follow. Bell et al. point out that peer relationships are more egalitarian and may serve different developmental functions than relationships within a family (Bell, Forthun et al. 2000). On the other hand, as they also observe, parent-adolescent relationships – especially authoritative ones – may be more horizontal or egalitarian in nature (unlike the traditional vertical parent-child relationship), perhaps accounting for their effectiveness.

Developmental Pathways

Acknowledging that family interactions are shaped by both parents and children, Brook et al. and other researchers (Patterson 1986) have noted that a child's behavior and disposition can influence parent-child attachment. For example, Brook et al. suggest the possibility that adolescent unconventionality may have its roots in a much earlier developmental phase, when it is expressed as aggression (Brook, Whiteman et al. 1993). If this is the case, and early tantrums, school difficulties and the like predict later unconventional behavior, it could mean that an "underlying continuum" exists (Patterson et al. 1989; Brook, Whiteman et al. 1993). These children are termed "early starters" by Patterson et al., as compared to "late starters," who are more influenced by their peers (Patterson & Joerger 1993). Both scenarios have important implications for the timing of assessments and interventions, as discussed below.

The idea that conduct problems begin early in childhood and are expressed in adolescence is sometimes referred to as the developmental pathways model. In this model, a child's individual, family, or social risk factors reinforce noncompliance and teach children to engage in deviant behaviors. Risk factors might include, for example, stressful family conditions and poor parenting skills. In a self-perpetuating and reinforcing cycle, a child's initial aggression, impulsivity, or noncompliance may be met by poor parenting skills and a lack of guidance, which, in turn, makes the child more aggressive, impulsive, and noncompliant. These behaviors, the theory holds, are then practiced outside the home, in school and with peers. Ultimately, the child's antisocial behaviors place him or her at risk for drug use and other risky behaviors.

Contextual Model of Parenting Style

Darling and Steinberg offer a model that differentiates between parenting style and specific practices. A style – such as an authoritative mother who encourages verbal give-and-take and discusses the reasoning behind her decisions – is recognizable no matter what the specific content is (i.e., what the verbal give-and-take is about, or which decisions are being

explained). The authors suggest that parenting *style* be viewed as a context that moderates the influence of specific parenting practices on the child.

In this model, parenting style either facilitates or undermines parents' efforts to socialize their children. Style is the context within which socialization occurs – rather than a socialization practice itself.

Parents bring to their role a set of goals and values, which influence both style and practices. The model differs from some others in its suggestion that parenting style and practice influence a child's development through different processes. For example, parenting practices directly affect the development of children's behaviors – manners, school performance – and characteristics (such as values or self-esteem). These practices, Darling and Steinberg note, “are the mechanisms through which parents directly help their child attain their socialization goals.”

Parenting style, on the other hand, influences child development indirectly, by changing the effectiveness of parenting practices and the adolescent's openness to the parent's values and willingness to be socialized. The example they offer, cited earlier in the section on school achievement, is parental involvement in school yields greater academic achievement among children of authoritative parents, compared to nonauthoritative ones. They speculate that the reason for this is the quality of parents' school-related interactions with their children – such as helping them choose courses, explaining decisions, encouraging discussion, and acknowledging the adolescent's perspective as valid (Darling 1993).

Ecological Systems Theory

Like the family interactions theory, ecological systems theory emphasizes multiple systems that influence a person's behavior and the reciprocal relationships among them. At a minimum, the primary systems of influence are the self, the family, and extrafamilial systems (Bronfenbrenner 1979). Applying this theory to adolescent females' decision-making about sex, Crosby and Miller note that most interventions for female adolescents have focused on individual attributes, paying comparatively less attention to family, social, and peer influences (Crosby 2002).

In their configuration of family influences, Crosby and Miller include the following, all of which have been studied and linked to the sexual behavior of adolescents:

- Parental monitoring
- Parent-adolescent communication
- Satisfaction with the mother-daughter relationship
- Parental modeling of sexual values
- Family structure

Considering the design of potential interventions, Crosby and Miller note that “integrated, multiple-level interventions represent an ideal public health response to the high rates of unintended pregnancy and STD/HIV infection among adolescents (Crosby 2002).” Ideally, these would involve psychological, social, and public policy intervention points.

“Public health interventions that seek to optimize this pivotal role [of the family] are more likely to be successful,” they continue. “This is particularly plausible because adolescents’ exposure to the intervention (their family) is usually continuous and because the family is in an ideal position to teach values and skills to the female adolescent (Crosby 2002).”

Social Control and Social Development Model

Theories of social control, like primary socialization theory, hold that prosocial family processes – rules, monitoring, and attachment – have a significant impact on the peers with whom an adolescent chooses to associate. Social control operates through four processes:

- Direct control (such as parental monitoring and supervision);
- Indirect control (the interaction of a child’s/adolescent’s beliefs and attachment – for example, not wanting to disappoint parents or jeopardize the relationship);

- Satisfaction of needs (if the child/adolescent is emotionally satisfied within the family, he or she will not have to seek intimacy and support from peers); and
- Internalized control.

One important implication of this and other models is the timing of family management practices and how these affect later peer choices. The authors maintain that poor attachment, monitoring, and supervision in the preadolescent phase will surface later in an adolescent's choice of peers (Oxford, Harachi et al. 2001).

As its name suggests, the social development model suggests that all children move through similar developmental stages and processes. At each one, they develop either prosocial or antisocial behaviors, depending on the influences of their family, personal characteristics, and environment (Catalano & Hawkins 1996). The model holds that both types of behavior – prosocial and antisocial – are learned from the same agents of socialization: the family, school, religious or other community institutions, and peers.

How does this learning occur? In each type of interaction, children learn social behavior patterns by interacting with others, having opportunities for involvement, the degree to which they are involved, the skills they have to make their involvement meaningful, and the reinforcement they receive. Even though they experience both prosocial and antisocial models, one or the other will dominate. Therefore, the model suggests, children and adolescents who were primarily exposed to pro-social influences will demonstrate prosocial behaviors as adults, and vice versa.

Parent-Child Connectedness Interventions

Few interventions have been designed solely to influence PCC, but many from diverse fields (such as substance abuse prevention, violence prevention, and mental health) affect some of the key elements of PCC. In this section, we review a number of interventions described in the literature and/or suggested by Think Tank participants. A next step in studying PCC will be to develop a fuller inventory of potential interventions, assess the extent to which they have been evaluated and found to be effective, and develop new interventions that are designed to enhance PCC in a variety of settings, family structures, and cultures.

In a Substance Abuse and Mental Health Service Administration (SAMSHA) publication that is part of the Prevention Enhancement Protocols System (PEPS), *Preventing Substance Abuse Among Children and Adolescents: Family-Centered Approaches*, the authors provide a useful rubric for types of interventions (Grover 1998). First, interventions are distinguished by their target audience:

- **Universal** interventions are directed at the general population, based on the belief that everyone would benefit (regardless of risk status). Although most evaluated interventions fall into the “selective” or “indicated” categories, several researchers have made a strong case for some type of universal parenting intervention – at the community or neighborhood level, if not nationwide. Steinberg, for example, finds the evidence of the effectiveness of authoritative parenting so compelling that he believes its tenets should be the basis for some type of universal parent education and skill training program (Steinberg 1994). (Along these lines, “Shoulder to Shoulder: Raising Teens Together” is a recently deployed social marketing campaign designed to reach parents and caregivers of teens with information and support.)

As the models above indicate, if peer associations are so strongly associated with deviant and antisocial behavior, the likelihood of this particular risk is greatly reduced if more families are operating in healthier ways, creating a pool of prosocial peers and parents.

- **Selective** interventions are geared to subgroups whose risk would be considered above-average. In the case of PCC, these subgroups might be families experiencing high levels of conflict, families on the verge of restructuring or recently re-structured, families of children demonstrating aggression, and so on.
- **Indicated** interventions are used when risks are high or already manifest – as in cases of child abuse and neglect.

The same guidelines classified prevention approaches into three categories, listed here in order of intensity:

- Parent and family skills training;
- Family in-home support; and
- Family therapy.

Brief descriptions of these types of programs, from SAMSHA’s Model Programs and other sources, are provided below.

Parent and Family Skills Training

Family Effectiveness Training (FET) – Targeted to immigrant Hispanic families with children between the ages of 6 and 12, the intervention addresses family functioning, parent-child conflicts, and cultural conflicts between children and parents. Family topics include bicultural adjustment, family development, parent-child communication, conflict resolution skills, parental nurturance and behavior control, family cohesiveness, and parenting skills regarding managing children’s peer relations. The format includes didactic lessons and activities as well as planned family discussions in which a therapist/facilitator intervenes. A SAMHSA Model Program, FET was found to reduce children’s conduct problems (35%), associations with antisocial peers (66%), and irresponsible behaviors (34%). Participants reported improvements in children’s self-concept (14%) and family functioning (75%).

Creating Lasting Family Connections (CLFC) – Targeted to youth aged 9 to 17 and their families, CLFC is a comprehensive family strengthening, substance abuse, and violence prevention curriculum. The curriculum teaches personal growth, family enhancement (management skills, bonding, rule setting, expectations, stability, harmony), and interpersonal communication skills. The SAMHSA Model Program delayed the onset of drug use among participating youth, increased parents' knowledge and appropriate beliefs about substance use, and increased parental involvement in setting rules about substance use. In African-American communities, the program improved family modeling of alcohol use. An evaluation found that substance use reductions among participating youth were conditionally related to changes in family-level and youth-level resiliency factors.

Strengthening Families Program (SFP) – SFP involves elementary school children (ages 6 to 12) and their parents in a 14-session behavioral skills training program. Each session is two hours long. Parents and children meet separately and together. Parents learn how to increase attention and rewards for positive behaviors, clear communication, effective discipline, substance use prevention, problem solving, and limit setting. Children learn how to understand feelings, control their anger, resist peer pressure, comply with parental rules, solve problems, and communicate effectively. They also develop their social skills. Reductions in aggression and conduct problems averaged 10 times those of school-based, child-only prevention interventions. Originally developed for the children of parents in substance abuse treatment programs, the curriculum is now widely used with non-substance-abusing parents from diverse backgrounds.

The Metropolitan Area Child Study (MACS) is a Chicago-based program based on social-cognitive and ecologic theories. It combines school- and family-based interventions and focuses specifically on preventing the development of aggressive behavior. In addition to a classroom component, the intervention includes intensive small-group sessions to help at-risk children enhance their peer relationship skills and a 1-year family relationship intervention that stresses parenting skill building and emotional responsiveness (Huesmann et al., 1996).

Child Opportunity Zones (COZ) Family Centers – These centers, supported by the Rhode Island Department of Elementary and Secondary Education, have three goals: to help children learn, to promote healthy families, and to support strong communities. The healthy

families component includes preventive programs, outreach and referrals, emotional health support, and parenting education and support.

The Minnesota Model of Comprehensive Tobacco Use Prevention in School – Parent and Family Involvement Resource Guide. The Resource Guide is designed for use by schools as part of a comprehensive tobacco use prevention program. Describing parents as “the first educators,” it includes many tobacco-specific communication ideas as well as more general parenting tips, such as strengthening family management, being a positive role model, and sustaining caring relationships.

Adolescent Transitions Program (ATP). ATP is a school-based, tiered intervention for parents and youth geared at preventing delinquency. Some components – such as a Family Resource Room – are available to any family, while others target youth and families at risk. Risk is assessed through a three-session Family Check-Up intervention based on motivational interviewing. A 12-session Family Management Curriculum uses incentives to promote positive behavior change, addresses limit-setting and monitoring, and builds relationship skills (family communication, listening, negotiation, and problem-solving) (Dishion & Kavanagh 2002).

Parenting by Connection. The Parents Leadership Institute in Palo Alto, CA uses a Parenting by Connection approach to reach parents through workshops, trainings and written materials (Wipfler 2003). The program helps parents build and maintain a close connection with their children and is grounded in four principles: Respect, Connection, Listening and Leadership. The program teaches listening tools such as “special time,” “playlistening,” “setting limits” and “staylistening” to encourage connection in families. The program also teaches parent-to-parent listening tools that help parents off load the tensions that interfere with their ability to guide their children with love and to connect with them in a thoughtful way.

Family In-Home Support

Nurse Home Visitation – Various forms of this model exist, most targeting families at high risk of child abuse/neglect. The program designed and reviewed by Olds et al. involved postnatal home visits by nurses to teen, unmarried, or poor mothers (Olds et al. 1986). The

nurses met with the mothers at home during their pregnancies and, after the child was born, every week for six weeks (visiting over an hour each time), every two weeks until the child reached the age of four months, every three weeks between months 4 and 14, monthly between 14 and 20 months, and every six weeks until the child's second birthday. (If a crisis occurred, the visits were more frequent.)

During their visits, the nurses provided education about infant development, with the goal of improving parental behavior. They followed a curriculum but tailored the information to each situation. Topics included: infant temperament (especially crying behavior and what it meant); socioemotional and cognitive needs (responsive care giving; progressively complex motor, social, and intellectual experiences); and physical health care needs (e.g., diet, bathing, taking a temperature, immunizations). A second goal was to improve the informal support available to the new mothers, mainly by encouraging the informal support of family members and friends (both for child care and to support the mother). A third was to actively link families to other services – whether reminding them of upcoming immunizations or referring them to other services (such as legal aid, mental health counseling, etc.). Throughout, the nurses emphasized the women's strengths and those of their families.

The women who were at highest risk of abuse and who received nursing visits, compared to three other groups receiving varying levels of services, had fewer instances of verified child abuse and neglect, restricted and punished their children less frequently, provided more appropriate play materials, and had fewer visits to the emergency room.

In a discussion of another home visiting program for high-risk mothers and infants (**STEEP, or Steps Toward Effective, Enjoyable Parenting**), Egeland strikes a more cautionary note. Although the mothers who participated in STEEP did improve some aspects of their parenting behavior (such as sensitivity to their infants' cues and avoiding harsh punishment), the program was less successful in addressing the emotional aspects of parenting. These, Egeland maintains, are the qualities of parenting that affect attachment security and, in turn, appear to have the most benefit for high-risk children in the long-term. Yet, "Emotional involvement, warmth, and responsiveness are not something that can be just taught," he writes. Although the emotional aspects of parenting young children are difficult to change, he argues, it is also true

that few programs are designed specifically for this purpose. “Interventions need to assist parents in getting to a place in their own emotional lives where they feel unencumbered to express this warmth (Egeland 1997).”

Another home visitation model, “**Everyone Deserves a Doula**,” is being implemented by Georgia’s Campaign for Adolescent Pregnancy Prevention. (“Doula” is a Greek word that means birth attendant.) In Georgia’s community-based model, doulas receive 60 to 70 hours of clinical and non-clinical training. Although they are mainly in place to provide local, nonclinical support to new mothers with advice on the birth process, breastfeeding, and other aspects of pregnancy and birth, they also will encourage mother-child attachment and offer advice on child and infant development (Behnke & Hans 2002).

Family Therapy

Multisystemic Therapy (MST) – MST is a family-oriented, home-based program targeting chronically violent, substance-abusing juvenile offenders aged 12 to 17. To change how youth function at home, at school, and within neighborhoods, MST promotes positive social behavior (at the same time, attempting to decrease antisocial behavior). The home-based model is designed to overcome barriers that may prevent families from accessing services. The therapists, who have small caseloads and spend approximately 60 hours with families during a four-month period, focus on the following: empowering parents, improving their effectiveness (identifying strengths and developing natural support systems), removing barriers (e.g., parent substance use, stress, conflict between partners). After these initial issues are addressed, the parents work with the therapist to develop strategies for setting and enforcing curfews and rules, decreasing their children’s involvement with deviant peers, promoting friendships with prosocial peers, improving academic and/or vocational performance, and even addressing neighborhood criminal subcultures.

Although the MST program was intensive, it remained cost-effective compared to the average costs of an institutional placement. The program reduced substance use, psychiatric symptoms, re-arrest rates, and long-term out of-home placement while improving family

relations, family functioning, and mainstream school attendance among diverse populations of juvenile offenders; two- and four-year follow-ups indicated long-term effectiveness as well.

Listening to Children (LTC). Based on a reevaluation counseling model, LTC combines parent education, training, and therapy. LTC emphasized parental self-reflection, social support, and addressing the emotional roots of children's misbehavior and of parenting stress. Its designers combined the supportive elements of self-help groups and empowerment themes, while also focusing on skill building that is more typical of parent education and training programs. The program consists of eight weekly meetings. During these sessions, parents learn to distinguish between current demands and their own childhood experiences. They spend "special time" with their children, setting up opportunities to follow their children's lead in play to increase children's capacity for prosocial behavior and academic success. Parents also learn to understand and meet their children's emotional needs to enhance parental responsiveness. A recent evaluation of this model applied to mothers of different ethnicities and incomes found that the program reduced parenting-related stress, improved parental attitudes, and encouraged authoritative parenting practices although some of these effects diminished over time (Wolfe & Hirsch 2003).

School-based Programs

Seattle Social Development Project (SSDP) - The SSDP is an elementary school intervention guided by the social development model (described above), which hypothesizes that strong bonds to school and family protect young people from socially unacceptable behaviors (particularly early intercourse and unprotected sex).

Bonding to school and family is achieved through enhanced opportunities and reinforcement both at home and at school, all designed to increase children's social competencies. The intervention includes three components: teacher training, child social and emotional skill development, and parent training.

The teacher training component includes techniques for proactive classroom management (e.g., creating clear and consistent expectations for behavior in the classroom), interactive teaching skills, and cooperative learning in small teams.

The child social and emotional skill development component covers interpersonal problem-solving skills (such as communication, decision-making, negotiation, and conflict resolution) and refusal skills.

The parent training component includes behavior management skills (observing and pinpoint different types of child behavior, reinforcing desired behavior, providing moderate and consistent consequences for undesired behaviors), academic support (contact with teachers, helping children with basic skills, creating a supportive home environment), and skills to reduce risks for drug use (family policies on drug use, refusal skills with children, self-control to reduce family conflict, and creating new opportunities within the family for children to contribute and learn).

A study of 349 intervention and control participants found that the SSDP intervention had long-term effects in terms of preventing risky sexual practices and adverse health consequences in early adulthood – particularly noteworthy because the intervention did not include any specific sex education content (Lonczak et al. 2002).

The Evidence Base for Interventions

SAMSHA’s Prevention Enhancement Protocols System (PEPS) includes a discussion of the evidence base for many of the programs – and certainly for the types of programs – described above.

There is strong evidence that parent and family skills training interventions can stabilize or improve the following areas among families with no known risk factors or general exposure to them:

- Parent-child communication
- Child problem behavior
- Inadequate parenting skills
- Poor family relationships
- Parental substance use
- Family conflict
- Family disorganization.

Effects that fall into the “suggestive but insufficient evidence” category for this population include:

- Improvements in children’s social skills and prosocial behavior
- Parental stress and depression
- Children’s self-esteem
- Social assimilation differences between parents and children.

Also in the “suggestive but insufficient evidence” category is the notion that a combination of parent training, children’s social skills training, and family relationship training improves parent-child relationships more than any one type of intervention alone.

For families with children at high risk for substance abuse (either via multiple risk factors or extreme exposure to a single risk factor), the researchers found strong evidence that parent and family skills interventions improved:

- Child problem behavior
- Poor parenting skills
- Healthy family communication
- Bonding
- Conflict resolution.

The interventions were found to have a positive and lasting effect in improving parenting skills and behaviors. Evidence was suggestive but insufficient to support the interventions' effects on parents' stress, depression, and substance abuse; children's self-esteem; and social assimilation.

Evaluations of in-home interventions (of which there are far fewer, and thus far fewer evaluations) offered medium evidence that home-based family preservation services were able to avoid out-of-home placements and reduce the length of out-of-home placement. When multisystemic therapy was provided in the home, it too offered medium evidence of effectiveness in reducing criminal activity and re-arrest and improving family characteristics (such as family cohesion and symptomatology). There was strong evidence, however, that family therapy reduced recidivism in delinquent teenagers.

In terms of family therapy's effects on factors implicated in PCC, there was medium evidence of its effects on enhanced parenting skills, improved family communication, increased parental knowledge about how to reduce antisocial behavior, improved parent-adolescent perceptions and attitudes about one another, and inappropriate control.

Intervention Implications

What questions about possible interventions are raised by the existing research and pool of evaluated interventions? The following list is offered as a starting point.

- How should PCC interventions differ from what is already available? (What's missing?)
- What is the ideal unit of intervention – families, school districts, neighborhoods?
- What community and policy changes support PCC, regardless of the interventions available to families?
- For universal interventions (those targeted to general populations), what are optimal starting points? When and how often should “boosters” be offered?

- For targeted interventions, how should they differ from existing and universal interventions, and what markers should trigger them?
- Given the prevalence of divorce, should some PCC interventions be designed for families involved in various stages of marital conflict?
- How should interventions take into account cultural and gender differences in parenting styles and other PCC elements?
- How important are adult emotional adjustment and warmth to the promotion of PCC? What are the implications for focusing on the mental health and adjustment of parents?
- How important are children and adolescent interpersonal skills – “social competencies” – to PCC interventions and results?
- In situations of extreme PCC deficits, is it realistic to expect to undo deficits, or would a more effective strategy be to surround children with other potential sources of adult connection (mentors, schools)?

Research Implications

Although the body of research on PCC and its various components is increasing steadily, several areas remain unexplored – or at least warrant deeper investigation. As a starting point for discussion, several are listed here.

- **Measuring PCC.** As described in this review, researchers have used a variety of instruments to measure PCC in children, adolescents, and parents. Which of these are most relevant and useful, and in which situations? What additional measures are needed? What adaptations need to be made to make measuring PCC easier and more standardized across different types of studies?
- **PCC Models.** The models described in this review hypothesize various direct and indirect influences for parents, personality, peers, schools, and communities. How do these manifest themselves? Which factors mediate others? How do different configurations of risk and protective factors interact? Does PCC reinforce or amplify the effects of some protective factors? How does (and how should) PCC change by developmental periods?
- **Context.** How do neighborhoods and communities affect PCC within individual families? If PCC is absent or unlikely, can schools or mentors play a substituting or compensating role?
- **Differentiation – by gender and culture.** Some models and explanations – such as authoritative parenting – seem to be more descriptive and useful for white populations than others. Both risk and protective factors associated with PCC are altered by gender (of both parents and children), by culture, and by setting. Yet existing research has not fully explored the ramifications of these differential influences and effects. As one researcher put it, “Which relationships are protective, and for whom (Formoso et al. 2000)?” Likewise, we know much less about fathers and their connections to their children than we do about mothers.

- **Interventions.** A series of intervention questions were raised in the previous section, many of which overlap with research and evaluation. What works? Under what conditions? Can warmth be taught? Can PCC deficits be reversed?
- **Adaptation.** When PCC is nonexistent – for example, in cases of abuse or neglect – avoiding attachment may be an appropriate adaptation. Likewise, when PCC is low, turning to peers for support may be normative and even positive (i.e., not necessarily deviant). When are adaptive behaviors healthy, and when are they not? How can their immediate protective function be maintained, while avoiding lasting damage?

Glossary

Add Health Data – Data generated by the National Longitudinal Study of Adolescent Health (“Add Health”), a federally funded, multimillion-dollar, school-based study designed to identify and assess the various factors that place adolescents at risk for a host of potentially health-compromising behaviors ranging from eating disorders to vehicular safety to early sexual activity.

Attachment theory – A theory first articulated by John Bowlby (1969) suggesting that an infant’s first attachment experience (initially to his or her mother) shapes social, cognitive, and emotional development.

Authoritarian parenting – A parenting style that is characterized by high levels of control – usually through a focus on rigid and strict rules, obedience, and conformity – and thus low levels of psychological autonomy granting.

Authoritative parenting – A parenting style that combines high levels of warmth with moderate levels of behavioral control (i.e., monitoring and supervision) and the granting of psychological autonomy to a child.

Ecological factors – The factors that surround individuals and create an environment that influences their behavior to different degrees – such as families, peers, schools, communities, institutions, and policies. Urie Bronfenbrenner (1977, 1979, 1989) suggests that an individual develops within a context or ecology.

Externalized outcomes – Outcomes and behaviors that are more evident to outside observers, such as aggressive behavior or “acting out.” (These are compared to internalized outcomes, such as depression, which are less obvious.)

Family strengthening – Interventions that promote stronger bonds and healthier interactions among family members so that the functioning of the entire family (not just individual members of a family) is improved.

Family systems – A term from the field of psychotherapy that describes and focuses upon how an individual exists within the social group that forms a family – parents, siblings, grandparents, and other relatives.

Indicated intervention – An intervention “indicated” by the known high risks faced by a population (as opposed to potential or generic risk). An example would be parenting interventions for families already experiencing child abuse (rather than families at higher risk for abuse because of a family history).

Instrument – In the social sciences, an instrument is a tool for measuring a behavior, intention, or event – such as a survey or focus group guide.

Internalized outcomes – Outcomes and behaviors that are hard to observe or detect because they occur “inside” a person, such as depression. (Internalized outcomes are usually contrasted with externalized outcomes, like aggressive behavior, which are more obvious to outside observers.)

Intervention – An intervention is a planned, purposeful set of activities designed to achieve a specific goal (or multiple goals).

Measure – In the social sciences, a measure consistently captures a quality or degree of something that is observed or experienced, so that it can be tallied, tracked over time, and compared to other measures. For example, one measure of parenting style is the degree of behavioral control exerted by parents over children.

Mediating variable – A mediating variable comes between an independent and dependent variable. For example, unprotected sex is a cause (independent variable) of teen pregnancy (dependent variable). Alcohol use (mediating variable) may influence whether or not a teen chooses to have unprotected sex.

Model – General, hypothetical descriptions that are used to analyze, explain, and predict how different factors relate to particular outcomes.

Operational definition – A more detailed, fuller definition that explains key elements and how they work, singly and collectively, to create the quality or element being defined. The operational definition directs us to what we should observe in order to know we have achieved an outcome.

Parent-child connectedness – the *quality* of the emotional bond between parent and child and the degree to which this bond is both *mutual* and *sustained* over time.

Permissive parenting – A parenting style that sets few, if any, limits on a child’s behavior or activities. (Note that this lax parenting style refers only to the control aspects of parenting style, and may occur in combination with either high or low warmth.)

Protective factor – Protective factors are characteristics that “protect” people and thus significantly reduce the likelihood of adverse consequences – either in general, or by offsetting the effects of a particular risk factor. “Attachment to school” is often considered a protective factor to a variety of adolescent health outcomes.

Resilience – Defined by Walsh (1988) and others as “struggling well,” or the capacity to rebound from adversity strengthened and more resourceful. It is “an active process of endurance, self-righting, and growth in response to crisis and challenge.”

Risk factor – Risk factors are characteristics of individuals, families, and communities that make people more vulnerable to adverse consequences. “Poverty” is often considered a risk factor for various health outcomes.

SAMHSA – The Substance Abuse and Mental Health Services Administration (SAMHSA) is part of the U.S. Department of Health and Human Services. It is the agency charged with improving the quality and availability of prevention, treatment, and rehabilitative services in order to reduce illness, death, disability, and cost to society resulting from substance abuse and mental illnesses.

Scale – A type of instrument with clear demarcations or boundaries between categories, that accurately places respondents into different categories, often by assigning numeric values to different types of responses. A commonly used scale is a Likert scale.

Selected intervention – Interventions geared to subgroups whose risk is considered above-average. (This means that the intervention targets a specific group, in contrast to universal interventions that apply to everyone.)

Social capital – Defined by Putnam (1996) as the features of social life – networks, norms, and trust – that enable participants to act together more effectively to pursue shared objectives. Social capital is a possible explanation for why some communities and neighborhoods (and, by extension, the families within them) are buffered from the effects of deprivation and adversity, while others are not.

Universal intervention – Interventions directed at the general population, based on the belief that everyone would benefit (regardless of risk status). These are contrasted with selective interventions (for subgroups thought to be at higher risk) or indicated interventions (for groups known to be at higher risk).

Appendix A: Two-Day Think Tank Agenda

ETR Associates and the Annie E. Casey Foundation
Parent-Child Connectedness Think Tank Meeting
June 21-22, 2003

Agenda

Day One: July 21, 2003

8:15am – 9:00am	Breakfast
9:00am – 9:30am	Welcome & Introductions
9:30am – 10:00am	Overview of the Think Tank
10:00am – 11:00am	Consideration of Literature Review
11:00am – 11:15am	Break
11:15am – 12:00 noon	Evaluating and Prioritizing Risk & Protective Factors, Part 1
12:00noon – 1:00pm	Lunch
1:00pm – 2:30pm	Evaluating and Prioritizing Risk & Protective Factors, Part 2
2:30pm – 2:45pm	Break
2:45pm – 3:30pm	Reports on Evaluation and Prioritization of Risk & Protective Factors
3:30pm – 4:30pm	Presentation and Discussion of ReCAPP Survey Data
4:30pm– 4:45pm	Closure

ETR Associates and the Annie E. Casey Foundation
Parent-Child Connectedness Think Tank Meeting
June 21-22, 2003

Agenda

Day Two: July 22, 2003

8:15am – 9:00am	Breakfast
9:00am – 9:30am	Check-in/Overview of Day Two
9:30am – 10:15am	Designing Interventions, Part 1
10:15am – 10:30am	Break
10:30am – 11:00am	Designing Interventions, Part 2
11:00am – 12:00 noon	Reports on Intervention Design
12:00 noon – 1:00pm	Lunch
1:00pm – 2:00pm	Summary Discussion
2:00pm – 3:00pm	Think Tank Feedback & Closure

Appendix B: Literature Review Feedback Guide

ETR Associates and the Annie E. Casey Foundation
Parent-Child Connectedness Literature Review

Review Guide

Directions

1. Review the ten questions listed below. Use these questions to guide your review and critique of ETR's parent-child connectedness literature review titled: *Parent-Child Connectedness: Implications for Research, Interventions and Positive Impacts on Adolescent Health* (June 23, 2003 Draft).
2. Read ETR's parent-child connectedness literature review.
3. Type your feedback responding to each of the ten questions below. You do not have to write more than one to two pages (total)!
4. Email your typed comments to Steve Bean at steveb@etr.org by July 14, 2003.
5. Enjoy reading and THANK YOU!

Questions

1. Is there a body of literature that we did not explore in the literature review that we should explore? Are there key research articles or authors that are missing from the literature review? Please advise.
2. Given your expertise and experience, are we missing any key risk and protective factors related to parent-child connectedness in our literature review? Please describe.
3. Given your expertise and experience, which risk and protective factors are most critical in establishing parent-child connectedness? In other words, which risk and protective factors are likely to be the most powerful at impacting parent-child connectedness. List no more than ten.
4. Of the risk and protective factors that matter most, which ones do you think are most feasible for intervention? Think about feasibility in regard to: 1) financial resources, 2) staff expertise, 3) administrative capability, and 4) political acceptance.
5. Are there existing interventions/programs that should be included in the literature review, but currently are not? Please describe. How would we find out more about any interventions you suggest?

6. Given your experience and expertise, and your answers to questions #3 and #4, what would effective intervention strategies/approaches to strengthen parent-child connectedness look like? In your response to this question, mention any health behavior/psychological theories that should guide the development of these interventions.
7. How does culture, SES and education level affect the development of these interventions, if at all?
8. After reading the literature review, what are the three main ideas that you are taking away from it?
9. What research study questions or knowledge gaps come up for you (in addition to the ones listed at the end of the document) after reviewing this literature review, if any?
10. What other feedback would you like to give us about the literature review?

Appendix C: Instruments Used to Measure PCC and Its Elements

Instrument	Authors	Cited in	Measures
Assessment of Child Monitoring	Hetherington, 1992	Formoso, et al., 2000	Extent to which parents supervise children
Attachment Styles Questionnaire	Hazan & Shaver, 1987	Finzi et al., 2002	Adults' attachment style (secure, anxious/ambivalent, avoidant)
Behavioral Control Scale	Barber, Olsen & Shagle, 1994	Sartor & Youniss, 2002	How much parents know about child's social activities (friends, how they spend money, what they do after school and with their free time)
Child Report of Parent Behavior Inventory, Acceptance Subscale	Schaefer, 1965	Barber & Olsen, 1997	Description of parents from child's perspective (makes me feel better; enjoys doing things with me)
Communicator Style Measure (CSM)	Norton, 1978	Mueller & Powers, 1990	Verbal and paraverbal interaction; friendly, relaxed, dramatic styles
Conditional Support Scale for Parents	Harter & Marold, 1994	McVey et al., 2002	Extent to which support from the mother and father is conditional on child meeting high parental expectations
Conflict Behavior Questionnaire	Robin & Poster, 1989	Black et al., 1997	Level of conflict experienced in interactions with parents
Conflict Tactics Scale	Straus, 1979	Earls, McGuire, & Shay, 1994	Frequency in last year of parent use of verbal aggression, reasoning, and physical force to resolve problems with child
Family Adaptability and Cohesion Evaluation Scale (FACES II)	Olson et al., 1985	Barnett et al., 1991	Loyalty, trust, respect, and a sense of competency within the family; degree to which family members feel connected

Instrument	Authors	Cited in	Measures
Family Assessment Device (FAD)	Epstein et al., 1983	Stein et al., 2000	Problem solving, communication, roles, affective responsiveness, affective involvement, behavioral control, general functioning
Family of Origin Scale	Ryan et al., 1995	O'Byrne et al., 2002	Parenting style, intimacy, autonomy, characteristics of healthy parent-child relationships
Interpersonal Relationship Scale	Barber & Shagle, 1992	Sartor & Youniss, 2002	How often child engages in communicative, supportive, and conflictual behaviors with mothers and fathers
Inventory of Parent and Peer Attachment (IPPA)	Armsden & Greenberg, 1987	Woodward et al., 2000	Adolescents' perceived attachment to parents via communication, trust, and alienation
Maternal Social Support Index (MSSI)	Pascoe & French, 1990	Earls, McGuire, & Shay, 1994	Amount of social support available for a range of child-rearing activities
Multicultural Events Schedule for Adolescents (MESA), Family Conflict Scale	Gonzalez, et al., 1999	Formoso, et al. 2000	Frequency of serious conflict; e.g., refusing to speak to each other, serious fight
Parent Bonding Instrument (PBI)	Parke et al., 1979	Chambers et al., 2000	Care and control, maternal and paternal
Parent-Adolescent Communication Scale	Conger, Conger, & Scaramella, 1997	Barber & Olsen, 1997	Openness, the free flow of information and how people deal with problems (holding back or discussing)
Parental Acceptance-Rejection/Control Questionnaire (PARQ/Control)	Rohner, 1990	Kim & Rohner, 2002	Youth perceptions of parental warmth/affection, hostility/aggression, indifference/neglect, rejection, and control (permissiveness-strictness)
Psychological Control Scale – Youth Self Report	Barber, 1996	Barber & Olsen, 1997	Autonomy and parental psychological control (parent dominates, invalidates feelings, controls, blames, criticizes, punishes, rejects/withdraws, is

Instrument	Authors	Cited in	Measures
			emotionally erratic)
Raising Children Scale	Greenberger, 1988	Earls, McGuire, & Shay, 1994	Dimensions of control: authoritarian (harsh), authoritative (firm/responsive) and permissive (lax)
Relationship with Father Inventory	Schwarz, 1994	Zazzaro et al., 1998	Father-child coalition and emotional attachment to father
Scale of Intergenerational Relationship Quality (SIRQ)	Chase-Landsdale et al., 1992	Clark & Ladd, 2000	Infant-parent interaction

References

- Amato, P. R. and J. G. Gilbreth (1999). Nonresident fathers and children's well-being: A meta analysis. *Journal of Marriage & the Family* 61: 557-573.
- Ary, D. V., T. E. Duncan, et al. (1999). Adolescent problem behavior: The influence of parents and peers. *Behav Res Ther* 37(3): 217-30.
- Bacon, H. and S. Richardson (2001). Attachment theory and child abuse: An overview of the literature for practitioners. *Child Abuse Review* 10(6): 377-397.
- Barber, B. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development* 67: 3296-3319.
- Barber, B. K. (1999). Hear Me, Understand Me, Love Me: Pleas to Parents from Adolescents Around the World. Speech given to the World Family Policy Forum: Brigham Young University.
- Barber, B. K. and D. L. Thomas (1986). Dimensions of fathers' and mothers' supportive behavior: The case for physical affection. *Journal of Marriage & the Family* 48: 783-794.
- Barber, B. K. & J. A. Olsen (1997). Socialization in context: Connection, regulation and autonomy in the family, school and neighborhood, and with peers. *Journal of Adolescent Research* 12(2): 287-315.
- Barnett, J. K., Papini, D.R. & Gbur, E. (1991). Familial correlates of sexually active pregnant and nonpregnant adolescents. *Adolescence* 26(102): 457-472.
- Baumrind D. (1991). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence* 11(1): 56-95.
- Baumrind, D. (1971). Harmonious parents and their preschool children. *Developmental Psychology* 4(1): 99-102.
- Bean, R. A., K. R. Bush, et al. (2003). The impact of parental support, behavioral control, and psychological control on the academic achievement and self esteem of African American and European American adolescents. *Journal of Adolescent Research* 18(5): 523-541.
- Behnke, M.A. and Hans, S.L. (2002). Becoming a doula. *Zero to Three*, November 2002: 9-13.
- Bell, N. J., L. F. Forthun, et al. (2000). Attachment, adolescent competencies, and substance use: Developmental considerations in the study of risk behaviors. *Substance Use & Misuse* 35(9): 1177-1206.
- Belsky, J., and R. Isabella. (1988). Maternal, infant, and social-contextual determinants of infant-mother attachment. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 41-94). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Black, M. M., I. B. Ricardo, et al. (1997). Social and psychological factors associated with AIDS risk behaviors among low-income, urban, African American adolescents. *Journal of Research on Adolescence* 7(2): 173-195.
- Blum, R. W. (2002). Mothers' influence on teen sex: Connections that promote postponing sexual intercourse. Minneapolis, MN: Center for Adolescent Health and Development, University of Minnesota: 24.
- Blum, R. W., Rinehart, P.M. (1997). Reducing the risk: Connections that make a difference in the lives of youth. Minneapolis: Division of General Pediatrics and Adolescent Health, University of Minnesota: 40.

- Bogensneider, K., Wu, M., Raffaelli, M., & Tsay, J.C. (1998). Other teens drink, but not my kid: Does parental awareness of adolescent alcohol use protect adolescents from risky consequences? *Journal of Marriage and the Family* 60(2): 356-73.
- Bowlby, J. (1969). *Attachment and loss. Vol. 1, Attachment*. Harmondsworth, Penguin.
- Bridges, L. J. (2002). Trust, Attachment, and Relatedness. In M. H. Bornstein, *Positive development across the life course*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Brook, J. S., D. W. Brook, et al. (2001). Risk factors for adolescent marijuana use across cultures and across time. *Journal of Genetic Psychology* 162(3): 357-374.
- Brook, J. S., D. W. Brook, et al. (1990). The psychosocial etiology of adolescent drug use: A family interactional approach. *Genetic, Social, & General Psychology Monographs* 116(2): 111-267.
- Brook, J. S., L. Richter, et al. (2000). Effects of parent personality, upbringing, and marijuana use on the parent-child attachment relationship. *Journal of the American Academy of Child & Adolescent Psychiatry* 39(2): 240-248
- Brook, J. S., M. Whiteman, et al. (1992). African-American and Puerto Rican drug use: Personality, familial, and other environmental risk factors. *Genet Soc Gen Psychol Monogr* 118(4): 417-38.
- Brook, J. S., M. Whiteman, et al. (1993). Role of mutual attachment in drug use: A longitudinal study. *J Am Acad Child Adolesc Psychiatry* 32(5): 982-9.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Brubaker, L. L. (2002). Comment on Cameron and Cameron (2002): Children of homosexual parents report childhood difficulties. *Psychological Reports* 91: 331-332.
- Buka, S. L., T. L. Stichick, et al. (2001). Youth exposure to violence: Prevalence, risks and consequences. *American Journal of Orthopsychiatry* 71(3): 298-310
- Burke, J., J. Chandy, et al. (1998). The parental environment cluster model of child neglect: An integrative conceptual model. *Child Welfare* 77(4): 389-405.
- Cameron, P. and K. Cameron. (2002). Children of homosexual parents report childhood difficulties. *Psychology Reports*, 91(1): 331-2.
- Catalano, R.F. and J.D. Hawkins. (1996). The social development model: A theory of antisocial behavior. In Hawkins, J.D. (Ed), *Delinquency and crime: Current theories*. Cambridge Criminology Series, Cambridge University Press: New York: 149-197.
- Catalano, R.F., R. Loeber, et al. (1999). School and community interventions to prevent serious and violent offending. *Juvenile Justice Bulletin*, 1-12.
- Census Bureau 2003. US Department of Health and Human Services Office of Assistant Secretary for Planning and Evaluation. <http://aspe.hhs.gov/poverty/03poverty.htm>.
- Chambers, J. A., K. G. Power, et al. (2000). Psychometric properties of the Parental Bonding Instrument and its association with psychological distress in a group of incarcerated young offenders in Scotland. *Soc Psychiatry Psychiatr Epidemiol* 35(7): 318-25.
- Chase-Lansdale, P. L., L. S. Wakschlag, et al. (1995). A psychological perspective on the development of caring in children and youth: The role of the family. *Journal of Adolescence* 18(5): 515-556.
- Child Trends. (2003). *The meaning of father involvement for children*. Washington DC
- Clark, K. E., Ladd, G.W. (2000). Connectedness and autonomy support in parent-child relationships: Links to Children's Socioemotional orientation and peer relationships. *Developmental Psychology* 36(4): 485-498.

- Coleman, J. S. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.
- Collins, W. A., E. E. Maccoby, et al. (2000). Contemporary research on parenting: The case for nature and nurture. *American Psychologist* 55(2): 218-232.
- Conger, K. J., Conger, R.D., & Scaramella, I.V. (1997). Parents, siblings, psychological control and adolescent adjustment. *Journal of Adolescent Research* 12(1): 113-138.
- Crosby, R. A., Miller, K.S. et al. (2002). Family influences on adolescent females' sexual health. *Handbook of Women's Sexual and Reproductive Health*. New York: Kluwer Academic/Plenum Publishers.
- D'Angelo, L. L., D. A. Weinberger, et al. (1995). Like father, like son? Predicting male adolescents' adjustment from parents' distress and self-restraint. *Developmental Psychology* 31(6): 883-896.
- Darling, C. A., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin* 113: 487-496.
- Denner, J., D. Kirby, et al. (2001). The protective role of social capital and cultural norms in Latino communities: A study of adolescent births. *Hispanic Journal of Behavioral Sciences* 23(1): 3-21.
- Dishion, T. J., and K. Kavanagh. (2002). The Adolescent Transitions Program: A family-centered prevention strategy for schools. In J. B. Reid, J. J. Snyder, & G. R. Patterson (Eds.), *The Oregon model: Understanding and altering the delinquency trajectory*: 257-272. Washington, DC: American Psychological Association.
- Dittus, P. J. & J. Jaccard (2000). Adolescents' perceptions of maternal disapproval of sex: Relationship to sexual outcomes. *J Adolesc Health* 26(4): 268-78.
- Earls, F., J. McGuire, et al. (1994). Evaluating a community intervention to reduce the risk of child abuse: Methodological strategies in conducting neighborhood surveys. *Child Abuse Negl* 18(5): 473-85.
- Egeland, B. (1997). Risk and resilience in infants and young children. APA Symposium Developmental Studies of Risk and Protective Process: Prevention and Implications.
- Egeland, B. and M. F. Erickson (1999). Attachment theory and research. *Zero to Three Journal* 20.
- Epstein, J. (1992). School and family partnerships. In M. Alkin (Ed.), *Encyclopedia of Educational Research*, 6th ed.:1139-1151. New York: Macmillan.
- Finzi, R., D. Har-Even, et al. (2002). Psychosocial characterization of physically abused children from low socioeconomic households in comparison to neglected and nonmaltreated children. *Journal of Child & Family Studies* 11(4): 441-453.
- Forgatch, M.S., and G.R. Patterson. (1998). Behavioral family therapy. In F.M. Dattilo (Ed.), *Case studies in couple and family therapy: Systematic and cognitive perspectives*: 85-107. New York, NY: Guilford Press.
- Formoso, D., N. A. Gonzales, et al. (2000). Family conflict and children's internalizing and externalizing behavior: Protective factors. *American Journal of Community Psychology* 28(2): 175-199.
- Franke, T. M. (2000). Adolescent violent behavior: An analysis across and within racial/ethnic groups. *Journal of Multicultural Social Work* 8(1-2): 47-70.
- Fukuyama, F. (1999). *The great disruption: Human nature and the reconstruction of social order*. New York: Free Press.
- Golombok, B. P., B. Perry, et al. (2003). Children with lesbian parents: A community study. *Development & Psychology* 39(1): 20-33.

- Gonzalez, A. (2002). Parental involvement: Its contributions to high school students' motivation. *The Clearing House* 75(3): 132-134.
- Gottman, J. (2003). "Fathers." Seattle, WA: University of Washington, Department of Psychology.
- Grover, P.L. (1998). Preventing substance abuse among children and adolescents: Family centered approaches. Washington DC: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention.
- Hanson, T. L., S. S. McLanahan, et al. (1996). Double Jeopardy: Parental conflict and stepfamily outcomes for children. *Journal of Marriage & the Family* 58: 141-154.
- Hair, E. C., Jager, J. & Garrett, S.B. (2002). Helping teens develop healthy social skills and relationships: What research shows about navigating adolescence. Washington DC, Child Trends: 8.
- Hill, J. P. (1987). Research on adolescents and their families: Past and prospect. *Adolescent Social Behavior and Health* 37: 13-30.
- Huesmann, L. R., C. D. Maxwell, et al. (1996). Evaluating a cognitive / ecological program for the prevention of aggression among urban children. *American Journal of Preventative Medicine* 12(5).
- Jaccard, J., P. J. Dittus, et al. (1996). Maternal correlates of adolescent sexual and contraceptive behavior. *Fam Plann Perspect* 28(4): 159-65, 185.
- Jarrett, R. L. (1995). Growing up poor: The family experiences of socially mobile youth in low-income African American neighborhoods. *Journal of Adolescent Research* 10(1): 111-135.
- Jarrett, R. L. (1997). African American family and parenting strategies in impoverished neighborhoods. *Qualitative Sociology* 20(2): 275-288.
- Johnson, R. A., S.S. Su, et al.. (1995). Parental influences on deviant behavior in early adolescence: A logistic response analysis of age and gender differentiated effects. *Journal of Quantitative Criminology* 11(2): 167-193.
- Kim, K. and R. Rohner. (2002). Parental warmth, control and involvement in schooling: Predicting academic achievement among Korean American adolescents. *Journal of Cross Cultural Psychology* 33: 127-140.
- Kirby, D. (2002). *The impact of interventions designed to promote parent-child communication about sexuality. Innovative approaches to increase parent-child communication about sexuality: Their impact and examples from the field.* New York: SIECUS.
- Klebanov, P.K., J. Brooks-Gunn et al. (1997). Are neighborhood effects on young children mediated by features of the home environment? In Brooks-Gunn, J. et al. (Eds.), *Neighborhood poverty: Context and consequences for children.* New York: Russell Sage Foundation.
- Klebanov, P.K., J. Brooks-Gunn and G.J. Duncan. (1990). Does neighborhood and family poverty affect mothers' parenting, mental health, and social support? *Journal of Marriage and the Family*, 56(2): 441-455.
- Kotchnick, B. A., S. Dorsey, et al. (1999). Adolescent sexual risk-taking behavior in single-parent ethnic minority families. *Journal of Family Psychology* 13(1): 93-102.
- Krishnakumar, A., C. Buehler, et al. (2003). Youth perceptions of inter-parental conflict, ineffective parenting, and youth problem behaviors in European-American and African-American families. *Journal of Social and Personal Relationships* 20(2): 239-260.

- Kuczynski, L. (2003). *Handbook of dynamics in parent-child relations*. Thousand Oaks, CA: Sage Publications.
- Kumpfer, K.L. and C.W. Turner. (1990). The social ecology model of adolescent substance abuse: Implications for prevention. *International Journal of Addictions*, 25(4A): 435-563.
- Kurtz, P. D., J. M. Gaudin, et al. (1993). Maltreatment and the school-aged child: School performance consequences. *Child Abuse & Neglect* 17(5): 581-589.
- Lonczak, H. S., R. D. Abbott, et al. (2002). Effects of the Seattle social development project on sexual behavior, pregnancy, birth, and sexually transmitted disease outcomes by age 21 years. *Arch Pediatr Adolesc Med* 156: 438-447.
- Maccoby, E. E., & Martin, J.A. (1983). Socialization in the context of the family: Parent-child interaction. In P. H. Mussen, *Handbook of child psychology: Vol 4. Socialization, personality, and social development*. New York: Wiley: 1-101.
- Markham, C. M., S. R. Tortolero, et al. (2003). Family connectedness and sexual risk-taking among urban youth attending alternative high schools. *Perspectives on Sexual and Reproductive Health* 35(4): 174-179.
- Mattingly, D., R. Prislun, et al. (2002). Evaluating evaluations: The case of parent involvement program. *Review of Educational Research* 72: 549-576.
- McBride Murry, V. (1998). Variation in adolescent pregnancy status: A national tri-ethnic study. In McCubbin, H.I. et al. (Eds.). *Resiliency in African American families*. Thousand Oaks, CA: Sage Publications.
- McLanahan, S.S., N.M. Astone and N.F. Marks. (1991). The role of mother-only families in reproducing poverty. In Huston, A.C. (Ed.). *Children in poverty: Child development and public policy*. New York: Cambridge University Press.
- McVey, G. L., Pepler, D., Davis, R., Flett, G. L., & Abdoell, M. (2002). Risk and protective factors associated with disordered eating during early adolescence. *Journal of Early Adolescence* 22(1): 75-95.
- Miliotis, D. S., Arturo, Jr.; Masten, Ann S. (1999). Parenting as a protective process for school success in children from homeless families. *Early Education and Development* 10(2): 111-33.
- Miller, B. C. (1998). *Families matter: A research synthesis of family influences on adolescent pregnancy*. Washington DC: National Campaign to Prevent Teen Pregnancy.
- Miller, B. C., Benson, B. & Galbraith, K.A. (2001). Family relationships and adolescent pregnancy risk: A research synthesis. *Developmental Review* 21: 1-38.
- Miller, B. C., McCoy, et al. (1986). Parental discipline and control attempts in relation to adolescent sexual attitudes and behavior. *Journal of Marriage & the Family* 48: 503-512.
- Moore, K. A. (1993). Family strengths and youth behavior problems: Analyses of three national survey databases. In G. E. Hendershot and F.B. LeClere, *Family health: From data to policy*. Minneapolis, MN: National Council on Family Relations: 64-74.
- Mueller, K. E. & W. G. Powers (1990). Parent-child sexual discussion: Perceived communicator style and subsequent behavior. *Adolescence* 25(98): 469-482.
- National Household Survey on Drug Abuse (NHSDA). (2003). School experiences and substance use among youths. Washington DC: Office of Applied Studies, Substance Abuse and Mental Health Services Administration.
- Newcomer, S. F. & Udry, J.R. (1987). Parental marital status effects on adolescent sexual behavior. *Journal of Marriage & the Family* 49(2): 235-240.

- O'Byrne, K. K., C. K. Haddock, et al. (2002). Parenting style and adolescent smoking. *J Adolesc Health* 30(6): 418-25.
- Oetting, E. R. & J. F. Donnermeyer (1998). Primary socialization theory: The etiology of drug use and deviance. *Subst Use Misuse* 33(4): 995-1026.
- Olds, D. L., C. R. Henderson, Jr., et al. (1986). Preventing child abuse and neglect: A randomized trial of nurse home visitation. *Pediatrics* 78(1): 65-78.
- Osofsky, J. D. (1999). The Impact of Violence on Children. *Future of Children* 9(3): 33-49.
- Oxford, M. L., T. W. Harachi, et al. (2001). Preadolescent predictors of substance initiation: A test of both the direct and mediated effect of family social control factors on deviant peer associations and substance initiation. *Am J Drug Alcohol Abuse* 27(4): 599-616.
- Paikioff, R.L. & J. Brooks-Gunn (1991). Do parent - child relationships change during puberty? *Psychological Bulletin* 110(1): 47-66.
- Paschall, M. J. and M. L. C. A. Hubbard (1998). Effects of neighborhood and family stressors on African American male adolescents' self-worth and propensity for violent behavior. *Journal of Consulting & Clinical Psychology* 66(5): 825-831.
- Patterson, G.R. (1986). Performance models for antisocial boys. *American Psychol.*, 41:432-444.
- Patterson, G.R., B.D. DeBaryshe et al. (1989). A developmental perspective on antisocial behavior. *American Psychol.*, 44: 329-335.
- Patterson, G. R., J.B. Reid, et al. (1992). *Antisocial boys*. Eugene, OR: Castalia Publishing.
- Patterson, G. R. and K. Joerger. (1993). Developmental models for delinquent behavior. In S. Hodgins (Ed.) *Mental disorder and crime*. Newbury Park: Sage.
- Perrino, T., A. Gonzalez-Soldevilla, et al. (2000). The role of families in adolescent HIV prevention: A review. *Clin Child Fam Psychol Rev* 3(2): 81-96.
- Putnam, R. D. (1996). The strange disappearance of civic America. *American Prospect*: 34-37.
- Pruett, K.D. (1997). *How men and children affect each other's development*. New Haven: CT: Yale Child Study Center.
- Radhakrishna, A., I. E. Bou-Saada, et al. (2001). Are father surrogates a risk factor for child maltreatment? *Child Maltreat* 6(4): 281-9.
- Resnick, M. D., P. S. Bearman, et al. (1997). Protecting adolescents from harm. Findings from the National Longitudinal Study on Adolescent Health. *JAMA* 278(10): 823-32.
- Rodriguez, J. (2002). Family environment and achievement among three generations of Mexican American high school students. *Applied Developmental Science* 6(88-94).
- Rohner, R. P. and R. A. Veneziano (2001). The importance of father love: History and contemporary evidence. *Review of General Psychology* 5(4): 382-405.
- Romer, D., B. Stanton, et al. (1999). Parental influence on adolescent sexual behavior in high-poverty settings. *Arch Pediatr Adolesc Med* 153(10): 1055-62.
- Runyan, D. K., W. M. Hunter, et al. (1998). Children who prosper in unfavorable environments: The relationship to social capital. *Pediatrics* 101(1 Pt 1): 12-8.
- Sartor, C. and J. Youniss (2002). The relationship between positive parental involvement and identity achievement during adolescence. *Adolescence* 37: 221-234.
- Schwartz-Gottman, J. (1990). *Children of gay and lesbian parents: Homosexuality and family relations*. Bellvue, WA: The Hayworth Press, Inc: 177-196.
- Sheldon, S. (2002). Parents' social networks and beliefs as predictors of parent involvement. *Elementary School Journal* 102: 301-316.

- Seligman, C. K., T. Mukai, et al. (1995). Parents' contributions to children's knowledge and attitudes regarding AIDS: Another look. *Journal of Pediatric Psychology* 20(1): 61-77.
- Silk, J.S, A.S. Morris, et al. (2003). Psychological control and autonomy granting: Opposite ends of a continuum or distinct constructs? *Journal of Research on Adolescence* 13(1): 113-128.
- Simons, R. L., K.-H. Lin, et al. (1999). Explaining the higher incidence of adjustment problems among children of divorce compared with those in two-parent families. *Journal of Marriage & the Family* 61(4): 1020-1033.
- Smith, P., B. R. Flay, et al. (2001). The protective influence of parents and peers in violence avoidance among African-American youth. *Matern Child Health J* 5(4): 245-52.
- Stacey, J. and T. J. Biblarz (2001). (How) Does The Sexual Orientation of Parents Matter? *American Sociological Review* 66: 159-183.
- Stein, D., D. E. Williamson, et al. (2000). Parent-child bonding and family functioning in depressed children and children at high risk and low risk for future depression. *J Am Acad Child Adolesc Psychiatry* 39(11): 1387-95.
- Steinberg, L. (1987). Single parents, stepparents, and the susceptibility of adolescents to antisocial peer pressure. *Child Development* 58: 269-275.
- Steinberg, L. (1990). Autonomy, conflict, and harmony in the family. In E. Aries (Ed.), *Adolescent behavior: Readings and interpretations*: 352-371. Guilford, CT: McGraw-Hill/Dushkin.
- Steinberg, L. (1991). The logic of adolescence. In P. Edelman & J. Ladner (Eds.). *Adolescence & Poverty: Challenge for the 1990s*: 19-36. Washington, DC: Center for National Policy Press.
- Steinberg, L. (2001). We know some things: Parent - adolescent relationships in retrospect and prospect. *Journal of Research on Adolescence* 11(1): 1-19.
- Steinberg, L., Fletcher, A., & Darling, N. (1994). Parental monitoring and peer influences on adolescent substance use. *Pediatrics* 93(6): 1060-1064.
- Steinberg, L., S. Lamborn et al. (1992). Impact of parenting practices on adolescent achievement: Authoritative parenting, school involvement and encouragement to succeed. *Child Development*, 63: 1266-1281.
- Taylor, R. D., E. Seaton, et al. (2002). Psychological adjustment of urban, inner-city ethnic minority adolescents. *Journal of Adolescent Health* 31(68): 280-287.
- Tinkler, B. (2002). A review of literature on Hispanic/Latino parent involvement in K-12 education. Denver, CO: Assets for Colorado Youth: 17.
- Voydanoff, P. D. and B.W. Donnelly. (1998). Parents' risk and protective factors as predictors of parental well-being and behavior. *Journal of Marriage & the Family* 60(2): 344-55.
- Walsh, F. (1998). *Strengthening family resilience*. New York, NY: The Guilford Press.
- Weinberger, D.A. and G.E. Schwartz. (1990). Distress and restraint as superordinate dimensions of adjustment: A typological perspective." *Journal of Personality*, 58: 381-417.
- Weinstein, M. and Thornton, A. (1989). Mother-child relations and adolescent sexual attitudes and behaviors. *Demography* 26(4): 563-577.
- Whitbeck, L. B., R.M. Simons et al. (1994). The effects of divorced mothers' dating behaviors and sexual attitudes on the sexual attitudes and behaviors of their adolescent children. *Journal of Marriage & the Family* 56(3): 615-621.
- Wipfler, P. (2003). Parenting by Connection. Palo Alto, CA: Parents Leadership Institute.

- Wolfe, R. B. & B. J. Hirsch (2003). Outcomes of parent education programs based on reevaluation counseling. *Journal of Child and Family Studies* 12(1): 61-76.
- Woodward, L.J., Fergusson, D. M. & Belsky, J. (2000). Timing of parental separations and attachment to parents in adolescence: Results from a prospective study from birth to 16 years. *Journal of Marriage & the Family* 62, 162-174.
- Zazzaro, J.A. and Lassiter, K.S. (1998). Concurrent validity of the relationship with father inventory. *Psychological Reports* 83: 403-409.
- Zolotor, A., J. Kotch, et al. (1999). School performance in a longitudinal cohort of children at risk of maltreatment. *Matern Child Health J* 3(1): 19-27.

Introductions. Parent Child Connectedness. Introduction. Research Supports Engaging Parents. Parent-Child Connectedness (PCC). Work of Joyce Epstein, PhD, and Colleagues. Overlapping Spheres of Influence. Parent-Child Connectedness is a condition that is characterized by the quality of the emotional bond between parent and child, and the degree to which this bond is both mutual and sustained over time. - ETR Definition (PCC Bridge Project). 10. Introduction. 1. Find a partner. And almost all parents whose children are grown say they wish they had spent more time with their kids. "Being fully present?" The closeness of the parent-child connection throughout life results from how much parents connect with their babies, right from the beginning. For instance, research has shown that fathers who take a week or more off work when their babies are born have a closer relationship with their child at every stage, including as teens and college students. Connections between parent and child is define like below for eg between Node-1 and Node-1-1 : "connections": { "joins": [{ "parent": "Node-1", "child": "Node-1-1" }] }. But problem is I am not getting how to compare every parent and child nodes and how to manage this callback in recursive structure. var records = [{.