

Mental Health and the Justice System Across the Lifespan
Vancouver, British Columbia
April 2-4, 2008

From Risk Research to Risk Reduction: Understanding Youth Aggression, Violence and Antisocial Behavior

Dr. Marlene M. Moretti
University Professor, Psychology Department,
Simon Fraser University, BC CANADA
moretti@sfu.ca





Overview

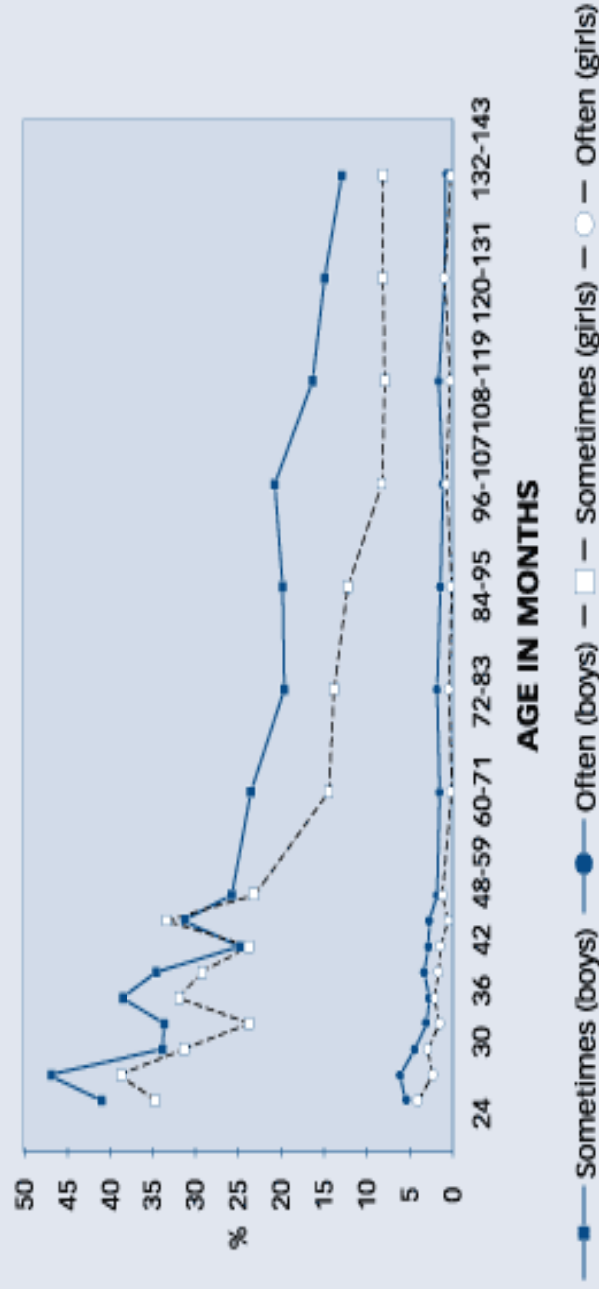
- Aggression, Violence and Antisocial Behavior: What Does a Developmental Perspective Tell Us?
- How Do Family Contexts Influence Youth Violence
- Other Risk Factors:
 - Exposure to Trauma & Adversity
 - Mental Health Disorders
 - Personality Factors
 - Problems in Affective and Cognitive Regulation
- From Research to Risk Reduction: THE CONNECT PROGRAM
 - PROGRAM DESCRIPTION
 - EVALUATION
 - IMPLICATIONS

Aggression – Learned Behavior?



Mean Frequency of Physical Aggression NLSCY: 24 Month Peak and Steadily Decline

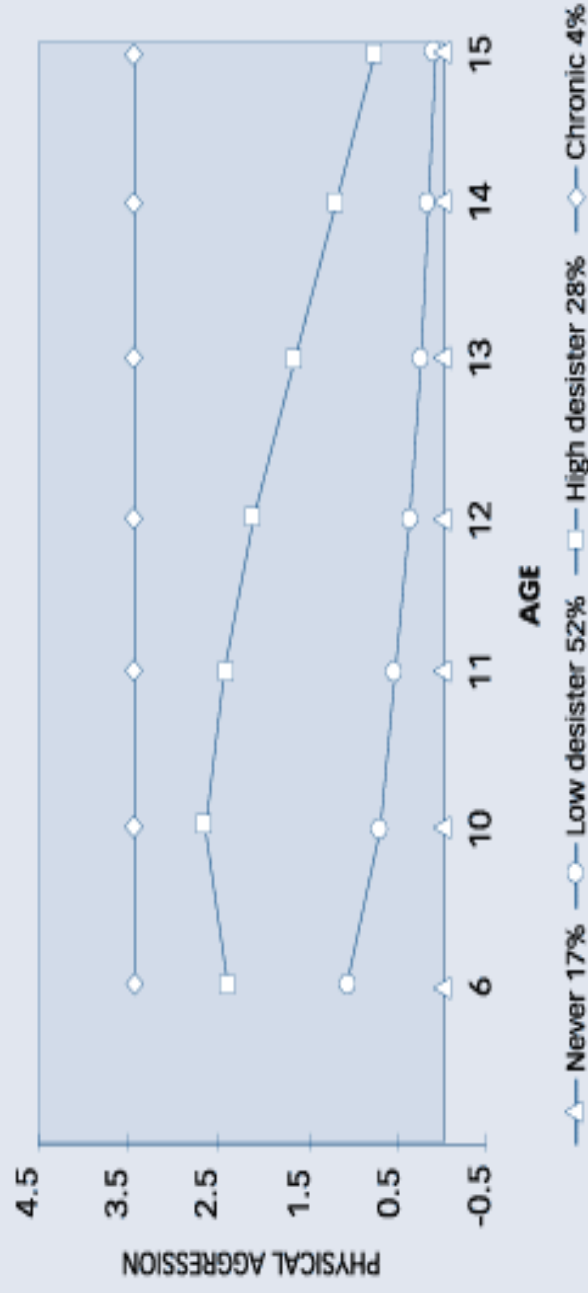
FIGURE 3
Frequency of hitting, biting from 2 to 11 years of age



R.E. Tremblay, et al. (1996) "Do children in Canada become more aggressive as they approach adolescence?" in Human Resources Development Canada, Statistics Canada (ed.), *Growing up in Canada: National Longitudinal Survey of Children and Youth* (Ottawa: Statistics Canada, 1996), pp. 127-137.

Teacher-Rated Physical Aggression in Boys from Low SES Neighborhoods

FIGURE 2
Developmental trajectories of physical aggression from 6 to 15 years of age



D. Nagin and R.E. Tremblay, "Trajectories of boys' physical aggression, opposition, and hyperactivity on the path to 5 physically violent and non violent juvenile delinquency," *Child Development*, Vol. 70 (1999), pp. 1181-1196.

Family Context & Aggression

- Most – but not all – children desist as they grow older.

Family Risk Factors for Early Aggression & Antisocial Behavior:

- Parental criminality
- Single parent family
- Poverty

- These are **markers** of risk – what **processes** within the family put children at risk?

- Are there family contexts in which children do not learn to inhibit aggressive behaviour?
- Are there family contexts in which children learn to use aggression strategically?
- Are there sex differences in the effect of family contexts on the use of aggression by girls and boys?

Family Violence: A Known Risk Factor for Aggression

- Kitzmann et al. 2003:
 - Meta-analysis of 118 studies: physical interparental violence (IPV) relates to broad outcomes, including increased aggression
- Virtually no research has examined whether the effects occur similarly when IPV is perpetrated by mothers versus fathers
 - *What are the unique effects of exposure to physical IPV perpetrated by mothers versus fathers on use of physical aggression by daughters and sons in their relationships?*
 - *Are these effects general or sex-specific?*
- Why look at adolescence ➔ Developmental transition where peers and romantic partners become very salient

Family Lessons in Attachment and Aggression

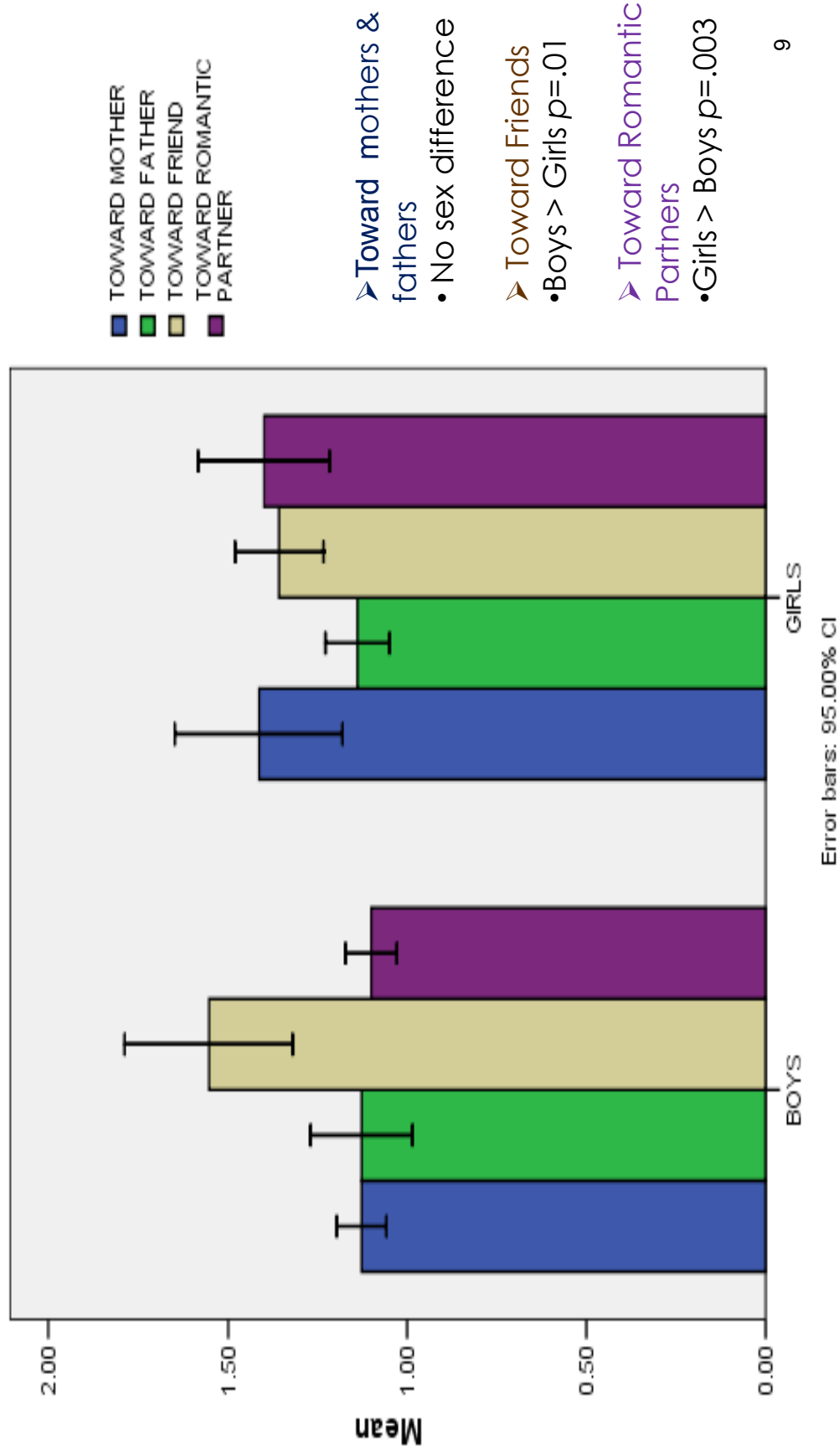
Gender & Aggression
PROJECT



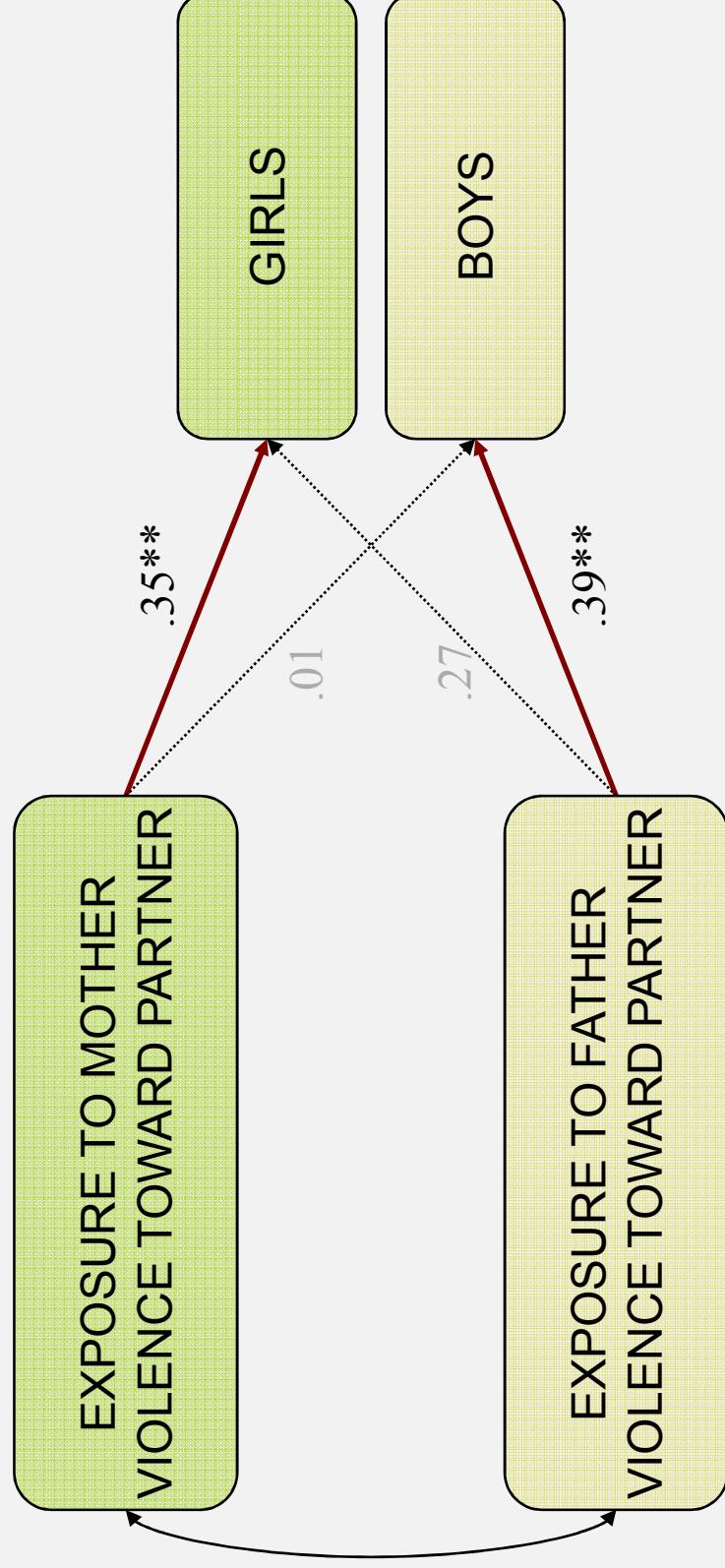
- 112 adolescents (49 boys, 63 girls), mean age 15 years
 - Incarcerated adolescent girls and boys
 - Mental health facility for youth with serious conduct disorder
- Exposure to mother vs. father partner physical aggression (Family Background Questionnaire, Wolfe et al.)
 - E.g. Beat up... Threw something at... Threatened partner with a weapon... Pushed, grabbed or shoved...
- Adolescent physical aggression across relationships (Conflict Tactics Scale; Pepler modification)
 - E.g., ...pushed, grabbed or shoved..., threw something at..., slapped; kicked bit or hit...

Moretti, M. M., Obsuth, I., Odgers, C. L., Reebye, P. (2006). Exposure to Maternal vs. Paternal Partner Violence, PTSD, and Aggression in Adolescent Girls and Boys. *Aggressive behaviour*, 32, 385-395.

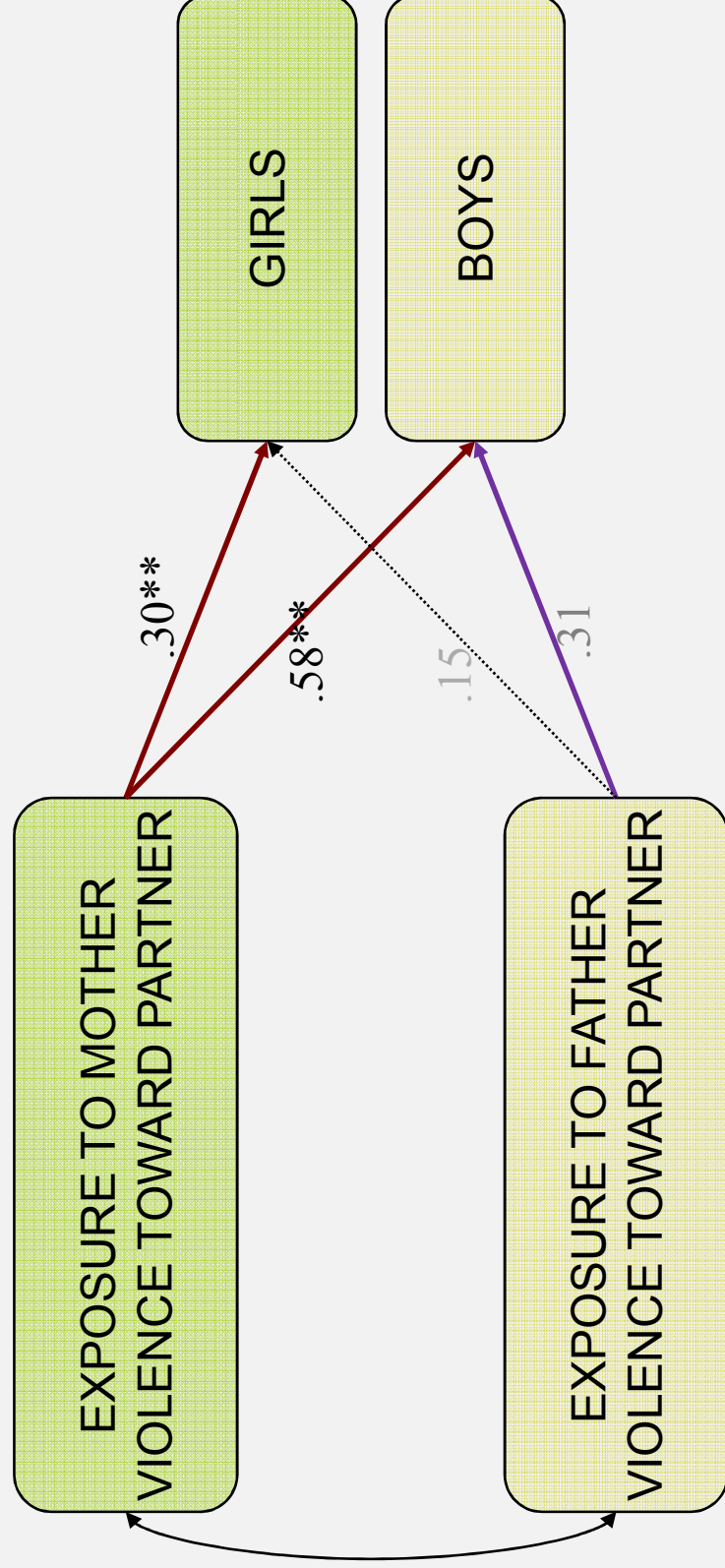
Girls and Boys Physical Aggression Across Relationships (Conflict Tactics Scale)

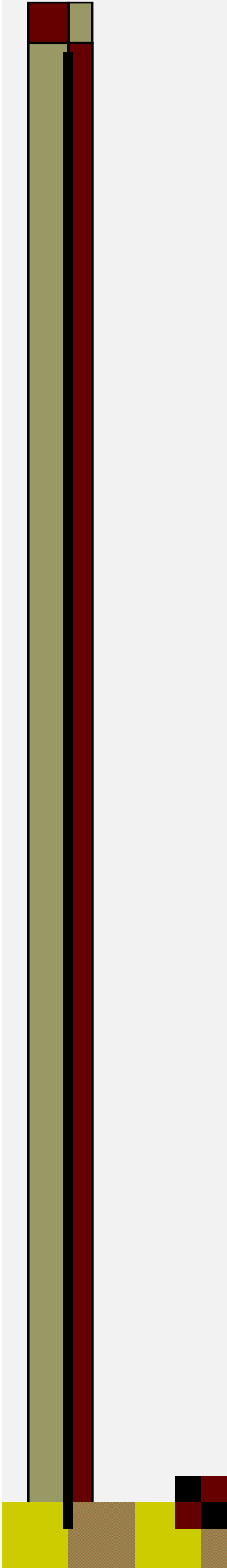


Exposure to Mother vs. Father Physical Aggression Toward Partner & Youth Physical Aggression in Peer Relationships (Controlling for exposure to maternal & paternal physical abuse)



Exposure to Mother vs. Father Physical Aggression Toward Partner & Youth Physical Aggression in Romantic Relationships (Controlling for exposure to maternal & paternal physical abuse)

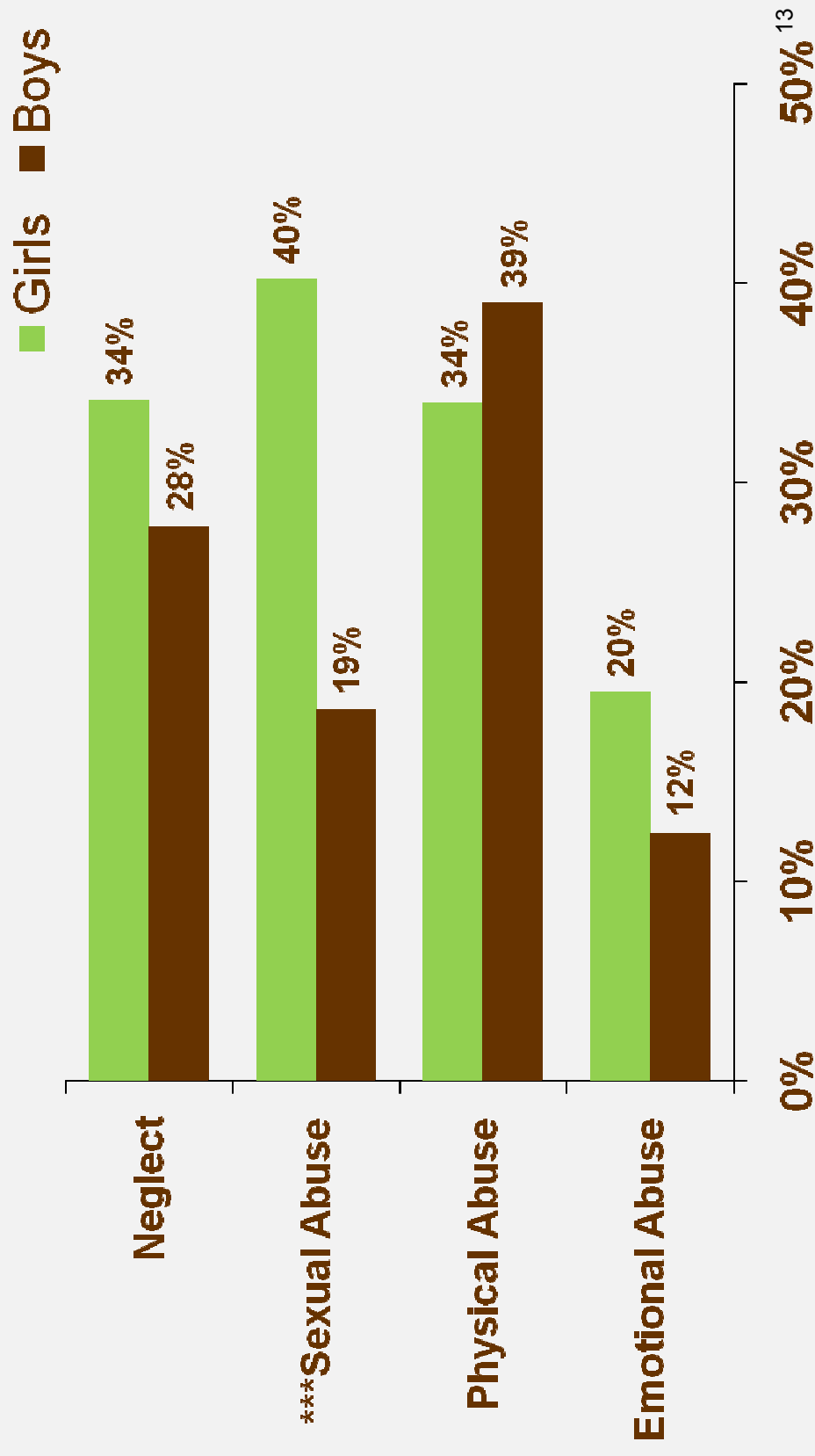




Beyond Family Violence: A Tapestry of Trauma, Adversity and Risk

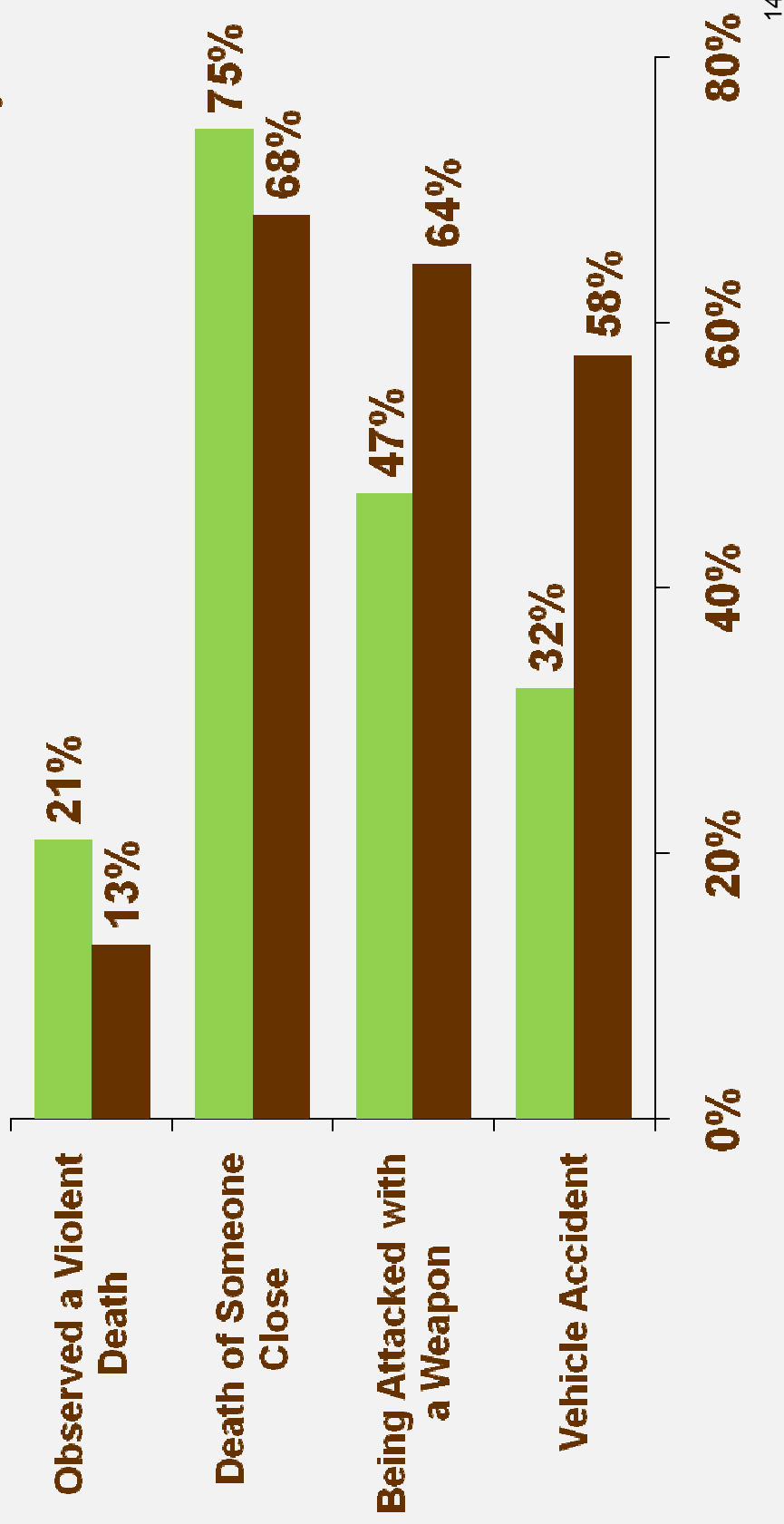
RISK FACTORS: EXPOSURE TO MALTREATMENT

**Documented cases in social history records*

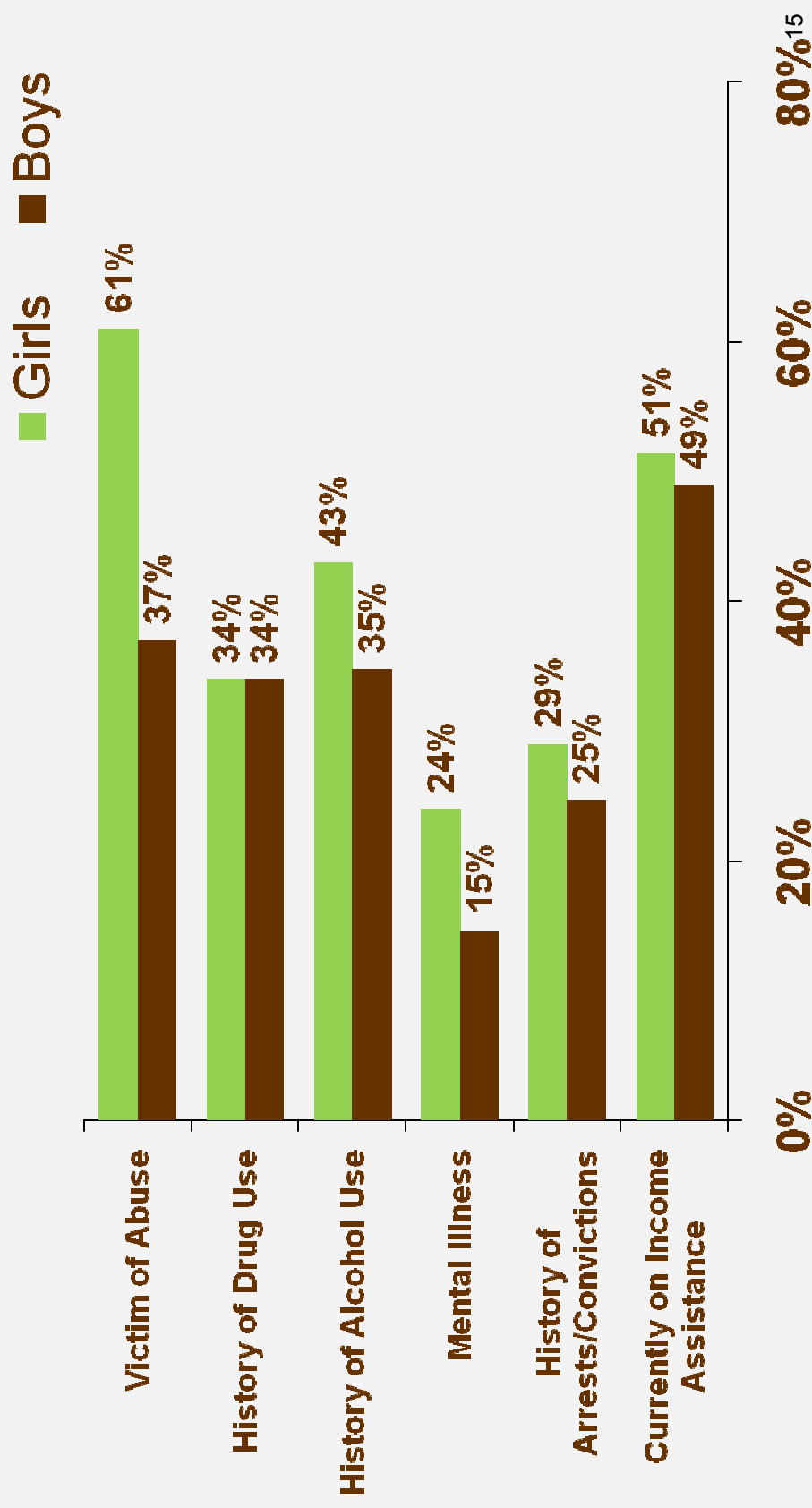


RISK FACTORS: EXPOSURE TO TRAUMA

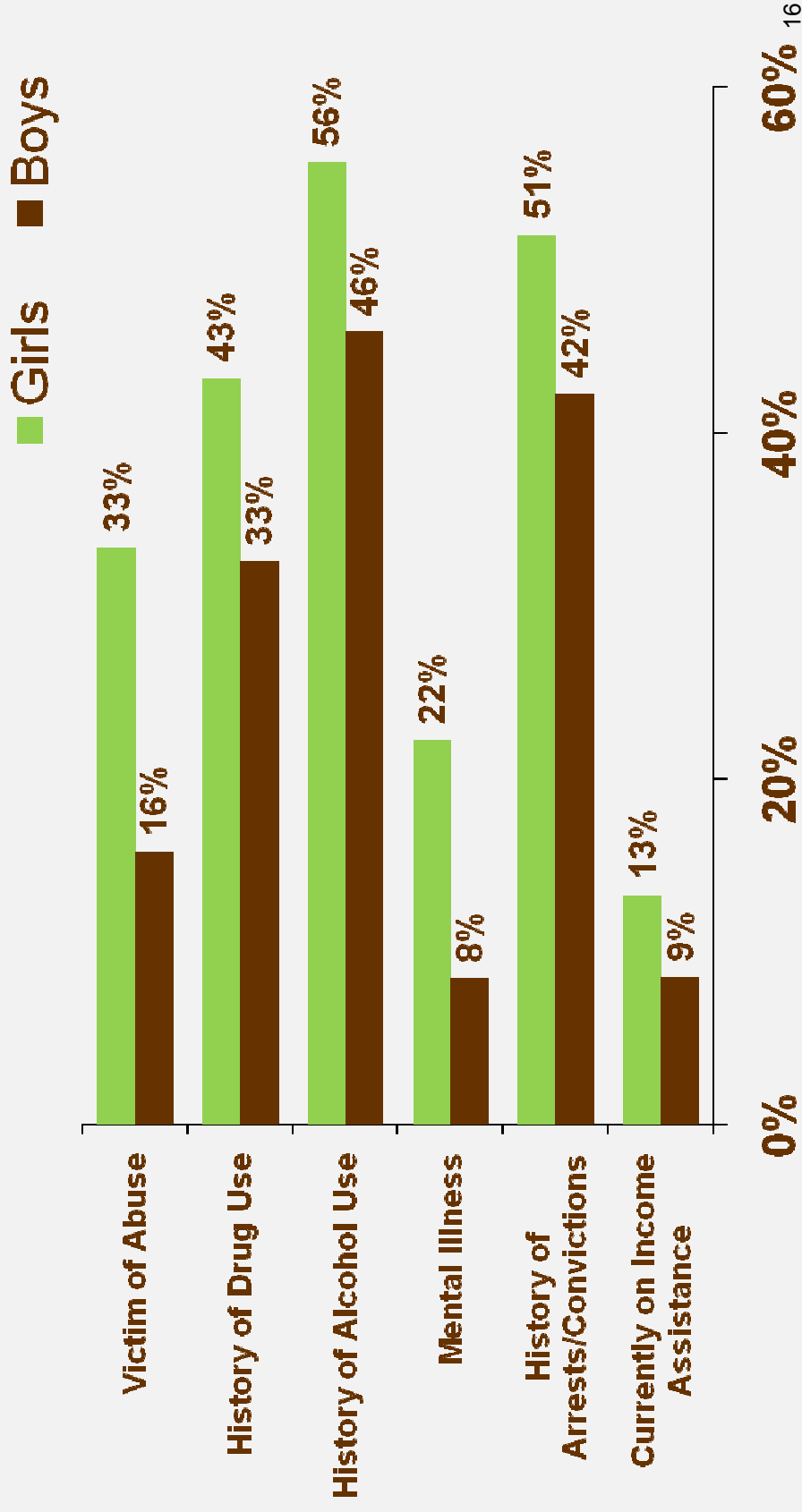
■ Girls ■ Boys



Risk Factors: Mother's Mental Health and Social History

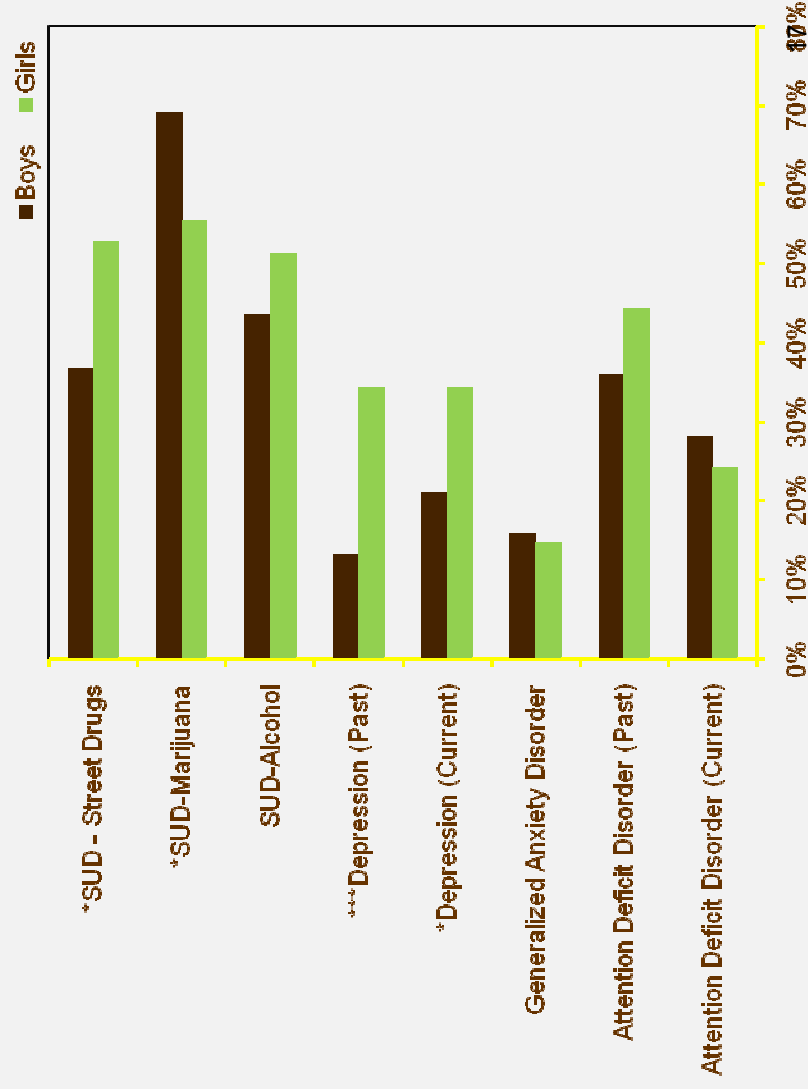


Risk Factors: Father's Mental Health and Social History



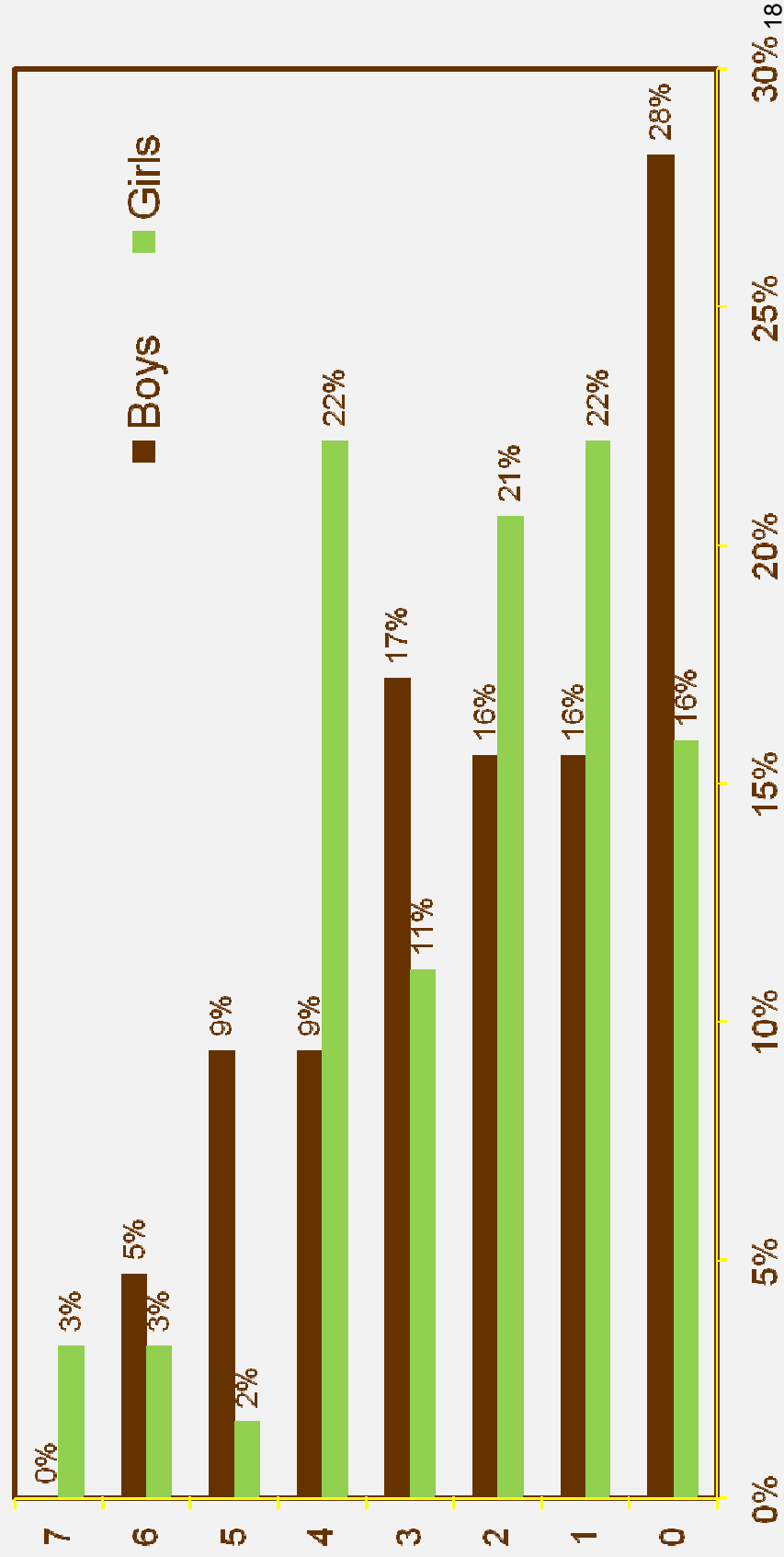
Mental Health Profiles in Aggressive & Antisocial Youth

Comorbidity of Mental Health Disorders in Youth Diagnosed with Conduct Disorder*

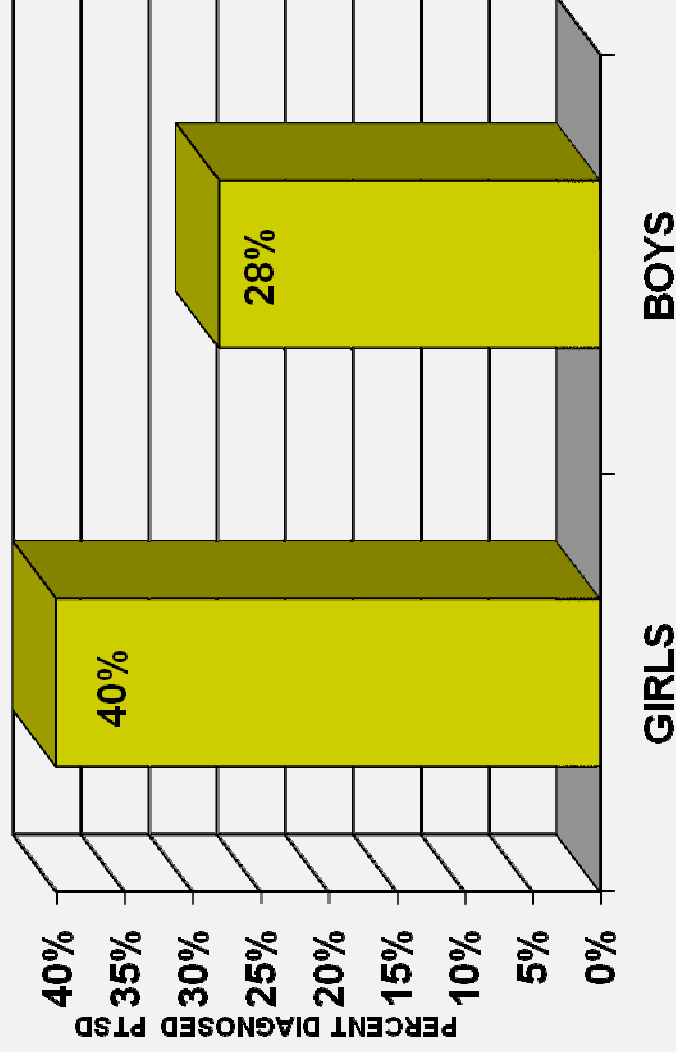


Diagnoses based on Diagnostic Interview for Children & Adolescents – Revised (DICA-R)

Comorbidity – Number of Current Diagnoses in Addition to Conduct Disorder



PTSD – Rates and Risk for Aggression



Results consistent with higher risk for PTSD in children exposed to partner violence [e.g., Kitzmann et al., 2003; Margolin & Gordis, 2000; Wolfe et al., 2003].

PTSD – Moderates Impact of Family Violence on Youth Aggression

- PTSD symptoms – e.g., hypervigilance – exacerbates reactions to family violence and increases risk for violence [Meiser-Stedman, 2002].
- E.g., Wekerle et al. [2001]:
 - Among teens exposed to maltreatment, those with PTSD symptoms were more likely to perpetrate and be victimized in dating relationships, both concurrently and prospectively
- Moretti et al., 2006:
 - Among youth who reported that their mothers were violent toward partners, those who met criteria for PTSD were most at risk to aggress toward friends
 - *Among boys, PTSD status predicts aggression toward friends at two years follow-up*



Social-Cognitive, Affective and Personality Risk Factors

Personality Issues:

- Psychopathy

Affective Regulation:

- Affect dyscontrol

Cognitive Regulation:

- Rumination

Psychopathy: Developmental Considerations

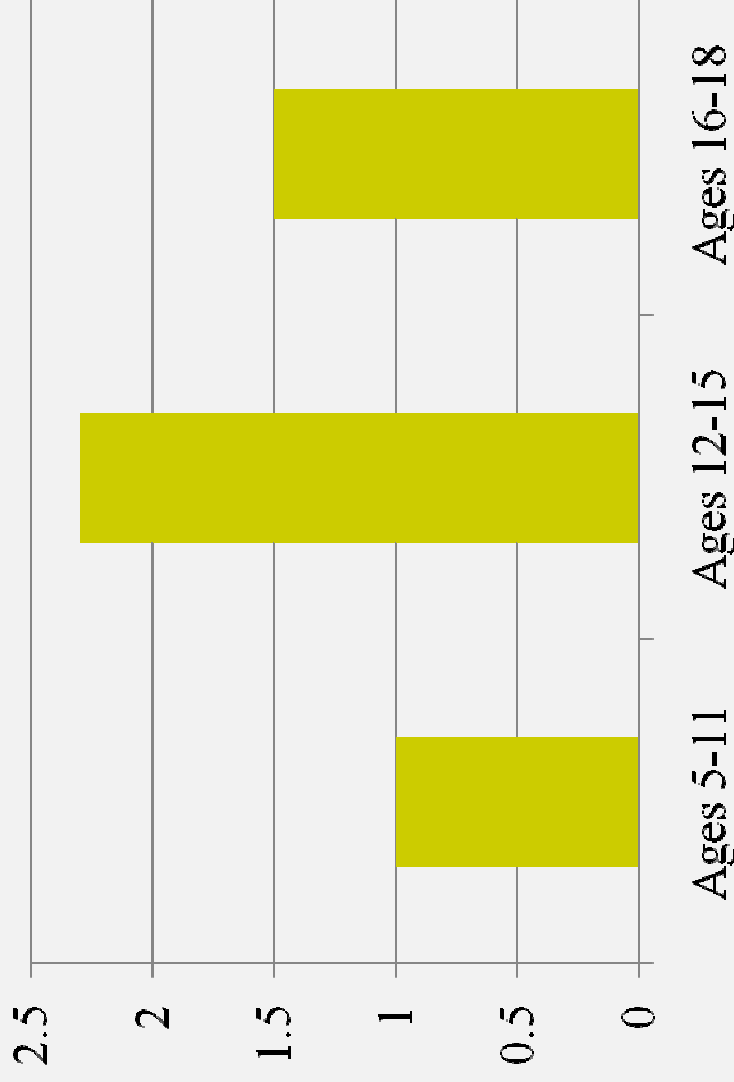
Klaver et al., *APLS Psychopathic Traits in Juvenile Offenders: A Retrospective Investigation of the Onset of the Syndrome*

- At what age do characteristics of psychopathy emerge in development?
 - Sample: 115 male young offenders
 - PCL:YV supplemented with probes to establish age of onset for 20 items
 - Good reliability for coding

Psychopathy: Developmental Considerations

- Estimated mean increases in PCL:YV total scores at each one-year age interval between ages 5 and 18

Mean Total Score Increase



Onset of Specific Psychopathy

Characteristics

- Survival analysis was used to compute the median ages of onset of each characteristic
- *Affective characteristics* were first to fully manifest, with first appearance at a mean age of *9.5 years* and full manifestation at a mean age of *12.8 years*
- In terms of individual items, the affective characteristics of *Lacks Remorse and Callous/Lacks Empathy* appeared first
- *How stable are affective characteristics of psychopathy in youth? How stable are other features?*

How Stable are Characteristics of Youth Psychopathy?

Zina Lee et al. 2008 APLS - Stability and Change of Psychopathic Traits in Adolescent Offenders

Time 1: 112 male young offenders

Time 2 (@ 6 mths): 83 of original sample

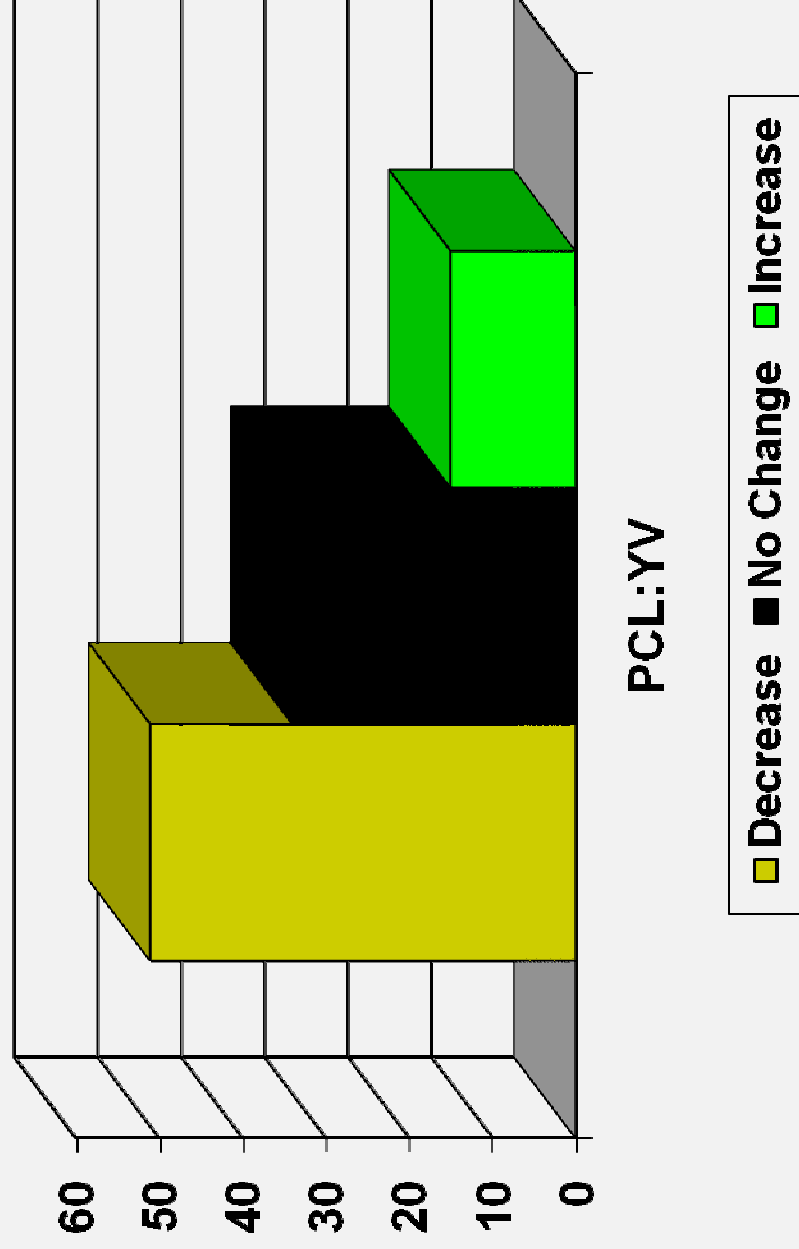
	PCL:YV	APSD
Total	.75	.72
Interpersonal	.72	.60
Affective	.49	.30
Behavioral	.70	.62

*Psychoopathy Checklist: Youth Version
*Antisocial Process Screening Device

Results: Mean Changes

PCL:YV	Time 1	Time 2
Total **	20.90 (7.51)	18.01 (7.66)
Interpersonal	3.48 (2.18)	3.31 (1.84)
Affective **	4.59 (1.73)	3.99 (1.86)
Behavioral *	5.91 (2.28)	5.27 (2.40)

Results: Magnitude of Change (Total)



Affect Deficit or Affect Dyscontrol?

- Psychopathy research →
 - Absence of empathy, callousness, superficiality
= increase risk for aggression/violence
- Developmental research on behavior problems →
 - Presence of intense, uncontrolled, unmodulated affect = increase risk for aggression/violence

Affect Deficit or Affect Dyscontrol?

- Affect deficit and affect dyscontrol are uncorrelated.
- Significantly and independently contribute to **concurrent levels** of aggressive behavior and violent offending.
- **Only affect deficit** contributes **prospectively** to aggression and violent offending.
- Affect dyscontrol may get youth in trouble, but deficiency in affect may allow them to continue to perpetrate aggressive and violent acts.

Cognitive Factors: Rumination

Peled & Moretti, 2007, Journal of Clinical Child & Adolescent Psychology

Rumination:

Tendency to experience repetitive, intrusive and aversive thoughts... feeling of loss of control over thought processes.

Rumination on sadness:

- *I tire myself out thinking of the reasons for my sadness*
 - *I keep thinking about past experiences that have made me sad*
- ➔ *Predicts depression intensity and duration*

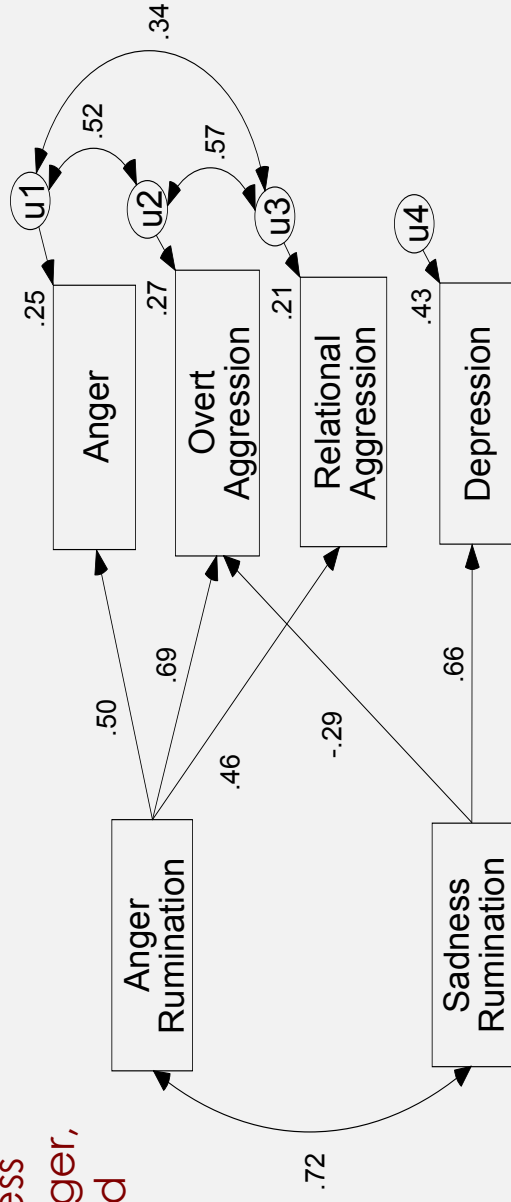
Rumination on anger:

- *I tire myself out thinking of the reasons for my anger*
 - *I keep thinking about past experiences that have made me angry*
- ➔ *Does anger rumination predict aggression and angry affect?*

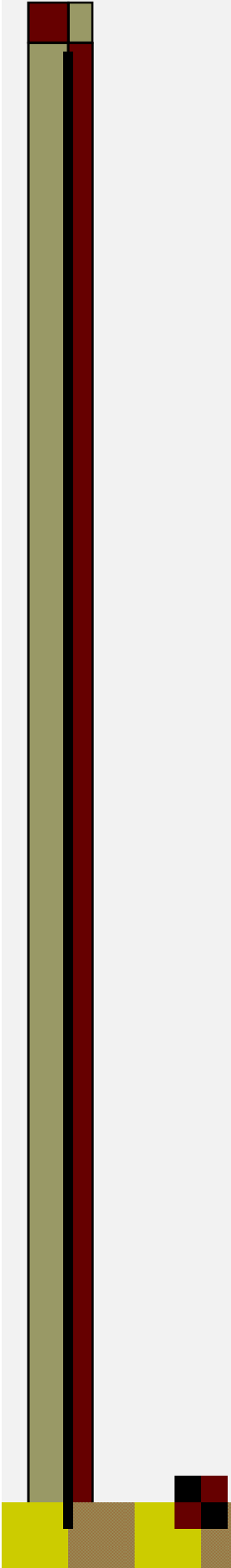
Rumination on Anger vs. Sadness

Peled & Moretti, 2007, Journal of Clinical Child & Adolescent Psychology

Each form of rumination is uniquely related to emotional or behavioral problems – anger rumination predicted anger, relational aggression, and overt aggression, and sadness rumination predicted depression.



$\chi^2(6, N = 121) = 6.2, p = .41$; root mean square error of approximation (RMSEA) = .02 (.00–.12); comparative fit index (CFI) = 1.0.2



From Research to Risk Reduction: Developing an Evidence Based Intervention

Synopsis of Findings

- Youth at risk for aggression, violence and delinquency ~
 - Grow up in homes where they do not learn to how to desist from aggressive behavior ~ in fact they learn important, implicit lessons in how to use aggression strategically
 - They grow up in violent life contexts, often with parents who grew up in adversity and suffer from mental health problems
 - Over time, they develop multiple mental health problems to which they are vulnerable due to genetic and neurodevelopmental factors

Synopsis of Findings

Youth at risk for aggression, violence and delinquency ~

- They lag behind in their development and modulation of emotion – marked either by deficit affective arousal or overwhelming and uncontrolled affective arousal*
- Their capacity for cognitive self-regulation is also delayed and atypical - they ruminate and fail to use cognitive strategies to cope with failure and frustration
- In short, the capacity of their caregivers and the conditions of their development, fail to facilitate the develop of effective self-regulation across the domains of affect, cognition and behavior.



Families: Building Capacity in Adversity

Why Focus on Families?

Laurence Steinberg (2000). Youth Violence: Do Parents and Families Make a Difference? Institute of Justice Journal.

"I doubt that there is an influence on the development of antisocial behavior among young people that is stronger than that of the family."

"Among the most powerful predictors of mental health problems among children and adolescents are poor family relationships. Children whose parents are hostile and punitive, as well as those whose parents are neglectful, are at risk for developing all sorts of mental health problems, and children with mental health problems are at risk for developing patterns of antisocial behavior"

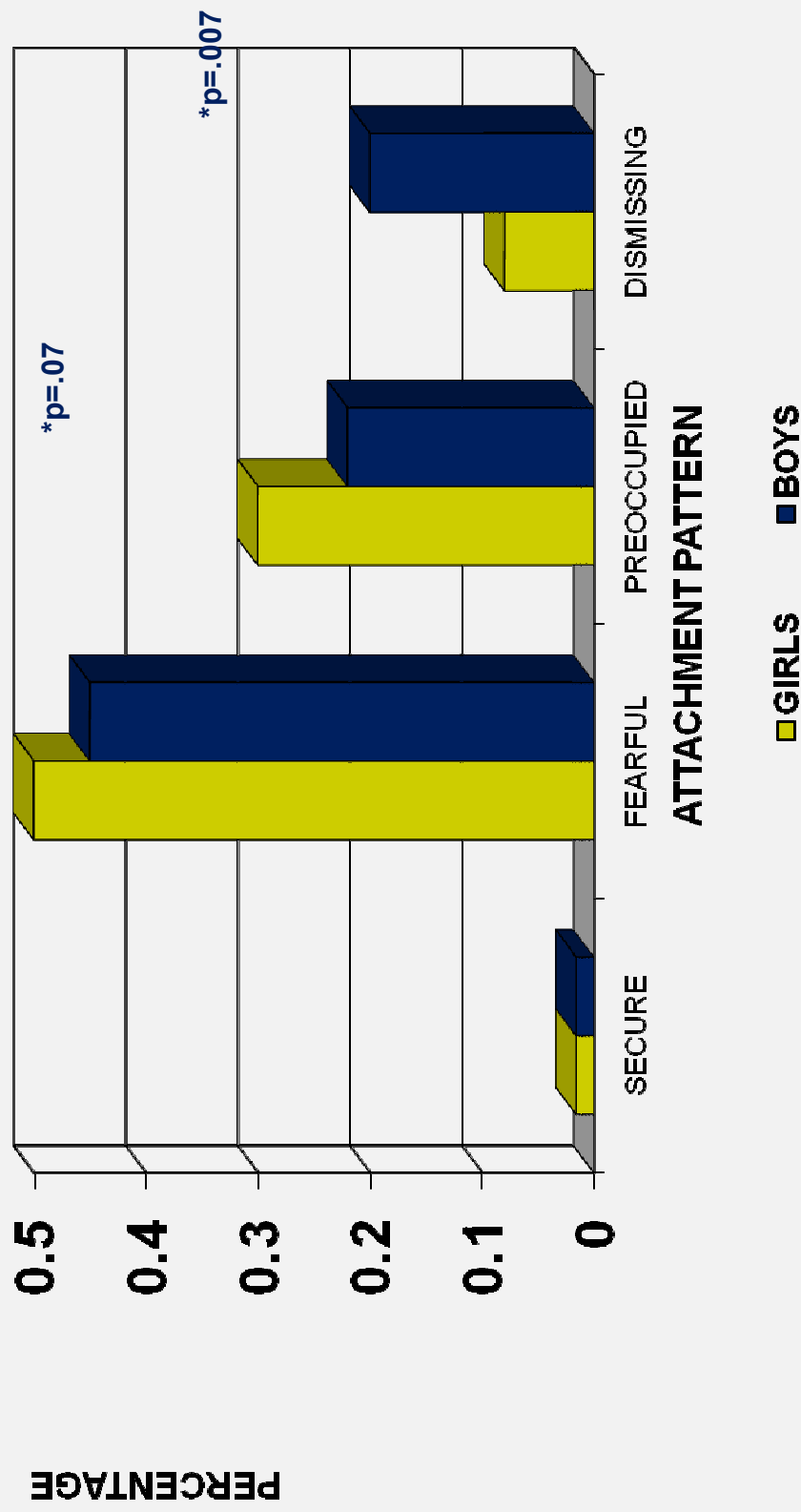
Attachment Theory



John Bowlby

“... no variables, it can be held, have more far-reaching effects on personality development than have a child’s experiences within his family: for, starting during the first months in his relation with his mother figure, and extending through the years of childhood and adolescence in his relations with both parents, he builds up working models of how attachment figures are likely to behave towards him in any of a variety of situations; and on those models are based all his expectations, and therefore all his plans, for the rest of his life” (Bowlby, 1973, p.418)

ATTACHMENT PATTERNS
FAMILY ATTACHMENT INTERVIEW
(64 FEMALE; 64 MALES; HIGH RISK FOR AGGRESSION – MORETTI ET AL.)



Attachment & Aggression

Moretti & Obsuth, in press. Attachment and Aggression: From Paradox to Principles of Intervention to Reduce Risk of Violence in Teens

■ Insecure attachment → higher levels of aggression

- Girls → higher attachment **anxiety** = higher relational and overt aggression
- Boys → higher attachment **avoidance** = higher relational and overt aggression

Consistent with growing body of research showing a link between attachment and aggression, e.g.,

- Allen et al. (2002): anxious-preoccupied attachment at age 16 predicts delinquent behavior between the ages of 16 to 18 years
- Orcutt, Garcia, and Pickett (2005): females high in attachment anxiety more at risk to perpetrate violence toward their partners.
- Dismissingness in males linked to early behaviour problems and engaging in serious and versatile criminal behaviour on PCL-YV (Catchpole & Moretti, 2008).

Attachment & Intervention: Working to Reduce Risk and Enhance Attachment Security



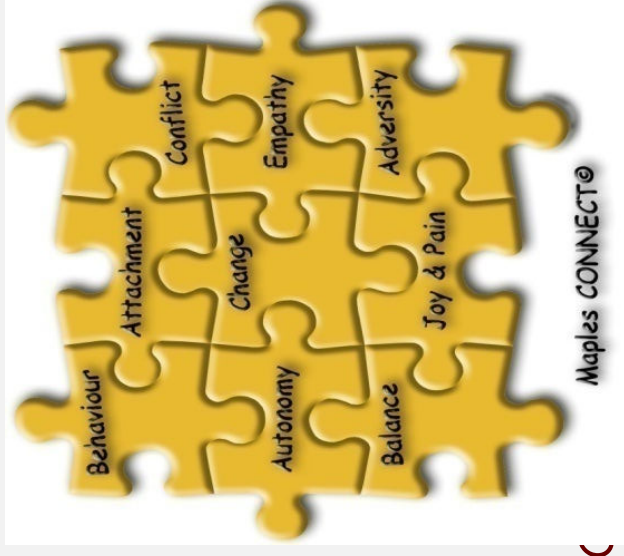
Attachment Based Interventions

- Bakermans-Kranenburg, Van IJzendoorn, & Juffer, 2003: 70 studies representing 88 intervention effects on parental sensitivity and/or children's attachment security
- Interventions that specifically focused on promoting sensitive parental behavior proved to be effective in changing insensitive parenting as well as infant attachment insecurity
- Marvin: "Circle of Security"
- Juffer, Bakermans-Kranenburg, & Van IJzendoorn: Videofeedback Intervention to promote Positive Parenting
- Diamond: Attachment Based Family Therapy – adolescent substance use problems
 - Common Focus: Enhance parental sensitivity; awareness of attachment/relational issues; modulation of affect and parenting behavior

CONNECT®

Moretti, Holland, Braber, Cross & Obsuth, 2006

- *Manualized - 10 Sessions*
- *Group Format*
- *Role Plays, Reflection Exercises; Instruction & Discussion*
- *For parents or alternate caregivers*
- *Evidence based & Built in program evaluation*
- *Directed at reducing aggression and violence, and promoting healthy relationships.*



Connect: An Attachment Based Approach to Working with Parent-Child Relationships

- Focuses on the building blocks of secure attachment:
 - Caregiver Sensitivity: *Ability to perceive and interpret implicit communication in behavior in terms of attachment needs.*
 - Cooperation: *Ability to organize care so it fits with the quality of the child's state, mood and current interests.*
 - Mentalizing/Reflectivity: *Capacity to sense and read human behavior- both in ourselves and others– in terms of underlying feelings and needs.*
 - Dyadic Affect Regulation (Fonagy & Target, 1996): *Capacity to hold, tolerate and explore difficult emotional states in ourselves and others.*
 - Caregiver sensitivity, cooperation, reflectivity and dyadic affect regulation **particularly during conflict**
- opens new opportunities for healthy relationships and regulatory skill development.



Connect: A Principle Based Approach to Working with Parent-Child Relationships

What Skills Do Parents Learn?

- ❑ Identify underlying attachment/interpersonal needs and reframe parent-teen conflict.
- ❑ Reflect on the psychological experience of their youth and themselves with empathy.
- ❑ Maintain emotional availability and modulate emotional arousal in the face of conflict.
- ❑ Strategic use of basic parenting skills to set limits and support their relationship with their adolescent.



CONNECT: GROUP STRUCTURE

- Each week focuses on a key attachment principle as it relates to adolescent development and parenting, followed by role-plays, exercises.
- Integrate techniques from CBT, mindfulness training, emotional regulation, distress tolerance.
- One hour sessions only! Ten sessions only!

CONNECT – Illustrative Session Principles

	Title	Principle	Illustrative Goals & Skill Development Focus
#3	Attachment over the Lifespan	Attachment is for life.	Enhance recognition that attachment needs continue throughout life but are expressed differently as children develop.
#4	Conflict: An Opportunity for Understanding and Connection	Conflict is part of attachment.	- Enhance recognition and acceptance of conflict as a normative part of relationships. - Develop skills in regulating affect, maintaining connection and negotiating in the face of conflict.
#7	Empathy – The Heartbeat of Attachment	Understanding, growth & change begins with empathy.	- Enhance understanding of the role of empathy as essential to secure attachment. - Develop skills in empathic listening in conflict situations. - Emphasize that empathy is not condoning problem behavior - Strengthen skills in setting limits while maintaining empathy

CONNECT – Waitlist Control Study

Effectiveness

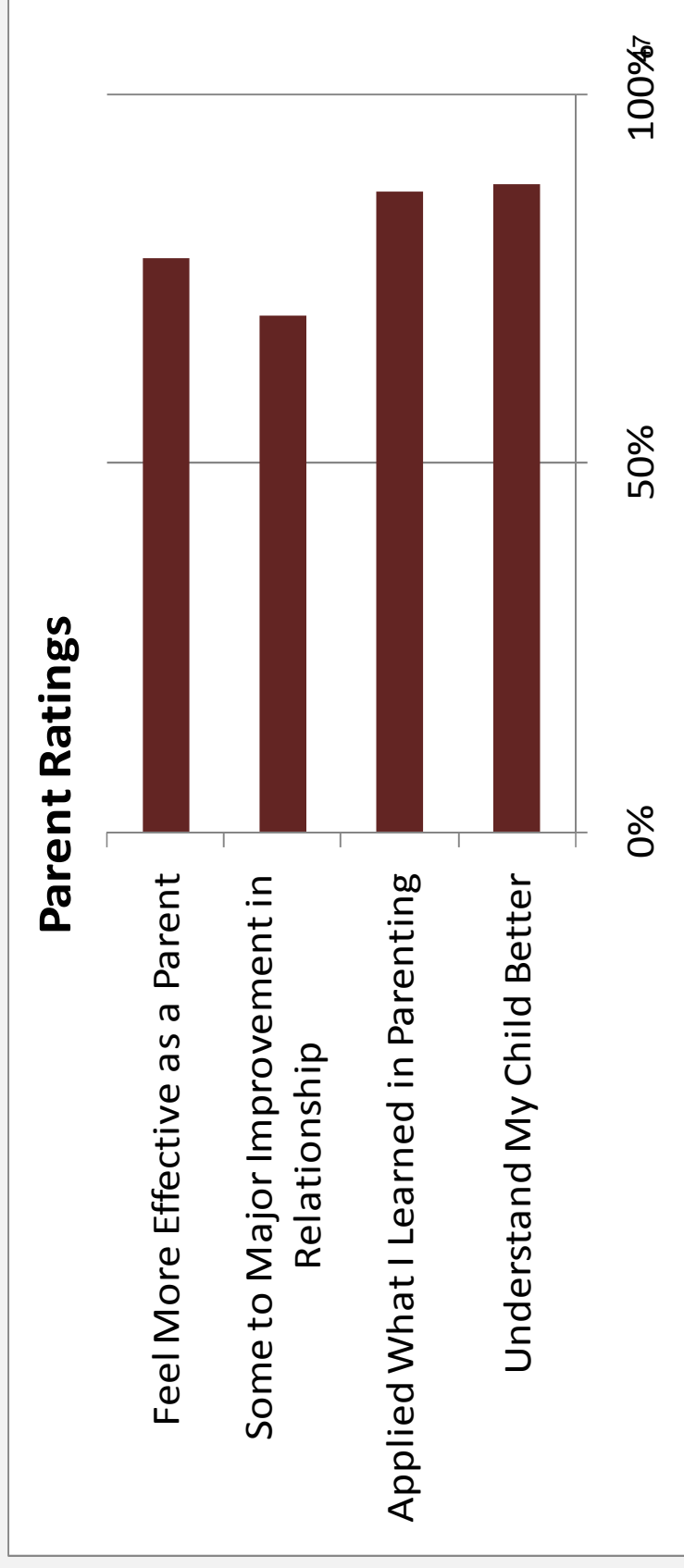
Client Group:

- 13 boys and 7 girls (mean age 14.5) and 20 caregivers
- Severe behaviour problems – e.g., within six months prior to admission:
 - 21% of youth had dropped out of school
 - 59% placed outside their biological parents' home for period of time
 - 49% had threatened to kill or seriously harm themselves
 - 61% had threatened to kill or seriously harm someone else



Caregiver Acceptance and Engagement in Intervention

- Attendance: majority attended 8 of 10 or more sessions

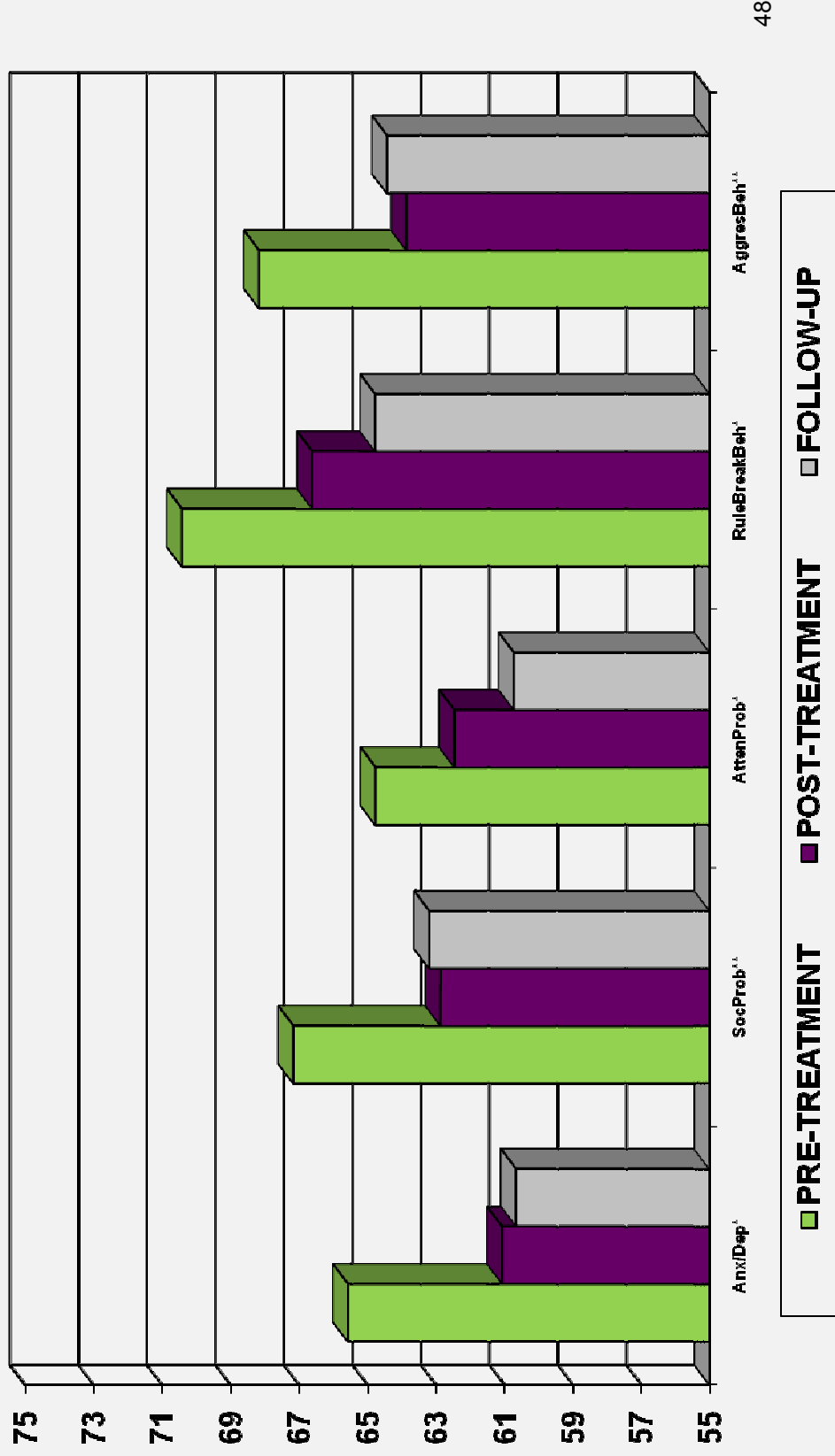


WAITLIST-CONTROL STUDY

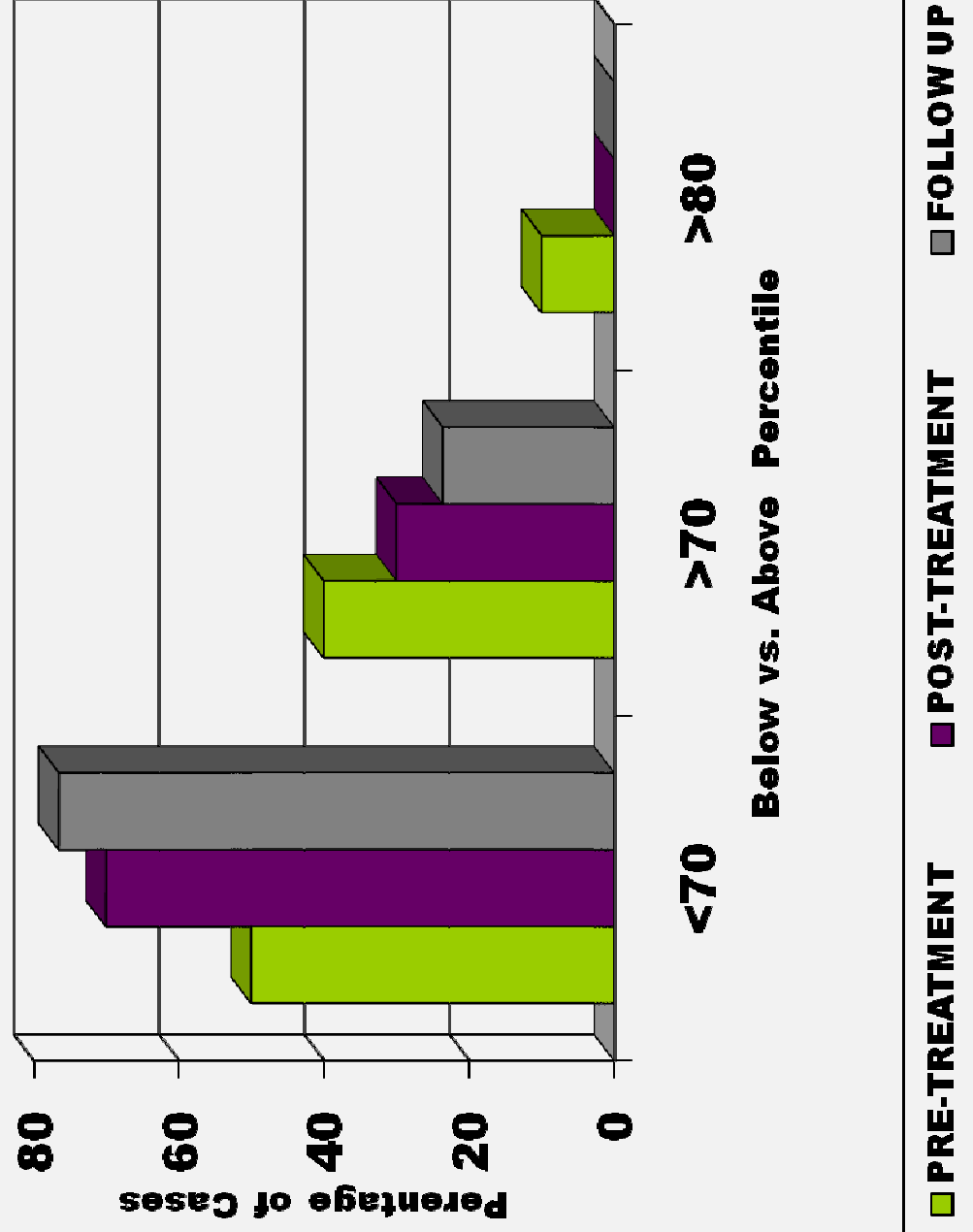
PRE-TREATMENT – POST-TREATMENT CHANGE

Youth Behaviour – Parent Report (CBCL) – BASIC SCALES

(Note: Waitlist-Pre-Treatment showed no significant declines)



Clinical Significance: Percentage of Cases in Clinical Range on CBCL Total Score



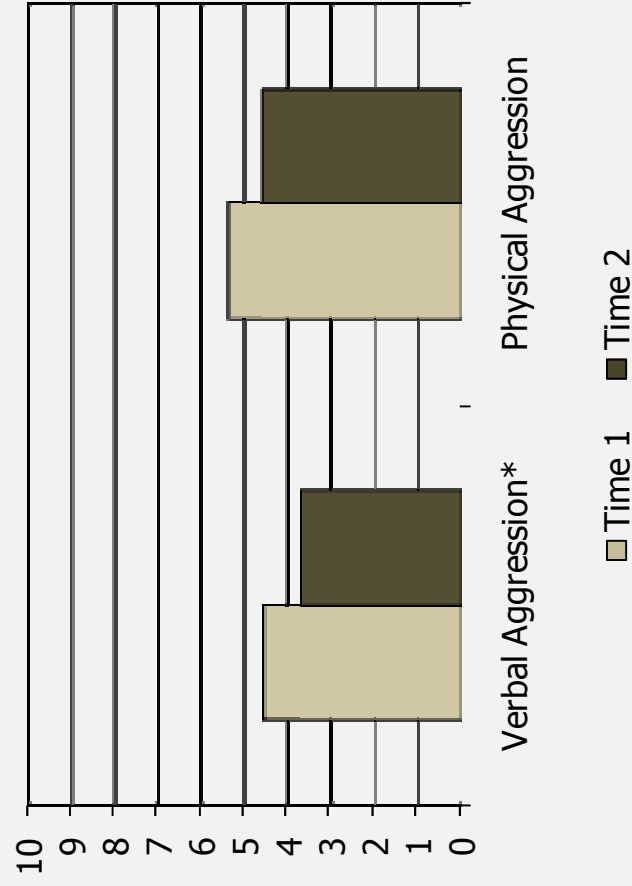
CONNECT – Phase II: Generalizability and Change Processes

Clients

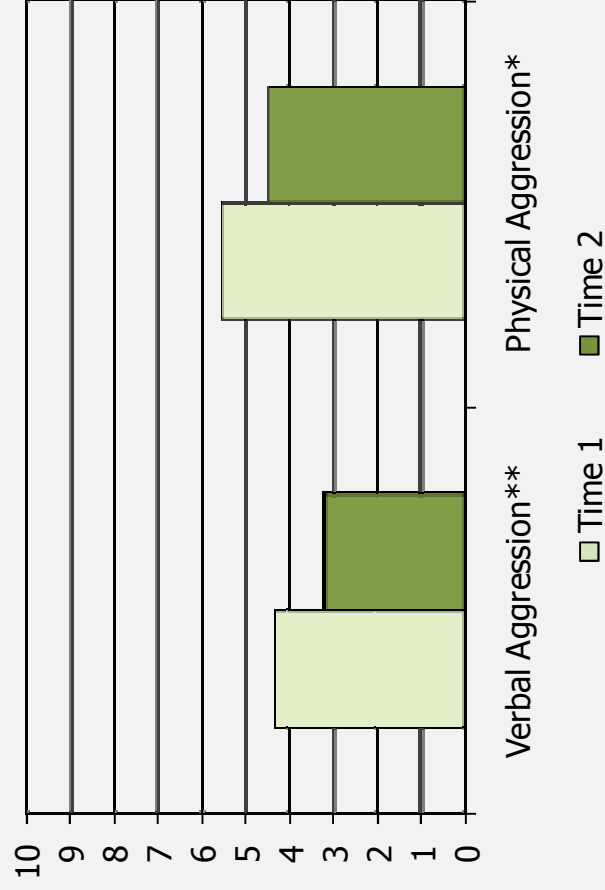
- 78 adolescents (Mean Age - 13.5) and 78 caregivers
- 35 girls; 53 boys
- Severe behaviour problems – e.g., within six months prior to admission:
 - 83.3% threatened to harm someone a few times
 - 21.6% arrested (16.7% more than 3 arrests)
 - 20.8% incarcerated
- Drop out rate – 14%
- Attendance at all sessions: 86%

Conflict Tactics Scale – Parents Ratings of Youth Aggression Across Relationships Pre-Post Intervention

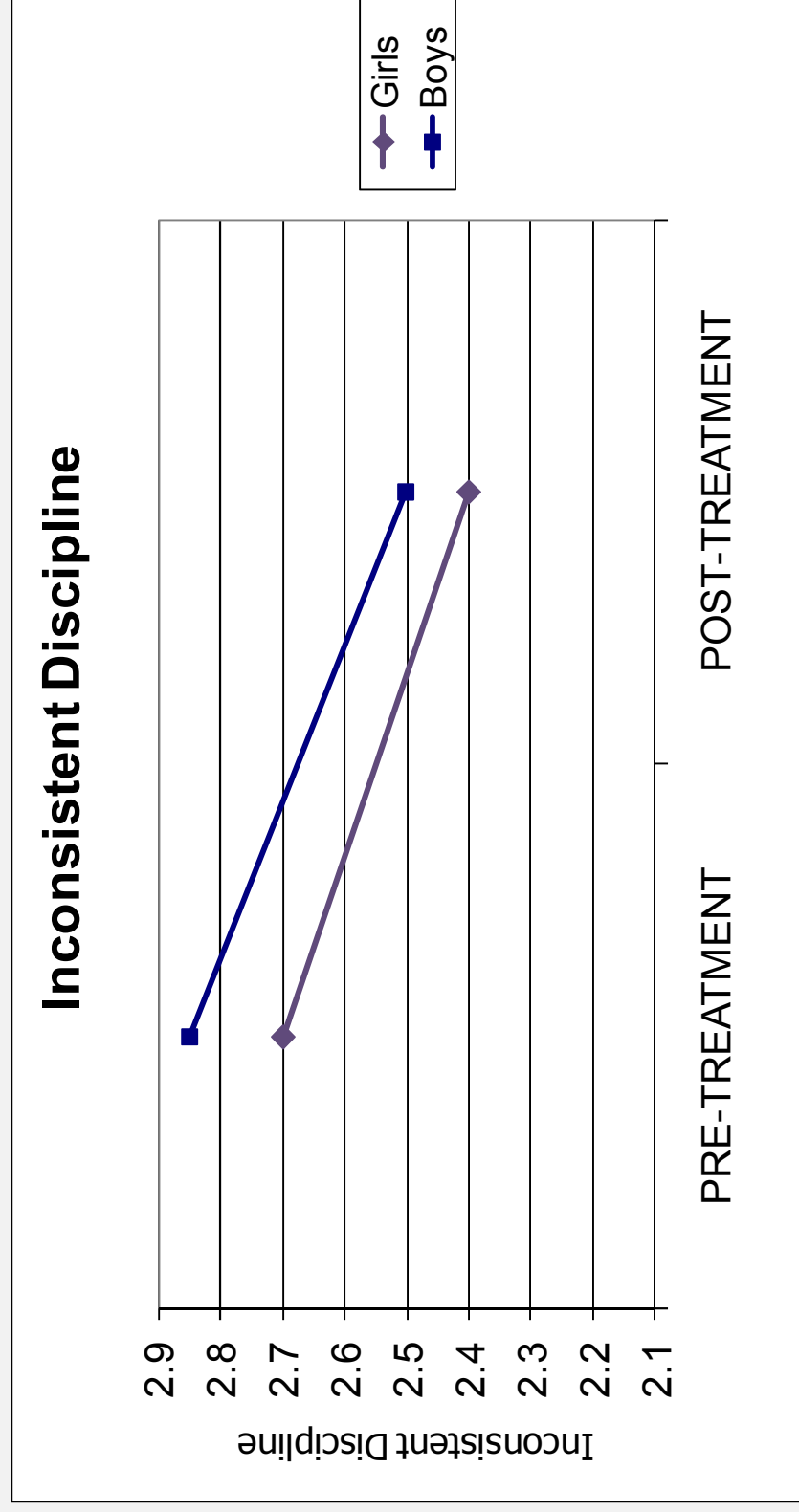
Boys



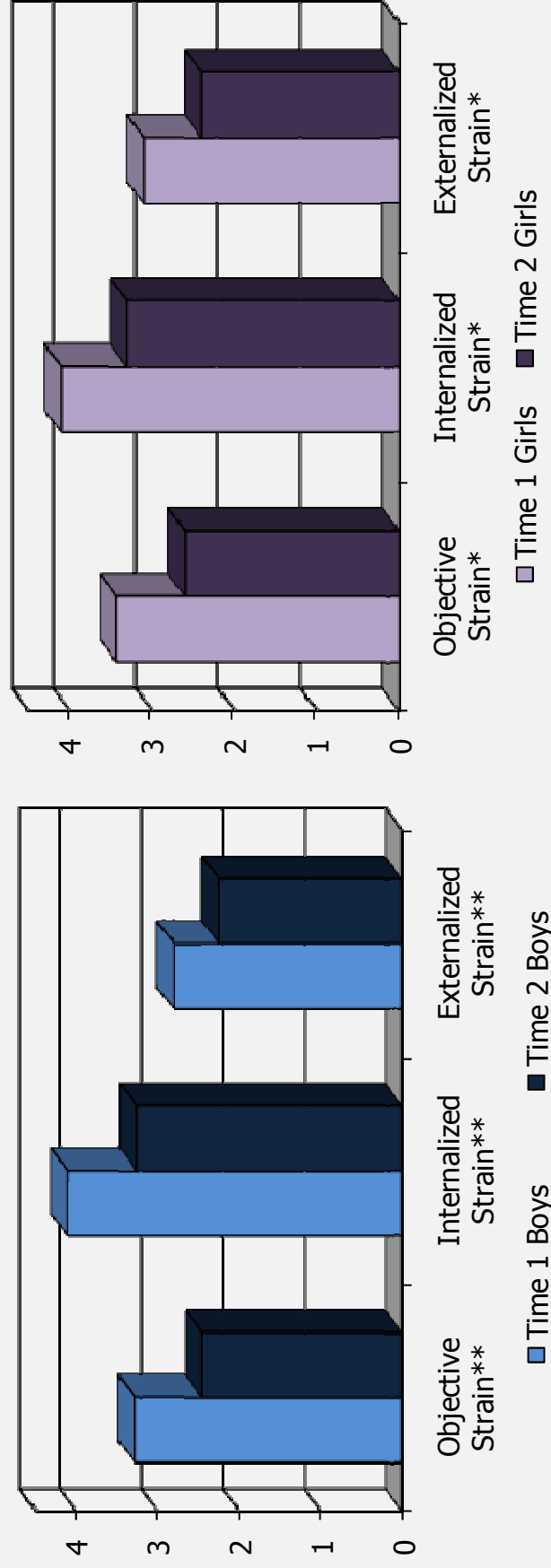
Girls



Parents Ratings of Consistency of Discipline Pre-Post Intervention by Sex of Youth



Parent Ratings of Caregiver Strain Pre-Post Intervention by Sex of Child



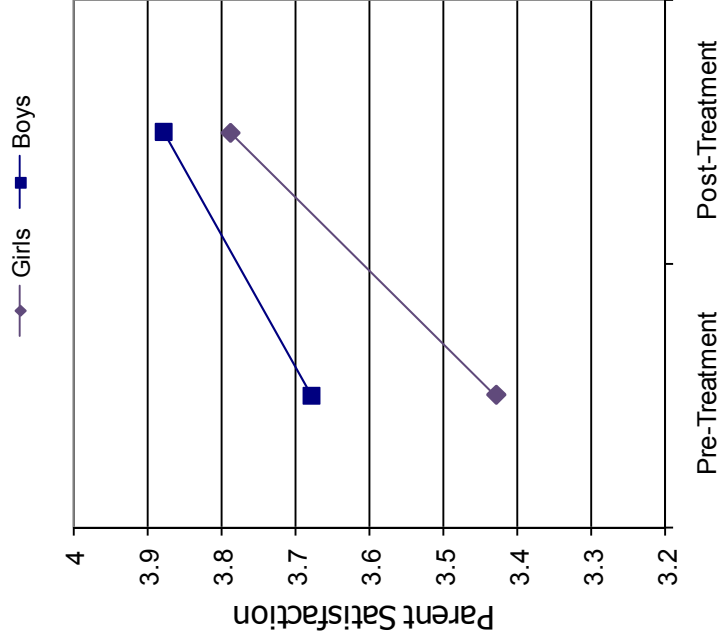
Objective Strain: e.g., Missing work; disruption in daily routine
 Subjective Internalized Strain: e.g., Feeling sad/unhappy; worried
 Subjective Externalized Strain: e.g., Feeling embarrassed; resentful

Note. CGSQ = Caregiver Strain Questionnaire (Brannan et al., 1997); Obj. = Objective Strain subscale; S-I = Subjective-Internalizing Strain subscale; S-E = Subjective-Externalizing Strain subscale.

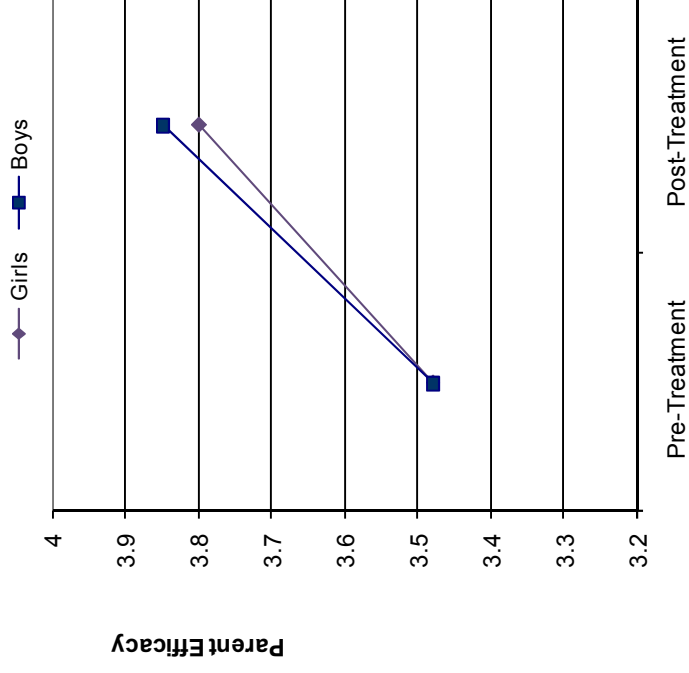
Parenting Satisfaction & Efficacy

Pre-Post Intervention by Sex of Youth

Parenting Satisfaction



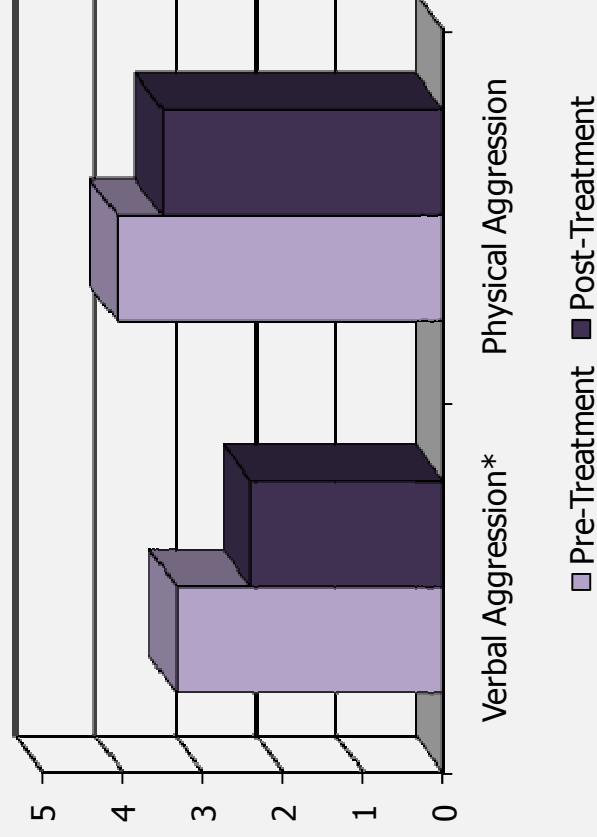
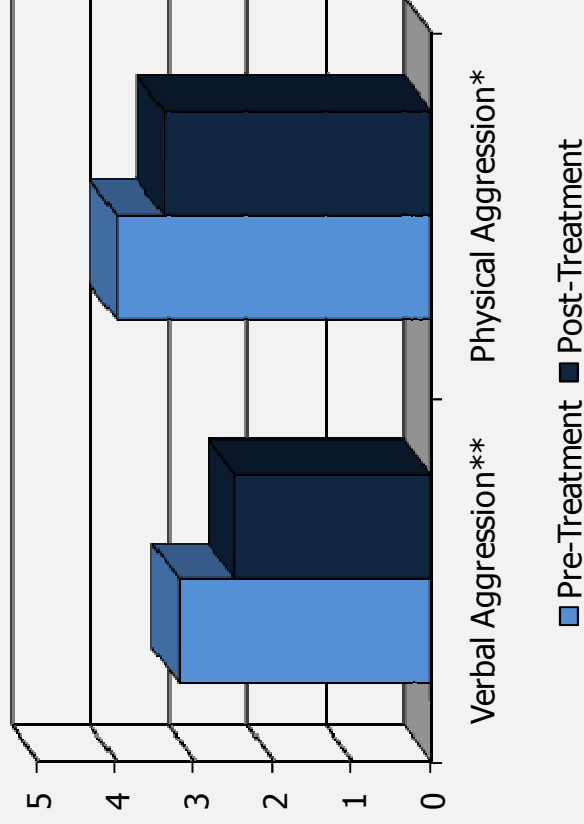
Parenting Efficacy



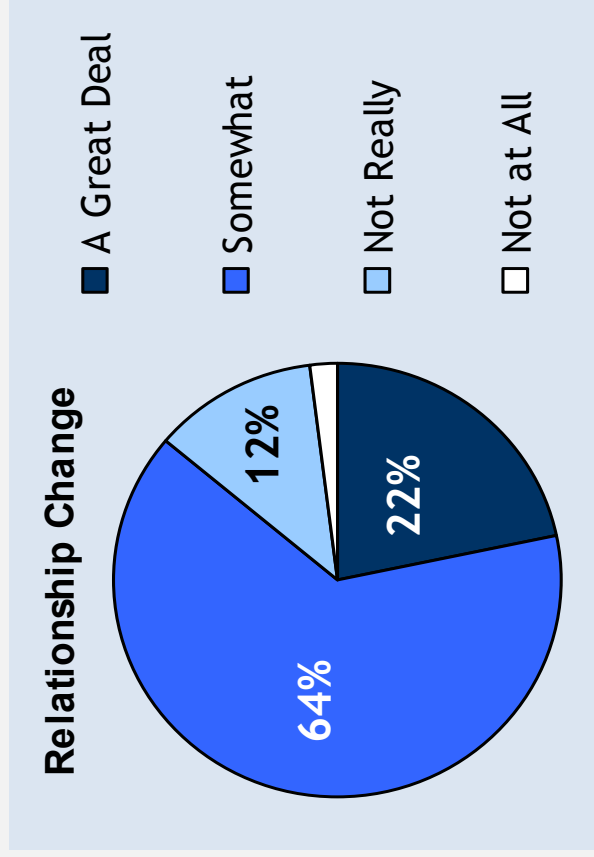
Conflict Tactics Scale – Parent Report of Verbal and Physical Aggression to Youth

Boys

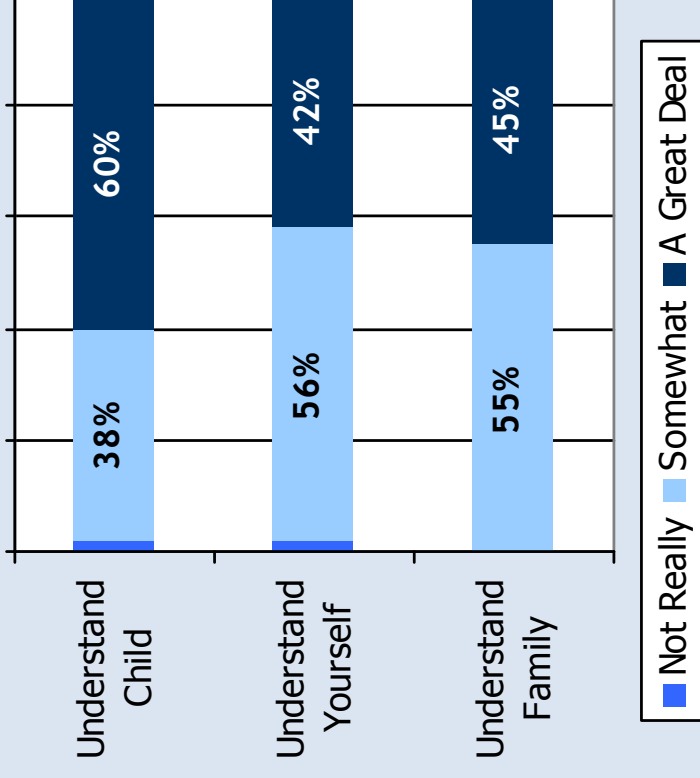
Girls



Parent Feedback

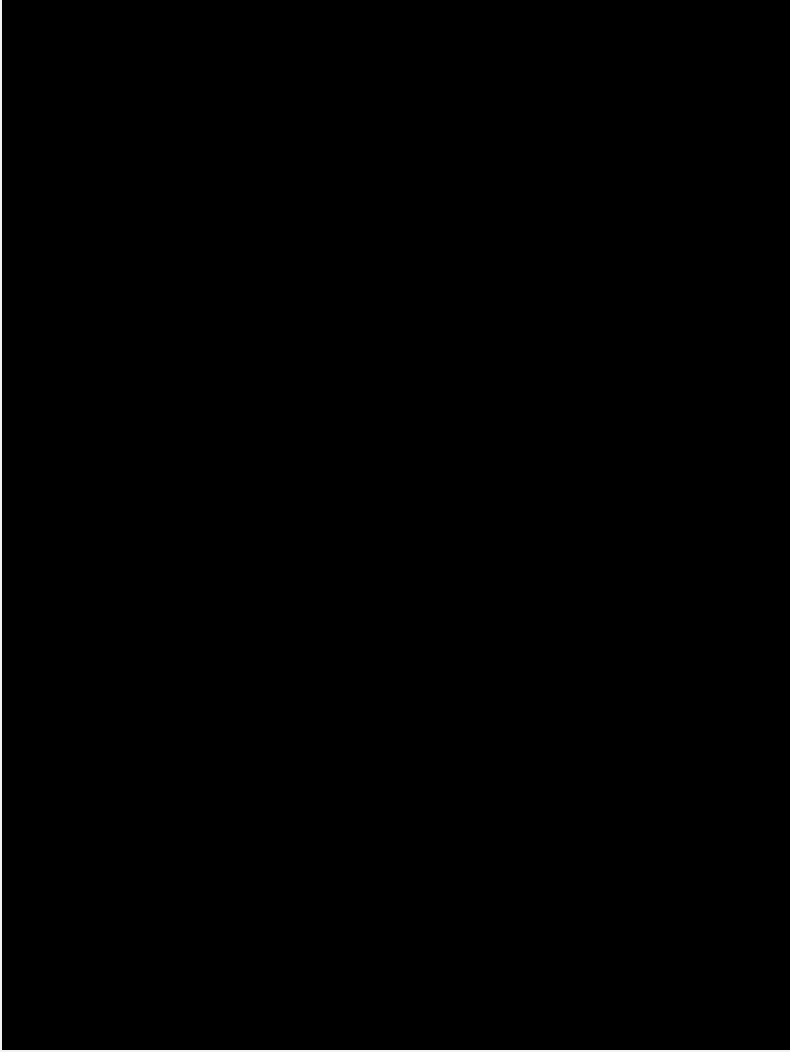


To what extent did CPG help you?





Empathy Session: Parent Role Play



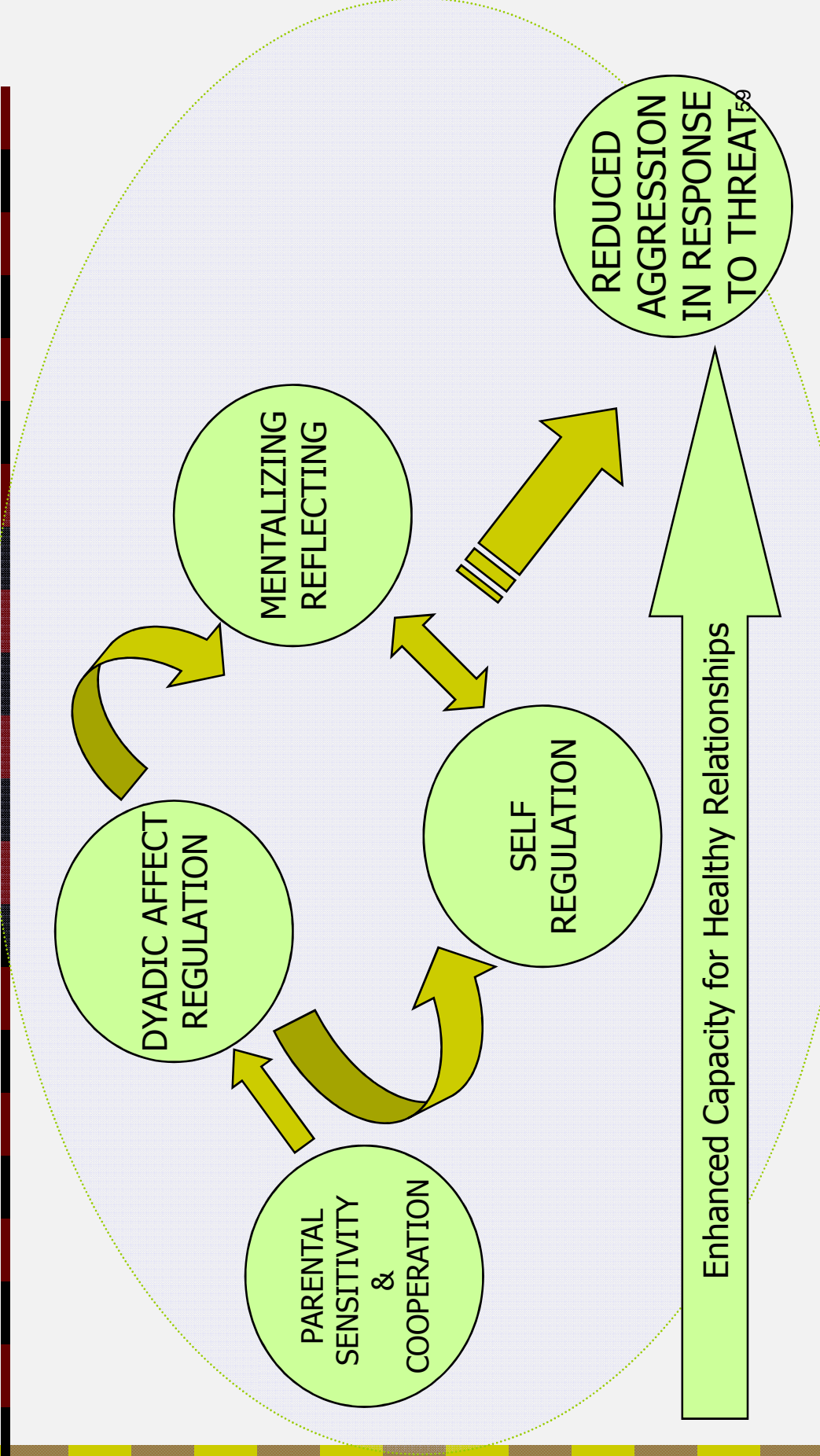
Understanding Change Processes in Working with Families

Moretti, Obsuth, Mayseless & Scarf, in progress

I. **Now I would like to ask you some questions related to the Connect Parent Group, okay? How do you think the Connect Parent Group influenced you?**

- **Father:** Quite a bit, actually. It gave me a different insight into how to deal with Sandy, how to react with him and how to see what was actually in his mind, you know, like try to see it through his eyes, and I think that helps a lot. It's uh, you know, it gives me food for thought whenever I see him doing something or seeing him getting upset, I try and figure out why or what's he doing, what's he thinking sort of thing. Instead of just going in and saying, don't be angry, don't be upset. That doesn't work that well, so it's helped a lot.
- **Mother:** Well, I did do parenting classes before where I felt like I was talked at and told what to do in certain situations, which for Sarah, she's not an average kid.. What I never really thought about before was there is a need behind the behavior. I knew there would be a reason for the behavior, but not so much there's a need that's not being met. That's why when she was younger, she would say be turning everything upside down or....it's not that she just wants to be a little hellion, there's a reason for it. And that's what I try and keep in my mind most now when things are going on ... it helps a lot in just sort of fitting, like little puzzle pieces ... in our life, it seemed like everything was upside down and now it's starting to right itself.

Attachment, Emotion Regulation, Aggression: Processes Embedded within Relationships



Connect[©] *Part of a Systemic Approach to Risk Reduction*

- Intervention need to be tailored to complexity/severity of clinical need



- Components need to be integrated beyond child and into the family and social context

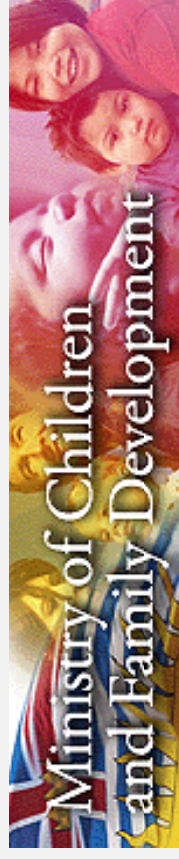
Working with Families Prevent and Reduce Risk of Youth Aggression, Violence and Antisocial Behavior

- *Early intervention* – at first contact with legal system – to prevent escalation (e.g., Pepler et al., Girls Connection, CDI, Toronto)
- *Working with families and caregivers of incarcerated youth prior to their release* –
 - Aos, Steve. 2004. Washington State's Family Integrated Transitions Program for Juvenile Offenders: Outcome Evaluation and Benefit–Cost Analysis. Olympia, Wash.: Washington State Institute for Public Policy.
 - e.g., Margaret K. Keiley (2007). Multiple family group intervention for incarcerated adolescents & their families. Journal of Marital and Family Therapy 33 (1) , 106–124
- *Training foster families, group home or other care staff*
 - Potential for cost-saving through risk reduction ~ Aos (2004) estimated a \$3.15 return for every dollar spent, based **only on criminal justice and victim costs**

Thanks to...



CIHR Institute of Gender and Health (IGH) & CIHR Institute of Human Development, Child and Youth Health (IHDCYH) through a New Emerging Team Grant led by Dr. Marlene M. Moretti (CIHR #54020)



Maples Adolescent Treatment Centre

Research Trainees:

Dr. Kim DaSilva

Janice Haley

Dr. Jessie Klaver

Dr. Zina Lee

Ingrid Obsuth

Dr. Maya Peled

Dr. Stephanie Penny

Andree Steiger

Dr. Vaneesa Wiebe

Youth Forensic Psychiatric Services