


Reactive Attachment Disorder: A Research Update



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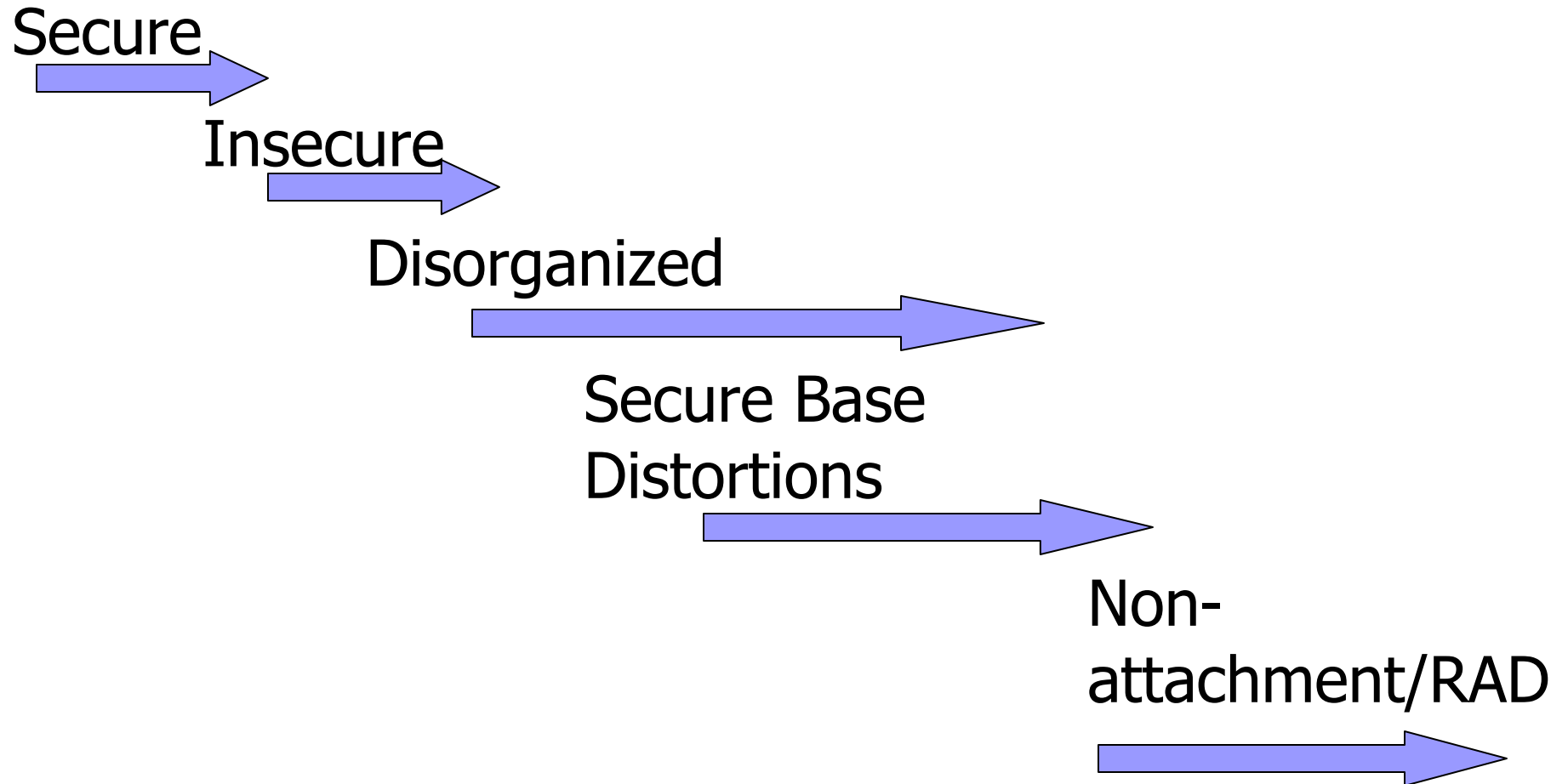


Developmental and Clinical Perspectives on Attachment

- Security/insecurity or organized/disorganized are risk/protective factors
- Lack of specificity between disturbances of attachment and psychiatric sequelae:
 - Inhibition/anxiety disorders, disruptive behavior disorders, depression, dissociative disorders, suicidal behavior, substance use, delinquency, and personality disorders
- At what point is the attachment disturbance the core feature of a clinical problem rather than a co-occurring feature?



Spectrum of Attachment





Definitions and Phenomenology



Reactive Attachment Disorder

- Markedly disturbed and developmentally inappropriate social relatedness in most contexts
- Must begin before 5 years of age
- Due to pathogenic care
- Not due solely to developmental delay or pervasive developmental disorder



Reactive Attachment Disorder

Inhibited/emotionally withdrawn pattern:

absence of expectable tendency to initiate or respond appropriately to social interactions, exhibiting instead excessively inhibited, hypervigilant, or highly ambivalent reactions

■ Disinhibited/indiscriminately social pattern:

lack of selectivity in seeking comfort, support and nurturance; child may seem overly friendly and only superficially attached.



Emotionally Withdrawn/Inhibited Pattern of RAD

- Indicative of young children who lack a discriminated attachment figure
- Phenomenologically characterized by:
 - absence of organized attachment behaviors
 - impaired social engagement and reciprocity
 - emotion regulation difficulties
 - low levels of positive affect
 - outbursts of irritability
 - fear and hypervigilance



Indiscriminate/Disinhibited RAD

- Lack of expectable reticence about engaging with unfamiliar adults
- Failure to check back with caregiver in unfamiliar settings
- Willingness to approach, interact with, and “go off” with a stranger



Studies of Maltreated Children



Factor Analysis of DAI

Dutch Children in Foster Care

	Factor 1	Factor 2
Differentiates among adults	3.84	0.22
Seeks comfort preferentially	4.05	1.14
Responds to comfort	2.94	2.84
Regulates emotions well	2.57	3.67
Checks back with caregiver	2.13	3.36
Exhibits reticence	1.90	3.89
Willing to go with stranger	2.54	3.43



Studies of maltreated children

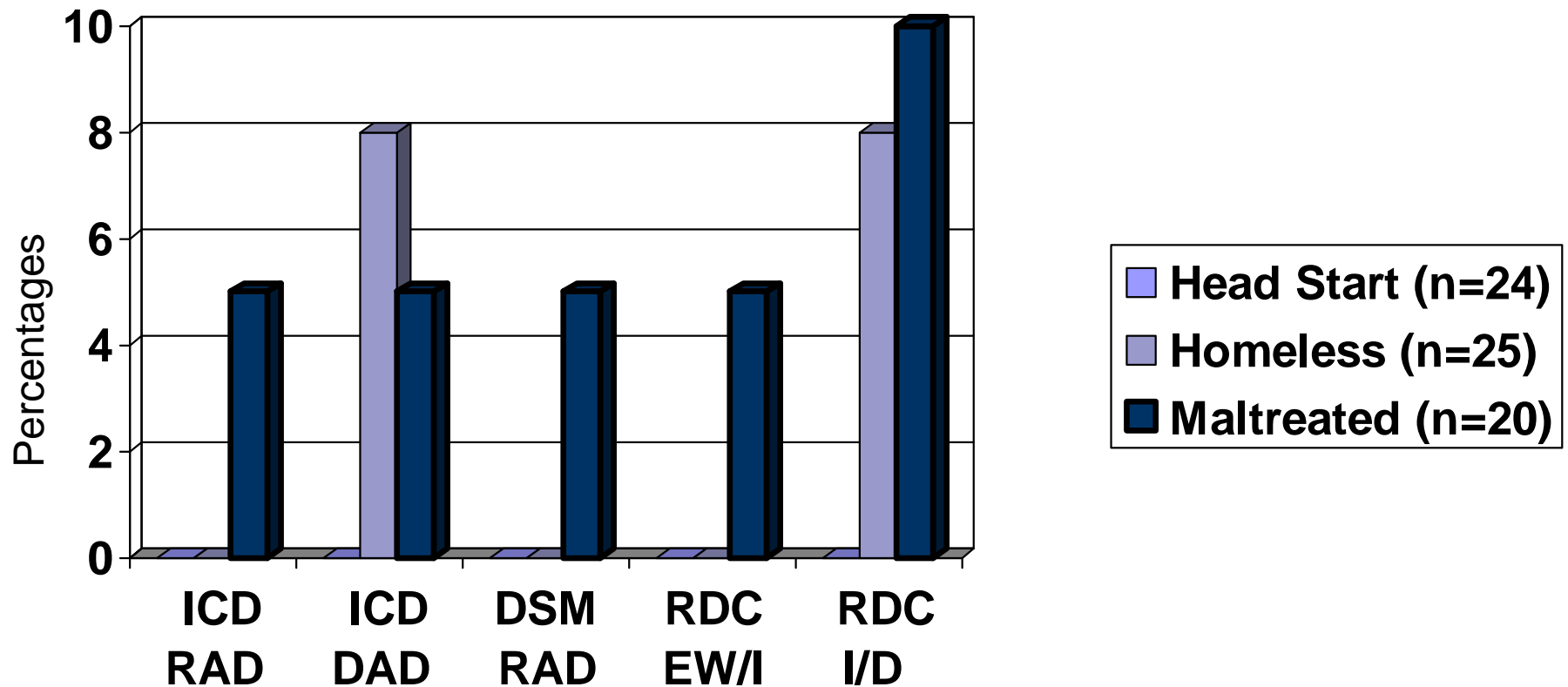
- Reactive Attachment Disorder diagnosed in 35% of young children coming into foster care (retrospective study)

- Zeanah et al., 2004

- Rare in clinic samples and high risk samples (e.g., homeless, Headstart)

- Boris et al., 2004

Prevalence of Attachment Disorders in High Risk Groups



Boris et al., 2004



Studies of Children in Institutions

Ecology of institutional life

There is wide variability in quality of caregiving and other characteristics among and within institutions

Modal features:

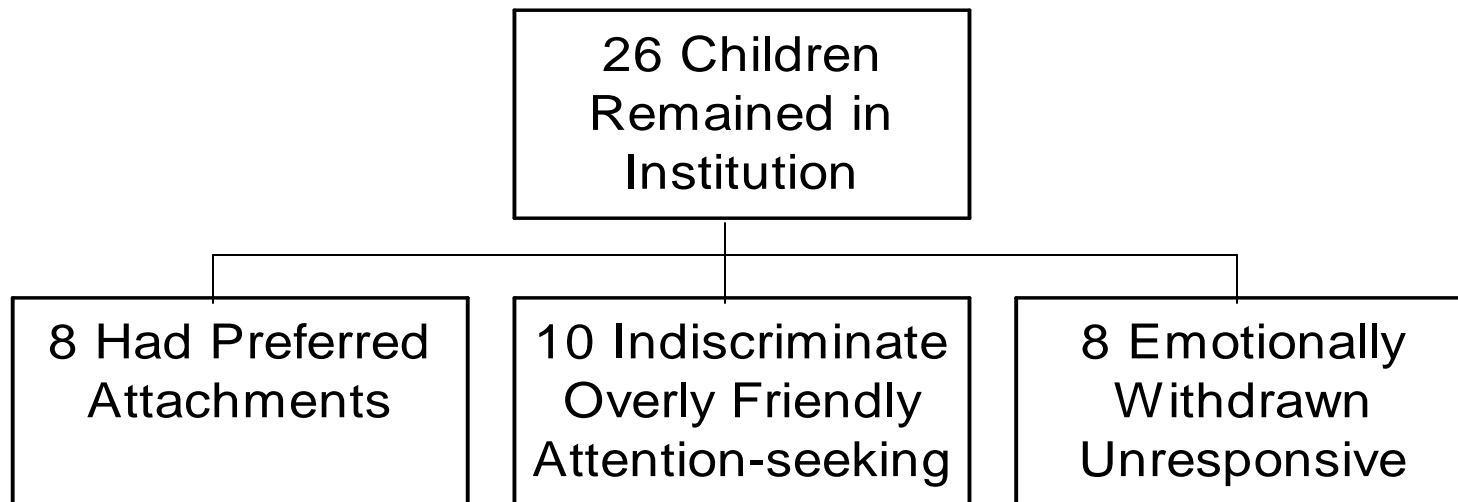
- 1) regimented daily schedule
- 2) high child/caregiver ratio
- 3) non-individualized care
- 4) lack of psychological investment by caregivers
- 5) rotating shifts



Tizard Study



Tizard Study: 4 Year Outcome





Tizard Study: 8 Years

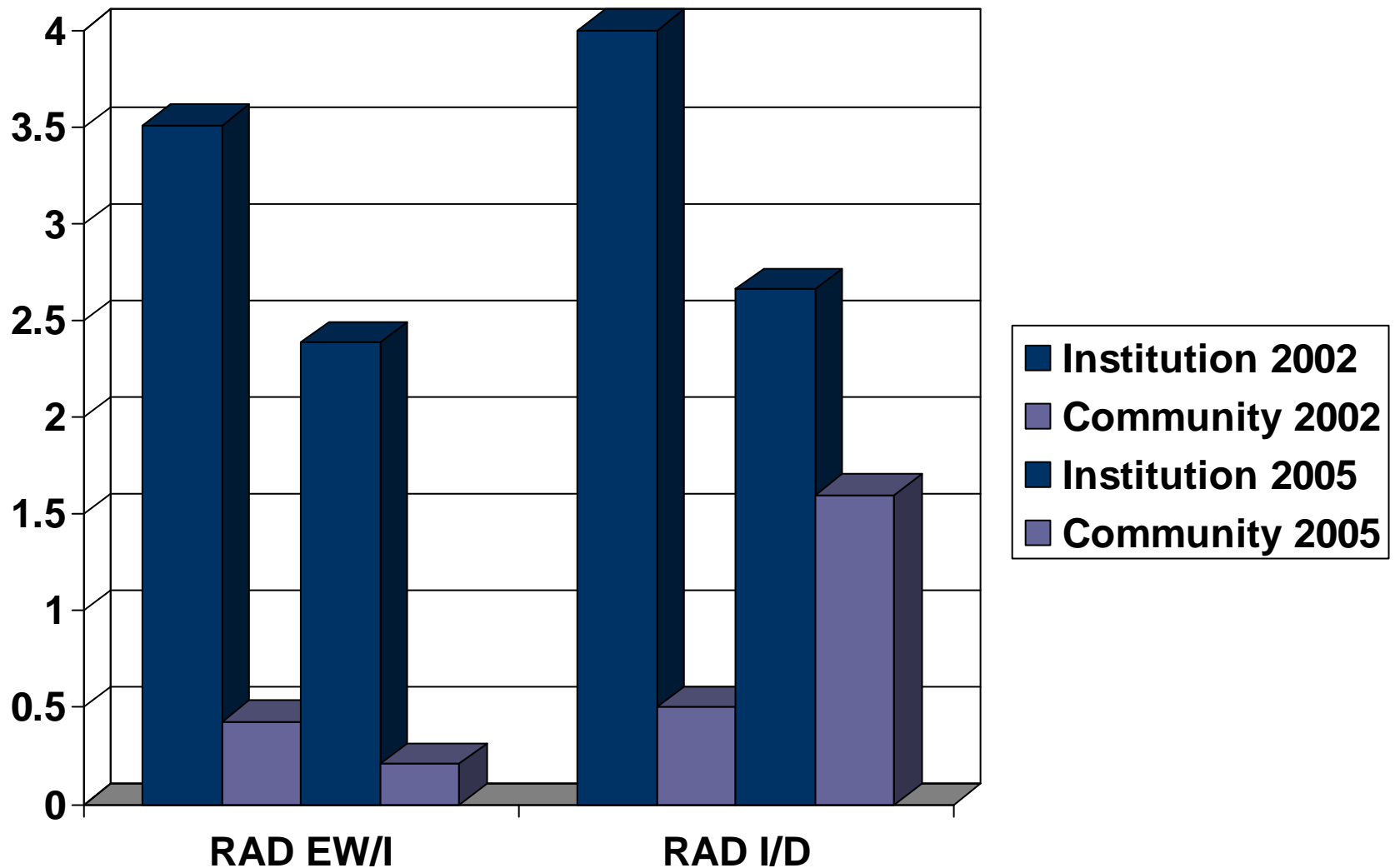
- Over 80% of adoptive mothers reported that their children were closely attached to them
- Only 50% of biological mothers reported that the returned children were deeply attached to them
- Later the child was restored, the less likely that the child was attached to the parent
- Only variable that distinguished adopted from never institutionalized group was indiscriminate sociability which persisted in a minority of adopted group



Tizard Study: 16 Years

- Overly friendly behavior in formerly institutionalized group attenuated markedly.
- Peer relational difficulties still evident
 - adult-oriented
 - more difficult peer relations
 - not having best friend
 - less selective in choosing friends
 - not turning to peers for support

RAD Among Institutionalized and Community Children





Studies of Children Adopted Following Institutional Rearing



International Adoption Studies

- Two longitudinal studies of young children adopted from Romania
 - O'Connor, Rutter and Marvin study in the UK
 - Ames and Chisholm in Canada
- Emotionally withdrawn/inhibited not identified
- Indiscriminate behavior present & persistent
 - One of the most persistent behavioral abnormalities identified in adoptees
 - Linearly linked to length of deprivation
 - Diverges from measures of attachment



Measurement Issues and Convergent Validity



Indiscriminate/disinhibited RAD

- [No preferred caregiver]
- No checking back after venturing away
- Lack of reticence with unfamiliar adults
- Willingness to go with relative strangers



Reliability Analysis of Indiscriminate Behavior Scale

Item	Corrected item- total correlation	Alpha if item deleted
No preferred attachment figure	.28	.84
Wandering off without checking back	.58	.69
No reticence with unfamiliar adults	.68	.64
Willing to go off with a stranger	.75	.59

Note: Alpha = .7624



BEIP Measures of Indiscriminate Sociability

- Disturbances of Attachment Interview
 - Baseline, 30, 42 and 54 months
- Disturbances of Attachment Interview—
School Age
 - 96 months
- Stranger at the Door
 - 54 months
 - 96 months



Convergent Validity

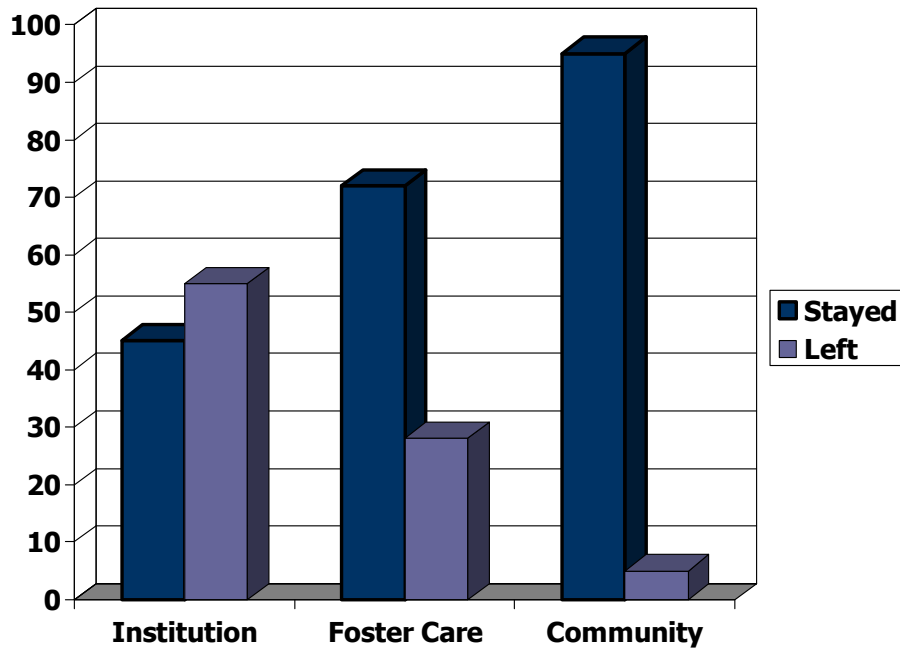
- PAPA RAD (Indiscriminately Social) Diagnosis:
 - 76% (92/121) cases ($k = 0.30$, $p < 0.001$).
- Stranger at the Door:
 - 75% of same cases (33/44) identified by the DAI as cases or non-cases at 54 months ($k = 0.49$, $p < 0.001$).
 - With NIG, $k = 0.72$, $p < .001$



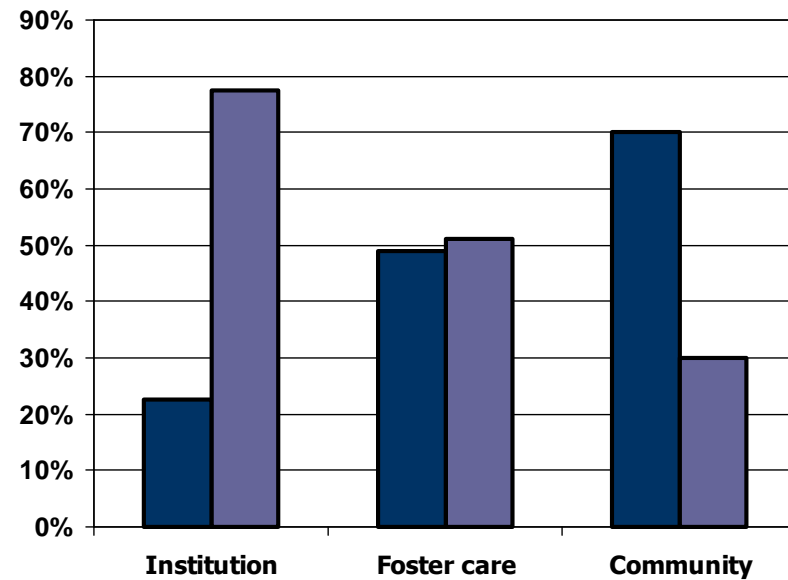
Stranger at the Door

- Caregiver/mother and child answer door (pre-arranged).
- RA: “Come with me, I have something to show you.”
- Walk out the door and around the corner to find RA from previous home visit.

Stranger at the door by group



54 months




96 months



Convergence at 54 mos of Interview and Observation of Indiscriminate Behavior

- Checks back with caregiver 0.55
- Reticent with adults 0.63
- Willing to go off with stranger 0.72

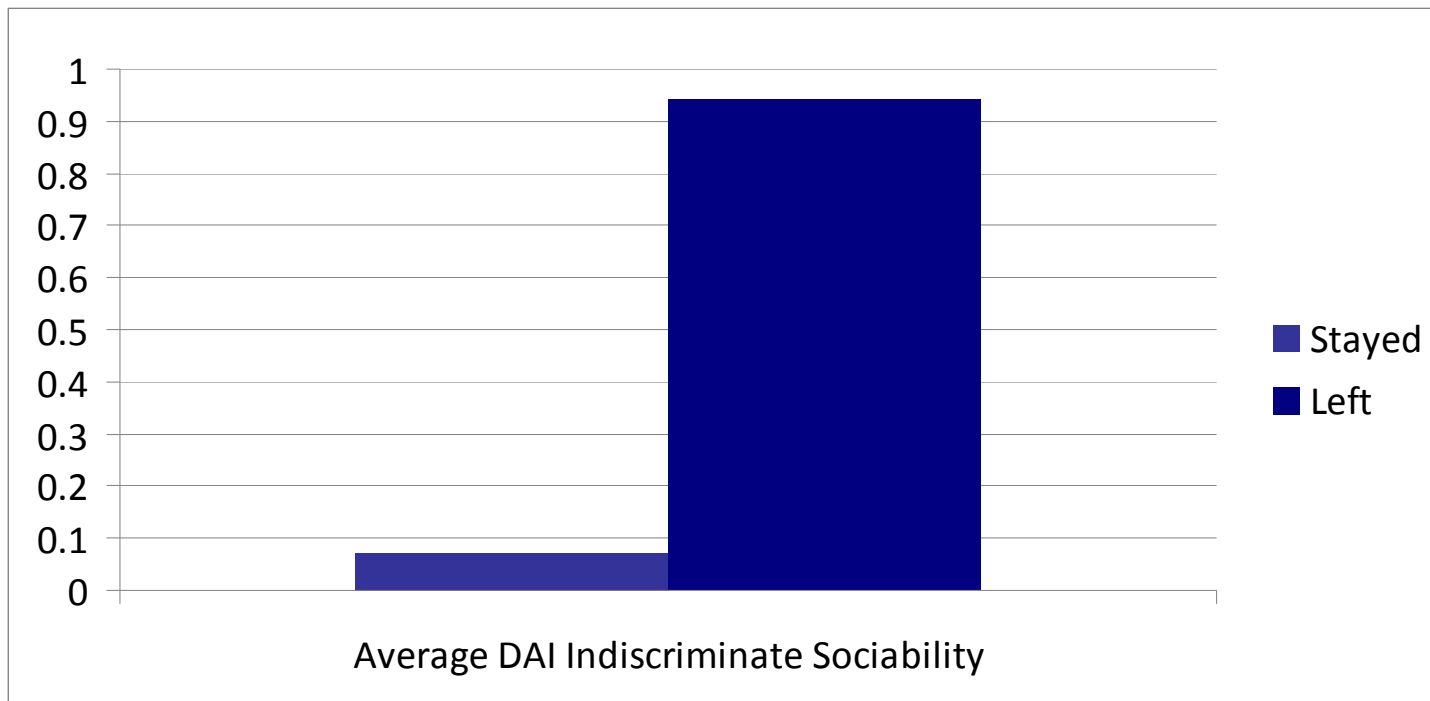
- Indiscriminate behavior 0.70



Indiscriminate Behavior at 96 months

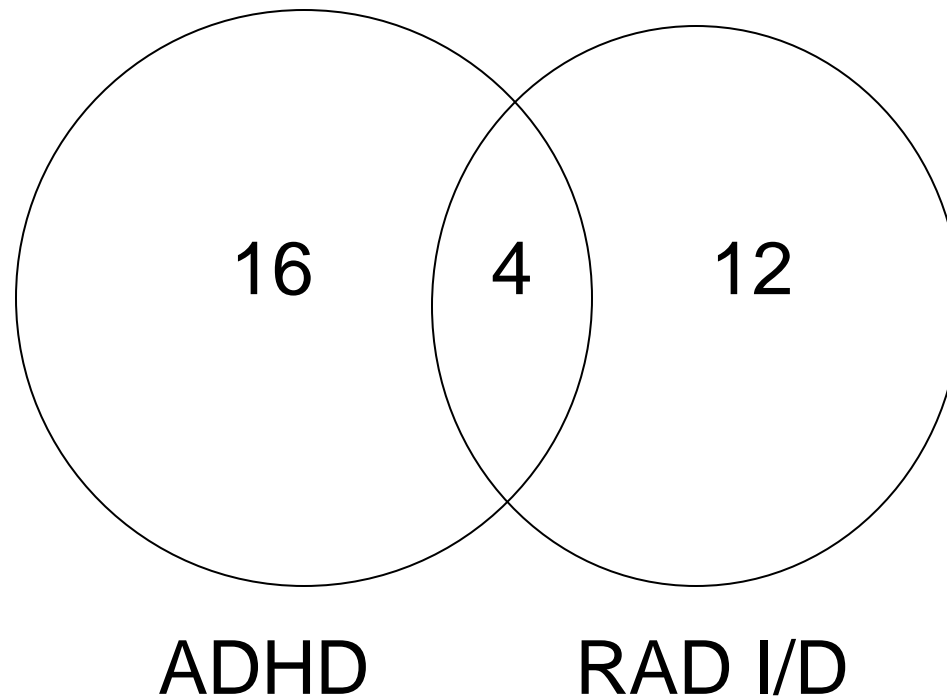
- Lack of reticence around unfamiliar adults
- Failure to check back in unfamiliar settings (tendency to wander off)
- Willingness to “go off” with a stranger
- *Takes unusual liberties with unfamiliar adults, such as cuddling up (getting too close physically) or asking overly personal questions*
- *Approaches unfamiliar adults in an aggressive or intrusive way*

Stranger at the Door: Indiscriminate Sociability (96 months)




$t(94.20) = -4.43, p < .001$

ADHD and RAD: 54 Months





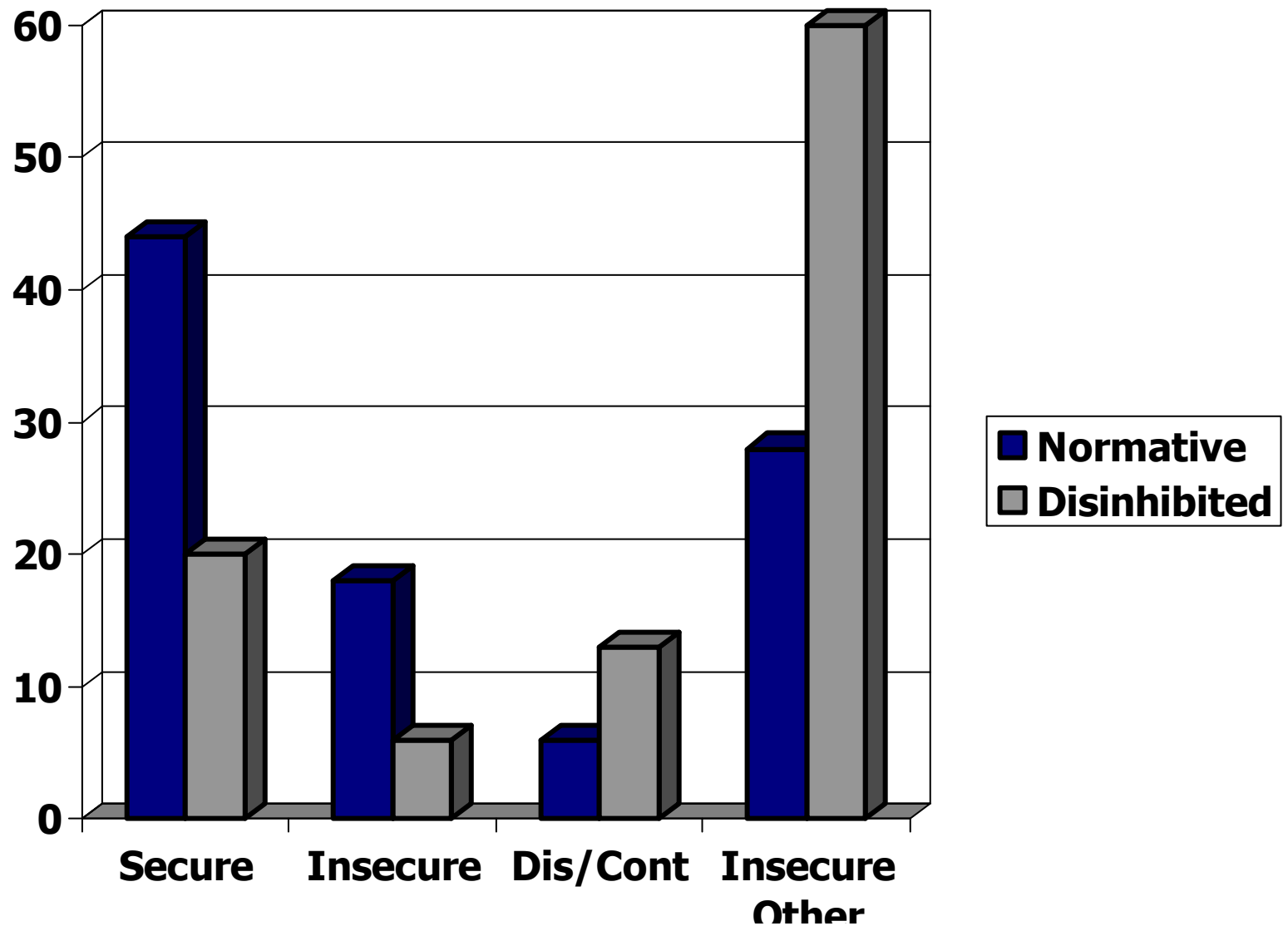
Relationship of RAD to Classifications of Attachment



Convergence of RAD and Classifications of Attachment

- No relationship between SSP classifications and indiscriminate/disinhibited RAD in 3 studies.
- Modest association between atypical classifications (disorganized or insecure/other) in 3 other studies.
- There *is* a relation between RAD Inhibited emotionally withdrawn and attachment behavior in the Strange Situation.

O'Connor et al. (2003)





Continuum of Attachment

- 5 -- ABCD patterns of attachment
- 4 -- Patterns of attachment with behavioral anomalies
- 3 -- Clear preference but passive
- 2 -- Preference discernible
- 1 -- No attachment behaviors evident



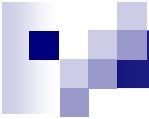
Degree to Which Attachment Has Formed Bucharest Early Intervention Project

	<u>Romanian Community</u>	<u>Romanian Institution</u>
1=No attachment	0%	9.5%
2=Some differentiation	0%	25.3%
3=Some preference	0%	30.5%
4=Attachment with anomalies	0%	31.6%
5=Clearly recognizable attachment patterns	100%	3.2%



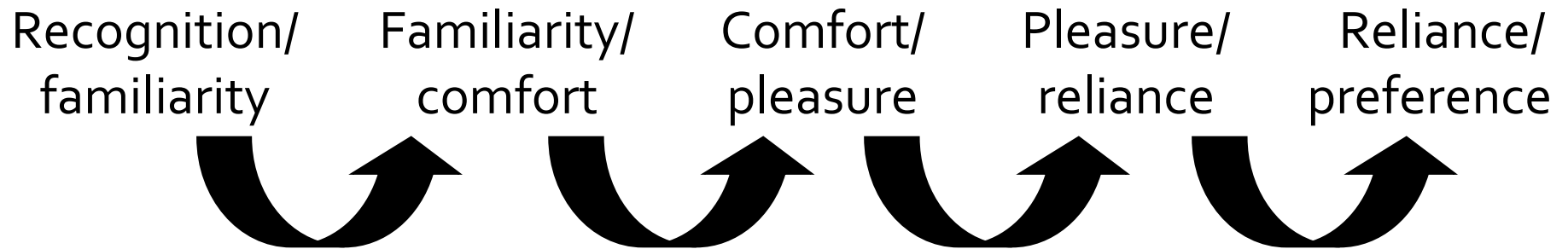
Classifications and Ratings of Attachment Development

	Romanian <u>Institution</u>	<u>Classifications</u>
1=No Attachment	9.5%	9 unclassified
2=Some Differentiation	25.3%	7 secure 3 avoidant 11 disorganized 3 unclassified
3=Preference but passive expression	30.5%	7 secure 22 disorganized
4=Attachment with Anomalies	31.6%	3 secure 27 disorganized
5=Clear ABCD attachment patterns	3.2%	1 secure 2 disorganized



Levels of discrimination between infants and caregivers

It's not just attached or not attached:





Convergence of RAD and Strange Situation Classifications

- RAD Inhibited/Emotionally withdrawn converges with degree to which attachment has formed ($r=-0.44$, $p<.01$)
- RAD disinhibited/indiscriminate is unrelated to degree to which attachment has formed ($r=-0.16$, n.s.)



Intervention for RAD and Relationship to Caregiving



Intervention for Disturbances and Disorders of Attachment

- Does the child have an attachment figure?
- Characteristics of attachment figures who foster secure attachments:
 - warm, nurturing, emotionally available
 - sensitive and responsive to child's needs
 - values child as a unique individual
 - responds to comfort seeking
 - provides physical and psychological protection



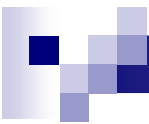
Young Child Barriers to Secure Attachment

- Aggression, risk-taking, self-destructive behavior
- Anxious fleeing
- Withdrawal, fear and inhibition



Challenging Behaviors of Foster Children

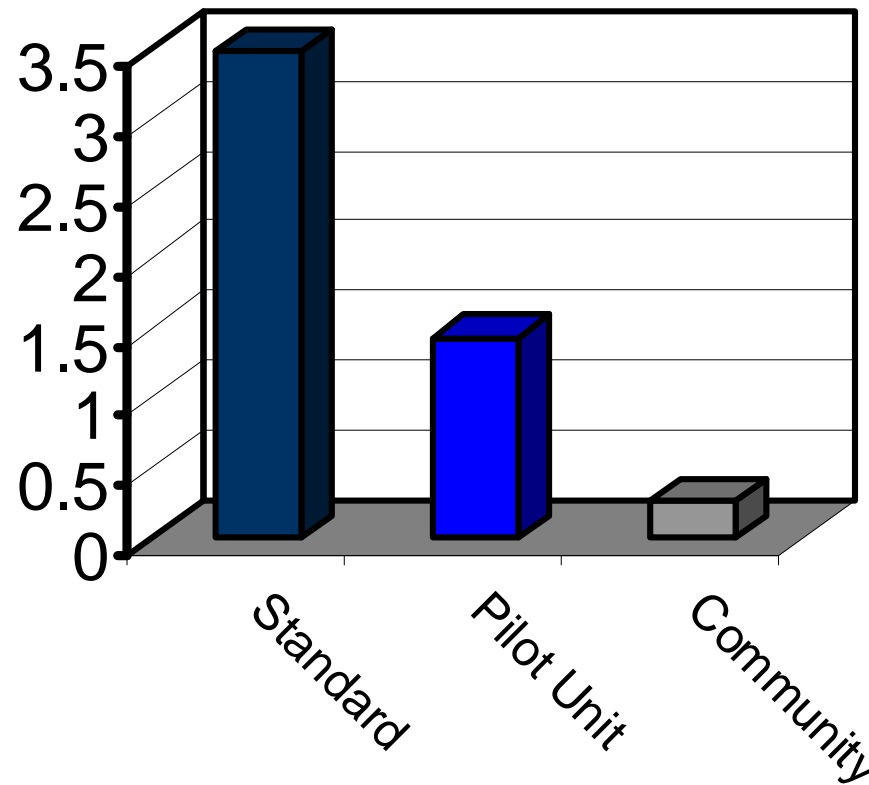
- Agitation
- Constant Activity
- Loudness
- Aggression
- Fears
- Self-endangering
- Stereotypies
- Sleep
- Eating
- Refusal to use potty
- Poor
Speech/language
- Poor attention
- Easily frustrated
- Extreme withdrawal



Adult Barriers to Facilitating Secure Attachment in Young Children

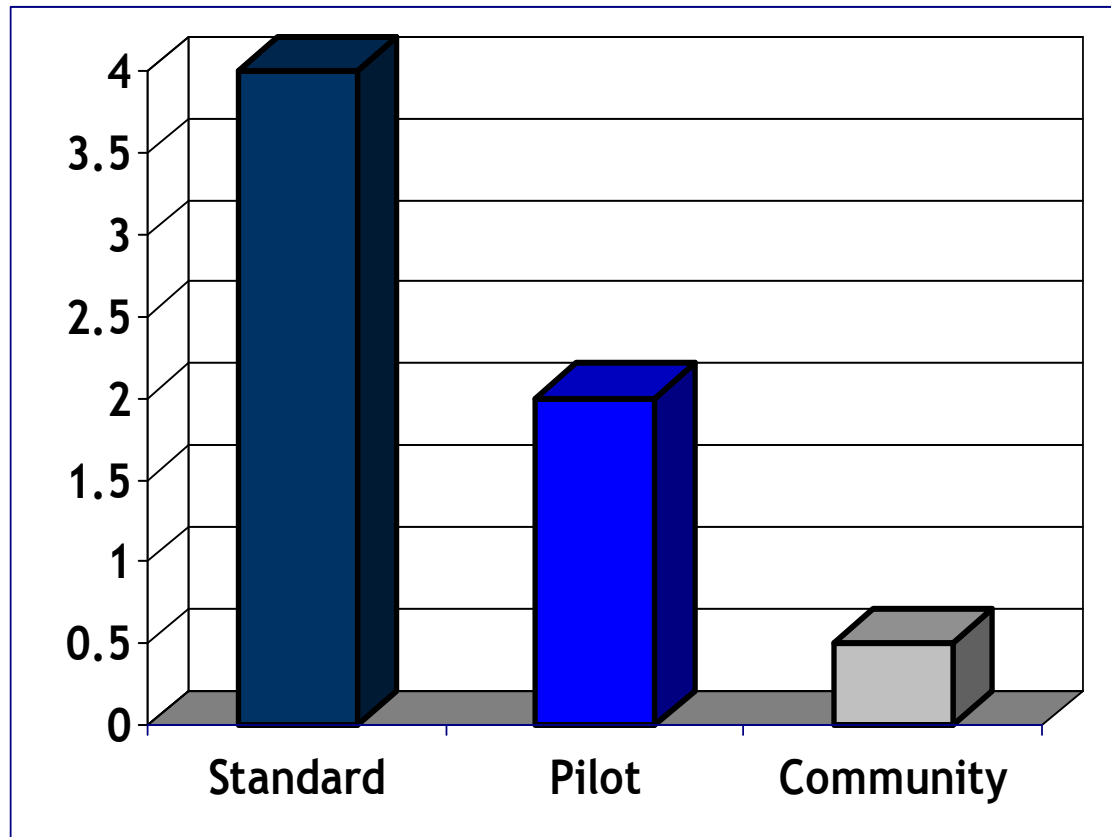
- Psychological ownership
- Here and now crises
- Attachment relationship histories
- Unresolved losses and traumas

Signs of emotionally withdrawn/inhibited RAD



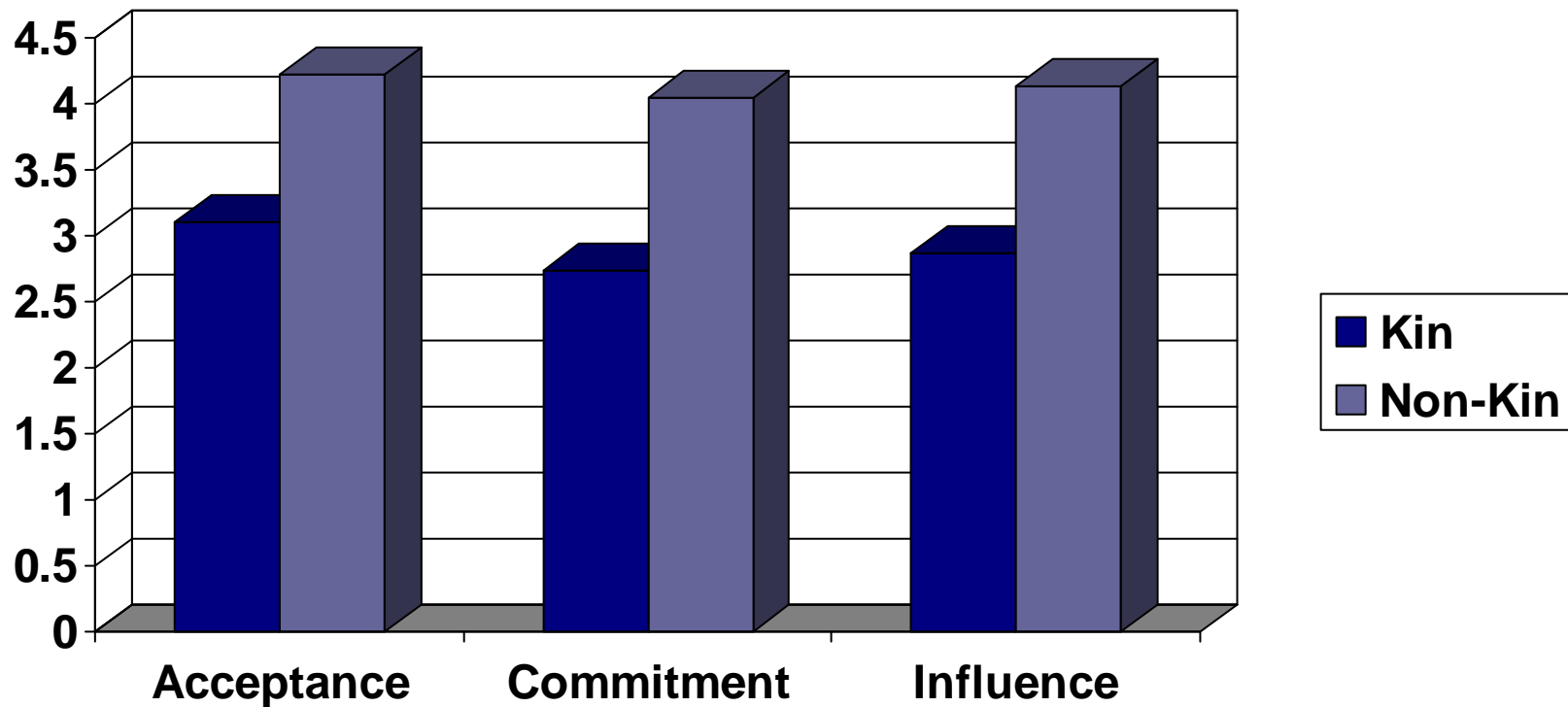
Smyke, Dumitrescu & Zeanah, 2002

Signs of indiscriminate/disinhibited RAD



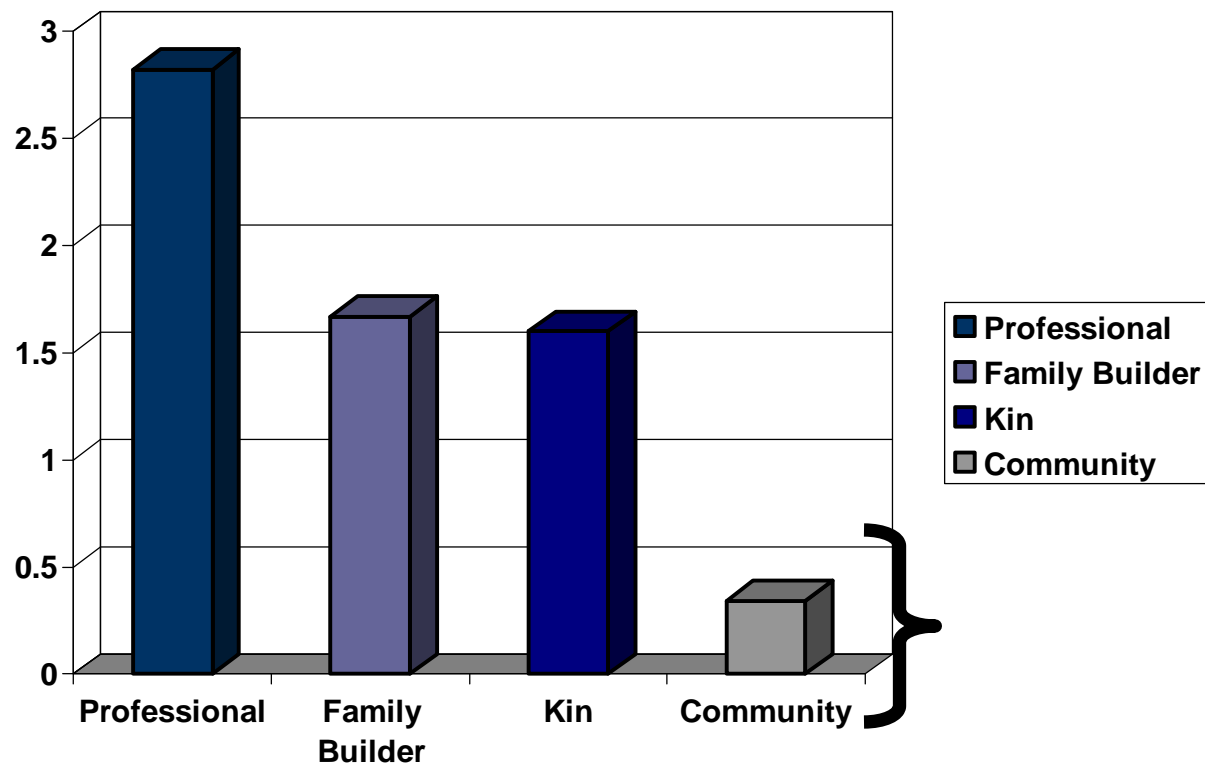
Smyke, Dumitrescu & Zeanah, 2002

Psychological Investment in Foster Children



All unrelated to gender of child and ethnicity of foster mothers.

Signs of indiscriminate behavior and foster parent type



Professional > Family Building/Kin ($p = .005$)

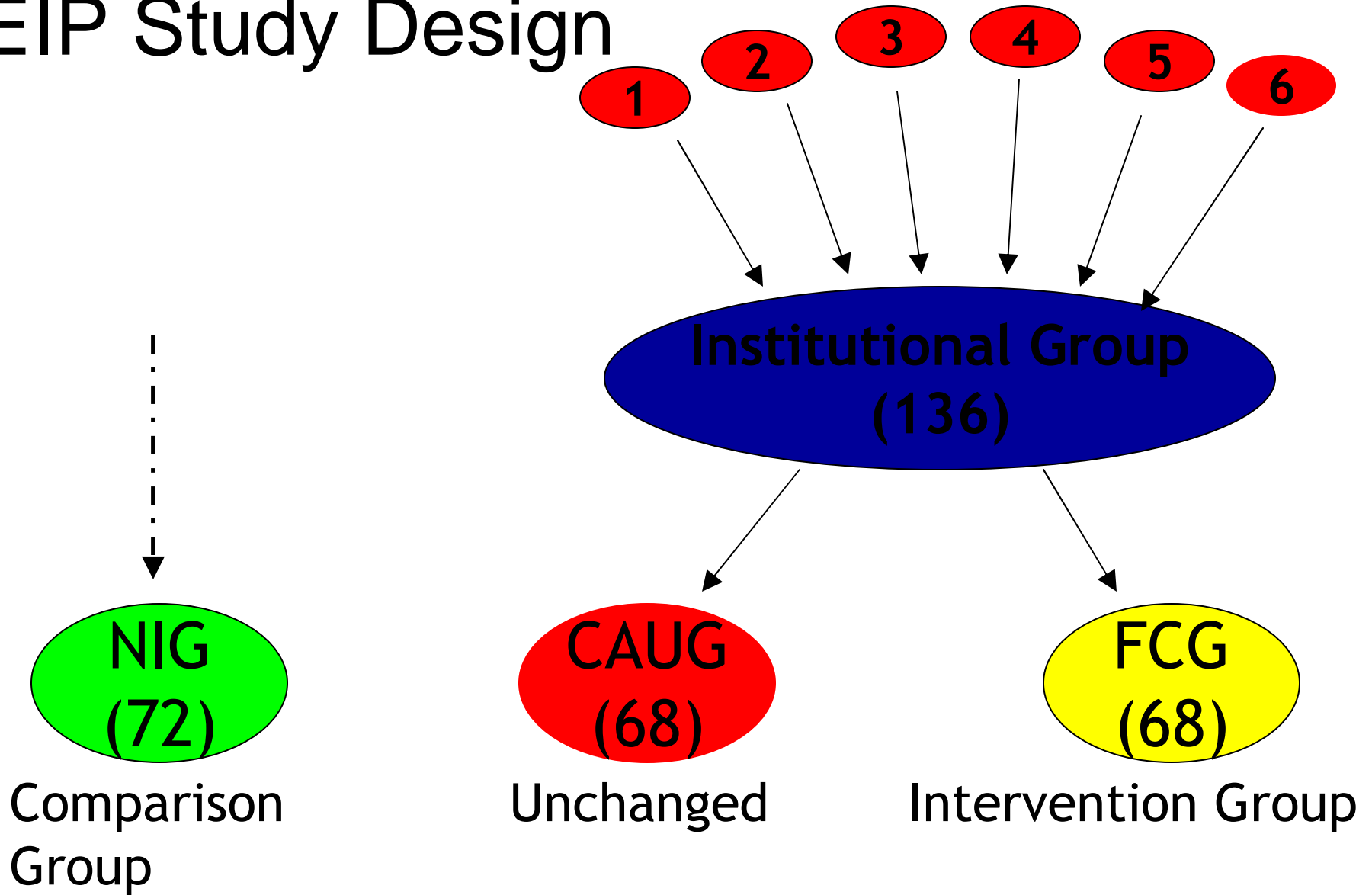


How do we intervene in attachment disturbances and disorders?

- If there is no attachment figure, get one!
- If there is an attachment figure, but the relationship is disturbed, determine:
 - child's contribution
 - caregiver's contribution
 - dyadic contribution (problem of fit)

6-30 months of age

BEIP Study Design



Follow-up assessments at 9, 18, 30, 42, 54 months of age



BEIP Foster Care

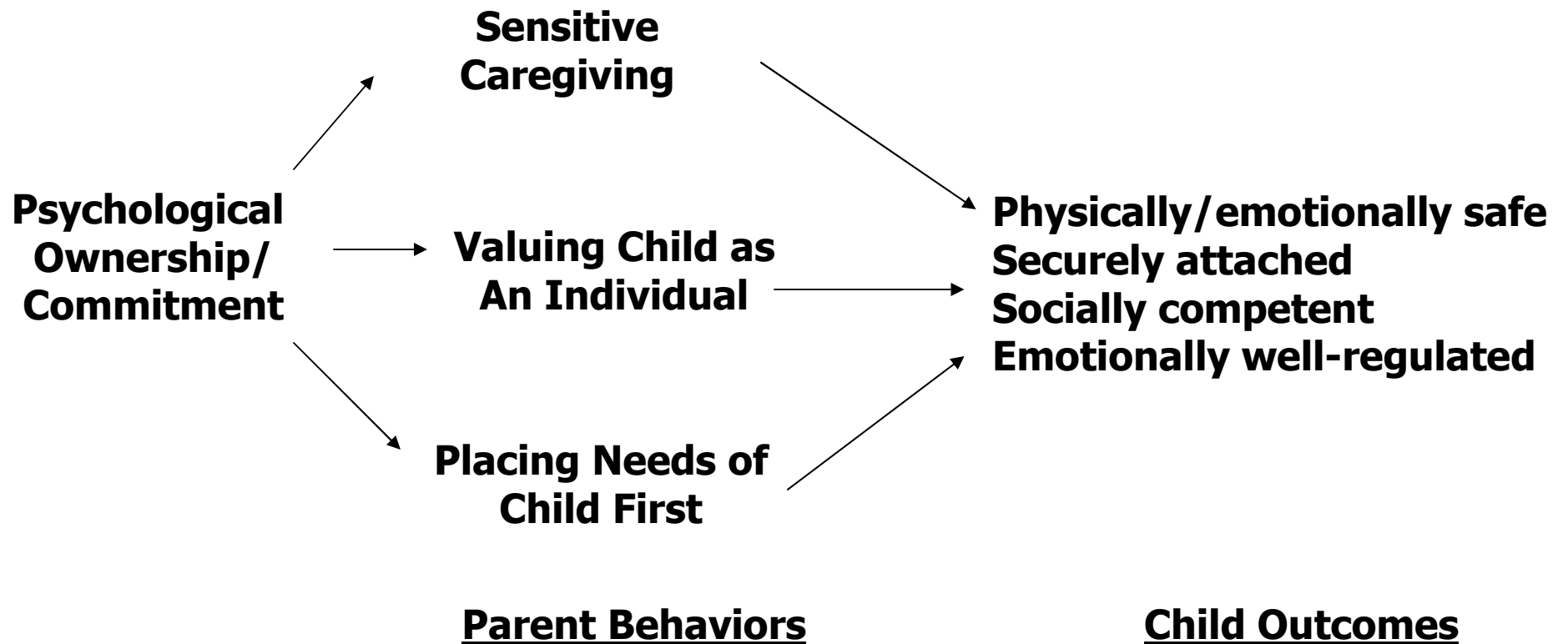
- Goal was to have foster care that was:
 - Effective
 - Affordable
 - Replicable
 - Culturally sensitive
 - Informed by latest clinical and research findings



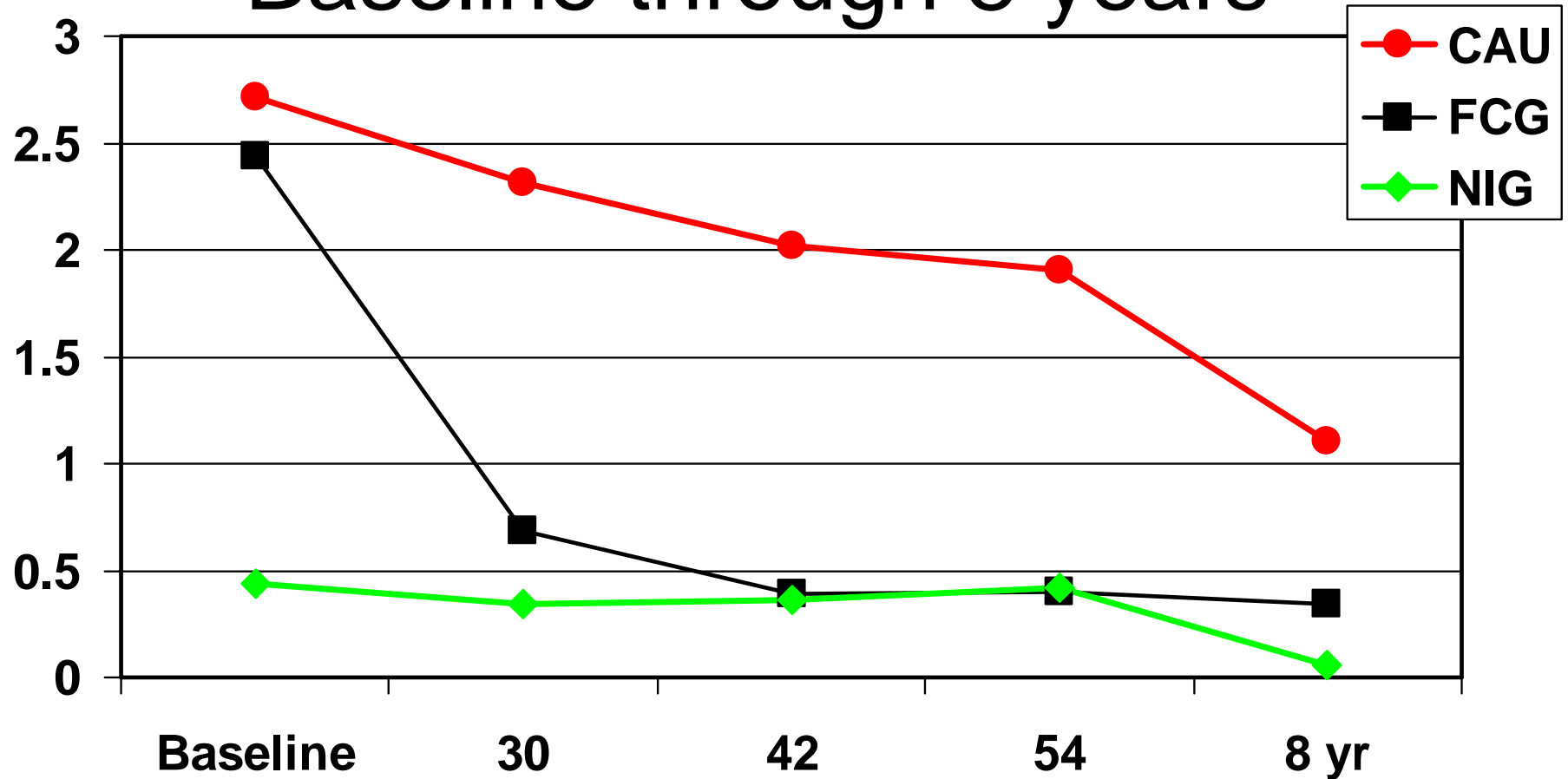
BEIP: A Child-Centered Model of Foster Care

- Orchestrated around needs of child for a stable, consistent emotionally available caregiver
- Foster parent becomes emotionally invested in child and advocates as if it were her own
- Social worker supports, monitors and intervenes with foster parent as needed

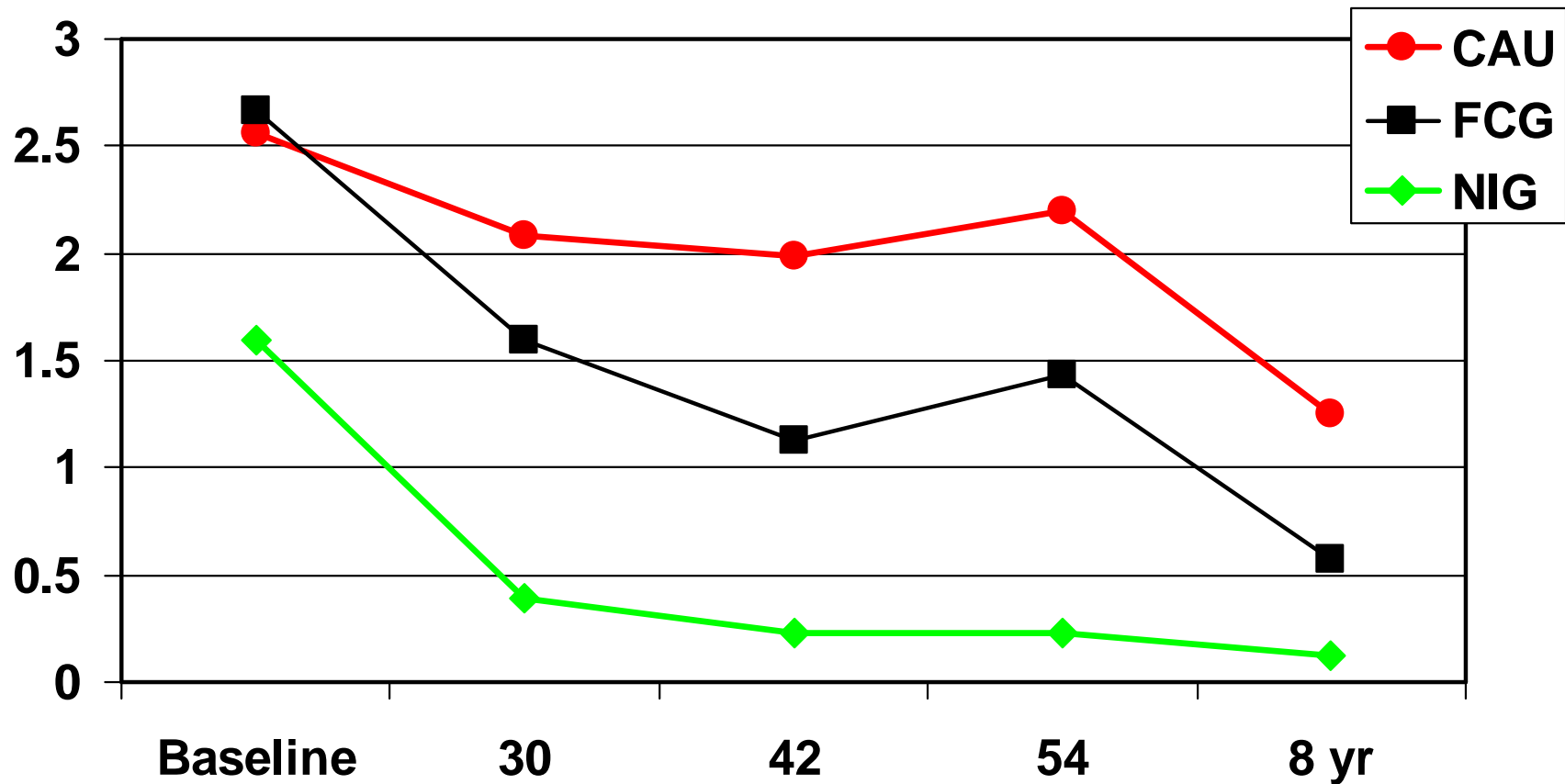
A Model of Child Centered Healthy Foster Parenting



Emotionally Withdrawn/Inhibited Baseline through 8 years



RAD Indiscriminate/Disinhibited Baseline through 8 years



Categorical Diagnosis of RAD at 54 months


	CAUG	FCG	NIG
Emotionally Withdrawn/ Inhibited	8.5% (N=5)	0	0
Indiscriminately Social/ Disinhibited	18.6% (N=11)	7.9% (N=5)	0
CAUG vs FCG: OR 2.7 (0.9 to 8.3), p=0.08			



Caregiving quality and indiscriminate behavior

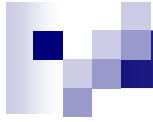
Concurrent

- Baseline -0.11
- 30 months -0.07
- 42 months -0.22*



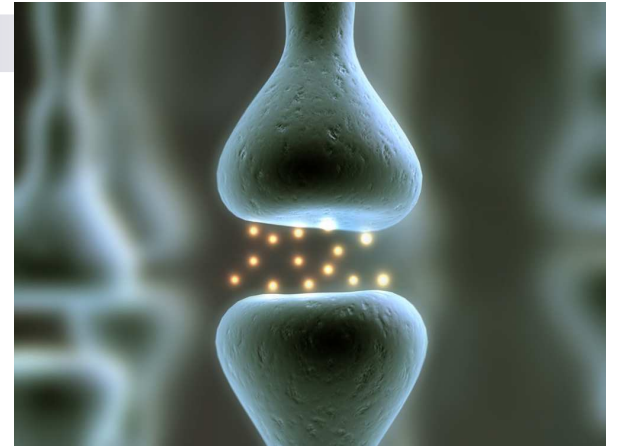
Quality of care and RAD among young institutionalized children

- Quality of caregiving related to:
 - RAD emotionally withdrawn/inhibited scores, $r = -0.32$, $p = .001$
 - but unrelated to RAD indiscriminately social/disinhibited scores, $r = -0.11$, *n.s.*



Vulnerability to RAD

Dopamine transporter (DAT)



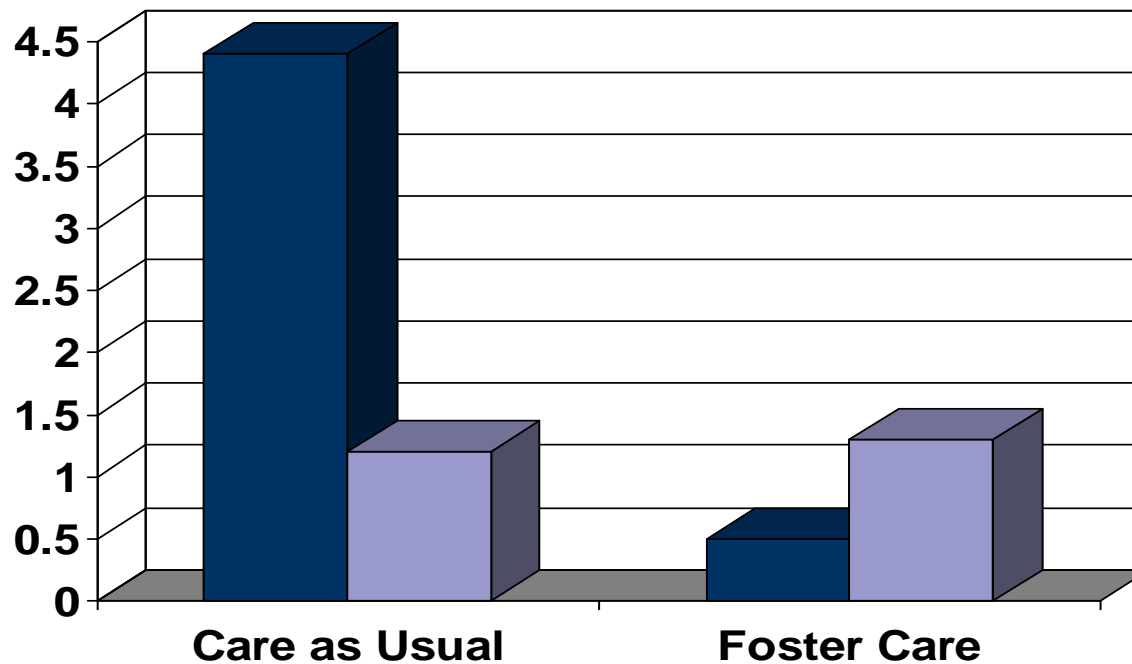
- Main regulator of dopamine in striatum
 - Subcortical, part of telencephalon
 - Major input site of the basal ganglia
 - Includes the caudate nucleus and the putamen
- Pre-synaptic inactivation of dopamine
- Links motor function, cognition and reward



BDNF

- Nerve growth factor
- Promotes neuronal survival
- Involved in differentiation, migration, and dendritic arborization
- Interacts with glutamate, dopamine and serotonin--modulates the balance between excitatory and inhibitory signaling in the brain
- Promotes cytoskeletal changes in dendritic spines
- Implicated in reward systems

BDNF/DAT and Indiscriminate/ Disinhibited RAD at 54 months



BDNF met allele (met/val and met/met)
& DAT 10/10 homozygous



Summary

RAD Inhibited

- Arises from neglect
- Not evident following adoption
- Related to attachment behavior in the SSP
- Related to quality of caregiving concurrently
- Responsive to enhanced caregiving
- No clear evidence for biological vulnerability

RAD Disinhibited

- Arises from neglect
- Evident following adoption
- Not related to attachment behavior in the SSP
- Not related to quality of caregiving concurrently
- Less responsive to enhanced caregiving
- Preliminary evidence for biological vulnerability



Conclusions/Future Directions

- Maltreatment and institutional care is associated with serious disturbances of attachment.
- Higher ratings of quality of care is related to more completely developed attachments, and reduced likelihood of having the emotionally withdrawn/inhibited type of RAD.
- Placement of institutionalized young children in foster care reduces signs of RAD, with more pronounced effects on EW/I-RAD than IS/D-RAD.