

Exploration and Social Communication Inhibition in Internationally Adopted Children

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Background

It is estimated that over 143 million orphans around the world live in highly deprived environments with minimum human interaction and limited living dimensions (UNICEF, 2010). Previous research has shown that social communication skills and exploration are predictive factors for long term behavioral and neurodevelopmental deficits (Fisher et al., 1997; Gunnar et al., 2007; Juffer, F & van Ijzendoorn, 2005). Thus it is crucial to develop early prevention/ treatment strategies against later emerging problems. Better understanding of newly adopted infants' initial transition period into their new families provides us with the possibility of doing so.

Hypothesis:

Compared with typically developing Minnesotan children, internationally adopted children from deprived environments will display less exploration, initial less social communication and emotional expression.

Methods

Participants:
Sample included 25 internationally adopted (IA) children from Eastern Europe, Ethiopia or China and 14 Minnesota born typically developing (Control) children living with their biological parents. ECS the same (Table 1). Average ages for the Control group and IA group were the same (Con= 12.89, SD= 3.12; IA =12.95, SD=3.08). Participants in the IA group were assessed with 1 month of arrival.

Procedures:
Children and their parents were invited to a laboratory assessment consisting of 5 minutes free play (FP, child solitary play) and 5 minutes social play (SP, parent-child play). The assessments were taped and coded by two different coders and tested for reliability. Figure 1 shows the variables that coding examined. Participants' scores on the Bayley Scales of Infant Development (BSID) were also collected.

Participant Demographics (Table 1)

	Eastern Europe	Ethiopia	China	Control	Total
Female	2	7	8	3	20
Male	3	4	1	11	19
Total	5	11	9	14	39

Variables (Figure 1)

Social Communication

Exploration

Emotions

Joint Attention
Behavioral Regulation
Social Referencing

Exploration Radius
Toy Manipulation

Positive Affect
Negative Affect

Results:

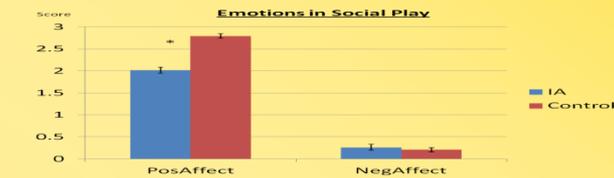
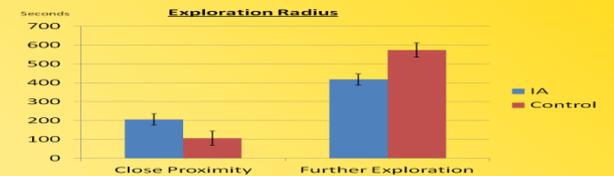
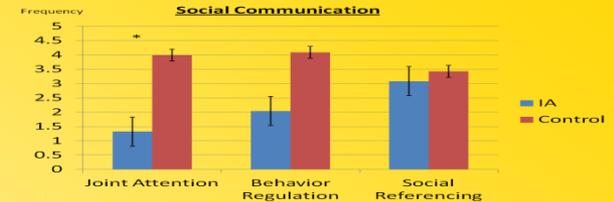
- Social communication:**
Participants in the IA group initiated less overall joint attention actions than participants in the Control ($t(37)=2.04, p<0.050$). This trend is more prominent in submissive types of JA, such as looking without or without eye contact than active types such as pointing. No correlation with found between any of the JA types and the BSID cognition score.
- Exploration: Association with Motor Bayley**
Exploration Radius: We divided exploration radius into to categories, close proximity and further exploration. Close proximity is defined as sitting in parent's lap, touching parent and/or exploration within 1 meter away from parent. Further exploration refers to exploration at a distance that is more than 1 meter away from the parent. IA participants spent a less percentage of time during both FP and SP at further exploration from their parents. ($t(37)=2.19, p<0.050$) Chart 2 shows the overall
- Toy Manipulation:**
IA participants exhibited higher quality and quantity of toy manipulation in social play ($QALt(37)=1.902, p=0.065$; $QTYt(37)=3.306, p<0.050$). They interacted with a greater number of toys in a more sophisticated ways (E.g. Bouncing ball vs. holding ball.)
- Emotions:**
IA participants displayed less overall positive affect ($t(36)=2.049, p<0.050$). This difference is especially evident in social play ($t(37)=1.858, p=0.071$). No significant correlations were found between BSID scores and emotion.

Discussion:

Data collected through this study suggest that post-institutionalized international adopted children display signs of inhibition /decrease exploration and social communication shortly after their arrivals. This phenomenon does not seem to be directly due to general cognitive/motor skills delay, since significant differences were found only in specific subcategories of both areas, namely Joint Attention, Mobility Range and Toy Manipulation, and Positive Affect. However, moderate strength correlations have been found between many subcategories and physical growth measurements.

Limitations of this study include: 1) The participants were assessed at ages so young that even typically developing children did not display much of the targeted actions. Thus, differences between the IA group and control group were only slight. 2) The IA group consisted of more females than males while in the control group it was vice versa. Gender differences may have contributed to the differences founded in between IAs and controls.

Further research would have to more closely examine why differences between the IA group and control group only appeared in certain subcategories but not others. It would also be interesting to study when and why inhibition, associated with internal behaviors, give away to the external behaviors often seen in post-institutionalized international adopted children in later years.



References

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