TOY LIBRARIES:
Play can protect children from violence and trauma

Dr. Jane Aronson
CEO & President, Worldwide Orphans
www.wwo.org

Unite For Sight: Global Health and Innovation Conference
April 13-14, 2019
Yale University, New Haven, CT
Toy Library History

- Canada 1975
- Los Angeles 1937
- United Kingdom 1967–1970s Playbus in Scotland
- Norway 1969
- Brazil 1981
- Argentina 1990
- Sweden 1963 Lekotek Movement
- Switzerland 1973
- Moscow 1992 St. Petersburg Early Intervention Center and Lekotek Joint Project
- Israel 1984 “0-3” Project
- Nigeria 1986
- India 1993
- Melbourne 1971
The WWO Toy Library

Over 15 years of work of specialists (OT, PT, SLP, ECD specialists, special education instructors)

120 Curated Toys

➢ Toys were selected based on their contribution to the cognitive, physical, social and emotional well-being of the child

➢ Toys are based on the highest US and EU safety standards and partnerships with vendors from the International Toy Fair

➢ 50 curated books and lesson plans that are uniquely matched to the toys within the Toy Library
Toy Reference Cards

- Developmental Age

- Developmental Domains
  - Cognition
  - Fine Motor
  - Gross Motor
  - Social/Emotional
  - Communication

- “Do-Say-Play”: intentional play
Adult Training Methodology

- **Reinforcement**: What the child is not yet able to do by themselves
- **Scaffolding**: What the child is able to do with assistance
- **Observation**: What the child is able to do by themselves

### Adult’s Role

- Master *trainings* and program-specific workshops
- Adult *knowledge*: Reciprocity and healthy attachment
- Adults of *any educational level* become mentors

Vygotsky (1896-1934)
Pre- / Post-test (adults) – Sarah Burke

House Training

Toy Library Training Questionnaire
Summary from 2/19 Training (N = 10)

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<thead>
<tr>
<th>Statement</th>
<th>Pre-Test</th>
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<th>Post-Test</th>
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<td>2. Children need to hear 20,000 child-directed words a day for typical</td>
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<td>3. I often let the child decide how we’re going to play.</td>
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<td>5. I can help children develop better listening skills.</td>
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<td>6. Good listening skills are important for children to succeed.</td>
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<td>7. I don’t feel comfortable talking and playing with children.</td>
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<td>8. It’s important to get down at a child’s eye level to establish eye</td>
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    contact and joint attention on a toy.                                   |          |          |          |          |          |           |          |          |          |
| 9. Children gain only motor skills when they play.                      | 6        | 2        | 1        | 1        |          | 6         | 0        | 1        | 3        |
| 10. I don’t know what to talk about with children.                      | 6        | 3        | 1        | 0        |          | 7         | 1        | 1        | 1        |
| 11. Young children can’t follow directions or learn rules.              | 7        | 2        | 1        | 1        |          | 8         | 1        | 1        | 0        |
| 12. Children need a lot of descriptive praise.                          | 0        | 2        | 5        | 3        |          | 0         | 0        | 0        | 1        |
| 13. I encourage children to explore and be curious.                     | 0        | 0        | 4        | 6        |          | 0         | 0        | 1        | 9        |
| 14. Play is essential to help children develop.                         | 0        | 0        | 1        | 9        |          | 0         | 0        | 1        | 9        |
| 15. Children only learn from adults.                                    | 8        | 1        | 0        | 1        |          | 8         | 0        | 1        | 1        |
| 16. Listening is the basis of all learning.                             | 1        | 2        | 6        | 1        |          | 0         | 0        | 2        | 7        |
| 17. Children mature when they’re ready; there’s not much I can do to    | 3        | 4        | 1        | 2        |          | 5         | 0        | 2        | 3        |
    change it.                                                              |          |          |          |          |          |           |          |          |          |
| 18. It’s important to make connections to real life and children’s      | 0        | 1        | 4        | 4        |          | 0         | 0        | 1        | 9        |
    experiences.                                                           |          |          |          |          |          |           |          |          |          |
| 19. Young children aren’t able to think critically.                     | 5        | 4        | 1        | 0        |          | 8         | 1        | 1        | 0        |
| 20. Storytelling is an important way to teach children higher order      | 0        | 0        | 4        | 6        |          | 0         | 0        | 1        | 9        |
    thinking skills.                                                        |          |          |          |          |          |           |          |          |          |
| 21. Technology can facilitate play and help children learn language     | 0        | 1        | 8        | 1        |          | 1         | 2        | 5        | 2        |
    skills.                                                                |          |          |          |          |          |           |          |          |          |
| 22. It’s OK to challenge children and encourage them to take risks.     | 0        | 1        | 5        | 4        |          | 0         | 1        | 2        | 7        |
| 23. I feel confident in my ability to help children grow and learn.      | 0        | 1        | 4        | 5        |          | 0         | 0        | 2        | 8        |

*Number of participants responding to each option
Workforce Development

➢ Creating a completely new line of work – the Toy Librarian - to grow mentors and teachers of play from within the community

➢ Highest professional status of pedagoge

➢ Mentors who have as their raison d'être to protect children forever
Standardized screenings

Case study: example of developmental improvements over time

22 months ASQ3

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<tr>
<th>Area</th>
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33 months ASQ3

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Case study: example of developmental improvements over time (cont.)

36 months ASQ3

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42 months ASQ3

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Worldwide Orphans’ Toy Library is Mitigating the Effects of Poverty through Play
Willock, M., Aronson, J., Maloney, T., Aichroth, K., Brooks-Gunn, J.
June 15, 2016

BACKGROUND
Research suggests that 10 to 20% of young children will experience developmental delays with significantly higher rates for children living in poverty.

To mitigate the effects of poverty and developmental delays, Worldwide Orphans (WWO) launched Element of Play® (EOP®) in Kenscoff, Haiti, following the 2010 earthquake.

OBJECTIVE
This internal program evaluation focused specifically on outcomes of the community-based Toy Library, operating two hours/day, four days/week. structured setting for early learning.

The ASQ3 screenings monitor Toy Library’s ability to improve developmental outcomes and ensure children enter school ready to succeed academically and socially.

METHODOLOGY
ASQ3 baseline data was collected on 220 children (4 months to 66 months; median age 30 months). Follow-up was done every six months while the child was enrolled (104 children at 6-months, 75 children at 1-year, 49 children at 1¾-years). Trained WWO staff administered the ASQ3 in the presence of the child and caregiver with five domains assessed: (i) communication, (ii) gross motor, (iii) fine motor, (iv) problem-solving and (v) personal-social.

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<th>Comm</th>
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<th>F. Motor</th>
<th>P. Solving</th>
<th>Personal/Social</th>
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<td>1-year follow-up</td>
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<td>(N:75)</td>
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CONCLUSION
WWO’s Toy Library is mitigating the effects of poverty through an innovative, community-based early intervention model.

At entry into WWO’s program, 43% (N:220 children) showed one or more developmental delays.

By one year of participation in a minimum of three sessions per week and two hours each session, 24% (N:75) of the children showed one or more developmental delays using the ASQ3.

FINDINGS
With significance of p < 0.05, a Wilcoxon signed-rank test revealed that at 6-months, Personal/Social (Z=3.231; p=0.001) delays were significantly decreased.

At 1-year, significant outcomes were seen across four domains: Gross Motor (Z=2.152; p=0.031), Fine Motor (Z=2.880; p=0.004), Problem-Solving (Z=2.760; p=0.006) and Personal-Social (Z=3.111; p=0.002).
Element of Play® (EOP): Understanding the underlying mechanism linking a play-based program to the adjustment of Roma children in Bulgaria

Petrova, R., Salandy, A., Angelova, A., & Aronson, J.
Worldwide Orphans

Background/Introduction
According to the World Bank, the poverty rate for Roma families is 6.7 times greater than non-Roma in Bulgaria. Roma children are more likely to be abandoned, do poorly academically, and experience a higher burden of mental health problems than their non-Roma counterparts. There are few early childhood intervention programs for Roma children in rural communities. The literature suggests that quality early childhood programs prevent child abandonment by strengthening parent and child relationships and increasing parent understanding of child development.

Objective
Element of Play® is a play-based early childhood intervention aimed to prevent the negative effects linked to toxic stress and trauma. This is accomplished by instructing adults on child development and the use of play-based strategies when interacting with children. Roma child and caregiver dyads in a rural town participated in Element of Play® activities for 2 hours a week over 8 months. The goal was to increase caregiver knowledge of child development, have caregivers apply this knowledge in practice during weekly play sessions, and improve child participant’s overall adjustment.

Methods
Twenty (20) child/caregiver dyads were recruited to participate in EOP for 8 months. Children ages ranged from 4 months to 64 months (median= 48 months) with 12 girls and 8 boys. Caregivers completed self-report survey at 4(T1) months and 8(T2) months. Surveys assessed the following:
1) level of program satisfaction,
2) whether caregivers learned more about their child,
3) whether caregivers learned new play skills,
4) whether caregivers practiced skills at home, and
5) whether caregivers witnessed positive child adjustment changes over time.
Caregivers responded on a 5-point Likert-like scale.

Findings
Mothers were increasingly satisfied with the program over the 8 months. Mothers reported learning significantly more about their child’s development, learning new play skills, using the new skills when playing with their child at home, and observing better adjustment in their child, from time 1 to time 2. Caregivers’ satisfaction with Element of Play® at time 1 was positively linked to reports of learning new child development knowledge and skills at time 2.

Conclusion
The findings begin to underscore the process intrinsic to EOP. Parents improve their knowledge of child development and interaction with the child. As a result, their child improves in their overall adjustment. This is consistent with the literature that suggests improvement in knowledge and skills and use of those skills predict behavior change. The evidence calls for further longitudinal studies with larger samples to better understand the process underlying the link between EOP and positive child development.
Poster Presentation: AAP National Conference, October 2015

A Promising Strategy for Addressing Trauma Among Institutionalized Children in Vietnam: A Pilot Project
A. Salandy, T. Nguyen, N. Thuy & J. Aronson
Worldwide Orphans Foundation

Introduction
There are thousands of children in Vietnam living in orphanages. Many have experienced significant trauma as a result.

Experienced trauma in children has been associated with externalizing and internalizing behavioral problems. However, there is little research that highlights the extent to which children living in orphanages in Vietnam have behavioral adjustment problems. Recent unpublished evidence indicated 33% of institutionalized children in Vietnam orphanages exhibited borderline or clinical externalizing or internalizing behavioral problems probably due to an insufficient lack of emotional and physical stimulation.

Methodology
Intervention and data collection

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<table>
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Findings

ASQ
Number of children who had significant improvement in developmental domains pre and post intervention

CBCL
30% of children (n=18) assessed at Time 1 exhibited borderline or clinical signs of internalizing or externalizing behavioral problems. There were no gender differences.

Element of Play Intervention
- Element of Play is a play-based early childhood and caregiver intervention
- A sample of 37 children (<5 yrs) were recruited for the program
- Volunteers were recruited from the community, trained, and assigned to a child. Volunteers worked with children two hours each day for five days a week
- Volunteers were provided training in child development, appropriate play practices to support child development, and scaffolding techniques that foster positive interactions with children
- Program lasted 6 months
- Baseline and Time 2 data was captured using the Child Behavior Checklist (CBCL) and the Adaptive Behavior Scale (ABS) for children <5 years of age

Efficacy
Children who attended the intervention had significant improvement in their CBCL scores, indicating a decrease in externalizing and internalizing behavioral problems.

Conclusions

- There is a high prevalence of externalizing and internalizing behavioral problems among institutionalized children in Vietnam. Recent findings indicated the mental health status of Vietnamese youth is better compared to international standards. It may be that youth residing in institutional settings experience significant trauma and toxic stress that contribute to their behavioral adjustment. Western studies have reported a link between institutionalization and maladjustment in children.
- Children experienced positive gains in their social/personal development. It is possible that children that play activities with trained volunteers in the intervention contributed to the positive growth in children’s social development. Research has shown the positive effects of play for children who experienced significant emotional trauma and toxic stress.
- Element of play and its trained counselors promote play-based activities in a toy library setting.
- Children had an increase in positive interactions with volunteers over the intervention time period. Observations indicated that volunteers scaffold positive behavior for children. Scaffolding during adult/child play has been shown to contribute to children’s prosocial behavior.

References
Brain development in the early years

Synapse Formation in the Development Brain

- Higher cognitive function
- Receptive language area/speech production
- Seeing/hearing

Birth–5 years

Age in Months  Age in Years
Conception  Birth

Source: Charles A. Nelson, From Neurons to Neighborhoods
In the presence of childhood adversity, play becomes even more important. When play and safe, stable, nurturing relationships are missing in a child’s life, toxic stress can disrupt the development of executive function and the learning of prosocial behavior.
Protecting Children through Play

➢ The mutual joy and shared communication and attunement (harmonious serve and return interactions) that parents and children can experience during play regulate the body’s stress response.

➢ Research shows that developmentally appropriate play with parents and peers is a singular opportunity to promote the social-emotional, cognitive, language, and self-regulation skills that build executive function and a prosocial brain.
Protecting Children through Play

➢ Play supports the formation of the safe, stable, and nurturing relationships with caregivers that children need to thrive.

➢ Helping adults to understand the importance of close, effective caregiver-child communication reduces harsh parenting practices, creates positive parent-child interactions and helps increase bonding between adults and children – all factors that help prevent violence against children.
References


References


