

Rhythm Play and Enhanced Emotional Sensitivity in Children

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RATIONALE

While recent research indicates that certain musical experiences lead to cognitive enhancement, relatively little is known if musical experiences enhances emotional sensitivity.

GOAL

To examined if three months of group rhythm activities enhances 3-5 year-olds' emotional expressivity.

PARTICIPANTS

- 19 3-5 year-olds from two public child care centers in Nagasaki City: 12 children from one child care center to the group rhythm play group and 7 children from another child care center to the control group.

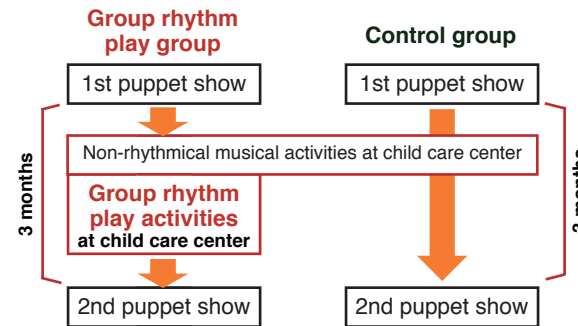
GROUP RHYTHM PLAY

Adopted a rhythm play activities, "Ningen Orchestra Karada-wa Gakki-da" by Takahashi and Tanaka (2002).

- Level 1: Warming Up
 - Getting used to rhythm play.
 - Clapping hands, stepping on the floor.
- Level 2: Knowing How to Create Rhythm from Own Body
 - Simulate familiar sounds (e.g., elephant's walk and thunder) using own body.
- Level 3: Synchronizing Sound with Friends
 - Learn to clap hands with other in synchrony.
- Level 4: Knowing More Rhythms
 - Learn to generate rhythms on different meters using familiar words.
- Level 5: Rhythm Ansemble
 - Learn to combine different rhythmic patterns with two groups.
- Level 6: Rhythm Exercise
 - Walk with others following different rhythmic patterns.
 - Learn to express rhythm in response to others' rhythmic expression -- "rhythmic wave."

DESIGN

- Both groups of children were individually presented with 10-minute long puppet shows twice, separated by three months, and video-recorded.
- Only children in group rhythm play group experienced group rhythm play activities.
- Between two puppet shows, all children experienced musical activities at child care centers (e.g., singing, listening to music CDs) that were not group rhythm play.



- Undergraduates evaluated audio-video recordings of children at two puppet shows (in random order) and rated on a 6-point scale of emotional expressivity.

CONCLUSION

- For children, synchronizing rhythm with others is extremely enjoyable.
- Children who experienced three-months long group rhythm play activities received higher ratings of emotional expressivity than those in the control group.
- Revealed effects may stem from learning to synchronize rhythm with others which required sensitivity to other's action and intentions.

PUPPET SHOWS - MEASURE OF EMOTIONAL SENSITIVITY



Modified puppet play described in Martin, Crnic, and Belsky (2003).

- There were two each of the following four types of emotional events that combined valence and target factors
 - Self-positive -- positive event involving children.
 - Self-negative -- negative event involving children.
 - Other-positive -- positive event involving the puppet character in the show.
 - Other-negative -- negative event involving the puppet character in the show.

RESULTS

Findings from mixed-ANOVA

- When emotional events involved the target child, ratings were higher for the group rhythm play group than for the control group, $p < .01$.
- When events were positive in valence, ratings were higher for the group rhythm play group than for the control group, $p < .001$.

Finding from *t*-tests.

- Children in the group rhythm play received higher ratings for self-positive events than in the control group, $p < .001$.

