

BABY SWIMMING AND MOTOR SKILLS ACHIEVEMENT

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Introduction

Motor skills can be defined as any task, simple or complex, that uses repetition in order to perform with greater independence and success. At 24 months old children are particularly characterized by the independence given to it by walking and running and the ability to transpose stairs. Positive effects of aquatic activity programs on infants' motor development can be observed. In this context, this study aims to analyze the ability of the motor gesture of getting out of the swimming pier at different conditions: deep pool and shallow pool.

Methods

Sample

88 babies
29 ± 4,9months-old

- (i) infants participating weekly in swim programs;
- (ii) infants participating in swim sessions conducted by the same instructor with specific formation in infant swimming;
- (iii) infants accompanied by significant adult persons with a good aquatic adaptation.



Procedures

Each subject made one attempt of getting out of the pool in shallow and in deep water, randomly.

Their attempts (variables) were classified as:

- i) nimbly;
- ii) with difficulty;
- iii) with help of the teacher or parent and
- iv) didn't do it.

Each swim session was recorded with a video camera (DCR-HC47E, Sony, Japan) set far away from the swimming pool in order to avoid distractions and significant changes in the infant's behavior;

Swimming sessions were performed in an indoor swimming pool with 16 meters length and a variable depth: from 40 cm (shallow water) to 120cm depth (deep water).

Descriptive statistics and Chi-square test was used. *Bellack* index was used as a concordance coefficient [12] between the 3experts.

Two variables were merged (difficult and with teacher/parents help), in order to turn statistical procedures more accurate and to fulfill test assumptions and the inferential data treatment. The significance level was established at 0.05.



Results

No correlation was found between age and previous experience ($r=0,57$), since that was a sample criteria. We found that in shallow water, 94.3% achieved the task successfully and 5, 7% did not reach the goal. In deep water, we found that 89.8% performed the ability and 10.2% did not reach the goal. We observed that 30.4% of babies who nimbly got out of the shallow water, leaves the deep water with difficulty or with assistance. We found negative correlation between age and getting out shallow water ($r=-0,264$) and getting out deep water ($r=-0,304$).

Although this result may show a tendency to increase the difficulty on this skill, the value of 65.8% obtained by the total number of babies who leave the water in both conditions, shows profile maintenance of babies' behavior through the exposed situations.

Discussion

These infants already acquired several aquatic motor skills allowing them to have a more autonomous, ranged and intense physical activity. It's noticed the importance of stimulus and environment to development of the children, not only the motor, but also the cognitive and social ones. Babies with more experience present a higher physical demand and agility to perform the proposed tasks. We can also corroborate that parents that were previously engaged in baby swimming programs can encourage a more appropriate behaviour. These infants already acquired several aquatic motor skills allowing them to have a more autonomous, ranged and intense physical activity. If we stimulate a particular skill, the baby will run it successfully, facing a challenge, thereby contributing to a richer and multifaceted motor repertoire.

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