

# The Effect of Playing Collage Therapy in Increasing Motor Skills Development in Preschool Children

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## Abstract

**Background:** The stages process development of each child is the same, which is the result of the maturation process.

**Aims:** The aim of this study was to compare the effectiveness of playing collage therapy in improving motor skills development in preschool children.

**Material and Methods:** This research was a quasi-experimental study using a pre-test and post-test research design. Playing collage therapy intervention was given to the 15 respondents, which has been chosen by using a purposive sampling technique.

**Results:** The results of this study indicate that most of the children experienced motor skills development beyond expectation (43.8%) before being given playing collage therapy. Then their motor skills development increasing as very well developed (100%) after being given playing collage therapy. Furthermore, the results of the t-test calculation obtained a p-value of 0.000 ( $\alpha$  0.05), which is means that there is a significant increase in motor skills development through preschool children aged 3-5 years in PAUD Tunas Harapan of Bengkulu after being given playing collage therapy.

**Conclusion:** From the results of this research, we conclude that playing collage therapy can be used as an alternative therapy to improve motor skills development in pre-school children..

**Keywords:** Preschool children; playing collage therapy.

## Introduction

Preschool children aged between 3-6 years. At this age, children generally join in the children's program (ages 3-5 years) and playgroup program (ages 3 years), while at the age of 4-6 years they usually attend kindergarten program. Children in his age are expected to have several skills that require motor

skills, such as using scissors well even though they are not straight in cutting, tying shoelaces, coloring neatly, and others skills according to the motor skills development that must be achieved. The activities of childhood in this age should be directed by their parents to improve their skills in these matters. This is important to give the opportunities and continuous practice in improving the children's skills.<sup>1,2</sup>

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The United Nations Children’s Fund (UNICEF, 2011) report that the incidence of growth and development disorders in children aged 3-6 years, especially for motor skills development disorders is still high (27.5%) about 3 million children. Around 16% of children aged 3-6 years in Indonesia also experiencing developmental disorders in the form of intelligence due to brain development disorders, hearing problems and motor skills disorder.<sup>3,4</sup>

The process of development stages of each child is the same, which is the result of the maturation process. However, each child has a different pace in achieving the stage. The development stages are divided into several stages, namely prenatal period (from the conception to birth), infancy (from 0-1 years), early childhood (ages 1-3 years), preschool (ages 3-6 years) and school period (ages 6-18/20 years).<sup>5,6</sup>

Growth and development stage have the same meaning of changes, but in particular they are different. Growth shows quantitative changes as the result of physical maturation which is characterized by the complex system of muscle tissue, nervous system and other measurable functions of organ systems. As the result of maturity stage, the physical organs are ready to carry out their activities according to the stage of individual development.<sup>7</sup>

According to the initial survey conducted by the researchers on October 20, 2020 at PAUD Tunas Harapan of Bengkulu, there were 163 children join in this preschool, 148 children in 2019 and 252 children in 2018. Based on the data available in the background of study, the authors were interested in conducting a research entitled “The effectiveness of playing collage therapy in improving motor skills development in preschool children at PAUD Tunas Harapan of Bengkulu”.

### Methods

The method of this study was a quasi-experimental study with a pre test and post test design. This research also carried out a descriptive observational study.

### Results

#### Univariate Analysis

This study report that the respondents age was 3 years old (66.6%) and 4 years old respondents (33.4%) (Table 1).

**Table 1: Frecuency Distribution of Respondens Based on Ages in PAUD Tunas Harapan of Bengkulu**

Ages	F	(%)
3 years old	10	66.7
4 years old	5	33.3
Total	15	100

#### Bivariate Analysis

This study found that the mean of motor skills development was 16.13 with a standard deviation 1.675 before being given playing collage therapy. While the mean of motor skills development increase gradually about 8.87 with a standard deviation 2.625 after being given playing collage therapy. From the t-test results shows that the p-value of before and after being given playing collage therapy was 0.000 (smaller than the p-value 0.005), which interpreted that there was a significant effect of playing collage therapy intervention in increasing the motor skills development in preschool children in PAUD Tunas Harapan of Bengkulu (Table 2).

**Table 2: The Effectiveness of Playing Collage Therapy Before and After Intervention**

Variabel	Mean	SD	P Value	N
Sebelum Intervensi	16.13	1.675	0.000	15
Setelah Intervensi	8.87	2.625		

### Discussion

#### Distribution of Respondents Based on Ages

The results of this study describe that majority of the respondent’s aged from 3 to 4 years. The respondents with the most age of 3 years was 10 respondents (66.6%). This is in line with Suhartini’s research (2019) which found that the inhibiting developments occur in early childhood, around the age of 2 to 4 years. Children who get better attention will develop a sense of confidence in their abilities.

This is as same as Fazrin’s research (2017) which report that there were obstacles in the children’s skills motor development, including being slow in concentration, getting bored quickly, and lack of eye and hand coordination. To get better motor skills development in children, the parents ave to train their activity in motor skills development.

## The Effectiveness of Playing Collage Therapy Before and After Intervention

Based on the results of dependent t-test analysis, it shows that the mean of motor skills development was 16.13 with a standard deviation 1.675 before being given playing collage therapy. While the mean of motor skills development increase gradually about 8.87 with a standard deviation 2.625 after being given playing collage therapy. The p-value of before and after being given playing collage therapy was 0.000, which presented that there was a significant effect of playing collage therapy intervention in increasing the motor skills development in preschool children

This study in line to Muarifah research (2019), which states that motor skills development increase after implementing collage therapy especially in the terms of hands and eyes coordination, so hand movements in this study developed properly. This study suggest that the parents should pay more attention in control, coordination of using hands and fingers in preschool children. This study also as same as Rufaida results (2019) which found that children who get a lot of stimulation develop their motor skills faster than children who get less or even no stimulation.

### Conclusion

To conclude, the frequency distribution of preschool children was 3-4 years old (66.6% and 33.4%). The average mean value of motor skills development before playing collage therapy intervention was 16.13 and 8.87 after playing collage therapy intervention. In addition, there was a significant effect of playing collage therapy on the improvement of motor skills development in preschool children at PAUD Tunas Harapan of Bengkulu.

**Conflict of Interest:** The author(s) declare that there is no conflict of interest.

**Ethical Clearence:** This study has approval from the Komite Etik Riset Kesehatan, Politeknik Kesehatan Kemenkes Bengkulu.

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