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DEVELOPMENT OF MOTORIC SKILLS THROUGH SENSORY PLAY STIMULATION IN PRESCHOOL CHILDREN

Dhea Natasya Putri Gunawan^{1*}, Andi Hayyun Abbidin², Jolo R. Galabay³

^{1,2} Department of nursing, Malang Health Polytechnic, Blitar Nursing Study Program, Indonesia
³Isabela State University, Philippines
<u>dheanatasya98@gmail.com</u>

ABSTRACT

Motoric development is an essential aspect of child development, even said to be the first benchmark to see the growth and development of children. One of the assessments of motoric development can be done with the sensory play method. This study aims to identify children's fine motor development through the sensory play method. This research method is a descriptive research design. The sample in this study was all children aged 4-7 years who attended Kindergarten "Dharma Wanita Kotes" in January - March 2023 with a total population of 25 students. The sampling technique used total population sampling. Data collection uses a checklist sheet, assessment according to interpretation guidelines. The results showed the development of seven senses of children through sensory play methods such as the senses of sight, hearing, smell, taste, touch, all respondents developed according to age (100%), but in the development of the senses of touch, vestibular and proprioceptive, almost all respondents developed (96%), because there is one respondent who has difficulty when playing activities with the seven senses, where this is influenced in terms of age and lack of socializing.

Keywords: motoric skill; play stimulation; preschool children

Background

Preschool is a period of growth and development for children aged 3-6 years (1). Preschool age is said to be the play period, because it is filled with play. Motor development is an important aspect in a child's development, it is even said to be the first benchmark in seeing a child's growth and development. Motor development needs to be paid attention to because it gives an idea that there are positive things that influence a child's development (2). Liviana (2018) said the rate of fine motor disorders in preschool children in Indonesia is 13% -18% (3). Motoric development in children will also impact other developments such as language, social skills and even self-confidence(4). The impact of not achieving fine motor development in early childhood is that they are vulnerable to danger when communicating, so they cannot be accepted in their community(5).

Increasing motor development can be done using the sensory play method, namely games that train the 7 senses, namely: sight, hearing, smell, taste, touch, vestibular (balance) and proprioception (6). This method can increase children's potential and creativity. Sensory play techniques can use natural materials to children recognize the environment better.

A child can interact and communicate with the immediate environment depending on the sensory experience provided by the family as the first and primary educator through the child's daily activities. Therefore, it is very important that children's sensory is stimulated as early as possible so that they can develop optimally in the future. Given the above background, researchers are interested in conducting research on "Development of Fine Motor Abilities



Through Sensory Play Stimulation in Preschool Child.

Methods

This research uses a descriptive research design. The population of this study was children aged 4-7 years and attending the "Dharma Wanita Kotes" Kindergarten, totaling 25 children. The samples taken were all children attending the "Dharma Wanita Kotes" Kindergarten, determined based on inclusion & exclusion criteria. The sampling technique uses total population sampling. After that, data analysis is carried out by grouping data, presenting data, and carrying out calculations according to interpretation guidelines.

Results

General data presents the child's age, gender, and grade level.

Table 1. Distribution of Age, Gender, and Class Level of Children.

Characteristics	Total	Percentage (%)
Age (Th)		
5	5	20%
6	10	40%
7	9	36%
8	1	4%
Gender		
Male	11	44%
Female	14	56%
Grade Level		
A	13	52%
В	12	48%

Based on Table 1, it is known that more than half of the children attending Dharma Wanita Kotes Kindergarten are 6 years old, 40% (n = 25), 14 students are female, 56% (n = 25) and 13 students are in class A. 52% (n = 25).

Development of Fine Motor Skills after Sensory Play Stimulation in Preschool Children

Based on the research conducted, it was found that the development of all children's senses through the sensory play method, such as the senses of sight, hearing, smell, taste and touch, all respondents developed according to age (100%), but in the development of the tactile, vestibular and proprioceptive senses, almost all respondents developed (96%)

Discussion

Based on research conducted in accordance with the checklist sheet, it was found that the development of all children's senses through the sensory play method, such as the senses of sight, hearing, smell, taste, touch, all respondents developed according to age (100%), but almost all respondents developed the senses of touch, vestibular and proprioceptive. respondents developed (96%), because there was one respondent who had difficulty carrying out play activities towards the senses, which was influenced by age and lack of socialization. This is in line with (6) where sensory play can improve fine motor skills by training the senses.

Factors that influence the growth and development of pre-school children include poor



nutritional status (emaciation), which is the factor that most influences the developmental status of toddlers aged 1-3 years. he growth and development occur regularly, sequentially, continuously and complexly, all humans experience the same growth patterns and levels of development, but because these patterns and levels are individual and have wide variations in biological and behavioral changes, this is considered normal. Parents are the main key to a child's success. It is parents who are first understood by children as people who have extraordinary abilities outside of themselves and it is from parents that children first learn about the world (7). Through parents children develop all aspects of their personalities. The aspect of child growth and development is an aspect that explains the process of child formation, both physically and psychosocially (8). This research shows that 100% of children have fine motor skills according to their age. This indicate that parents play an active role in stimulating their children's growth and development at home.

It is hoped that basic motor skills in early childhood that are optimally stimulated can improve children's ability to carry out physical activities, such as training flexibility and writing skills, training balance, abilities and skills, and increasing children's self-esteem. Furthermore, the use of various media/materials in making works of art can be used to train children to express themselves and be more creative with various ideas and imagination (9).

Parental stimulation when children are preschool age greatly influences fine motor development (10). Parental education has a big influence on a child's fine motor development, but parental income has absolutely no effect (11). The research results found that there was no difference in fine motor development in school-age children during the Covid pandemic and after the Covid pandemic because what played an important role was not environmental conditions but parental stimulation (12). Some games that can effectively help stimulate fine motor skills include games with puzzles, games with playdough and plasticine(13)(14)(15). Cooking classes can also improve children's fine motor development(16). However, for children with disabilities, for example autism, cutting can be used as an alternative to stimulate their fine motor skills(17).

The types and dimensions of play and children's motor behavior are formed in their daily environment. The daily environment for children is primarily determined by socio-spatial factors. Motor activity is understood here as an anthropological need and something constant (18).

One of the activities that can improve the fine motor skills of young children is through sensory play activities which involve children's fine motor skills in the form of eye and hand coordination, hand and finger muscle strength through cutting and sticking activities, coloring using brushes, crayons, markers, etc. pencil chalk. The research results showed that children's fine motor skills improved after being given sensory play activities (19). Other games that can improve children's motor skills include Lego. Lego not only trains sensory and motor skills, but helps develop children's creativity (20)

Conclusion and Recommendations

After research was carried out on the fine motor development of preschool children through sensory play, almost all children's development developed according to age. However, there was one respondent who had difficulty playing according to the checklist sheet, especially in the tactile, vestibular and proprioceptive senses.

Therefore, it is necessary to increase training in children's fine motor development, especially in the vestibular and proprioceptive senses to train leg muscle strength.



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References

- 1. Eliana, Sumiati S. Kesehatan Masyarakat. 1st ed. Jakarta Selatan: Kemenkes RI; 2016.
- 2. Fitriani L. Internalisasi nilai-nilai karakter islami pada anak usia dini melalui metode berkisah. Aciece [Internet]. 2018;3:247–56. Available from: http://conference.uinsuka.ac.id/index.php/aciece/article/view/101
- 3. Setyaningsih TSA, Wahyuni H. Alat Permainan Edukatif Lego Meningkatkan Perkembangan Motorik Halus Anak Usia Prasekolah. J Keperawatan dan Kesehat Masy Cendekia Utama. 2021;10(2):115. https://doi.org/10.31596/jcu.v10i2.757
- 4. Nurjanah N, Suryaningsih C, Putra BDA. Pengaruh Finger Painting Terhadap Perkembangan Motorik Halus Anak Prasekolah di TK At-Taqwa. J Keperawatan BSI. 2017;V(2):65–73.
- 5. Sary YNE, Ambarsari N, Suhartin S. Pengaruh Permainan Lego terhadap Perkembangan Motorik Halus pada Anak Usia 3-6 Tahun. J Obs J Pendidik Anak Usia Dini. 2023;7(5):6273–80.
- 6. Rosiyanah R, Yufiarti Y, Meilani S. Development of Sensory Stimulation Media for Children Aged 4-6 Years Based on Seven Sense Play Activities. J Obs J Pendidik Anak Usia Dini, 2020;5(1). https://doi.org/10.31004/obsesi.v7i5.5350
- 7. Khadijah, Siregar WN, Nasution PS, Imai T. Faktor-Faktor Yang Mempengaruhi Tumbuh Kembang Anak Di RARantau Prapat Kabupaten Labuhan Batu. J Pendidik dan Konseling. 2022;4(3):2354–9.
- 8. Najihah K, Wahyuni, Yuniati, Jayanti ND. Faktor-Faktor yang Mempengaruhi Tumbuh Kembang Anak di Gampong Cot Mesjid Kecamatan Lhueng Bata Kota Banda Aceh Factors Affecting the Growth of Children in Gampong Cot Mesjid Lhueng Bata Banda Aceh City. J Kesmas Jambi. 2021;5(2):36–44. https://doi.org/10.22437/jkmj.v5i2.14358
- 9. Akba Z, Awalludin. Motoric Stimulation on Early Childhood Development. In: Proceedings of the 3rd International Conference on Education, Science, and Technology (ICEST 2019). 2019. https://doi.org/10.2991/assehr.k.201027.019
- 10. PH L, Armitasari D, Susanti Y. Pengaruh Stimulasi Motorik Halus Terhadap Tahap Perkembangan Psikososial Anak Usia Pra Sekolah. J Pendidik Keperawatan Indones. 2018;4(1):30. https://doi.org/10.17509/jpki.v4i1.12340
- 11. Kusumaningtyas K. FAKTOR PENDAPATAN DAN PENDIDIKAN KELUARGA TERHADAP PERKEMBANGAN MOTORIK HALUS ANAK USIA 3-4 TAHUN. Suara Forikes [Internet]. 2016;7(1). Available from: http://www.forikesejournal.com/index.php/SF/article/view/13
- 12. Aguss RM, Fahrizqi EB, Abiyyu FA. Analisis Dampak Wabah Covid-19 Pada Perkembangan Motorik Halus Anak Usia 3-4 Tahun. J Penjaskesrek [Internet]. 2021;8(1):46–56. Available from: https://doi.org/10.46244/penjaskesrek.v8i1.136813.
- 13. Nikmah N, Qomari SN, Zainiyah H. Pengaruh Permainan Puzzle Terhadap Perkembangan Motorik Halus Pada Anak Usia 24-36 Bulan. Indones J Prof Nurs. 2023;4(1):52. https://doi.org/10.30587/ijpn.v4i1.5773
- 14. Ferasinta, Dinata EZ. PENGARUH TERAPI BERMAIN MENGGUNAKAN PLAYDOUGH TERHADAP PENINGKATAN MOTORIK HALUS PADA ANAK PRASEKOLAH. J Keperawatan Muhammadiyah Bengkulu [Internet]. 2021;9(2). Available from: https://www.neliti.com/publications/468808/pengaruh-terapi-bermain-



- menggunakan-playdough-terhadap-peningkatan-motorik-halus#id-section-content. https://doi.org/10.36085/jkmb.v9i2.2213
- 15. Tri N, Iip W. PENGARUH TERAPI BERMAIN PLASTISIN TERHADAPPERKEMBANGAN MOTORIK HALUS PADA ANAK PRA SEKOLAH. Keperawatan STIKes Cirebon. 2017;1294–300.
- 16. Wardani EM, Setiyowati E. Hubungan pendidikan dengan pengetahuan wanita usia subur tentang pap smear di pondok pesantren Al Hidayah Kendal Ngawi. Universitas Nahdlatul Ulama Surabaya; 2018.
- 17. Raharjo DS. Pengaruh Terapi Bermain Menggunting Terhadap Peningkatan Motorik Halus Pada Anak Autisme Usia 11 15 Tahun di Sekolah Luar Biasa Negeri Semarang. STIKes Telogorejo; 2014.
- 18. Share barbara. Early Intervention Game [Internet]. San Francisco: JOSSEY-BASS; 2009. Available from: https://books.google.co.id/books?hl=en&lr=&id=m4-LBgAAQBAJ&oi=fnd&pg=PR13&dq=sensory+play+for+children+and+motoric&ots=w0t2-
 - YxWjz&sig=mlsN01yxp9CZsS4eyyhJzg0tchs&redir_esc=y#v=onepage&q=sensory play for children and motoric&f=false
- 19. Tama MML. Peningkatan PerkePeningkatan Perkembangan Kemampuan Motorik HalusPada Anak Usia Dini Melalui Kegiatan Sensory Play DiDenali Development Centre Cabang Demang Palembang. Pengabdi Kpd Masy Nusant. 2023;2(2):940.
- 20. Elfira E, Melvia Girsang B. Effect of compiling LEGO® Play on sensory and motor skills in Toddlers. Int J Educ Humanit [Internet]. 2021;1(1):1–6. Available from: http://i-jeh.com/index.php/ijeh/index