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DEVELOPMENTAL MILESTONES OF PRE-SCHOOL CHILDREN IN SELECTED DAY-CARE CENTER IN MANILA DISTRICT VI, PHILPPINES

Johdel Cabaluna[1i],
Shella Paragua[2]
[1]Dean, School of Nursing,
Panpacific University,
Philippines
[2]Quality Assurance Coordinator,
FEU-NRMF,
Philippines

Abstract:
The study sought to determine the developmental milestones of preschool children in selected daycare centers in Manila District VI. This was conducted in a small community, namely Barangay 835 in Pandacan City. The instrument utilized in gathering data was a standardization test. Using the convenience sampling method to find the participants for the study, the researchers used the MMDST test form to conduct the survey on 25 preschoolers. Only 4- to 6-year-old preschoolers were included in the survey. Based on the findings of the study, it is concluded that the result of the MMDST scores of children enrolled in the daycare center of Barangay 835 shows that the language aspect was seen as having the most prominent delay, affecting 41% of the respondents, followed by the personal-social aspect with 32%, the gross motor adaptive aspect with 29%, and the fine motor aspect with 25%.

Keywords: development milestone, preschool children, personal social, fine motor adaptive, gross motor adaptive, and language

1. Introduction

Children are among the most vulnerable population groups in society. A lower socioeconomic status (SES) is known to have detrimental effects on the development and well-being of children. Lower SES influences a child's growth, which can impair their behavior or cognitive development. It examines the perspectives on intervention and responsibility of the government, family, and community in possible situations of parental neglect of children. It defines the children's well-being and situation in the

[i] Correspondence: email jdale_rn@yahoo.com

institutional context of nurturing the child protection system for perspective formation, especially on their education to mold and shape their future. Their stage is considered vulnerable if not properly taken care of. It indicates that institutional context sheds logistic regression and order on the various responsibilities of the individual in the community. It requires further investigation into the vital dimension of intrusive intervention. It supports the responsibility of the intervention by the citizens in the community on child protection policy (Helland, Pedersen, & Skivenes, 2022, pp. 1–22). On the other hand, the vulnerability of children in society can be addressed by the government or the community. They need to be taken care of because they are the hope of the future generation. At present, it has been observed that the rise of neoliberalism is due to the systems and policies in place for the protection of children, education, and health care. This must be given emphasis for the care and protection of the children in terms of educational and health care in the society or community to which they belong. It is vital and emancipatory to work on education, community empowerment, social reflection, and critical reflection for children (Selau et al., 2021).

Over the past decades, the Philippines has made outstanding progress in providing child health services, lowering the mortality rates of children under the age of 5, and a significant decrease in deaths from maternal and child vaccination, but despite this, the children and youth of the Philippines still face colossal challenges. It adheres to discovering the well-being of children. It mitigates and identifies the barriers that adhere to the primary care practices for children and families in the community. It establishes engagement in health adherence working together for the development of children at a milestone. The issues of health are being emphasized in the community. It provides and increases the services of health care practices as a protocol in child welfare and protection development. It leverages the practices and progress toward equity in the goal of the health system. It provides a lifelong creation of health protocols at a macro level of economic, social, and political factors in inequities characteristics as to health outcome burden, diseases, social dynamics, stress, health behavior, influences, distress, adversity, and poverty. It helps to downstream the health system, achieve health equity in the health policies, and have advocates in the institutions or community (Garg et al., 2022, pp. 189–195). It establishes the focus on mental health levels and behavioral dimension measures that vary from childhood experiences. It also identifies and distinguishes the adverse experiences that predict risks in the school context for children's mental health. It assesses the adverse cumulative effects of children’s experiences and mental health. It reveals that mental health is exposed through psychosocial adversity for students in the assessment of academic progress and a child’s behavior in mental health struggles. It provides an intervention for mental health that guides the school on its program for mental health (Leiva et al., 2021, pp. 1–13).

Moreover, child nutrition is among the aspects that contribute to the altering of physical and neurologic development in developing countries such as the Philippines, especially for those who are living in sub-urban or rural settings where child nutrition is a need that is still to be met. In recent years, there has been an increase in stunting and

being underweight among children under 5 years of age. Unsurprisingly, household wealth is one of the most significant predictors of childhood stunting across the country; nearly 1 in 2 children from the poorest households are affected, compared to only 15 percent of the wealthiest households. It makes connections between good nutrition and food security. It analyzes the mental health process and provides guidance for children. Nutrition links with mental health, child feeding programs, nutrients as biomarkers, birth outcomes, and mental and stress well-being. Nutrition influences exposure and measures the outcome of mental health. It visualizes the nature and extent of utilization of mental health and guides policies for children's nutrition (Sparling et al., 2022, pp. 1–11). It enables families to manage and design meals for their children and siblings that are both happy and nutritious. It addresses the barriers to cooking at home to facilitate the proper preparation of nutritional meals for their children. It looks into encouraging families to cook nutritious food for their children's brain development. It provides for the knowledge and understanding of vital nutritional meals for their kids as well as the impact on their perceived family dynamics, social, nutritional, and mental health. It enhances family preparation, making a decision on food preparation, meal opportunities, and food literacy. It provides potential insights into social, mental, and physical benefits for the family to support the nutrition of a child in the home (Fraser et al., 2022).

Consequently, there is a need to look at household families living conditions, health, and education to foster the positive development of their children. As such, pediatric screening, such as the Metro Manila Developmental Screening Test (MMDST), enables early detection or prevention of diseases and developmental delays during infancy and school age. It believes that preschool children should be assessed at an early age to detect their developmental stage, determine if delays are present, and intervene accordingly. It investigates the purposes and timetable of development of the mothers' contributions to the developmental milestones of children in preschool. It examines the children's development and expectations as to psychosocial, cognitive, perceptual-motor, and physical factors influenced by the child-rearing influences and practices of mothers. It shows that child development and maternal expectations have an effect on maternal rearing practices for child development (Williams et al., 2000, pp. 291-301). In most cases, the difference between non-working and working mothers for MMDST changes with the growth of the body gradually from the toddler as they fully develop their features within 36 months. The role of the mothers is vital in the children's development and quality interaction (Anggraeni & Paramitha, 2019, pp. 649–653).

2. Statement of the Problem

1) What is the profile of the respondents in determining the development stage of preschool children in terms of
   2.1 age,
   2.2 gender, and
   2.3 type of family?

2) What is the MMDST score of the Preschool children enrolled in daycare Center in terms of
   2.1 personal social,
   2.2 fine motor adaptive,
   2.3 gross motor adaptive, and
   2.4 language?

3) What are the health needs of preschool children based on the Metro Manila Developmental Screening test scores?

3. Theoretical Framework

The theory is anchored on the "Child Development Theory and Their Impact to Child Care and Childhood Education", as cited by Saracho (2021, pp. 1–16), as this theory focuses on the development theory to generate the children's philosophy on personal social, adaptive fine and gross motor skills, and language, and the need for the health of preschool children based on the Metro Manila Developmental Screening test scores. It interprets the data and organizes the development scheme and theory. It is a systematic theory that refers to the principles and statements observed, related phenomena, and other relationships. A child development theory interprets children's behavior and growth. It provides and suggests the make-up and child's genetic environment and condition relationship that influences the behavior and development of the child and its impact on childcare. It offers better insights into and performance of individual children's stimulation, direction, sustenance, and encouragement. Psychologists established theories from different competing aspects in dealing with various domains of development and learning. It influences the development theory that describes the field of early childhood education, child development, and care. The child development theory focuses on individual development according to specific principles, theoretical conceptions, and theorists. It also focuses on the various theories of ecological, psychoanalytic, behavioral, constructivist, and maturation. Its theory interprets and offers what it means for behavior and child development. It clusters the collective theory in the school system and the process in the educational setting. It contributes to the guidelines and development that improve the children's performance in terms of motivation and principles. It determines the universal laws in the development of human behavior. It generates philosophical views on the theory of child development (Abbott, 2021).

4. Research Design

The study employs the quantitative study research design because it provides a concrete outcome in the descriptive research to include concepts, identification of possible relationships between concepts, and the development of a hypothesis that provides a

basis for future quantitative research. It quantifies and measures the profile of the respondents in determining the developmental stage of preschool children in terms of age, gender, and type of family. The measure also includes the MMDST score of the preschool children enrolled in the daycare center in terms of personal social, fine motor adaptive, gross motor adaptive, and language. Likewise, the measures of the health needs of preschool children are based on the Metro Manila Developmental Screening test scores among the respondents. It provides analysis and inferences about the value of the data and manages the results accordingly (King, Goldfarb, & Simcoe, 2021, pp. 465–488).

4.1 Research Locale

The study is conducted on the pre-school children living in Metro Manila District VI, as it is the most convenient and familiar area in the best interest of the researcher's safety. This is chosen as the venue of the study because it helps, whatever the result of the study, with the developmental milestones of preschool children not only in Metro Manila but throughout the young generation around the world. This is needed because children are very sophisticated and need to be molded and shaped for their total development.

4.2 Sample and Sampling Technique

Convenience sampling is utilized in the study. It is also called availability sampling. It is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in the study. Convenience sampling is a type of sampling where the first available primary data source will be used for the research without additional requirements. In other words, this sampling method involves getting participants wherever you can find them, typically wherever it is convenient. In convenience sampling, no inclusion criteria were identified prior to the selection of subjects. It examines the various variables and responses and provides a consistent estimation of the sample size for convenience samples and accounts (Weigold & Weigold, 2022, pp. 1302-1322). The study comprised only 25 respondents.

4.3 Data Gathering Procedure

The researchers write a letter of request to the dean of the College of Nursing at Adamson University, asking for permission to conduct the study outside the school premises. After the approval of the Dean, the researchers will write a permission letter to the Manila City Hall for conducting the study and to reach the target of 70% of children in the community of barangay 835 Pandacan Manila, District VI. After getting permission, the researchers forward the letter of intent to the community captain of the selected community. After getting permission, the researchers were assisted by a barangay health worker in visiting the house of each respondent to ensure the confidentiality and safety of the researchers. The researchers provide a parental consent letter for the respondents upon conducting the research study and give an explanation about its importance and how it will be done. The duration of the survey will be limited to a maximum of 30 minutes, and the respondents will then be given a token of appreciation after completing the MMDST test

form. Our overall goals in this study are to evaluate the four aspects of development through the implementation of the Metro Manila Developmental Screening Test to determine if the child's development is within normal limits. This determines and addresses early serious developmental delays and disabilities in order to facilitate early referral and treatment (Gurewitz, Shifrin, & Dvir, 2022).

4.4 Research Instrument

The research instrument used is a standardization test, which is a research method that is often lengthy in its process. The same directions must be read to each student, the same questions must be given, and the same amount of time must be assured. All these factors must be decided before the first subject can be tested. While standardization refers mainly to the testing situation itself, these principles of 'sameness' also involve the selection of subjects. Standardization refers to the methods used in gathering and treating subjects for a specific study. To compare the results of one group to the results of a second group, we must assure that each group receives the same opportunities to succeed. Standardized tests, for instance, painstakingly assure that each student receives the same questions in the same order and is given the same amount of time, the same resources, and the same type of testing environment. Without standardization, we could never adequately compare groups. The researchers chose convenience sampling because the availability of the parent and their child was not known or could not be easily identified. In this study, the researchers will personally distribute the standardized test through house-to-house visits to pre-school students in selected communities in Metro Manila (Pereira & Lousada, 2022, pp. 1–17).

5. Results and Discussions

5.1 Demographic Profile of the Respondents

Table 1: Profile as Age

Age	Frequency	Percentage
▪ years old	7	28
▪ years old	8	32
▪ 5 years old	10	40
Total	**25**	**100**

The table shows the frequency and percentage distribution of respondents in terms of age. As shown in the table, the ages range from 3 to 5. The age 5 range received the highest frequency, with 10 respondents each, corresponding to 40%. The age 4 range got a frequency of 8, corresponding to 32% of the total respondents. The age 3 range got a frequency of 7, corresponding to 28% of the total respondents.

Data indicate that in the present study, we assessed behavior disorders longitudinally from age 3 to 5 in children with developmental delay (DD) or typical development (TD). Children with intellectual disability (ID) had a higher level of

problem behaviors across all ages than children with typical development (TD); however, children with ID also decreased significantly more over time in aggressive and attention problems. In the present study, we examined problem behaviors among young children with DD at age 3 and again at age 5 years. It provides guidelines on the child's development in a clinical setting in terms of the mental and behavioral processes. It assesses their mood, fear, anxiety, and hyperactivity-related attention disorder and deficit (Robles et al., 2022, pp. 396-402). Every child grows and learns at his own pace, and the range of what's normal is wide. Many delays aren't serious, and most kids can catch up, especially when they get early treatment. By 3 years old, kids usually talk in short sentences, can identify body parts, and make words plural. By 4 years old, kids can usually tell a simple story and recall short nursery rhymes. Use sentences of about five words; use "I" and "you" correctly. By 5 years, kids can understand two-part commands with prepositions, give their first and last names, use plurals or the past tense the right way, ask questions like "Why?" or "Who?" and talk about what they did that day (Rojas & Abenavoli, 2021, pp. 225–235).

Table 2: Profile as to Gender

Gender	Frequency	Percentage
▪ Male	13	52
▪ Female	12	48
Total	**25**	**100**

The table shows the frequency and percentage distribution of respondents in terms of sex. As shown in the table, males had the highest frequency of 13 respondents, corresponding to 52%. Females, on the other hand, got the lowest frequency of 12 respondents, corresponding to 48% of the total respondents.

Data indicates that the group of boys with intellectual disabilities (ID) had higher behavior problem ratings than the group of children without intellectual disabilities across the three time points. Parents and teachers generally agreed on behavior, except for attention problems and externalizing problems. Findings imply that children with ID may be more likely to be perceived as having greater externalizing behaviors by teachers than by parents, and that parents may perceive children as having greater attention problems than teachers (Wagemaker et al., 2020, pp. 573-587).

Results indicated significant relations between early risk, negative parenting, and subsequent child demandingness. Sickliness as an infant was the most salient predictive risk factor for later child demandingness. Developmental delay was the most significant predictor of subsequent negative parenting. Results are discussed as being more indicative of additive rather than mediational processes given that early child risk and negative maternal parenting both contributed uniquely to the subsequent development of child demandingness (Lawall, Tram, & Kumar, 2022, pp. 444–449).

Table 3: Profile as to Type of Family

Type of Family	Frequency	Percentage
▪ Nuclear	11	44
▪ Extended	14	56
Total	**25**	**100**

The table shows the frequency and percentage distribution of respondents in terms of the type of family. As shown in the table, Extended got the highest frequency of 14 respondents, corresponding to 56%, while Nuclear got the lowest frequency of 11 respondents, corresponding to 44% of the total number of respondents.

Data indicates that it certainly represents responses linked to their child's characteristics, including stress often generated by their child's inability to adapt to new situations, problems with mood and emotional stability, as well as overall difficulties presented by daily challenges in meeting their child's needs. Beyond these child-related dimensions, stress is represented by its more general effects on parental well-being. It explains the child development that embeds in the social environment during their childhood, which belongs to the nurture of their family rearing (Hoffmann et al., 2022, pp. 1–14).

Indeed, the form of stress can be experienced as increases in depressive symptoms as well as concerns regarding role restrictions, health, the ability to bond with their child, and a sense of competence with respect to their ability to parent a child with a disability. Mothers' close relationships, especially with their spouse, are a dimension of stress that can be adversely affected as well (Leckman, Bloch, & King, 2022).

Notably, an important distinction was made between support to provide advice or caretaking help to mothers specific to their child with a developmental delay but irrespective of source, referred to as parenting support, and more general support. The construct of general support is represented by forms of emotional support, the sharing of concerns, or advice about various problems. The emphasis on parenting support was based on evidence indicating that caregiving demands and related issues specific to parenting a child with a disability were strongly associated with maternal stress. The more general form of support also was examined in relation to the source of that support, i.e., community support, friendship support, extended family support, and intimate support (primarily from a spouse or partner) (Edirisingha, Aitken, & Ferguson, 2022, pp. 1–15).

5.2 On the developmental status of the preschool children enrolled in day-care center

The table shows the frequency and distribution of the total respondents corresponding to the four aspects of development and the number of delays observed.

Table 4: Development Status of Preschool Children on Day Care Center

Aspects	Passed	% of No Delays	Failed	% of with Delays	Age Specific Test not Applicable
Age 3:					
▪ Personal-Social	0	0	7	100	6
▪ Fine Motor Adaptive	4	57	3	48	1
▪ Language	1	14	6	86	3
▪ Gross Motor	6	86	1	14	1
Age 4:					
▪ Personal-Social	4	50	4	50	6
▪ Fine Motor Adaptive	4	50	4	50	1
▪ Language	3	37.5	5	62.5	3
▪ Gross Motor	3	37.5	5	62.5	1
Age 5:					
▪ Personal-Social	9	90	1	32	6
▪ Fine Motor Adaptive	8	80	2	20	1
▪ Language	9	90	1	41	3
▪ Gross Motor	9	90	1	25	1

In the personal-social aspect, out of 25 respondents, 13 showed no delays, 6 showed delays, and 6 had age-specific tests that were not applicable.

Prematurely and maturely born preschoolers show no differences between the groups on tests of higher mental processes, including the general cognitive, verbal, quantitative, and memory scales of the McCarthy Scales of Children's Abilities and researcher-devised measures of problem-solving competence. No differences in parental reports of personal and social development were noted. Premature animals did not perform as well as controls on perceptual performance tasks, and this difference was interpreted as reflecting relatively impaired visual-motor coordination (Earle & Qi, 2022, pp. 231-243).

In the motor adaptive aspect, out of 25 respondents, 17 showed no delays, 7 showed delays, and 1 had an age-specific test that was not applicable. The review of the literature revealed that family features such as socioeconomic status, the mother's educational level, and the existence of siblings can affect children's motor competence. Preschool centers have also become important for children's development due to the large amount of time children spend at them nowadays. Moreover, the social-cultural context in which a child is reared forms certain demands for his or her motor behavior, favoring specific aspects of motor development and impairing others. A very influential factor is the use of intervention movement programs. A developmentally adequate movement program can enhance motor development, thus preventing the long-term negative consequences that an unfavorable influence of several genetic or environmental factors may have (Saidmamatov, Rodrigues, & Vasconcelos, 2022, p. 1259).

In children who exhibited developmental delay at 3 years of age, the spontaneous movements at term age can be described as less active with intermittent occurrences of abrupt and synchronized movements of the limbs. Recognition of these characteristics of spontaneous movements at term age may be used as a predictor for subsequent cognitive

and behavioral development in preterm infants. It provides delays on the major public health challenges. It identifies the long-term vision and development goals for a child's health from a broader perspective intervention, which is critical in the child's development (Saleem et al., 2021, pp. 1-10).

In the language aspect, out of 25 respondents, 13 showed no delays, 9 showed delays, and 3 had age-specific tests that were not applicable. Severe speech and language disorders in young children can negatively affect later educational achievement, even after intensive intervention. Several studies have shown that children with speech and language problems at two and a half to five years of age have increased difficulty reading in the elementary school years. It examines the access of children to language and speech services throughout their lifetimes and identifies family characteristics and child disorders among those who access services in language and speech development (Davidson, Alonzo, & Stransky, 2022, pp. 1–17).

5.3 On the health needs of preschool children based on the Metro Manila Developmental Screening test scores

Based on the survey results, in addressing the health needs of preschool children, parents enroll their children in the daycare center to practice independence and increase social interaction to enhance their personal social aspects of development. Thorough monitoring of the child for accurate observations of their development. They also try to engage their children in various play activities to enhance their motor skills and language development. This enhances early childhood development and cares for their mental health through consultation, which builds an intervention on capacity building for young children or preschool children. This promotes behavioral health and emotional and social well-being (Mathis et al., 2022, 1–16).

6. Conclusion

It shows that the study explores the developmental level of children. There were 25 students enrolled at the Barangay 835 Day Care Center, and they were screened to assess the level of development of each child of different ages. The Metro Manila Developmental Screening Test is divided into four parts: personal-social, fine motor adaptive, language, and gross motor. Each area contains questions and tasks that the researchers ask the students to do to know if the student is developing well for their age or if there is any delay. The research utilizes the MMDST to assess children for delays and task achievement. The majority of children are under the age of five, thus having more participation as compared to the other age groups; the majority are males and had more participation in the study compared to females; the majority of children are living in an extended type family structure compared to the nuclear type; and the language aspect of development in children showed the highest frequency of delays compared to the other aspects of development.

On the other hand, the primary health needs of children are the following: Based on the interview of three key informants to encourage the child to participate in play activities, enhance independence by enrolling children in day-care centers, monitor the child's progress in their development, and act as a role model, the research affirms that from the result of the MMDST scores of children enrolled in the day-care center of Barangay 835, the language aspect was seen as having the most prominent delay, affecting 41% of the respondents, followed by the personal and social aspect with 32%, the gross motor adaptive aspect with 29%, and the fine motor aspect with 25%.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Authors

Dr. Johdel Cabaluna is the current Dean of the School of Nursing of Panpacific University, Philippines. He is national and international reviewer for Nursing, Midwifery and LET for more than 15 years.

Dr. Shella Paragua is a Quality Assurance Coordinator of Far Eastern University-Nicanor Reyes Medical Foundation, Incorporated Hospital. She is also a graduate school professor of Far Eastern University- Manila and a clinical instructor from Adamson University, Philippines.

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