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Knowledge, Attitude, and Practice of Hygiene Associated Gross Motor Development Delay among Children in a Suburban Area of China

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Background: Nearly 250 million children under the age of five have been reported as unable to achieve their developmental potential in low- and middle-income countries. In the underdeveloped areas of China, a high prevalence of children under the age of three experience motor developmental delay. Moreover, the burden of infectious disease is significant among low-income families with poor access to safe water, sanitation, and hygiene (WASH). However, the risk factors associated with child gross motor development remain unclear, particularly related to WASH. This study thus aimed to determine the gross motor development of children and investigate WASH factors contributing to motor developmental delay.

Methods: A cross-sectional study was conducted in a suburban area of China; 132 children and their caretakers participated. Data were collected via anthropometric measurements and a questionnaire. Children were weighed whilst lightly clothed and shoeless. Recumbent length (children < 24 months old) and height (children ≥ 24 months old) were also measured (shoeless). The questionnaire inquired about: (1) the sociodemographic characteristics of the participants, (2) the caregivers' knowledge, attitude, and practices (KAP) on hygiene, and (3) the child's gross motor development.

Results: The majority of the children (60%) were cared for by their mother, whilst 40% of them were primarily cared for by their grandmother. The child nutritional status was generally good in this study, with approximately 20% of the children experiencing delayed achievement of certain gross motor milestones. A significant difference in hygiene KAP was found between different caretakers. Compared to mothers, grandmothers had significantly lower hygiene KAP scores. Lower hygiene KAP scores were found to be significantly associated with a higher prevalence of child diarrhea, and significant predictors of the delayed achievement of walking with assistance.

Conclusions: Consequently, a superior hygiene KAP potentially improved child motor development in the examined suburban area of China. Proper personal hygiene and food hygiene KAPs are essential for combatting the transmission of infectious diseases and safeguarding the gut health of the child.

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