



Assessing the Effects of Mobile Addiction on Cognitive Development and Intelligence in Children: Implications for Psychiatric Nursing

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ABSTRACT :

This study investigates the impact of mobile addiction on children's cognitive development and intelligence levels, a growing concern for psychiatric and pediatric nurses. Utilizing a cross-sectional study design, the research analyzes the correlation between high mobile usage and declines in cognitive function, including attention, memory, and problem-solving skills. Data were collected from 200 children aged 8-14 years using validated cognitive assessment tools and parental surveys on mobile usage patterns. Findings suggest a significant negative association between excessive mobile use and cognitive development, indicating that psychiatric nurses should incorporate screening for mobile addiction in routine assessments and provide guidance on healthy usage habits.

Introduction :

The prevalence of mobile devices has transformed modern childhood, introducing both educational benefits and potential risks. While mobile devices can offer educational resources, excessive use can lead to mobile addiction, impacting mental health and cognitive function. Psychiatric nursing plays a crucial role in addressing such behavioral issues, as they are closely linked to mental health and developmental outcomes. This study examines how mobile addiction influences children's cognitive development and intelligence, aiming to provide psychiatric nurses with data to support intervention strategies.

Objectives of the Study :

1. To determine the correlation between mobile addiction and cognitive development in children.
2. To assess the impact of mobile device usage duration on attention, memory, and problem-solving abilities.
3. To provide evidence-based recommendations for psychiatric nurses to manage and mitigate the risks of mobile addiction in children.

Methodology :

A cross-sectional study design was adopted to analyze the effects of mobile addiction on cognitive outcomes in children.

- **Sample Size and Population:** The study included 200 children aged 8-14 years, selected from schools and pediatric clinics.
- **Sampling Technique:** Stratified random sampling ensured representation across different socioeconomic backgrounds.
- **Instruments Used:** Cognitive function was measured using the Wechsler Intelligence Scale for Children (WISC-V), while mobile addiction levels were assessed using a Mobile Addiction Scale for Children, completed by parents.
- **Setting:** The study was conducted in urban clinical and educational settings to represent diverse backgrounds.

Data Collection

Data were collected over three months. Cognitive assessments were conducted in a controlled environment to minimize distractions, while mobile usage data were collected from parents through structured interviews and questionnaires.

Data Analysis

Quantitative data analysis was performed using SPSS software. Descriptive statistics provided a general overview of mobile usage patterns, while correlation and regression analyses assessed the relationship between mobile addiction and cognitive development. Inferential statistics determined the significance of findings.

Ethical Considerations

The study adhered to ethical guidelines, including informed consent from parents and assent from children. Data confidentiality was maintained, and approval was obtained from the Institutional Review Board (IRB). Participants were given the option to withdraw from the study at any time.

Limitations :

- The cross-sectional design limits causal inference.
- Self-reported data from parents could introduce bias regarding mobile usage.
- Limited to urban settings, which may restrict the generalizability of findings to rural populations.

Results :

The results indicate a negative correlation between mobile addiction and cognitive function. Children with high levels of mobile usage showed lower scores in attention and memory tests, indicating that mobile addiction could impact cognitive development. Furthermore, children spending more than 3 hours daily on mobile devices scored significantly lower on problem-solving assessments.

Variables

- **Independent Variable:** Mobile addiction (measured in duration of daily use and addiction scale score).
- **Dependent Variables:** Cognitive function (assessed through attention, memory, and problem-solving abilities).

Conclusion :

The findings suggest that excessive mobile use negatively affects cognitive development in children, an area where psychiatric nursing intervention is vital. Psychiatric nurses are encouraged to incorporate mobile usage screening into routine assessments and guide parents on setting healthy usage limits. Awareness and early intervention strategies could help mitigate the adverse effects of mobile addiction on children's mental health and cognitive growth.

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