



**Himalayan College of Nursing
Swami Rama Himalayan University
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SEMINAR REPORT

A seminar was conducted on the topic **Current Advances in Nursing Practice in Child Health Nursing** on 11th April 2026 in Conference Hall, HCN by Mrs. Anshika Tyagi focusing on the evolving landscape of child health nursing. The seminar aimed to explore family-centered pediatric care in earlier times and compare the traditional and modern nursing practices.

The presentation emphasized on the transformation from traditional pediatric nursing practices to modern, technology-driven approaches integrating Artificial Intelligence (AI) and Internet of Things (IoT). The session emphasized advancements in neonatal and pediatric care, particularly in critical care settings such as NICU and PICU. Assess the role of nurses in technology-driven care and analyze the benefits, challenges, and ethical concerns for future implications in pediatric nursing.

The seminar highlighted how AI and IoT are transforming pediatric care in clinical decision support systems. Especially in predictive analytics (sepsis, respiratory distress), ventilator management and drug dosage calculation, Smart NICU monitoring devices, Wireless biosensors for real-time vital monitoring, Early warning systems for critical conditions, Smart diaper sensors, Smart pacifier sensors and Full-body wearable sensor systems. These technologies enhances accuracy, reduce human error, and enable early interventions. Nurses play a crucial role in monitoring AI-based systems, interpreting data and alerts, educating parents using digital tools, ensuring safe and ethical use of technology.

A clinical scenario demonstrated the use of DOPES assessment along with AI alerts in managing sudden deterioration in NICU patients. The seminar emphasized on early detection of Autism, Anxiety disorders, Behavioral and neurodevelopmental disorders.

AI tools support early diagnosis and intervention, improving long-term outcomes. Modern pediatric nursing extends beyond hospitals. School health programs, Immunization campaigns with digital access, Telemedicine and home-based care, online consultation and danger sign assessment improved patient outcomes. It also helps in reducing workload for healthcare professionals and enhanced accuracy and efficiency.

Key challenges discussed are High-cost and resource limitations, Technical complexity and training needs, Communication barriers, Privacy and data security concerns, Risk of over-reliance on technology and Legal and ethical accountability.

Further to overcome the challenges, the schools should act upon integration of AI into nursing curriculum, development of nurse-led AI systems, expansion of home-based pediatric care, strengthening ethical and legal frameworks, increased research and evidence-based practices.

The seminar concluded that AI and IoT are revolutionizing pediatric nursing care by improving diagnosis, monitoring, and patient outcomes. However, successful implementation requires a balance between technology and human care, along with addressing ethical, financial, and training challenges. Nurses remain central to delivering compassionate, safe, and effective care in this evolving healthcare environment.



Pic. 1: PhD Scholar is presenting seminar



Pic. 2: All participants attending the seminar

Activity Coordinator