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### Background

- Caring for children in rural and remote areas can be challenging
- The challenges double in low-income countries with lower resources and high poverty rates
- Many low-income countries assigned pediatric care to non-physician clinicians (NPCs)
- NPCs have different levels of trainings and competencies but still provide care for children from birth to adolescent age



- To support NPCs and improve their pediatric care, Telemedicine can be a useful and affordable tool



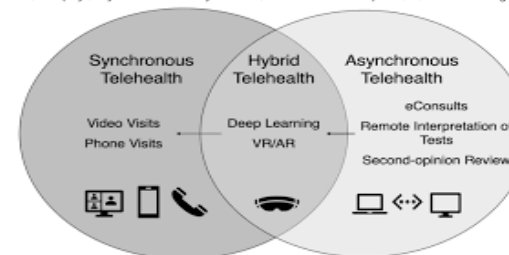
### Methodology

- Four databases were searched (PubMed, Google Scholar, EMBASE and Cochrane)
- Over 20 keywords were used
- English and published studies only were included
- After removing duplicates, 68 studies were incorporated in this review

### Applications and Effectiveness

- Beside medical education and direct pediatric care, Telemedicine can provide sub-specialties consultations without extra burden on families
- Telemedicine can help in lowering under-5 mortality by supporting neonatal care, infectious illnesses, and non-communicable diseases (NCDs)
- It has been expanded to deliver radiology assessment, capacity building and task shifting

The Interplay of Synchronous and Asynchronous Telehealth with incorporation of Artificial Intelligence

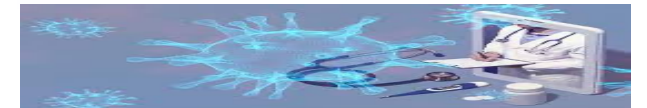


- Telemedicine can be a gate for universal coverage for all children at a lower cost
- Telemedicine is cost-effective and can lower direct medical cost by 31% while addressing human resources shortage

### Challenges

- challenges in implementing Telemedicine in low-income countries are enormous
- Poor connectivity, lack of policies, digital divide and poor infrastructures are the main challenges
- Despite successful implementation in many low-income countries, Telemedicine has not been able to lower gender disparity in healthcare access

### Opportunities



- Opportunities arise by using simpler technologies, low-width band internet, smartphones, instant messaging applications and solar energy
- COVID-19 pandemic allowed the market of Telemedicine to grow attracting many entrepreneurs and startups
- Governments must regulate Telemedicine by issuing policies and ensuring employment of local experts when possible

References will be shared upon request

Titles Review

Abstracts Review

Full Texts Review