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Care of under-five children in India- A review article

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***Abstract*---**The Goal of The United Nations' Sustainable Development is to reduce under-five mortality to or at below 25 per 1000 live births. The large and vulnerable group with a high-risk population in India is the age group of children under the age of five years. According to UNICEF, South Asia has the highest proportion of recorded child mortality, with India accounting for a quarter of them. Being a

member of a tribal community adds to this vulnerability. When compared to other social classes, tribal children had a 19% higher chance of dying during the newborn period and a 45% higher risk during the post-neonatal era. The Indian government is working hard to put child survival at the forefront of its agenda and has devised a particular plan for vulnerable populations. It uses content analysis to examine existing policies, programs, and research involving children under the age of five. The findings revealed the historical development of child policies dating back to 1974 with the creation of the first child policy. Meanwhile, several initiatives to enhance the health of children under the age of five have been made. The focus of healthcare programs has recently switched from treating single illnesses to disease management as a whole. Existing regulations and programs point to moving from institute-based care and home-based care. Despite these efforts, there is a basic requirement for integrated implementation research as part of the health system, which might offer information on the program's impact.

***Keywords*---**Care, India, morbidity, mortality, under-five children.

Introduction

In 2015, there were 5.9 million children (Age of under-5) who died, falling from 12.7 million in 1990(WHO). Pneumonia and diarrheal illnesses are the most common causes of death in children (age of under-5) worldwide. South Asia had the highest proportion of child deaths, with India accounting for a quarter of them. WHO and UNICEF developed a united approach to minimize mortality and morbidity [1].

Why care for under-five children is important?

During the first 28 days of a child's life (the neonatal period), the risk of death is highest. To avoid these deaths, the quality of pregnancy care, birthing care, and postnatal care for women and their babies must all be improved. 2.6 million children died in their 1st month of birth worldwide in 2016. Almost 7,000 babies die every day, an estimated 46% of all children (age under-5). Preterm delivery, intrapartum issues (birth asphyxia or lack of breathing at birth), and infections account for the bulk of newborn mortality. Throughout the newborn period and the first five years of life, pneumonia, diarrhea, and malaria are the top causes of mortality. The underlying reason is malnutrition, which makes children more vulnerable to severe illnesses. [2].

Who is most at risk?

Newborns

2.6 million newborns die in their 1st month of life every year, with an equivalent number stillborn. The first 24 hours of life account for up to half of all fatalities in the first month, while the first week accounts for 75% of all deaths. For a newborn's survival, the first 48 hours following delivery are crucial. This is the

moment for the mother and child to begin receiving high-quality addiction care in order to treat as well as prevent the disease.

Following a baby's birth, crucial newborn care should include starting exclusive breastfeeding right away, checking that the baby is breathing, maintaining the baby warm, and washing hands before touching the baby. It is critical to diagnose and treat illnesses in newborns since if an illness is not diagnosed and treated effectively, a baby can quickly develop sick and die. Sick neonates should be sent to a trained medical practitioner as soon as possible.

Diseases that may be avoided and treated with simple, low-cost interventions account for more than half of all fatalities in children under the age of five. Many young lives will be saved if health systems are strengthened to deliver such interventions to all children. Nutritional issues are responsible for roughly 45% of the death rate in children under the age of 5 [2].

Table 1.1
Leading causes of death in post-neonatal children: risk factors and response

CAUSE OF DEATH	RISK FACTORS	PREVENTION	TREATMENT
PNEUMONIA, OR OTHER ACUTE RESPIRATORY INFECTIONS.	Low birth weight Malnutrition Non-breastfed children Overcrowded conditions	Vaccination Adequate nutrition Exclusive breastfeeding Reduction of household air pollution	Appropriate care by a trained health provider Antibiotics Oxygen for severe illness
CHILDHOOD DIARRHEA [3]	Non-breastfed children Unsafe drinking water and food Poor hygiene practices Malnutrition	Exclusive breastfeeding Safe water and food Adequate sanitation and hygiene Adequate nutrition Vaccination	Low-osmolarity oral rehydration salts (ORS) Zinc supplements

Methodology

Dr. Dobbin's Rapid Review Guidebook Steps for Conducting a Rapid Review guided the rapid review through the 5 phases of the evidence-informed decision making (EIDM) process. The health EvidenceTM tool was used to 1) find and obtain relevant research evidence; 2) assess the methodological quality of the research evidence, and 3) synthesize the evidence.

Search Strategies

Based on the rapid review of research questions and a combination of diverse study topics, the following key search phrases were developed: “care of under-five children" and "Under-five children at risk." Keywords and synonyms for health problems, causes of mortality, and under-five clinics have been added to the search phrases to improve the search's quality and unbiasedness [4].

The final search string is as below:

Care of under-five children "OR" under-five children at risk "OR" factors associated with under-five children. PubMed, Cochrane, Google Scholar, and Scopus Library are the four databases used for systematic publication searches. Given the scarcity of publishing in the care of under-five children, PubMed and the Cochrane library provide significant wide coverage of peer-reviewed literature, whereas Google Scholar and Scopus were included to provide such a larger coverage of the grey literature. A snowball search was used to find references involving the review papers in addition to the literature search.

Eligibility criteria

All the articles, theses, and review papers published before Feb 2022 have been searched for literature studies conducted on the care of under-five children in developing countries. Data were extracted from publications that addressed the evolution of the conceptual framework of care for children under the age of five, policy development, and variables of utilization, concerns, and challenges.

Data Extraction

The papers were reviewed by two independent reviewers from the university fraternity to ensure that they were picked without bias. Both reviewers have reached an eighty percent agreement on the completed selection of publications for further data extraction. As various studies were done by various field experts, there are limited publications and diversity in the methodology. The degree of evidence is used to grade the quality of the work [5].

Results of the literature search

Non-relevant articles were filtered after the preliminary screening based on their non-English language, title, abstract, and book chapter. The number of items that may be relevant has been reduced from 174 to 39. According to the inclusion criteria, a total of 39 studies from developed and developing nations were

included in the final data extraction. (Figure 1: Health EvidenceTM tools: Literature search results).

Inclusion criteria

Original papers that focused on the care of children under the age of five were included

Exclusion criteria

Studies that used multiple interventions (multiple intervention studies), such as nontribal trials and efficacy studies, were excluded. Brief messages, letters to the editor, abstracts, and conference posters, as well as studies with insufficient data on community efficacy and surveillance data or reviews.

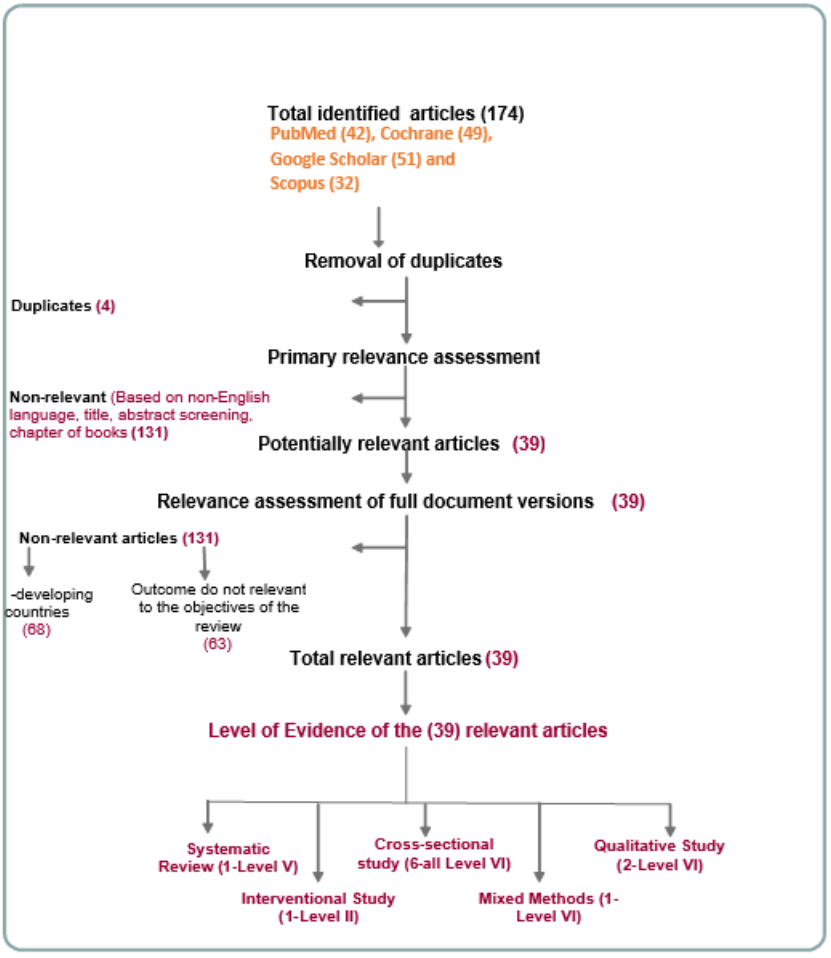

Figure 1: Health Evidence™ tools: Literature search results [5]

Result and Discussion

Global response: Sustainable Development Goal 3

The Sustainable Development Goals (SDGs) were approved by the UN in 2015 to guarantee that all children enjoy healthy lives and are well-adjusted. By 2030, SDG 3 goal 3.2 aims to eliminate unnecessary mortality of babies and children (age of under-5). Goal SDG 3.2 is to reduce NMR in all countries to at least 12/per 1000 live births, and Goal SDG 3.3 is to reduce children under the age of five who died in all countries to at least 25 per 1,000 live births [6].

Preventive pediatrics

Pediatrics, often known as child health, is the branch of medicine that is associated with the health and well-being of children from conception to puberty. Preventive pediatrics refers to efforts aimed at preventing rather than curing sickness and disability in children. The main goal of social pediatrics is to provide comprehensive and continuous child health care services while also ensuring that these services are accessible to the whole community [6].

Care of children

This area is dedicated to children aged 0 to 14. They make up around 40% of the entire population. This age group is important worldwide as it is only during this period of age that the determinants of health behavior and chronic disease are established [7].

Childhood can be divided into the following age groups:

1. Infancy (up to 1 year of age)
2. Neonatal period (first 28 days of life)
3. Post-neonatal period (from the 28th day to one year)
4. Pre-school age (1-4 years)
5. School-age (5–14 years)

Preschool-age children, sometimes known as toddlers, are children under the age of four. The under-five mortality rate is regarded as a key measure of a country's social state [8].

Under-fives- A special group

They account for roughly 12% to 15% of the total population. They have high mortality and morbidity rates. In older people, the effects of malnutrition and other disorders play a role. The majority of deaths could be avoided if accessible therapies were used. This is a time of development and growth. During the first five years of life, the brain matures completely. Immunization can avoid the majority of morbidity. The health of children under the age of five and the health of their families are linked. In the face of poverty and uncontrolled fertility, they are likely to be overlooked [6, 9].

Conclusion

Certain variables have been identified that impact the health status of children under the age of five. To lower the proportion of the mortality rate in children, various policies have been framed. The focus has shifted away from the health system and toward home-based care provided by community workers. Early diagnosis, fast treatment of mild ailments, and early referrals would all benefit from it. Health-care programs have shifted their focus from treating isolated illnesses to disease management as a whole. Given the enormous number of intervention techniques that health professionals are expected to perform, it is necessary to analyze the burden and need for upgrading the techniques by skilling them up and delivering quality service by health workers at the grassroots level. Despite several legislation and program requirements, the Indian health-care system continues to encounter difficulties in terms of accessibility, availability, cost, and community childcare practices, as well as improved implementation. To improve the health system's internal evaluation of activities for efficacy, implementation research must be included as part of policy and program implementation.

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Conflicts of Interest: No conflicts of interest were declared by the authors.

Ethics approval and consent to participate

This evaluation does not require ethical approval because no patient data was collected. Plagiarism, confidentiality, malfeasance, data falsification and/or falsification, double publishing and/or submission, and duplication are among the ethical problems examined in this study.

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