



“Empowering School Health Nursing: Screening and Preventive Strategies for Common Childhood Illnesses”

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Abstract: School health nursing plays a vital role in ensuring the holistic well-being of children by focusing on prevention, early detection, and management of health problems within the school environment. The school serves as an ideal platform for promoting child health because it provides access to large groups of children during their formative years. This review explores the significance of school health nursing, major screening components, and preventive measures implemented to control common childhood illnesses. It also discusses the roles, challenges, and future directions for enhancing school health programs. Integrating evidence-based screening and preventive strategies into school health services can improve the physical, mental, and social well-being of students and foster healthier generations.

Keywords: School health nursing, screening, preventive strategies, child health, communicable diseases, health promotion, community nursing

1. Introduction

The school environment is a vital setting for implementing health care and promotion programs among children. School health nursing is a specialized field that combines elements of community health and pediatric nursing to maintain and promote the health of students [1]. The World Health Organization (WHO) defines school health services as comprehensive measures that integrate health education, screening, disease prevention, and health care delivery within schools [2]. The school health nurse plays a central role in coordinating and implementing these services, bridging the gap between the healthcare system, schools, and families [3].

Children are particularly vulnerable to infectious diseases, malnutrition, and psychosocial stressors that can affect their learning outcomes. Early detection of health issues through systematic screening ensures that interventions are implemented promptly, preventing complications and promoting academic success [4]. In India, the Ayushman Bharat School Health Programme has emphasized strengthening health screening and education in schools, positioning nurses as key facilitators [5]. Therefore, school

health nursing contributes significantly to both public health and educational achievements, ensuring children grow in a safe, supportive, and healthy environment [6].

2. Role and Scope of School Health Nursing

The role of a school health nurse extends beyond clinical care to encompass preventive, promotive, and educational responsibilities. School health nurses assess the physical, emotional, and social well-being of students, facilitate immunization programs, manage emergencies, and act as health educators and counselors [7]. They perform regular health screenings, identify students with chronic or communicable diseases, and provide counseling on hygiene, nutrition, and stress management [8]. Their responsibilities also include developing health policies, maintaining health records, and coordinating with parents and community health services. In addition, school nurses play an advocacy role by ensuring that children with special needs receive necessary accommodations and medical support [9]. The scope of practice also includes first aid management, communicable disease control, and participation in health promotion campaigns such as anti-



tobacco or nutrition awareness programs [10]. Through these multidimensional roles, school health nurses contribute to a sustainable model of health promotion within educational settings.

3. Health Screening in Schools

Health screening forms the foundation of school health nursing. It involves systematic examination and observation to identify deviations from normal health early [11]. Regular screenings are crucial because many health conditions in children, such as vision defects, anemia, or dental problems, often remain unnoticed until they cause significant impairment [12].

3.1 Physical Examination

Physical examinations assess general appearance, nutritional status, and vital signs. Measurements such as height, weight, and body mass index (BMI) are used to detect undernutrition or obesity. Deviations from normal growth charts can signal underlying health issues requiring early intervention [13].

3.2 Vision and Hearing Screening

Vision screening helps identify refractive errors or squints that interfere with learning. Hearing screening detects ear infections or hearing loss that may lead to delayed speech or academic difficulties [14]. Studies have shown that early correction of vision and hearing problems significantly enhances academic performance [15].

3.3 Dental and Oral Health Assessment

Dental examinations help identify caries, malocclusion, or gum diseases. Nurses collaborate with dental professionals to organize school-based oral health programs, emphasizing proper brushing techniques and reduced sugar consumption [16].

3.4 Nutritional and Hemoglobin Assessment

Nurses evaluate signs of nutritional deficiency such as pallor, hair loss, or angular stomatitis. Screening for anemia is particularly important, as iron deficiency is a leading cause of fatigue and poor concentration among school children [17].

3.5 Mental Health Screening

Mental health screening identifies behavioral issues like hyperactivity, anxiety, or depression. School nurses can use observation tools and collaborate with psychologists to support students exhibiting emotional distress [18].

Comprehensive documentation and follow-up are essential to ensure continuity of care. Health records serve as valuable tools for tracking student progress and communicating findings to parents and healthcare providers [19].

4. Common Illnesses in School-aged Children

Children in school settings are exposed to numerous health challenges that can affect attendance, learning, and development. These can broadly be categorized into communicable and non-communicable diseases [20].

4.1 Communicable Diseases

Respiratory Infections: Upper respiratory tract infections, including the common cold, influenza, and tuberculosis, spread easily in crowded classrooms. Preventive strategies include promoting hand hygiene, respiratory etiquette, and vaccination [21].

Gastrointestinal Infections: Diarrhea and intestinal worm infestations are prevalent in areas with inadequate sanitation. Periodic deworming and hygiene education significantly reduce infection rates [22].

Skin Conditions: Scabies, impetigo, and ringworm are common dermatological problems. Nurses play a critical role in detecting cases early, isolating affected students if necessary, and ensuring appropriate treatment [23].

4.2 Non-Communicable Conditions

Nutritional Deficiencies: Iron deficiency, vitamin A deficiency, and obesity are increasingly observed among school children due to poor dietary habits and sedentary lifestyles [24]. School health nurses can provide counseling on balanced diets and monitor nutritional interventions such as the mid-day meal program.

Dental Problems: Dental caries and periodontal diseases, if left untreated, may cause chronic pain and impact academic performance [25].

Vision and Hearing Impairments: Refractive errors and hearing difficulties can delay learning. Regular screening ensures early correction and referral [26].

Mental Health Issues: Anxiety, bullying, and academic stress are rising concerns. School nurses can provide basic counseling, identify risk factors, and refer cases to psychologists when necessary [27].

5. Preventive Strategies in School Health Nursing



The cornerstone of school health nursing lies in prevention. Preventive strategies are classified into three levels: primary, secondary, and tertiary prevention [28].

5.1 Primary Prevention

Primary prevention aims to reduce the incidence of diseases before they occur. Health education is a major component, covering personal hygiene, nutrition, environmental sanitation, and exercise. School nurses conduct classroom sessions and demonstrations on handwashing, waste disposal, and menstrual hygiene [29]. Immunization drives ensure that children are protected from vaccine-preventable diseases such as measles, mumps, rubella, and tetanus. Maintaining proper vaccination records and follow-up for missed doses is a vital nursing function [30].

Environmental hygiene also falls under primary prevention. This includes ensuring safe drinking water, clean toilets, and proper ventilation within school premises [31]. Nutrition programs, including monitoring of mid-day meals and providing education on healthy snacks, help combat both malnutrition and obesity [32].

5.2 Secondary Prevention

Secondary prevention focuses on early detection and prompt treatment to prevent progression of disease. Regular health screenings for vision, hearing, dental issues, and nutritional status form a key component [33]. Nurses can organize health camps in collaboration with local health centers to perform deworming and anemia testing.

Early identification of students showing symptoms of communicable diseases allows isolation and referral, preventing outbreaks. Maintaining updated health records ensures systematic follow-up and evaluation [34].

5.3 Tertiary Prevention

Tertiary prevention aims at reducing disability and enhancing rehabilitation among children with chronic conditions or disabilities. School nurses assist in care plans for children with asthma, epilepsy, or diabetes, ensuring that they receive timely medication and support [35].

They also collaborate with teachers to integrate children with special needs into mainstream education, offering physical and emotional support to promote inclusivity [36]. Counseling sessions for children recovering from chronic illness or trauma can significantly improve self-esteem and coping skills [37].

6. Health Education and Counseling

Health education is central to the philosophy of school health nursing. It aims to empower students to make informed decisions regarding their health behaviors. Topics include personal hygiene, nutrition, physical activity, reproductive health, and mental well-being [38].

Nurses organize group sessions, workshops, and peer education programs to enhance health awareness. For adolescents, education focuses on puberty changes, menstrual hygiene, and prevention of substance abuse [39].

Counseling complements health education by addressing emotional and psychological concerns. Children facing stress, anxiety, or family problems benefit from nurse-led counseling interventions. Research has demonstrated that such interventions lead to improved coping mechanisms, reduced absenteeism, and better academic engagement [40].

7. Collaboration and Community Involvement

School health nursing thrives on interdisciplinary collaboration. Nurses, teachers, parents, and healthcare professionals must work together to achieve shared health goals. Teachers are often the first to observe behavioral or physical changes in students and can provide valuable input during health assessments [41].

Parents play a crucial role in ensuring compliance with health recommendations, attending awareness sessions, and following up on referrals. Regular parent-teacher-nurse meetings facilitate communication and build trust [42].

Community health workers, local health departments, and non-governmental organizations (NGOs) contribute to extending school health programs into broader community settings. Health camps, vaccination drives, and awareness campaigns create a culture of collective responsibility for children's health [43].

8. Challenges in Implementation

Despite its importance, school health nursing faces numerous challenges. Shortage of trained nursing staff, lack of dedicated school nurse posts, and inadequate infrastructure are major barriers, particularly in low-resource settings [44].



In India, one nurse is often responsible for several schools, making it difficult to conduct thorough health assessments [45]. Limited funding and absence of standardized screening protocols further hinder effectiveness. Lack of awareness among school administrators and parents sometimes reduces cooperation and follow-up compliance [46].

Addressing these challenges requires policy reform, recruitment of trained school nurses, and inclusion of school health services in educational budgets. Continuous professional development and evidence-based evaluation systems are essential to improve program outcomes [47].

9. Innovations and Future Directions

Technological advancements are transforming school health nursing. Mobile applications and digital health records allow nurses to track student health efficiently and monitor vaccination and screening data [48]. Telemedicine services enable consultation with specialists, improving access to care in remote areas.

Mental health and life skills education are gaining prominence within school curricula. Integration of these modules with nurse-led health promotion activities fosters resilience and self-awareness among students [49].

Capacity building through specialized training in adolescent health, counseling, and emergency care will empower school nurses to meet evolving health needs. Research on the effectiveness of nurse-led interventions can guide policy development and promote evidence-based practices [50].

10. Recommendations

To strengthen school health nursing, several measures are recommended. Governments should integrate school health services within national health and education policies to ensure sustainability. Recruitment of adequately trained school nurses in all educational institutions is crucial.

Regular in-service training, provision of adequate screening equipment, and clear documentation systems are necessary for quality assurance. Collaboration among teachers, parents, and community health services should be enhanced through structured programs.

Digitalization of health records and periodic evaluations will support continuity of care. Moreover, inclusion of health

education in the academic curriculum will foster lifelong healthy habits among students [51].

11. Conclusion

School health nursing stands as a cornerstone in promoting and preserving the health of children and adolescents. Through systematic health screenings, preventive care, and health education, nurses play a crucial role in shaping healthier generations. The impact of school health nurses extends beyond disease prevention to encompass emotional well-being and academic performance.

Empowering school nurses through proper training, policy support, and collaboration with educational institutions can transform schools into centers of holistic child development. The future of school health nursing lies in innovation, community partnership, and a commitment to preventive care, ensuring every child has the opportunity to thrive both physically and mentally.

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