Enhancing competence in preventing childhood diseases for Preschool teachers in Vietnam

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Abstracts: This study aims to evaluate the current competence of preschool teachers in preventing childhood diseases in Vietnam and provide recommendations for their development in effectively addressing these issues. The research employed consulting methods, including telephone and email consultations, as well as a Google Form questionnaire. The questionnaire utilized a 5-level rating scale (Good, Fair, Average, Weak, Poor). The study involved 25 administrators (Education and Training officers, Kindergarten Principals, and Vice Principals) and 118 preschool teachers from Lao Cai city, Lao Cai province. The research was conducted from April 2021 to November 2021.

Results of the study revealed several limitations in the current ability of preschool teachers to prevent childhood diseases in the study area. These limitations included inadequate competence among certain members of the Board of Education and management staff, particularly the principals. Furthermore, there was incomplete awareness among some management staff and teachers regarding the significance of fostering skills in preventing contagious diseases among Kindergarten teachers. The training activities related to preventing contagious diseases in children for Kindergarten teachers in Lao Cai city and province were also found to be inadequate. The schools predominantly followed an experiential approach rather than a systematic one. Based on the research findings, the study team proposes recommendations for enhancing the competence of preschool teachers in preventing childhood diseases.

Keywords: Disease prevention, children's diseases, coping skills.

1. INTRODUCTION

Childhood diseases pose significant challenges to the well-being and development of children worldwide. In Vietnam, where preschool education plays a vital role in early childhood development, it is crucial for preschool teachers to possess the necessary competence in preventing and managing children’s diseases. This article aims to assess the current situation of preschool teachers’ competence in disease prevention and propose strategies to enhance their skills in addressing childhood diseases in Vietnam.

According to the World Health Organization (WHO, 2020), childhood diseases continue to be a major public health concern globally. In Vietnam, infectious diseases such as respiratory tract infections, diarrheal diseases, and vaccine-preventable illnesses remain prevalent among children attending preschools (Ministry of Health, 2022). The effective prevention and management of these diseases require the active involvement of preschool teachers who interact closely with young children on a daily basis.

Previous research has highlighted the importance of equipping preschool teachers with the necessary knowledge and skills to identify, prevent, and manage children’s diseases (Smith et al., 2018; Nguyen & Tran, 2020). However, limited research has focused specifically on the competence of preschool teachers in disease prevention in the Vietnamese context. Understanding the current situation is crucial for developing targeted interventions to enhance the capacity of preschool teachers in preventing childhood diseases.

Preventing childhood diseases is a crucial competency for preschool teachers, given their significant role in
safeguarding the health of children in preschool settings. A strong competence in disease prevention enables preschool teachers to effectively implement strategies for preventing both general diseases and contagious diseases among children. This, in turn, contributes to the holistic development of children and minimizes adverse effects on them, their families, schools, and society as a whole. The requirements for professional competence, including the competence to prevent childhood diseases, are outlined in relevant legal documents such as the Education Law of 2019, the Regulations on Professional Standards of Preschool Teachers (Circular No. 26/2018/TT-BGDĐT, October 8th, 2018), and the Charter of Kindergarten.

Currently, the competence of preschool teachers in preventing childhood diseases is inadequate, and insufficient attention has been given to developing their skills in this area. Within the professional activities of preschool institutions, the competence of preschool teachers to prevent childhood diseases falls short of the necessary standards, eroding the trust of the school, parents, and the wider community. In response to this situation, the Ministry of Education and Training has issued Circular No. 12/2019/TT-BGDĐT on August 26th, 2019, which mandates regular training programs for preschool teachers. This includes the implementation of the training program "First Aid Skills - Preventing and Handling Common Dangerous Situations and Diseases in Children." However, to effectively organize and implement the development of competence in preventing childhood diseases for preschool teachers, comprehensive research is needed encompassing theoretical aspects, current realities, and potential solutions.

Numerous studies, conducted by both domestic and international researchers, have focused on children's diseases and their prevention. Nevertheless, developing the competence to prevent childhood diseases specifically for preschool teachers remains an overlooked research direction, deserving greater attention and exploration.

2. THEORETICAL FRAMEWORK

2.1. Psychological and Physiological Characteristics of Preschool Children

Preschool children exhibit unique psychological and physiological characteristics that play a significant role in their overall development. Understanding these characteristics is essential for preschool teachers in order to provide appropriate support and create a conducive learning environment for young learners.

Psychological Characteristics

Preschool-age children undergo significant cognitive, social, and emotional changes that shape their development. According to Piaget's theory of cognitive development (Piaget, 1952), preschool children are in the preoperational stage, characterized by the development of symbolic thinking, language acquisition, and the emergence of pretend play. Their thinking is still egocentric, making it challenging for them to understand others' perspectives.

Additionally, preschool children experience rapid socioemotional development. Erikson's psychosocial theory (Erikson, 1963) suggests that preschoolers navigate the stage of initiative versus guilt, where they explore their independence, engage in purposeful activities, and develop a sense of initiative. They also begin to form relationships with peers, learn social skills, and develop a sense of empathy.

Physiological Characteristics

Preschool children undergo various physiological changes as they grow. Their gross motor skills, such as running, jumping, and climbing, improve significantly during this period (Gallahue & Ozmun, 2006). Fine motor skills, including hand-eye coordination and manipulation of small objects, also develop, enabling them to engage in activities such as drawing, cutting, and writing (Greenfield, 2002).

Furthermore, preschool children experience changes in their sleep patterns and nutritional needs. Adequate sleep is crucial for their physical and cognitive development (Mindell, Sadeh, Wiegand, How, & Goh, 2010), while balanced nutrition supports their growth and overall health (Krebs et al., 2007).
Understanding the psychological and physiological characteristics of preschool children is fundamental for preschool teachers. This knowledge enables them to tailor their instructional strategies, provide appropriate guidance and support, and create a nurturing environment that facilitates the optimal development and well-being of young learners.

2.2. Common Contagious Diseases in Preschool Children

Preschool children are susceptible to various contagious diseases due to their developing immune systems and close interactions in daycare or preschool settings. Familiarity with these common contagious diseases is essential for preschool teachers to identify symptoms, take preventive measures, and provide appropriate care for affected children.

Respiratory Tract Infections: Respiratory tract infections, including the common cold, influenza, and respiratory syncytial virus (RSV), are prevalent among preschool children. These infections are primarily transmitted through respiratory droplets, direct contact, or contaminated surfaces (American Academy of Pediatrics, 2018). Symptoms may include cough, congestion, runny nose, fever, and sore throat (Berkowitz, 2020).

Gastrointestinal Infections: Gastrointestinal infections, such as viral gastroenteritis (commonly known as the stomach flu), are common among preschool children. These infections are usually caused by viruses like norovirus and rotavirus and can spread through contaminated food, water, or close contact (Centers for Disease Control and Prevention, 2020). Symptoms may include vomiting, diarrhea, abdominal pain, and fever (Feizizadeh et al., 2019).

Hand, Foot, and Mouth Disease (HFMD): Hand, Foot, and Mouth Disease is a highly contagious viral infection commonly found in preschool children (Lin et al., 2018). It is caused by the enteroviruses, particularly the coxsackievirus (American Academy of Pediatrics, 2018). HFMD is transmitted through direct contact with saliva, fluid from blisters, or contaminated surfaces. Symptoms include fever, sore throat, mouth sores, and a rash on the hands, feet, and buttocks (Lin et al., 2018).

Conjunctivitis: Conjunctivitis, also known as pink eye, is an inflammation of the conjunctiva, the clear tissue covering the white part of the eye (American Academy of Ophthalmology, 2019). It can be caused by viruses, bacteria, or allergies. Viral conjunctivitis is highly contagious and spreads through direct contact with eye secretions or contaminated surfaces. Symptoms may include redness, itching, watering, and discharge from the eyes (American Academy of Pediatrics, 2013).

Preschool teachers should be vigilant in recognizing symptoms of contagious diseases among children in their care. Prompt identification and appropriate measures, such as encouraging proper hand hygiene, maintaining cleanliness, and promoting vaccination compliance, can help prevent the spread of these diseases in the preschool environment (American Academy of Pediatrics, 2018).

COVID-19: In addition to the common diseases in preschool children as mentioned above, currently the whole world is joining hands to prevent the COVID-19 epidemic, which is a virus (more specifically, Corona virus) that has been identified as the cause of respiratory failure, discovered in Wuhan city, China. COVID-19 is a disease caused by a new strain of corona virus. The COVID-19 virus is a new virus that is related to the same family of other viruses as Severe Acute Respiratory Syndrome (SARS) and some common colds. The outbreak of coronavirus disease (COVID-19) has been declared a public health emergency of international concern, spreading to many countries and territories. While much is still unknown about the virus that causes COVID-19, we do know that the virus is spread through direct contact with respiratory droplets of an infected person (produced when coughing or sneezing). Individuals can also get the virus from touching surfaces contaminated with the virus and then touch their faces (e.g., touching their eyes, nose, or mouth). While COVID-19 continues to spread, it is important for communities to take action to prevent the spread of the virus, while reducing the impact of the outbreak and supporting controlling measures (Avianto Amri, Yusra Tebe, Ayu Siantoro, Mega Indrawati, Cahyo Prihadi, 2021).
2.3. Skills to Prevent Contagious Diseases in Children Need to Be Developed for Teachers in Kindergarten

Developing skills to prevent contagious diseases in children is crucial for teachers in kindergarten settings. By acquiring these skills, teachers can effectively protect the health and well-being of young learners, create a safe learning environment, and minimize the spread of infections.

Importance of Developing Skills to Prevent Contagious Diseases: Teachers in kindergarten play a pivotal role in the prevention and control of contagious diseases among children. They are responsible for implementing preventive measures, promoting hygiene practices, and educating children about proper health habits. By developing the necessary skills, teachers can significantly reduce the risk of disease transmission within the kindergarten community.

Current Need for Skills Development: Research indicates that there is a current need for skills development in preventing contagious diseases among kindergarten teachers. A study conducted by Smith et al. (2020) revealed that many kindergarten teachers lacked comprehensive knowledge and understanding of effective preventive strategies. This knowledge gap highlights the necessity for targeted training programs and interventions to enhance teachers’ competencies in disease prevention.

Effective Strategies for Skills Development: To develop skills in preventing contagious diseases, kindergarten teachers should receive comprehensive training and ongoing professional development. These programs should cover topics such as proper hand hygiene, respiratory etiquette, environmental sanitation, and identification of common disease symptoms. Moreover, teacher training should include strategies for effectively communicating health-related information to young children and their families (Huang et al., 2019).

Implementing a multidisciplinary approach that involves collaboration between education and healthcare sectors is crucial for successful skills development. Partnerships between kindergartens, local health authorities, and educational institutions can facilitate the exchange of expertise, resources, and best practices in disease prevention (World Health Organization, 2018).

By prioritizing the development of skills to prevent contagious diseases in teachers, kindergartens can create a healthier and safer environment for children to learn and grow.

3. MATERIEL AND METHODS

3.1. Objective of the study

The objective of this study is to assess the current competence of preschool teachers in preventing childhood diseases and propose measures to develop their competence in coping with childhood diseases in Vietnam.

3.2. Study Design

Study Location

The study focuses on examining the current situation of children's contagious disease prevention skills among kindergarten teachers in Lao Cai city, Lao Cai province.

Data Collection

Data was collected through a survey conducted among 25 administrators (Education and Training officers, Principals, and Vice Principals of Kindergartens) as well as 118 preschool teachers in Lao Cai city, Lao Cai province. The survey was carried out both in-person and online from April 2021 to November 2021.

Research Tools

The study utilized various research tools, including telephone interviews, email communication, and a questionnaire designed using Google Forms. The questionnaire employed a rating scale divided into five levels: Good, Fair, Average, Weak, and Poor.
Data Collection Methods

The study employed the following methods for data collection:

Questionnaire Survey: Information regarding the current situation of fostering skills in preventing contagious diseases in children among kindergarten teachers in Lao Cai city, Lao Cai province was collected through a questionnaire. The process included designing the survey form, distributing it to kindergarten teachers, and analyzing the collected data.

Observation Method: The researchers observed teachers organizing activities to prevent contagious diseases among children in kindergartens in Lao Cai city, Lao Cai province. Appointments were made with teachers in the surveyed classes, and activities were carefully observed and recorded. The observations were then synthesized, analyzed, and conclusions were drawn based on the findings.

Interview Method: Interviews were conducted with administrators, teachers, and children to gather more detailed information about the current situation of managing activities to foster skills in preventing contagious diseases among kindergarten teachers in Lao Cai city, Lao Cai province. A set of interview questions suitable for each participant group was developed, and interviews were conducted. The collected information was then analyzed and synthesized.

Ethical Considerations

The study adhered to ethical guidelines, ensuring the confidentiality of participants' information and obtaining informed consent prior to data collection.

The chosen research methodology allowed for a comprehensive assessment of the current competence of preschool teachers in preventing childhood diseases, leading to proposed measures for their competence development in dealing with such diseases.

4. RESULT OF THE STUDY

The status of preschool teachers' level of skills in preventing contagious diseases in children. The results obtained from the study are shown in Chart 1.

Chart 1. Assessment of the current state of preschool administrators and teachers about the status of preschool teachers’ ability to prevent contagious diseases in children.
The analysis of Table 1 reveals that the assessment of the level of contagious disease prevention skills in children among kindergarten teachers in Lao Cai city, Lao Cai province indicates an overall average level, with a mean score ($\bar{X}$) of 3.08.

Furthermore, the research findings suggest that while there are variations in the levels of infection prevention skills among kindergarten teachers in Lao Cai city, Lao Cai province, the differences are not significant. Among the specific skills evaluated, the skill "Skills to learn and master the psycho-physiological characteristics of preschool children" ranked the highest, with an average score of 3.19. On the other hand, the skill "Skills to develop content to prevent contagious diseases in children" received the lowest average score of 2.97. However, the difference in average scores between the highest and lowest rated skills was only 0.21.

Based on these research results, it is evident that there is a need for kindergarten principals to continue researching and implementing measures to enhance skills training in preventing contagious diseases among kindergarten teachers. The findings emphasize the importance of further improving and developing the competence of teachers in effectively preventing and managing contagious diseases in children within kindergarten settings.

The current implementation status of fostering skills in preventing contagious diseases in children among preschool teachers is depicted in Chart 2, presenting the findings derived from the study.

![Chart 2](image)

**Chart 2.** Evaluation of administrators and teachers on the actual state of implementing the content of fostering skills in preventing contagious diseases in children for preschool teachers.

The results presented in Chart 2 indicate that the evaluation of the management staff and teachers regarding the actual implementation of fostering skills in preventing contagious diseases in children for preschool teachers is relatively positive. Among the training contents, "Knowledge to prevent contagious diseases in children" receives the highest assessment, with 67.15% of administrators and teachers rating it as good or higher, including 15.38% considering it as very good. However, there is still a significant portion, 32.87%, that perceives the implementation of this content at an average level. Conversely, the content with the lowest effectiveness is "Specific skills in preventing contagious diseases in children," with 49.65% of administrators and teachers evaluating its performance as only average. Therefore, it is crucial for schools to enhance the quality of content implementation by employing appropriate measures to gradually increase the level of fair and good performance. This will ultimately contribute to effectively fulfilling the responsibilities of caring for and nurturing children throughout the city.

The actual situation regarding the implementation of strategies to foster skills in preventing contagious diseases
in children for preschool teachers is detailed in Chart 3, reflecting the outcomes derived from the study.

![Chart 3](image)

**Chart 3.** Assessment of administrators and teachers on the actual situation of implementing the ways of fostering skills in preventing contagious diseases in children for preschool teachers.

Based on the findings presented in Chart 3, the actual implementation of strategies to foster skills in preventing contagious diseases in children for preschool teachers is comparatively better when compared to the assessment content by the management staff and teachers. However, the differences among the methods are not significant. Despite the efforts made in implementing these strategies, there is still a notable proportion of opinions suggesting that the implementation only reaches an average level. For instance, "Providing self-improvement materials on skills to prevent contagious diseases in children for teachers" receives a rating of 27.27%, "Organizing training courses on skills to prevent contagious diseases in children for teachers" has a rating of 37.06%, and "Participating in activities to prevent contagious diseases in children in specialized groups, at school, and outside of school" obtains a rating of 41.96%. Although schools have made significant efforts in implementing these fostering pathways, the quality is still not meeting expectations. Consequently, there is a pressing need for improvement in the near future.

Assessing Administrators’ and Teachers’ Perceptions on the Involvement of Preschool Teachers in Developing Competence in Preventing Childhood Contagious Diseases.

The findings from the assessment shed light on the following: Overall, preschool teachers in Lao Cai city demonstrate a notable level of interest in developing competence in preventing contagious diseases in children. This conclusion is drawn based on the evaluation provided by administrators and teachers who participated in the survey, as there were no indications suggesting that teachers “have not actively engaged in organized development activities” or “do not participate in structured training programs.” These research findings offer a significant practical foundation for Kindergarten Principals, educational administrators at all levels, and healthcare professionals, enabling them to gain a comprehensive understanding of the necessity and level of involvement in activities aimed at developing competence in preventing contagious diseases in children. Consequently, educational administrators at all levels should collaborate with leaders of healthcare facilities and other relevant stakeholders to enhance the organization of training courses specifically focusing on the prevention of contagious diseases in children for preschool teachers. The actual status of the outcomes regarding the development of competence in preventing contagious diseases in children for preschool teachers is presented in Table 1, illustrating the results obtained from the study.
Table 1. Evaluation of administrators and teachers on the results of fostering skills in preventing contagious diseases in children for preschool teachers.

<table>
<thead>
<tr>
<th>Rating scale</th>
<th>Administrators, teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q</td>
<td>19</td>
</tr>
<tr>
<td>Fair</td>
<td>23</td>
</tr>
<tr>
<td>Average</td>
<td>101</td>
</tr>
<tr>
<td>Weak</td>
<td>0</td>
</tr>
<tr>
<td>Poor</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
</tr>
</tbody>
</table>

The outcomes presented in Table 1 demonstrate that the majority of respondents in the survey evaluated the results of fostering skills in preventing contagious diseases in children for preschool teachers in Lao Cai city, Lao Cai province at an average level (101 out of 143 administrators and teachers, accounting for 75.60%). The evaluation of good and very good performance followed closely. No ratings were given in the "weak" and "poor" categories. The insights gathered from the interview method provided us with more practical information to corroborate the research findings on this matter. Specifically: - Ms. Nguyen Th P expressed that: "The current implementation of fostering skills in preventing contagious diseases in children for Kindergarten teachers in Lao Cai city has not yielded satisfactory results. This situation arises due to several challenges encountered by schools and educational administrators at all levels when organizing training activities, such as teachers having limited time to participate in extensive and prolonged training courses. Additionally, there is uneven interest and activeness among teachers in fostering activities, and a lack of effective collaboration among teachers in fostering initiatives." - Ms. N T O stated: "The ongoing activities aimed at fostering early childhood contagious disease prevention skills for preschool teachers only serve to enhance teachers' knowledge base concerning contagious diseases in children, including infection mechanisms and prevention theories. However, a comprehensive system of skills enabling teachers to actively carry out activities to prevent contagious diseases in children has not yet been established and developed. In general, due to time constraints, the outcomes of the training activities have only reached an average level.”

5. EXCHANGE AND DISCUSSION

The research findings highlight several key points regarding the development and management plan for fostering skills in preventing contagious diseases in children among kindergarten teachers in Lao Cai city, Lao Cai province. It is evident that considerable attention has been given to this endeavor. Most teachers and staff members in preschools possess a proper understanding of the role, educational objectives, and management of activities aimed at fostering skills in preventing contagious diseases in children for preschool teachers in the locality.

However, there are still certain limitations in the education and management of activities related to fostering skills in preventing contagious diseases in children among kindergarten teachers in Lao Cai city, Lao Cai province. The current state of research on the management of these activities tends to be at an average level, although it surpasses the overall average.

A portion of administrators and teachers hold inadequate perceptions and attitudes towards the management of activities aimed at fostering skills in preventing contagious diseases in children for kindergarten teachers in the area. This inappropriate approach to time management has a negative impact on the synergy in education and management of fostering skills in preventing contagious diseases among teachers.
The research team identified several factors contributing to these limitations, including:

Limited competence of certain members of the Board of Directors and management staff, particularly those in direct leadership positions.

Insufficient awareness among some management staff and teachers regarding the significance and importance of fostering skills in preventing contagious diseases in children for kindergarten teachers in the area.

Inadequate directive documents from higher authorities, such as the Department of Education and Training, along with a lack of research data. Additionally, the organization of training activities on the prevention of contagious diseases in children for kindergarten teachers in Lao Cai city, Lao Cai province has not been effectively executed. Schools often rely on empirical methods without implementing a systematic and methodical approach.

6. CONCLUSION

The findings of this research align with previous studies conducted by A.B. Thuy (2021), D.U. Phuong (2021), and T.T.M Hue (2020), Khanh, M. Q. etc., (2021), all of which highlight the importance of developing disease prevention competence among preschool teachers as a crucial aspect of health education for preschool students.

Based on the research outcomes, the research team proposes several recommendations to enhance the disease prevention competence of preschool teachers, including: (1) Conducting awareness campaigns and educational programs to increase preschool teachers’ understanding of contagious diseases in children and prevention measures. (2) Promoting diverse and flexible training formats for teachers to acquire skills in preventing contagious diseases in children. (3) Utilizing experienced teachers within kindergartens to mentor and develop the skills of their peers in organizing activities for preventing contagious diseases in children. (4) Strengthening resource mobilization to support the fostering of skills in preventing contagious diseases in children. (5) Implementing regular and effective monitoring, evaluation, and supervision of preschool teachers’ performance in fostering skills to prevent contagious diseases in children, while recognizing and rewarding outstanding efforts.

However, it is important to acknowledge the limitations of this study. Due to the COVID-19 pandemic, the authors encountered constraints in conducting extensive interviews and surveys with a larger sample size and across a broader geographic area. The study primarily relied on interviews and surveys conducted with 25 administrators and 118 preschool teachers specifically in Lao Cai city, Vietnam.

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