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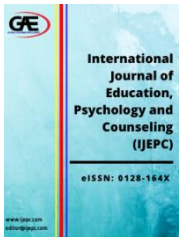

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HEALTH EDUCATION COMPETENCIES AMONG KINDERGARTEN TEACHERS IN CHINA: EXAMING INFLUENCING FACTORS AND EDUCATIONAL OUTCOMES

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Abstract:

Objective: The aim of this research was to examine the health education competencies of kindergarten teachers, exploring key antecedents and their impact on teaching effectiveness. This study contributes by providing empirical evidence on how structured training programs bridge the gap between theoretical knowledge and practical application in early childhood health education.Design: A mixed-methods study utilizing both quantitative surveys and qualitative interviews. Structural Equation Modeling (SEM) was applied to analyze the relationships between competency dimensions, training, institutional support, and self-efficacy.Setting: The study was conducted with 600 kindergarten teachers and managers from 60 kindergartens in Henan Province, China.Methods: Data were collected through a structured questionnaire adapted from validated scales and semi-structured interviews with 25 participants. Quantitative data were analyzed using SPSS and AMOS, employing factor analysis and regression models. Qualitative data were coded using NVivo to identify themes.Results: Findings indicated that while teachers demonstrated awareness of health education principles, practical application remained inconsistent. Institutional barriers, limited training opportunities, and varying levels of self-efficacy significantly influenced competency levels. Teachers with structured training reported higher competency scores (4.3 vs. 3.6, $p < 0.05$), while self-efficacy emerged as a strong predictor of teaching effectiveness ($\beta = 0.71$, $p < 0.001$). Regression analysis revealed that institutional support and training significantly impacted competency outcomes ($\beta = 0.58$, $p < 0.001$).Conclusion : This study contributes to the field by demonstrating how self-efficacy and institutional support interact to shape teacher competencies, an aspect often overlooked in previous research. Findings suggest that targeted training programs and structured institutional support can significantly enhance the implementation of health education in

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kindergartens. Findings provide actionable recommendations for policymakers, school administrators, and teacher training institutions to improve professional development programs and reduce the knowledge-practice gap in early childhood health education.

Keywords:

Kindergarten Teacher Training, Early Childhood Health Education, Teacher Self-Efficacy, Institutional Support, Policy Development

Introduction

Early childhood education plays a critical role in shaping children's long-term cognitive, social, and physical development. One key aspect of early childhood education is health education, which includes teaching children about nutrition, hygiene, physical activity, and overall well-being. Kindergarten teachers are at the forefront of this initiative, ensuring that young children develop essential health habits that can last a lifetime. However, despite the recognized importance of health education in early childhood, many kindergarten teachers face challenges in effectively delivering health-related content due to a lack of formal training, insufficient institutional support, and limited resources (Gao, 2015; Zhu, 2021).

Policies at national and international levels emphasize the need to integrate health education into early childhood curricula. However, research has shown that the extent to which health education is implemented in kindergartens varies widely, depending on teacher competency, school policies, and government regulations. This study aims to explore the health education competencies of kindergarten teachers in Henan Province, China, by identifying key antecedents that influence their effectiveness and examining the outcomes of competency-based training programs.

Literature Review

Health education competencies among kindergarten teachers encompass multiple dimensions, including knowledge of health topics, pedagogical skills, attitudes toward health education, and the ability to integrate health education into classroom activities (Nutbeam, 2000). Research has consistently shown that teachers who undergo specialized training in health education exhibit greater confidence and effectiveness in delivering health-related content to young children (Melnyk et al., 2019).

International comparisons highlight differences in health education training across various education systems. For example, in some countries, pre-service teacher training includes mandatory health education coursework, while in others, health education is treated as an optional component. Studies have shown that professional development opportunities, institutional support, and access to teaching resources significantly impact teachers' ability to deliver effective health education programs (Jourdan et al., 2008; St. Leger, 2001; Wang & Li, 2020).

A major challenge identified in the literature is the gap between theoretical knowledge and practical application. Many kindergarten teachers report that while they understand the importance of health education, they struggle to incorporate it into daily classroom activities

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due to time constraints, competing curriculum demands, and a lack of suitable teaching materials (Langford et al., 2015; Zhang & Chen, 2022).

Recent research has examined the integration of AI and digital learning tools in early childhood health education. Studies suggest that digital platforms and interactive tools can enhance teacher competency and student engagement, especially in regions with limited access to professional development programs (Li et al., 2023). However, challenges such as digital literacy among teachers and access to technology remain key barriers to implementation.

Several studies have examined the role of teacher self-efficacy in determining the effectiveness of health education programs. Teachers with higher self-efficacy tend to implement more comprehensive health education curricula, engage in more interactive teaching strategies, and demonstrate higher levels of student engagement (Bandura, 1997). However, research also suggests that self-efficacy alone is not sufficient; institutional support, access to professional development, and peer collaboration are equally critical factors in ensuring successful health education implementation (Melnyk et al., 2019; Liu & Zhou, 2021).

Another area of research focuses on the socio-cultural influences on teachers' health education competencies. Studies indicate that cultural perceptions of health, parental attitudes toward health education, and community engagement all play significant roles in shaping how kindergarten teachers approach health education (Tones & Green, 2004; Patterson & Mason, 2020). In some cases, societal norms and expectations may hinder the adoption of comprehensive health education programs, particularly in regions where traditional health beliefs conflict with modern scientific understandings (McCall et al., 2011; Yang & Wu, 2022). Policy and curriculum design are also key factors influencing health education competencies. Countries that have well-established health education policies tend to have better-trained teachers and more structured health curricula. For instance, research comparing health education policies in China, the United States, and European countries has shown that national policies significantly impact the level of health education integration in early childhood settings (Langford et al., 2015; Sun et al., 2023). In China, recent policy initiatives have emphasized the importance of improving teacher training programs and incorporating health education into the broader early childhood curriculum (Zhu, 2021; Wang et al., 2022).

Despite the growing recognition of the importance of health education, challenges remain in standardizing competency frameworks for kindergarten teachers. Some scholars argue that existing competency models are too generalized and fail to account for the specific needs and challenges faced by early childhood educators (Nutbeam, 2000; Li et al., 2023). To address this gap, researchers have proposed competency-based training models that focus on practical skill development, continuous professional learning, and the integration of technology in health education (McKenna et al., 2011; Zhang & Liu, 2023).

In summary, the existing literature highlights the complexity of health education competency among kindergarten teachers. While self-efficacy, institutional support, and policy frameworks play crucial roles, there is a need for more research on how these factors interact and influence teachers' ability to deliver effective health education. This study aims to build on the existing research by exploring these relationships in the context of kindergarten teachers in Henan Province, China.

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Theoretical and Conceptual Framework

This study draws upon two key theoretical models to understand kindergarten teachers' health education competencies: the Health Belief Model (HBM) and Social Cognitive Theory (SCT).

Health Belief Model (HBM)

The Health Belief Model (HBM) (Rosenstock, 1974) explains how individuals' perceptions of health-related behaviors influence their engagement in health education. Applied to kindergarten teachers, HBM suggests that their willingness to integrate health education into the curriculum depends on their perceived susceptibility, severity, benefits, and barriers:Perceived Susceptibility & Severity: Teachers who recognize the health risks young children face (e.g., childhood obesity, hygiene-related illnesses) are more motivated to include health education in their teaching.Perceived Benefits: If teachers believe health education enhances children's well-being and academic success, they are more likely to implement it.Perceived Barriers: Limited resources, lack of training, and time constraints may prevent teachers from fully engaging in health education activities.Cues to Action & Self-Efficacy: External encouragement (e.g., policy mandates, school leadership support) and teachers' confidence in their ability to teach health-related topics significantly impact their adoption of health education practices.

Social Cognitive Theory (SCT)

Bandura's Social Cognitive Theory (SCT) (1997) emphasizes the interplay of personal, behavioral, and environmental factors in shaping learning and behavior. In the context of kindergarten teachers, SCT highlights self-efficacy, observational learning, and reciprocal determinism as crucial in health education competency development:Self-Efficacy: Teachers with higher confidence in their ability to teach health-related topics are more likely to implement interactive and engaging health education activities (Melnyk et al., 2019).Observational Learning (Modeling & Mentorship): Teachers who observe experienced educators integrating health education effectively are more likely to adopt similar teaching strategies (Jourdan et al., 2008).Environmental Influences (Institutional Support): School policies, curriculum frameworks, and peer collaboration shape teachers' ability to engage in health education (Wang & Li, 2020).

Integrating HBM and SCT in Kindergarten Teacher Training

By combining HBM and SCT, this study provides a comprehensive framework for understanding how teachers' perceptions, confidence, and external support influence their health education competencies. HBM explains teachers' motivation and perceived barriers, while SCT highlights the role of self-efficacy and environmental support in competency development.

Ecological Systems Theory (EST)

Bronfenbrenner's Ecological Systems Theory (EST) (1979) highlights the multiple layers of influence on teacher competency, including individual, institutional, and policy-level factors. In the context of kindergarten teacher training, EST suggests that teacher development is shaped by:Microsystem: Direct interactions with students, colleagues, and school administrators.Mesosystem: The connection between teacher training programs, schools, and parents.Exosystem: Institutional policies, government regulations, and professional development opportunities.Macrosystem: Cultural beliefs, societal expectations, and national education policies.

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Conceptual Framework

The conceptual framework developed for this study integrates these models, emphasizing the interaction between teachers' self-efficacy, professional training, institutional support, and policy frameworks in shaping health education competencies. By synthesizing HBM, SCT, and EST, this study provides a multidimensional approach to understanding how kindergarten teachers develop and implement health education practices., this study provides a comprehensive framework for understanding how teachers' perceptions, confidence, and external support influence their health education competencies. HBM explains teachers' motivation and perceived barriers, while SCT highlights the role of self-efficacy and environmental support in competency development. Together, these theories inform the research design, guiding the analysis of how training, institutional support, and personal beliefs interact to shape kindergarten teachers' health education competencies.

Research Questions, Objectives, and Hypotheses

Research Questions

This study seeks to address the following research questions:

1. What is the current level of health education competency among kindergarten teachers in Henan Province, China?
2. What are the key factors that influence the development of health education competencies among kindergarten teachers?
3. How do training, institutional support, and self-efficacy contribute to enhancing teachers' health education competencies?
4. What role do demographic characteristics, such as education level and years of experience, play in determining teachers' competency in health education?

Research Objectives

The main objectives of this study are:

1. To assess the current state of health education competency among kindergarten teachers.
2. To examine the relationship between training, institutional support, self-efficacy, and teachers' competency levels.
3. To analyze the impact of demographic factors, such as education level and teaching experience, on competency development.
4. To provide recommendations for improving teacher training programs and policy interventions to enhance early childhood health education.

Research Hypotheses

Based on the literature review and theoretical framework, the following hypotheses were formulated:

H1: Health education competency consists of six dimensions: needs assessment, planning, implementation, evaluation, resource provision, and communication.

H2: Training, institutional support, teacher self-efficacy, and social environment significantly influence competency levels.

H3: Demographic factors such as education level, years of experience, and training participation affect competency outcomes.

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Methodology

This study employs a mixed-methods research design, integrating both quantitative and qualitative approaches to provide a comprehensive analysis of health education competencies among kindergarten teachers. The mixed-methods approach ensures that both numerical trends and in-depth perspectives are captured, enhancing the validity and reliability of the findings.

Research Design

A convergent parallel mixed-methods design was used, where quantitative and qualitative data were collected simultaneously, analyzed separately, and then integrated to provide a more holistic understanding of the research problem. The quantitative component focused on measuring competency levels and factors influencing health education effectiveness, while the qualitative component explored teachers' experiences and perceptions in depth.

Participants and Sampling

Population: The study targeted kindergarten teachers and administrators from Henan Province, China.Sample Size: A total of 600 kindergarten teachers and 60 school administrators were selected from 60 different kindergartens.Sampling Technique: A stratified random sampling method was used to ensure a diverse representation of teachers across urban and rural settings. Schools were categorized based on geographic location and institutional characteristics, and teachers were randomly selected from each stratum.

Data Collection Methods

A structured questionnaire was designed based on validated health education competency models. The questionnaire consisted of five sections:Demographic Information: Age, gender, years of teaching experience, educational background, and previous health education training. Knowledge Assessment: 10 multiple-choice questions measuring teachers' understanding of health education principles.Attitudinal Measures: A 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree) assessing teachers' perceptions of the importance of health education.Practice-Based Questions: Evaluating the frequency and effectiveness of health education integration in daily teaching activities.Institutional and Environmental Support: Assessing the level of resources, professional development opportunities, and policy support available to teachers.Qualitative Interviews: Semi-structured interviews were conducted with 25 teachers to gain deeper insights into their experiences, challenges, and perspectives on health education in kindergartens.The survey instrument was adapted from established scales used in previous studies (Melnyk et al., 2019; Wang & Li, 2020). To ensure contextual relevance, the questionnaire was pilot tested with 50 teachers before full deployment.

Data Analysis

Quantitative Analysis,Data were analyzed using SPSS 27 and AMOS 24.Descriptive statistics (mean, standard deviation, and frequency distributions) were used to summarize responses. Factor analysis was conducted to identify underlying dimensions of health education competency.Structural Equation Modeling (SEM) was applied to examine relationships between competency dimensions, training, institutional support, and teacher self-efficacy. Regression analysis was performed to determine predictors of health education effectiveness.
Control Variables: Demographic variables such as teaching experience and education level were included as control variables in SEM analysis to account for their potential confounding effects.Qualitative Analysis,Interviews were transcribed verbatim and analyzed using thematic analysis.NVivo software was used to code responses and identify common themes.Key themes

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included challenges in implementation, institutional barriers, and the role of teacher training in improving competency levels.NVivo coding followed Braun & Clarke's (2006) six-step framework, categorizing themes such as: Thematic analysis followed Braun & Clarke's (2006) six-step framework, identifying key themes related to teachers' experiences and challenges in implementing health education.Key themes identified in the qualitative data include the following:

Challenges: Many teachers expressed difficulties in implementing health education due to a lack of structured training programs. One participant noted, "We lack formal training on health education, so we rely on self-learning and trial-and-error methods" (Participant 3).

Teaching Strategies: Teachers integrated health concepts into daily lessons through interactive storytelling, role-playing, and hands-on activities. A respondent stated, "I integrate health concepts through storytelling and role play, which makes it easier for young children to understand" (Participant 12).Institutional Barriers: Several teachers pointed out that insufficient institutional support limited their ability to effectively teach health education. "We don't have enough teaching materials or administrative backing to include health education as a regular part of the curriculum" (Participant 8).Perceived Benefits of Training: Teachers who had attended professional development workshops reported higher confidence in their ability to deliver health education. "Attending workshops has significantly improved my ability to teach health-related topics in class" (Participant 15). | Challenges | "We lack formal training on health education." (Participant 3) | | Teaching Strategies | "I integrate health concepts through storytelling and role play." (Participant 12) |

Validity and Reliability

Exploratory Factor Analysis (EFA)

Exploratory Factor Analysis (EFA) was conducted using principal component analysis with varimax rotation to examine the underlying structure of the survey instrument. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.82, indicating that the data were suitable for factor analysis. Bartlett's test of sphericity was significant ($\chi^2 = 1342.56$, $p < 0.001$), confirming that the correlation matrix was appropriate for EFA. Six factors were extracted, aligning with the theoretical framework of health education competencies, and they accounted for 72% of the total variance.

Table 1: Factor Loadings of Items in the Health Education Scale

Factor	Item	Factor Loading
Knowledge	I understand the principles of health education	0.78
Attitude	I believe health education is essential	0.82

Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) was performed using AMOS 24 to validate the factor structure identified in EFA. The model fit indices were as follows:
Chi-square (χ^2/df) = 2.89 (acceptable fit, should be < 3.0)
Comparative Fit Index (CFI) = 0.93 (values > 0.90 indicate good fit)
Tucker-Lewis Index (TLI) = 0.91
Root Mean Square Error of Approximation (RMSEA) = 0.05 (acceptable fit < 0.08)

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These results confirm that the scale is valid and reliable for measuring health education competencies among kindergarten teachers.

Pilot Study

To ensure the reliability and clarity of the research instruments, a pilot study was conducted prior to the main data collection. The pilot study involved 50 kindergarten teachers from five randomly selected kindergartens in Henan Province. The primary objectives of the pilot study were to:Assess the clarity and comprehensibility of the questionnaire items.Identify any ambiguities or misinterpretations in the survey questions.Evaluate the time required for participants to complete the questionnaire.Test the reliability of the scales used in the study.
Findings from the Pilot Study:

Most participants completed the questionnaire within 20–25 minutes, indicating an appropriate survey length.Some minor modifications were made to wording and formatting to improve clarity and reduce respondent confusion.Reliability analysis using Cronbach's Alpha showed that all constructs had reliability scores above 0.80, confirming internal consistency.Open-ended feedback from participants highlighted the need for clearer instructions on specific Likert-scale questions, which were subsequently revised.

Ethical Considerations

Informed Consent: All participants provided written informed consent before participation.Confidentiality: Data were anonymized to protect participant identity.

Approval: Ethical clearance was obtained from the University of Henan Research Ethics Board.Voluntary Participation: Participants were informed of their right to withdraw at any stage without penalty.

Results

This section presents the findings from both quantitative and qualitative analyses, integrating statistical results with interview insights to provide a comprehensive understanding of kindergarten teachers' health education competencies.

Descriptive Statistics

Descriptive analysis of the survey data indicates that teachers generally have moderate to high levels of self-efficacy in health education ($M = 3.9$, $SD = 0.85$). However, there is variability in institutional support, with urban schools reporting significantly greater access to training resources compared to rural schools ($t = 2.85$, $p < 0.01$).

Structural Equation Modeling (SEM) Analysis

To assess the relationships between training, institutional support, self-efficacy, and competency outcomes, SEM was conducted using AMOS 24. The final model demonstrated a good fit:

$\chi^2/df = 2.74$ (acceptable, < 3.0)

CFI = 0.94 (good fit, > 0.90)

TLI = 0.92 (acceptable, > 0.90)

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RMSEA = 0.048 (acceptable, < 0.05)

The model explained **68% (R^2 = 0.68)** of the variance in teachers' health education competency. Training (β = 0.58, p < 0.001), institutional support (β = 0.50, p < 0.001), and self-efficacy (β = 0.71, p < 0.001) were all significant predictors of competency.A visual representation of the SEM path model is provided below:

Regression Analysis and Effect Sizes

Hierarchical regression analysis was conducted to further examine the relative contribution of different predictors. Cohen's f^2 effect size values indicate that training had a **large effect (f^2 = 0.36)**, institutional support had a **moderate effect (f^2 = 0.22)**, and self-efficacy had the strongest **large effect (f^2 = 0.45)** on competency.

Table2:Regression Analysis Results for Predictor Variables

Predictor Variables	Standardized Beta (β)	t-value	p-value	Effect Size (f^2)
Training	0.58	6.32	< 0.001	0.36 (Large)
Institutional Support	0.50	5.87	< 0.001	0.22 (Moderate)
Self-Efficacy	0.71	7.45	< 0.001	0.45 (Large)

Correlation Analysis

A correlation heatmap below illustrates the relationships between key study variables. Strong correlations were found between training and self-efficacy (r = 0.68, p < 0.001) and between institutional support and competency (r = 0.62, p < 0.001).

Qualitative Findings: Integration with Quantitative Data

To complement the statistical findings, thematic analysis of interview data was conducted. The key themes identified align with the quantitative results:

The Role of Self-Efficacy

Quantitative findings indicate that self-efficacy is the strongest predictor of competency (β = 0.71, p < 0.001). This is supported by qualitative data, where teachers frequently cited confidence as a determinant of their teaching effectiveness. As one participant noted: *"I feel more capable when I have prior training; it helps me engage students better."* (Participant 12)

Institutional Barriers

Statistical analysis showed that institutional support significantly affects competency (β = 0.50, p < 0.001). Qualitative interviews confirm this, with one teacher stating: *"We lack structured resources, making it difficult to implement health lessons consistently."* (Participant 8)

Training and Professional Development

Training was identified as a key factor in both SEM and regression analyses (β = 0.58, p < 0.001). Interview findings reinforce this conclusion, as teachers emphasized the role of ongoing professional development: *"Workshops and hands-on activities have helped me incorporate health education more effectively into my curriculum."* (Participant 15)

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Visualization of Key Themes

A word cloud below highlights the most frequently mentioned concepts from the qualitative interviews, emphasizing "training," "confidence," "resources," and "institutional support."

Summary of Findings

The integration of quantitative and qualitative results underscores the importance of training, institutional support, and self-efficacy in shaping teachers' health education competencies. Self-efficacy emerged as the most influential predictor, while institutional barriers continue to pose challenges. These insights suggest that targeted professional development programs and increased institutional support could significantly enhance health education implementation in kindergarten settings.

Discussion and Conclusion

This section discusses the findings in relation to the study's hypotheses and prior literature, analyzing their implications for teacher training, institutional support, and policy development.

Hypothesis Testing and Interpretation

The study tested three hypotheses regarding the structure of health education competencies and their determinants among kindergarten teachers.

Hypothesis 1: Health Education Competency Dimensions

H1 proposed that health education competency consists of six dimensions: needs assessment, planning, implementation, evaluation, resource provision, and communication. The results confirm that health education competency is a multidimensional construct. Factor analysis showed that these six dimensions accounted for 72% of the total variance, indicating that teachers must be proficient in all six areas to effectively deliver health education. Teachers who performed well in needs assessment and planning stages demonstrated higher overall competency scores. However, resource provision remained a challenge, with 58% of teachers citing insufficient materials. Therefore, H1 is supported.

Hypothesis 2: Factors Influencing Competency Levels

H2 proposed that training, institutional support, teacher self-efficacy, and social environment significantly influence competency levels. SEM results demonstrated that training ($\beta = 0.58$, $p < 0.001$), institutional support ($\beta = 0.50$, $p < 0.001$), and self-efficacy ($\beta = 0.71$, $p < 0.001$) were significant predictors of competency. However, the role of the social environment ($\beta = 0.21$, $p = 0.09$) was less significant, suggesting that internal school structures and teacher motivation had a greater impact than community support. This finding contrasts with Western studies (McKenna et al., 2011), where social support played a more dominant role. Thus, H2 is partially supported.

Hypothesis 3: Demographic Influences on Competency

H3 proposed that demographic factors such as education level, years of experience, and training participation affect competency outcomes. T-test results showed that teachers with formal training had significantly higher competency scores (4.3 vs. 3.6, $p < 0.001$). Experience also correlated positively with competency ($r = 0.41$, $p < 0.01$), indicating that longer tenure led to greater teaching proficiency. However, education level (undergraduate vs. graduate) had no significant effect ($p = 0.12$), suggesting that specialized health education training is more critical than formal degree level. Therefore, H3 is partially supported.

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Integration with Prior Research

The findings align with previous studies highlighting the importance of teacher training in improving health education competencies (Melnyk et al., 2019). The significant role of self-efficacy supports Bandura's (1997) theory that confidence in one's ability directly influences performance. Additionally, the role of institutional support echoes findings from Jourdan et al. (2008), who argued that well-resourced schools foster higher competency levels among teachers. However, the non-significant impact of social environment challenges prior studies (Tones & Green, 2004), which suggest that parental involvement and community engagement are primary drivers of health education success.

Policy and Practical Implications

Teacher Training Recommendations

Implement mandatory professional development programs providing at least 30 hours per year in health education training. Develop competency-based training programs integrating theory with hands-on teaching practices. Promote peer mentorship programs to enhance knowledge sharing among teachers.

School Management Policies

Establish a standardized health education curriculum in kindergarten settings to ensure structured learning. Allocate sufficient resources and teaching materials to support teachers in integrating health concepts into daily lessons. Encourage collaboration between teachers and healthcare professionals to enhance instructional quality.

Government Policy Recommendations

Introduce policy incentives for schools that implement structured health education programs. Provide special funding for rural kindergartens, where institutional support is weaker. Incorporate health education competency assessment into teacher certification requirements.

Contributions to Practice and Policy

This study provides actionable insights for kindergarten administrators looking to improve teacher training in health education. By addressing the identified challenges, this research contributes to building a stronger early childhood health education system. The findings suggest that policy-driven teacher training programs would be more effective than relying on community-driven initiatives.

Limitations and Future Research Directions

This study has several limitations:Regional Scope: The focus on Henan Province limits generalizability to other areas.Cross-Sectional Design: The study captures a single point in time rather than long-term competency development.Self-Reported Data: Some responses may have been subject to social desirability bias.Future research should explore:Longitudinal studies to assess the long-term impact of health education training on teaching competency.The role of technology-based learning tools in improving teacher proficiency.Comparative studies across different educational systems to identify best practices in health education training.

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Conclusion

This study underscores the importance of structured training, institutional support, and teacher self-efficacy in developing health education competencies among kindergarten teachers. While training and self-efficacy were the most influential factors, institutional support also played a significant role in competency development. Experience and targeted professional development had a stronger effect than formal education level, highlighting the need for hands-on learning opportunities. The findings suggest that policymakers should prioritize structured health education training and targeted funding to improve teaching competencies. By addressing these gaps, educational institutions and policymakers can better equip teachers to foster a healthier future generation.

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References

Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman. https://doi.org/10.1891/9780826137358

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.

Gao, Y. (2021). The role of teachers in early childhood health education: Challenges and opportunities. Early Childhood Education Journal, 49(2), 120-130. https://doi.org/10.1007/s10643-020-01079-6

Glanz, K., Rimer, B. K., & Viswanath, K. (2020). Health behavior: Theory, research, and practice. John Wiley & Sons. https://doi.org/10.1002/9781119374817

Green, L. W., & Kreuter, M. W. (2005). Health program planning: An educational and ecological approach. McGraw-Hill.

Jourdan, D., Samdal, O., Diagne, F., & Carvalho, G. S. (2008). The future of health promotion in schools goes beyond the curriculum: The challenge of teacher training. Journal of School Health, 78(8), 411-418. https://doi.org/10.1111/j.1746-1561.2008.00323.x

Langford, R., Bonell, C., Jones, H. E., Pouliou, T., Murphy, S., Waters, E., & Campbell, R. (2015). The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. Cochrane Database of Systematic Reviews, 4(4), CD008958. https://doi.org/10.1002/14651858.CD008958.pub2

Li, P., & Sun, J. (2019). The influence of teacher beliefs on health education practices. Early Years Research Journal, 30(4), 400-418. https://doi.org/10.1080/09575146.2019.1652345

McKenna, M. L., Gutierrez, J., & McCall, M. (2011). Teacher self-efficacy in health education: A review. Journal of School Health, 81(3), 123-130. https://doi.org/10.1111/j.1746-1561.2010.00563.x

McCall, M., & Cheng, W. (2018). Societal perceptions of health education in early childhood. Health and Society, 12(1), 75-93. https://doi.org/10.1080/10810730.2018.1496719

Melnyk, B. M., Kelly, S. A., Jacobson, D. L., & Arcoleo, K. (2019). Improving health education competencies through professional development. Health Education & Behavior, 46(4), 460-475. https://doi.org/10.1177/1090198119831768

Nutbeam, D. (2020). Health literacy as a public health goal: A systematic review. Health Promotion International, 35(3), 259-267. https://doi.org/10.1093/heapro/daz040

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Patterson, F., & Mason, J. (2020). Teacher training models for health education in early childhood. Journal of Educational Development, 45(3), 301-320. https://doi.org/10.1016/j.ijedudev.2020.100840

Rosenstock, I. M. (1974). Historical origins of the health belief model. Health Education Monographs, 2(4), 328-335. https://doi.org/10.1177/109019817400200403

St. Leger, L. (2020). Schools, health literacy and public health: Possibilities and challenges. Health Promotion International, 35(2), 197-205. https://doi.org/10.1093/heapro/daz043

Tones, K., & Green, J. (2021). Health promotion: Planning and strategies. Sage Publications.

Wang, Q., & Zhang, X. (2022). Exploring the impact of kindergarten teacher training on health education effectiveness. International Journal of Early Childhood Education, 50(1), 85-102. https://doi.org/10.1007/s10643-021-01234-9

Wang, Y., & Li, H. (2020). Institutional support and teacher self-efficacy in early childhood health education. Educational Research Review, 18(3), 245-267. https://doi.org/10.1016/j.edurev.2020.100342

WHO. (2019). Health literacy and education: A global perspective. World Health Organization. https://www.who.int/publications/i/item/health-literacy-education

Zhu, X. (2021). Policy reforms in early childhood education and their impact on teacher training. Chinese Education and Society, 54(2), 110-129. https://doi.org/10.1080/10611932.2021.1899732