

Influencing Factors of Preschool Teachers' Safety and Emergency Literacy-Based on a Grounded Theory

Lijuan Shen, Zhanfeng Wang

Wuyi University, Wuyishan, 354300, China

Keywords: Preschool teacher, Safety and emergency literacy, Grounded theory

Abstract: To investigate the influencing factors and model construction of preschool teachers' safety and emergency literacy. Methods: Using grounded theory methods to perform three-level coding and analysis of 12-person interview data, extract the factors that affect the safety and emergency literacy of preschool teachers, and construct a framework with four dimensions of individual factors, kindergarten factors, preschool teacher education factors, and social factors. The theoretical model is based on the ten core qualities of personal safety emergency awareness, personal safety emergency knowledge, personal safety emergency capability, assessment management, garden training, homeland cooperation, curriculum settings, excellent teachers, special training, and media orientation. Conclusion: Under the guidance of preschool teachers' safety and emergency literacy, preschool education personnel training should create a good atmosphere of respecting and advocating the safety and emergency spirit in practice, build talent training goals based on ten core literacy, and implement preschool centered on the learning field The concept of educational curriculum development, the implementation of learning and education organized by practice groups, and the improvement of the project teaching system of deep integration of pre-service education and post-service education.

1. Introduction

For teachers who are in close contact with young children, the work of pre-school teachers has a certain degree of particularity, and they bear the great responsibility and obligation of maintaining the safety of children's lives. However, in recent years, human-made safety risks have frequently occurred in preschool education establishments. For example, the occurrence of child injury incidents in Banan District of Chongqing in 2018 and Beiliu Kindergarten in Guangxi in 2021 and the occurrence of common accidents in kindergartens reflect the inadequate safety and emergency literacy of preschool teachers. The level of safety and emergency literacy of preschool teachers is directly related to the health and safety of children [1]. In the new era, in the face of frequent child injury accidents, China has put forward higher standards and requirements for the safety and emergency literacy of preschool teachers. For example, The 2012 "Professional Standards for Kindergarten Teachers (Trial)" requires preschool teachers to "familiarize with the kindergarten's safety emergency plan, and master the basic methods of safety protection and rescue for children in accidents and dangerous situations" [2]; at the same time, in 2012, the Ministry of Health and The Ministry of Education jointly issued the "Nursery and Kindergarten Health Care Work Norms",

which pointed out that early childhood teachers should strengthen the safety education of staff and children and the training of emergency response capabilities to popularize safety knowledge [3]; after that, in 2016, Zhonghua The Ministry of Education of the People's Republic of China issued the "Kindergarten Working Regulations", which stipulates that kindergarten teachers and staff must have safety awareness, master basic first aid knowledge, and give priority to protecting the personal safety of children in emergency situations [4]; followed by the 2017 "The Opinions of the General Office of the State Council on Strengthening the Construction of a Safety Risk Prevention and Control System for Primary and Secondary Schools and Kindergartens proposed that "the school's safety education mechanism should be improved, and the improvement of students' safety awareness and self-protection capabilities should be an important part of quality education. [5]" The safety and emergency literacy of teachers and the prevention of child injury accidents have become important goals for the further development of the state and education departments. Therefore, this research is based on the research method of grounded theory and deeply explores the basic connotation and essential characteristics of preschool teachers' emergency literacy, and constructs a theoretical model of preschool teachers' emergency literacy, which is conducive to exploring the influence of preschool teachers' safety and emergency literacy during pre-service and post-employment training. Hopefully, It is helpful to provide basis and suggestions for improving the safety and emergency literacy of preschool teachers.

2. Information and Methods

The safety and emergency literacy of preschool teachers refers to the comprehensive quality of preschool teachers' safety and emergency awareness, mastery of emergency knowledge and the ability to deal with emergencies in the specific situations of emergencies and emergencies in kindergarten[6].

2.1 General Information

The current research on the safety and emergency literacy of preschool teachers is mainly based on three aspects: safety awareness, knowledge and ability. Lee, Choi and Cheon conducted a survey on the safety literacy of Korean kindergarten teachers, and the results showed that most kindergarten teachers lack sufficient safety knowledge and skills in life-threatening emergency situations [7]. Slovenian teachers conducted a questionnaire survey on the safety and first aid literacy of kindergarten teacher assistants and found that only 20% of preschool teachers can provide first aid behavior [8]. Xiang Jing's investigation on preschool teachers' safety and emergency literacy found that preschool teachers' safety emergency knowledge (safety emergency knowledge includes handling emergencies, injury accidents, dietary problems, disease problems and natural disasters) is at a medium level, and preschool teachers' safety emergency Good attitude [9]; Ma Lu believes that kindergarten teachers have strong safety ability to deal with dangers in life, but their ability to predict dangers in activities is average, and their emergency response capabilities are poor [10]. Sun Aimei, Li Shaomei, Zhang Anli conducted research on the current situation and countermeasures of preschool teachers' knowledge and skills in children's first aid and found that preschool teachers have poor knowledge and skills in children's first aid and they often mishandled common accidental injuries in children and lacked first aid Ability [11].Li Ying's research found that the safety literacy of private kindergarten teachers is generally at a medium level, with weak awareness of safety responsibility, lack of safety knowledge, and insufficient detection capabilities for safety hazards [12].

Starting from the research on the factors affecting the safety literacy of preschool teachers, Xiang Jing divided the factors that affect the safety and emergency literacy of kindergarten teachers into

three aspects: ①On the personal side, the teacher's academic qualifications, majors, subjects, teaching age, and self-effort level are all affected. It has an impact on the safety literacy of teachers; ②In kindergartens, the frequency of kindergarten training, the methods of kindergarten training and the number of injuries to children will also affect the safety literacy level of kindergarten teachers. ③Society's requirements for the safety literacy of preschool teachers are also an important factor that affects the safety literacy of preschool teachers [13]. Ren Jianxiao conducted a safety literacy survey with new kindergarten teachers as the research object. The research showed that in addition to children's own factors, kindergarten training factors and social factors will have an impact, the training of their school before entering the job has also become an impact on the safety literacy of kindergarten teachers An important factor of [14].

In summary, most studies on the safety and emergency literacy of pre-school teachers have a wide range of research contents, mainly focusing on the three aspects of preschool teachers' safety awareness, knowledge and ability. However, many studies lack theoretical foundations, and lack a complete and systematic summary to discuss the theoretical model of preschool teachers' safety and emergency literacy. Therefore, proposing a systematic and scientific theoretical model of the influencing factors of preschool teachers' safety and emergency literacy has important guiding significance for pre-service and post-employment training of preschool teachers' safety and emergency literacy.

2.2 Methods

Grounded theory is a special methodology proposed by Glaser and Strauss in 1967 to build a theory from data. Grounded theory opposes predicting hypotheses before research, and advocates the process of rethinking the collected data in the research process, then comparing and analyzing, and then categorizing and conceptualizing. This process associates and constructs the obtained concepts and categories, and develops substantive theories rooted in social reality and context through the researcher's theoretical touch. The application-based data coding process uses a top-down approach to coding step by step, extracting concepts and constructing theories from empirical data. In order to explore the safety and emergency literacy of preschool teachers and establish a reasonable and reliable theoretical model, this study intends to conduct in-depth interviews with the subjects, develop a theory suitable for the subjects' real-life situations, and adopt a grounded theoretical research method with a strong exploratory meaning. This method has stronger action guidance value and is suitable for this research.

2.2.1 Subjects of in-Depth Interviews

The data of this research comes from in-depth interviews with subjects. The researcher selected 12 preschool teachers, including 10 female teachers and 2 male teachers. The interview presented the specific status of the safety emergency awareness, knowledge and ability of 12 preschool teachers, and then transcribed the interview recordings. In addition to the content of the interview, the transcribed text also marked the interviewee's facial expressions and corresponding body movements. Such information has important enlightening significance for the later data extraction and induction.

2.2.2 Questions of in-Depth Interviews

Under natural conditions, this study adopts face-to-face semi-structured in-depth interviews, and the interview time for each sample is 20-30 minutes. The basic framework of the interview is as follows: (1) Respondents' awareness of emergencies that endanger the safety of young children at

work. (2) Whether the respondent has sufficient knowledge about emergencies that endanger the safety of young children at work. (3) Respondents' ability to resolve emergencies that endanger the safety of young children. (4) How much does the kindergarten attach importance to the safety and emergency literacy of kindergarten teachers? Does it have training and assessment? Do kindergarten teachers and parents communicate the risks that endanger the safety of children? (5) What kind of safety emergency training did you receive in pre-service teacher education? (6) Do the government and social organizations organize preschool teachers to conduct systematic safety emergency training?

2.2.3 Data Encoding Process

Atlas.ti (qualitative data analysis software) was employed to analyze and code the original interview data carefully, and finally extract the concept, that is, label each part of the data and classify, summarize and explain. Through three levels of coding (open coding, main axis coding and selective coding), the category is finally extracted and the theoretical model is established .

3. Results

3.1 Open Coding

Openly code 12 pieces of in-depth interview data, and after generalizing the original sentences to get a general category, start coding line by line, after repeated combing, the final abstraction is summarized into 26 initial categories, including personal safety awareness, personal safety responsibility, personal public safety knowledge, personal safety first aid knowledge, personal safety management knowledge, personal safety prevention ability, personal hidden danger investigation ability, personal crisis handling ability, personal safety education ability, management system, assessment mechanism, garden training frequency, garden training Methods, communication, safety activity visits, curriculum settings, system training, professional teachers, teaching methods, professional differences, training institutions, departmental funds, media promotion and policy guidance (see Table 1).

3.2 Main Axis Coding

Detract the initial category into the main category and perform main axis coding. Based on the main axis analysis, this research classified 26 categories into 10 main categories, namely, personal safety emergency awareness, personal safety emergency knowledge, personal safety emergency capability, assessment management, garden training, home cooperation, curriculum setting, and excellent teachers, System training, media orientation (see Table 1).

3.3 Selective Coding

Finally, through systematic analysis, induction, summary and comparison of the discovered conceptual categories, selective coding is carried out to extract 4 core categories of factors affecting the safety literacy of kindergarten teachers, which are individual factors, kindergarten factors, and preschool factors. Four categories of teacher education and social factors (see Table 1).

Table 1 Preschool teachers' Safety and Emergency Literacy Influencing Factors Coding System

Selective coding	Main axis coding	Open coding
Individual factors	Personal safety emergency awareness	Personal safety awareness
		Awareness of personal safety responsibility

	Personal safety emergency knowledge	Personal public safety knowledge
		Personal safety first aid knowledge
		Personal safety management knowledge
	Personal safety emergency capability	Personal safety precautions
		Personal hazard investigation ability
		Personal Crisis Management Ability
Personal safety education ability		
Kindergarten factors	Assessment management	Management System
		Assessment mechanism
	Kindergarten training	Kindergarten training frequency
		Kindergarten training method
	Family and kindergarten cooperation	Communicate with parents
		Parents visit the kindergarten safety activities
Preschool teacher education factors	Curriculum setting	Curriculum
		different majors
		System training
	Excellent teachers	Professional teacher
		teaching style
Social factors	System training	Training institution
		Departmental fund
	Media oriented	Media
		Policy Guidance

After that, by selecting the core category, establishing the connection between it and other categories and verifying it, and then perfecting the category. Different groups are used as interrogation conditions to characterize different levels of generic relationships, form three-dimensional organic associations, and determine the final model of rooted coding, which is further simplified (see Figure 1).

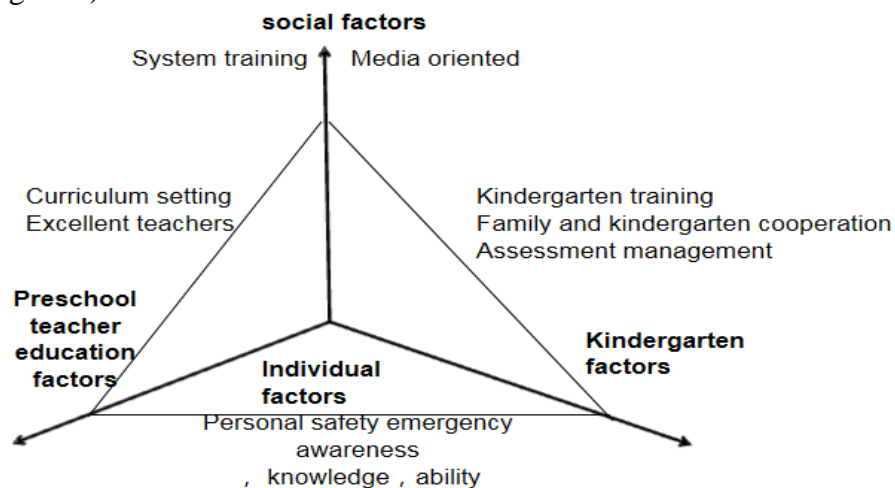


Fig.1 Theoretical Framework of Factors Influencing Preschool Teachers' Safety and Emergency Literacy

4. Discussion

This research is based on interviews and developed a model of influencing factors of preschool teachers' safety and emergency literacy based on rooted coding. The influencing factors of preschool teachers' safety and emergency literacy include 4 major categories and 10 main categories. The in-depth interviews also found that among the influencing factors of preschool

teachers' emergency literacy, the individual's own factors (personal safety emergency awareness, personal safety emergency knowledge, personal safety emergency ability), kindergarten factors (assessment management, kindergarten training, Family and kindergarten cooperation), and preschool teacher education (Curriculum setting, excellent teachers) and social factors (system training, media oriented) do not produce the mechanism in isolation from each other, but comprehensively and interactively affect the safety and emergency literacy of preschool teachers. This theoretical model summarizes the interrelationship between the various elements of preschool teachers' safety and emergency literacy, that is, driven by individual factors, kindergarten factors, preschool teacher education and social factors, it produces a long-lasting self-circulation and enters preschool teachers' own learning and the outside world. A community that promotes learning.

5. Acknowledgment

“Factors Influencing the Career Choice of Pre-service Preschool Teachers: A FIT-Choice Theoretical Perspective” (No: JAS19372).

References

- [1] Ke Liang. (2021). Construction and evaluation of the connotation system of preschool teachers' safety literacy based on the structural equation model. *Journal of Shaanxi Preschool Teachers College*, vol. 37, no.2, pp:111-118.
- [2] Chen Ronghui & Zhang Qianmeng.(2017). The current situation of kindergarten teachers' professional competence and improvement strategies--Based on the survey of “Kindergarten Teachers' Professional Standards (Trial)”. *Journal of Northeast Normal University (Philosophy and Social Sciences Edition)*, vol. 288, no4, pp: 210-215.
- [3] Ministry of Health, Ministry of Education, People's Republic of China.(2012) “Nursery and Kindergarten Health Care Work Specification”. [EB/OL] http://www.chinacdc.cn/jkzt/seyxwsw/zcfg_1647/201206/t20120607_63447.html
- [4] Ministry of Education, People's Republic of China.(2016). Kindergarten Working Regulations”. [EB/OL] http://www.moe.gov.cn/srcsite/A02/s5911/moe_621/201602/t20160229_231184.html
- [5] Office of the State Council. Opinions on Strengthening the Construction of Safety Risk Prevention and Control System in Primary and Secondary Schools and Kindergarten [EB/OL]. http://www.moe.gov.cn/jyb_xgk/moe_1777/moe_1778/201705/t20170502_303493.html
- [6] The Central People's Government, People's Republic of China.(2018). “Citizen Health Emergency Literacy Item”. [EB/OL] http://www.gov.cn/xinwen/2018-04/17/content_5283387.htm
- [7] Lee D H, Choi Y H, Cheon Y J.(2010). Emergencies in the kindergarten: Are kindergarten teachers adequately trained to cardiopulmonary resuscitation?. *Resuscitation*, vol. 81, no.3, pp:370-378
- [8] Slabe D, Fink R.(2013). Kindergarten teachers' and their assistants' knowledge of first aid in Slovenian kindergartens. *Health Education Journal*, vol. 72, no.4, pp: 398-407.
- [9] [13] Xiang Jing. (2014). *Research on the Safety and Emergency Literacy of Preschool Teachers (Master's Thesis, Central China Normal University)*.
- [10] Ma Lu. (2018). *Investigation of accidental injuries of preschool children and the safety literacy status of their caregivers (Master's thesis, Shanghai Normal University)*.
- [11] Sun Aimei, Li Shaomei & Zhang Anli.(2016). The status quo and development countermeasures of kindergarten teachers mastering children's first aid knowledge and skills. *Preschool Education Research*. vol.88, no.7, pp:67-69.
- [12] Li Ying. (2020). *Research on the safety literacy status of teachers in private kindergartens in Yanji (Master's thesis, Yanbian University)*.
- [13] Ren Jianxiao. (2019). *Research on the status quo of safety and first aid literacy of new kindergarten teachers (Master's thesis, Hebei Normal University)*.