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ASSESSING THE QUALITY OF CHILDCARE IN REGIONAL KINDERGARTENS

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Abstract: The quality of early childhood care and education is of paramount importance for the holistic development of children. This study examines the quality of the childcare and education process in kindergartens, with a focus on how various background variables of preschool teachers impact this aspect. Recently, the Ministry of Education in China issued guidelines emphasizing the importance of the quality of childcare and education in kindergartens. However, there is still a limited body of research in China that directly addresses the quality of the kindergarten process education.

This research explores the link between background variables of preschool teachers and the quality of process childcare and education. The variables include age, gender, teaching experience, highest education level, the nature of the teaching unit, and the location of the kindergarten. By investigating these factors, the study aims to identify the key elements influencing the quality of process childcare and education in kindergartens.

The findings of this study offer valuable insights into the improvement of preschool education quality and provide a framework for enhancing early childhood education in Hainan Province.

Keywords: Early childhood education, Kindergarten, Childcare and education, Preschool teachers, Quality assessment

1. Introduction

The quality of early childhood care and education is a comprehensive concept, which is whether the early childhood care and education activities meet the needs of children's physical and mental health development and the degree to which they are satisfied ^[1]. Although the process quality of childcare and education is the core content of kindergarten education quality and has the most direct impact on the quality of children's learning and development, it has not been paid attention to for a longtime. In February 2022, the Ministry of Education of the People's Republic of China issued the "Guidelines for Quality Assessment of Kindergarten Childcare Education" ^[2], which shifted the focus of preschool education reform to guiding kindergartens to pay attention to and improve the quality of the childcare and education process. At present, there are relatively few studies on the quality of kindergarten process education in China, and most of them are scattered in the overall research on the quality of kindergarten education. Preschool teachers are the actors of kindergarten education activities, and their education behavior is affected by many factors, among which personal background is one of the important factors. The background variables related to preschool teachers are divided into two categories: one is the conditions that are not easy to regulate such as age, gender, and teaching experience, and the other is the conditions that can be regulated by the teacher's own efforts or educational reform, such as the highest education, the nature of the unit, and the area where the kindergarten is located. Taking the background variables of preschool teachers as the

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starting point, this study investigates and studies the actual situation of the quality of process childcare and education in kindergartens under the influence of background variables, explores the factors affecting the quality of process childcare and education in kindergartens, and discusses effective strategies to improve the quality of kindergartens, so as to provide direction for improving the quality of preschool education, so as to promote the healthy and orderly development of early childhood education in Hainan Province.

2. Method

2.1. Participants

In this study, 350 teachers in urban and rural, private and public kindergartens in Hainan Province were randomly selected as specific samples according to the ratio of each layer, and invalid questionnaires were eliminated, and finally 325 valid questionnaires were recovered, with a recovery rate of 92%. The basic information of the sample mainly includes: gender, age, nature of the unit, location of the kindergarten, educational background, and working years of preschool teachers.

2.2. Materials and procedure

This study was conducted with reference to the “Guidelines for Quality Assessment of Kindergarten Childcare and Education”, “Kindergarten Education Quality Evaluation Manual”^[3] and “Evaluation Scale of Education Quality of Childcare Institutions in China”^[4], compiled the “Questionnaire on the Status Quo of Kindergarten Process Care and Education Quality”. Referring to the existing relevant materials, the process quality of childcare and education was divided into 4 dimensions, and the indicators of each dimension were refined, a total of 13 indicators were obtained, and a preliminary questionnaire was prepared according to these indicators. After conducting a small-scale trial test on preschool teachers in the investigator’s territory, the questions and options related to the questionnaire were modified, supplemented and improved, and the specific indicators of the questionnaire were finally formed, and the questionnaire was compiled. The questionnaire mainly includes two parts, the first part is to investigate the background of preschool teachers, involving six aspects of preschool teachers' gender, age, teaching experience, region, and unit nature, and the second part is to investigate the current situation of process education quality, mainly involving four dimensions, dimension 1 health care, dimension safety protection, dimension 3 activities and curriculum, and dimension 4 interpersonal interaction.

The questionnaire mainly adopts the Likert five-point scoring method, using five grades from “completely non-conformant” to “fully compliant”, corresponding to 1~5 points respectively, the higher the score, the higher the level. The reliability and validity of the questionnaire were tested with 0.987 and 0.969, indicating that the reliability and validity of the questionnaire were high.

3. Results

3.1. Analysis of the overall situation of the process quality of childcare and education

On the whole, the average value of the process quality of childcare and education in Hainan Province was 2.31, reaching the medium level in the grade standard, indicating that the quality of procedural education in kindergartens in Hainan Province has generally reached a qualified level, that is, kindergarten maintenance and education activities can basically implement the requirements of relevant policies and regulations such as “Kindergarten Work Regulations”^[5] and “Kindergarten Education Guidelines”^[6], and can basically meet the needs of children's physical and mental development, but have not yet reached a good and excellent level.

From the average score of the four dimensions involved in the process quality of childcare and education, the highest is dimension 3 activities and curriculum (2.48), followed by dimension 1 health care (2.38) and dimension 4 interpersonal interaction (2.25); the lowest is dimension 2 safety protection (2.14).

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3.2. Analysis of the difference in the process quality of childcare and education

Based on the investigation of the overall process quality of kindergarten childcare and education in Hainan Province, this study compares the difference in the process quality of childcare and education in kindergartens under different background variables.

3.2.1. Analysis of the difference in the process quality of childcare and education under the background of unit nature

Under the background of different unit natures, the overall difference in the process quality of childcare and education was significant ($F=6.573$, $p=0.026$, $p<0.05$). Preschool teachers had significant differences in health care ($F=5.792$, $p=0.004$, $p<0.05$), safety protection ($F=1.194$, $p=0.009$, $p<0.05$), activities and curriculum ($F=11.924$, $p=0.023$, $p<0.05$) under the background of different unit natures, but not in interpersonal interaction ($F=8.984$, $p=0.299$, $p>0.05$). See table 1 for the results.

Table 1 shows that there is a difference in the process quality of childcare and education between public and private kindergartens under the variable of unit nature, with public kindergartens scoring higher than private kindergartens in overall process quality of childcare and education, and scores in dimension 1 and dimension 3 are also higher than those of private kindergartens. Private kindergartens should pay attention to the improvement of the process quality of kindergarten childcare and education, especially in the areas of health care and activities and curriculum.

Table 1: Analysis of the difference in process quality of childcare and education under the background of unit nature

	Public kindergartens $M\pm SD$ ($N=261$)	Private kindergartens $M\pm SD$ ($N=64$)	F	Sig
dimension 1	4.592 $\pm$ 0.586	4.563 $\pm$ 0.514	5.792	0.004**
dimension 2	4.442 $\pm$ 0.567	4.442 $\pm$ 0.442	1.194	0.009**
dimension 3	4.490 $\pm$ 0.599	4.452 $\pm$ 0.466	11.924	0.023*
dimension 4	4.547 $\pm$ 0.650	4.565 $\pm$ 0.452	8.984	0.299
total	18.071 $\pm$ 2.402	18.022 $\pm$ 1.874	6.573	0.026*

3.2.2. Analysis of the difference in the process quality of childcare and education in the context regions

The overall difference in the process quality of childcare and education in different regions was not significant ($F=1.181$, $p=0.104$, $p>0.05$). Preschool teachers had significant differences in health care ($F=3.236$, $p=0.028$, $p<0.05$) under the background of different regional contexts, but not in safety ($F=3.872$, $p=0.528$, $p>0.05$), activities and curriculum ($F=5.568$, $p=0.077$, $p>0.05$), interpersonal interaction ($F=3.029$, $p=0.118$, $p>0.05$). See Table 2 for the results.

Table 2 shows that regions affect the process quality of kindergarten childcare and education, with preschool teachers from different regions performing differently on each dimension. On the whole, preschool teachers in urban areas perform the best, and the performance of townships and rural areas is comparable, but there is still a certain gap between the performance of townships and rural areas and urban areas in various dimensions, and kindergartens in townships and rural areas especially need to improve activities and curricula to promote the overall coordinated development of the quality of kindergarten process childcare and education between regions.

Table 2: Analysis of the difference in the process quality of childcare and education in the context regions

	Urban $M\pm SD$ ($N=97$)	township $M\pm SD$ ($N=193$)	countryside $M\pm SD$ ($N=35$)	F	Sig
dimension 1	4.621 $\pm$ 0.586	4.569 $\pm$ 0.521	4.583 $\pm$ 0.432	3.236	0.028*

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dimension 2	4.449±0.567	4.430±0.492	4.486±0.407	3.872	0.528
dimension 3	4.511±0.599	4.463±0.531	4.409±0.440	5.568	0.077
dimension 4	4.586±0.650	4.509±0.599	4.506±0.352	3.029	0.118
total	18.167±2.402	17.971±2.143	17.981±1.631	1.181	0.104

3.2.3. Analysis of the difference in the process quality of childcare and education under educational backgrounds

The overall variability in the process quality of childcare and education activities across educational backgrounds is highly significant ($F=2.755$, $p=0.000$, $p<0.01$). Preschool teachers with different educational backgrounds had significant differences in health care ($F=1.381$, $p=0.000$, $p<0.01$) and activities and curriculum ($F=5.568$, $p=0.000$, $p<0.01$). There was no significant difference between safety protection ($F=3.872$, $p=0.953$, $p>0.05$) and interpersonal interaction ($F=2.007$, $p=0.085$, $p>0.05$). See Table 3 for the results.

Table 3 shows that the educational distribution of all respondents is "olive-shaped", that is, the two poles in the academic hierarchy are small and the middle is large, of which the "poles" are master's degree or above (1 person, accounting for 0.3%) and college degree below (36 people, accounting for 11.08%), and "middle" refers to bachelor's degree (126 people, accounting for 38.77%) and junior college degree (162 people, accounting for 49.85%). In addition, the higher the education of preschool teachers, the higher the score on all dimensions. This shows that the academic structure of kindergarten teachers still needs to be optimized, and it is necessary to pay attention to the construction of preschool teachers and focus on improving the academic level of preschool teachers.

Table 3: Analysis of the difference in the process quality of childcare and education under educational backgrounds

	Master's degree or above $M\pm SD$ ($N=1$)	Undergraduate $M\pm SD$ ($N=126$)	Specialist $M\pm SD$ ($N=162$)	Below the specialist $M\pm SD$ ($N=36$)	F	Sig
dimension 1	4.600±0.000	4.613±0.476	4.583±0.637	4.533±0.566	1.381	0.000**
dimension 2	4.400±0.000	4.440±0.489	4.441±0.608	4.450±0.433	3.872	0.953
dimension 3	4.990±0.000	4.493±0.502	4.494±0.633	4.422±0.525	5.568	0.000**
dimension 4	4.867±0.000	4.565±0.458	4.547±0.654	4.579±0.443	2.007	0.085
total	19.856±0.000	18.111±1.925	18.092±2.532	17.984±1.967	2.755	0.000**

3.2.4. Analysis of the difference in the process quality of childcare and Education under working years

The overall difference in the process quality of childcare and education under different working years was significant ($F=1.638$, $p=0.028$, $p<0.05$). Preschool teachers had significant differences in safety protection ($F=4.856$, $p=0.020$, $p<0.05$), activities and curriculum ($F=5.078$, $p=0.011$, $p<0.05$) under the background of different working years, but not in health care ($F=3.237$, $p=0.053$, $p>0.05$) and interpersonal interaction ($F=5.371$, $p=0.481$, $p>0.05$). See Table 4 for the results.

Table 4 shows that among the preschool teachers surveyed, there are 40 people with 2 years of teaching experience, accounting for 12.31%, 112 people with 3-5 years of teaching experience 34.46%, 99 people with 6-10 years of teaching experience, accounting for 30.46%, and 74 people with more than 10 years of teaching experience, accounting for 22.77%, on the whole, preschool teachers with long working years generally score higher in all dimensions than preschool teachers with short working years, which indicates that the stability of the teaching team will affect the quality of kindergarten process.

Table 4: Analysis of the difference in the process quality of childcare and education under working years

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	2 years and less <i>M±SD</i> (<i>N</i> =40)	3-5 years <i>M±SD</i> (<i>N</i> =112)	6-10 years <i>M±SD</i> (<i>N</i> =99)	More than 10 years <i>M±SD</i> (<i>N</i> =74)	<i>F</i>	<i>Sig</i>
dimension 1	4.345±0.912	4.555±0.562	4.691±0.374	4.625±0.543	3.237	0.053
dimension 2	4.263±0.814	4.421±0.511	4.495±0.437	4.499±0.535	4.856	0.020*
dimension 3	4.305±0.860	4.463±0.549	4.563±0.455	4.501±0.557	5.078	0.011*
dimension 4	4.371±0.888	4.523±0.637	4.633±0.465	4.578±0.573	5.371	0.481
total	17.284±3.474	17.962±2.259	18.382±1.731	18.203±2.208	1.638	0.028*

4. Discussion

4.1. *The nature of the unit affects the quality of activities and curriculum organized by preschool teachers*

The study shows that the nature of the unit affects the quality of the organizational activities and curriculum of preschool teachers to a certain extent, and the organizational effect of public kindergarten maintenance and education activities is better than that of private kindergartens, which is similar to Zeng Xiao's research conclusion that "except for a few high-end private kindergartens, private kindergartens in the same geographical location and level lag behind public kindergartens in all aspects" [7].

The reasons for this are roughly as follows: Firstly, the nature of the unit affects the educational philosophy and behavior to a certain extent. Different from the inclusiveness of public kindergartens, private kindergartens are more profitable, and the concept of running kindergartens is mainly determined by market demand and trends, which greatly affects the quality of kindergarten process. In this educational environment, the value tendency and specific educational behavior of preschool teachers will inevitably be affected. For example, in order to obtain more benefits, private kindergartens will deliberately ignore the needs of children's own physical and mental health development, and cater to the needs of parents for children's knowledge learning. Secondly, the training, teaching and research system of public kindergartens is relatively perfect. Public kindergartens benefit from the policy of allocating educational resources and can have sufficient funds for the construction of educational resources. Thirdly, the quality of teachers in public kindergartens is high. Compared with private kindergartens, public kindergartens can provide more attractive salaries and social security, and can attract excellent preschool teachers, who have the correct concept of safeguarding education, solid professional knowledge and professional skills, and high professional quality, and can better carry out kindergarten education activities and courses.

4.2. *Educational background affects the quality of preschool teachers' organizational activities and curriculum*

This study show that preschool teachers with higher education have a significant advantage over preschool teachers with lower education levels in their ability to organize activities and courses. The reasons for this are as follows: Firstly, the degree of professionalism of teachers is one of the most critical factors affecting the quality of kindergarten education^[8], in general, academic qualifications are positively correlated with the degree of specialization of teachers, and the higher the level of education, the higher the degree of specialization of preschool teachers. Highly educated teachers have high professional knowledge, higher requirements for themselves in their work, better grasp the laws of education, and perform well in education and teaching activities; Secondly, highly educated teachers have a broader educational vision and richer educational experience, can more clearly and comprehensively grasp all aspects of curriculum planning and implementation, and more accurately give appropriate educational support according to the characteristics of children's physical and mental development.

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4.3. Working years affects the quality of process childcare and education

The study shows that preschool teachers with 6-10 years of work perform best. This is similar to the research conclusion of Tan X.Q. and Qin X.F.: “The age and teaching experience of kindergarten teachers have phased characteristics and are significantly different from the obstacles to their careers”^[9].

As a background factor of teachers, teaching age will directly or indirectly affect the effectiveness of kindergarten maintenance activities. From the subjective level, teaching age will directly affect the quality of kindergarten process. Although most teachers can recognize the importance of process-based education quality to early childhood development and have the willingness to continue learning, for preschool teachers with short teaching experience, due to short entry time and insufficient practical experience, it is often difficult to achieve the expected results when carrying out kindergarten care activities. For preschool teachers with long teaching experience, personal energy may gradually decline and burnout may occur as the teaching experience increases, which in turn affects the development effect of safeguarding activities. Therefore, it is necessary to start from humanism, create a good material and psychological atmosphere for preschool teachers, stimulate the self-efficacy and achievement motivation of preschool teachers, and maintain the stability of the construction of preschool teachers.

5. Conclusions

As a result of the survey and research, the quality of kindergarten process childcare and education in Hainan Province is affected by the nature of the organization, the region, the education level and the age of the teachers. Kindergarten health care, safety and security, and activities and curricula are more affected by the nature of the unit, especially in health care and curriculum organization and implementation, and the quality of process care education in private kindergartens is lower than that in public kindergartens. The quality of process childcare and education in township and rural kindergartens is lower than that of urban kindergartens, especially in the organization and implementation of activities and curriculum in rural kindergartens, which are very weak. There are significant differences in the performance of kindergarten teachers with different academic qualifications in the areas of health care and activities and curriculum, with the higher the academic qualification the better the performance, but there is a lack of kindergarten teachers with high academic qualifications in Hainan Province. There are significant differences in the performance of kindergarten teachers of different teaching ages in safety and security and activities and programs, and the optimal range of the influence of kindergarten teachers' teaching ages on the quality of kindergarten's process-oriented care and education is 6-10 years. Based on the above findings, the following targeted solutions are proposed. Firstly, break through the structural shortage and strengthen the construction of teachers. Secondly, reconstruct the education system and achieve educational equity. Thirdly, Pay attention to post-service education and training to improve educational practical ability. The last, innovating the education personnel system and strengthening the building of the teaching force.

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