

Parents' perspectives on child care quality and satisfaction in Taiwan

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Abstract

Parents are important stakeholders when demanding quality child care services, and it is necessary to take parents' perspectives on child care quality seriously. The purpose of this study was to investigate Taiwanese parents' perceptions regarding the importance of quality, and satisfaction with preschools based on participants' demographic characteristics, child's ages, and types of schools. Convenience sampling was utilized in this study. Data were collected from 810 participants with at least one three- to five-year-old child enrolled in one of 20 preschools in Taiwan. The instrument identified parental perceptions of quality and satisfaction with child care programs were categorized into seven domains: Program Characteristics, Teacher Characteristics, Interactions, Curriculum, Safety and Health, Physical Environment, and Evaluation. Health and safety issues tended to be more important in determining parental ratings for quality and satisfaction when children were enrolled preschool programs. There were no significant differences on parental ratings of the importance of quality among parental demographic characteristics and child's ages, and only significant difference by children's types of schools. Overall, results showed parents were satisfied with their current preschool programs. The findings have implications for parents, practitioners, and policy makers; for example, parents' education; Parent-Teacher partnerships; and effective communication for teacher-parent interactions. Recommendations for future research were addressed.

Keywords: early childhood education; quality; satisfaction; Taiwan; parents

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1. Introduction

For several decades, the quality of child care environments has been given increased attention, particularly by researchers, policymakers, child care providers and parents. Child care provides a setting where most children under age five can experience daily learning, playing, and interaction opportunities that support their cognitive and social-emotional development (Barnett & Ackerman, 2006; Tonyan & Howes, 2003). The evidence indicates that the first six years of life are important for the development of the cognitive, language, social and interpersonal skills, which will determine adult competence.

Different types of child care settings, such as center-based programs, informal relative, and home care have unique characteristics, strengths, and weaknesses (Li-Grining & Coley, 2006). For children in full-time child care environments, it has been discovered that program quality plays an essential role in long-term effects on socio-emotional and cognitive development at least through kindergarten, and in some cases through second grade (Peisner-Feinberg et al., 2001) or better vocabulary ability in fifth grade (Belsky et al., 2007). It is widely accepted that high quality care enhances children's development in many domains, such as language and communication skills (Burchinal, Roberts, Nabors, & Bryant, 1996); school readiness and language comprehension (NICHD, 1999; Key et al., 2013); cognitive and social development (Burchinal, Kainz, & Cai, 2011); reduction in behavioral problems (NICHD, 1999; Peisner-Feinberg & Burchinal, 1997); and youth reports of less externalizing behavior (Vandell et al., 2010).

Researchers have been paying attention to what constitutes quality in child care and how quality affects children's development. Many studies have shown that child care quality is associated with children's development, especially in the areas of cognitive (Howes & Smith, 1995), language, and social development (Burchinal et al., 2000; NICHD, 2000a; Ramey & Ramey, 1998). As a result, parents need to be concerned about the level of quality in early childhood education. In addition, quality child care is important for all children; it may be more important for young children who grow up in lower-income families or families at risk. Children will likely benefit from high quality center-based programs because research findings showed that children improved cognitive competences and language skills (Loeb, Fuller, Kagan, & Carrol, 2004).

Parents are important stakeholders when demanding quality child care services. In addition, parents are consumers of quality child care. Cryer and Burchinal (1997) reported that parents were not found to be good judges of quality of child care programs, and it was difficult for them to directly observe the service they purchase for their children. Parents are the primary decision makers for the type of child care and have legal responsibilities to make sure that their children obtain an appropriate education (Foot, Howe, Cheyne, Terras, & Rattray, 2000).

The purpose of this study is to investigate Taiwanese parents' perceptions of quality in Early Childhood Education and identify the relationship of those perceptions to specific demographic variables, such as parental income, age, educational background, and employment within diverse geographic areas. Moreover, the relationship between the parents' perceived quality and their satisfaction of the preschool quality is examined as well.

1.1 Research Questions

For the purpose of this study, the objectives were to obtain answers to following questions:

- Do parents have different perceptions of importance of quality and satisfaction with child care programs based on the parents' demographic characteristics, such as educational levels, employment,

income levels, age of child, and types of schools?

- Is there any difference between parental perceptions of importance of quality and their satisfaction of child care programs?

2. Literature Review

2.1 Early Childhood Education in Taiwan

Under Taiwan's educational setup, preschool education is not compulsory. According to the Ministry of Education (2013), most of Taiwan's private kindergartens are independently operated, while most public ones are affiliated with public elementary schools. The education and care of preschool-aged toddlers was originally provided by kindergartens and nurseries, largely consisting of privately-established institutions. In Taiwan, the Early Childhood Education and Care Act is a revolutionary change in preschool system. The bill was enacted on Jan 1, 2012, and the nurseries and kindergartens were designated "preschools", in which toddlers from the age of 2 onwards are given complete and thorough education and care in the preschool until they enter elementary school. This Early Childhood Education and Care Act consolidated the education and care of toddlers under a single administrative system, putting into practice a toddler-centered strategy that focuses on the toddler's best interests.

Early childhood education has been the most rapidly increasing segment of the education system in the last 50 years in Taiwan, yet it is not part of the public school system and there are no mandated or centralized curriculum standards (McMullen et al., 2005). The rate of enrollment in kindergartens has been on the rise recently due to the impetus for strengthening preschool education regulations, increasing the number of kindergartens, and improving the quality and qualifications of preschool teachers.

Lee and Walsh (2005) stated that without understanding cultural assumptions and beliefs about childhood and education, it may lead to culturally biased views to assume that structural variables are globally true indicators of high quality. Tobin (2005) indicated that quality in early childhood should be a process rather than a product and an ongoing conversation rather than a document. When it comes to quality standards, they should reflect local values and avoid one-size-fits-all solutions to questions of practice.

2.2 Defining Child Care Quality

It is a complicated task to define the quality of Early Child Education (ECE) settings, partly due to the complexity of the ECE system itself (Cryer, 1999). Moreover, the definition of quality reflects the values and beliefs, needs and agendas, influences and empowerment of various groups of stakeholders, such as parents, educators, researchers, policymakers, and advocates who have an interest in these services (Ceglowski, 2004; Liang, 2001). The definition of child care quality presents these various aspects, depending on the groups identified. The definition of high-quality child care supports optimal learning and development for children (Marshall, 2004).

All of the traits in the standard definitions of quality can be observed. Moss (1994) indicated that the definition of quality reflects values, beliefs, needs and agenda, and influence, and definitions may vary among different stakeholder groups. Moss also argues that quality is not an objective reality but a relative concept. The definition of quality may vary among societies and may change over time. Therefore, quality must be continually redefined according to how components of quality have been utilized (Fontaine, Torre, Grafwallner, & Underhill, 2006).

2.3 Parents' Perceptions of Child Care Quality

Parents are the primary providers for their children's education, and bring different perspectives to the

discourse on what constitutes program quality and use varied indicators to judge how good a program is. Barbarin et al. (2006) interviewed parents of pre-kindergarten children concerning their perceptions of program quality, and identified the categories of quality indicators. The researchers concluded seven domains of quality identified by scholars and previous literature reviews. These included positive structural attributes; safe, clean, physical environment; adequate instructional resources; sound instruction; teacher attributes; effective discipline; and positive emotional climate. In addition, the researchers identified three categories of quality not usually displayed in educational research or professional discussion of program quality: comprehensive service provision, convenient location, and home-school relationships. Parents' perceptions of program quality represented some practical needs and concerns. Parents' concerns also reflected their expectations from the programs, such as curriculum or services provided from programs. Parents take the practical concerns as quality indicators, and it is necessary to understand if parents trade-off between quality and practical concerns when selecting their children's preschool programs.

Shpancer et al. (2002) and his colleagues investigated parents' knowledge to determine about their children's child care center and compared the information with that provided by center directors. The study interviewed 37 parents with children in five child care centers in a Midwestern metropolitan area. The results showed significant gaps in parental knowledge of child care centers. The study suggested that parents' actual knowledge of child care center may not be linked to ratings of child care quality. The results revealed parental lack of specific information, such as center size, licensing agency, caregiver turnover rate, child's group size, adult-child ratio and caregivers' education and experiences.

The diverse perceptions of child care in different countries present global ideas of quality in early childhood education. Researchers have investigated how parents in the United States and Germany valued aspects of professionally defined ECE quality. Cryer, Tietzb, and Wessels (2002) compared how parents in Germany and the United States recognized the quality of early childhood education services of their preschoolers by examining the different cultures and ECE systems that exist in both countries. In both countries, parents' scores on the quality of ECE programs were higher, compared to those of the trained observers. Parents' ratings varied from the professionals' assessments. The authors concluded that parents share professional attitudes toward the importance of early childhood education programs, but have difficulties in differentiating among programs of varying qualities.

2.4 Satisfaction

Previous research focused on parental satisfaction with their child care arrangements (Britner & Phillips, 1995; Erdwins, Casper, & Buffardi, 1998; Peyton et al., 2001; Sonenstein & Wolf, 1990); in varied infant and toddler programs in the UK (Leach et al., 2008) ; satisfaction with experiences of varied aspects of children's early education programs (Fantuzzo, Perry, & Childs, 2006); and child care and early education in rural families (Teleki & Buck-Gomez, 2002).

With regard to center-based care, research findings showed parents consistently indicated high levels of satisfaction with their child care programs. Erdwins, Casper, and Buffardi (1998) investigated 1,675 parents of preschool-aged children in different child care arrangements. These results found there were no differences on overall satisfaction between parents who chose center-based programs and home care providers, and mothers were more satisfied with child care than fathers.

Furthermore, previous studies investigated predictors of parental satisfaction in varied care arrangements. Parents who used center-based programs reported that social support and frequencies of parent involvement were significant predictors of parental satisfaction with child care arrangements (Britner & Phillips, 1995). Parents were more satisfied if they viewed child care programs as a source of extensive information and emotional support. As a result of feeling supported, parents may experience less stress and be more satisfied with the care. Additionally, Sonenstein and Wolf (1990) pointed out that mother's satisfaction with their child care arrangement

may be related their practical needs, for example, convenience of hours, location, and adequate adult supervision. Mothers of 3-5-year-olds were more concerned with their children's aspects of development and learning opportunities. These findings suggested practical concerns were associated with levels of satisfaction with child care; however, developmental aspects of child care were important indicators of their satisfaction as well.

Similarly, Jinnah and Walters (2008) investigated the relationship between parental satisfaction and involvement in the child development programs. Their results suggested parental involvement positively predicted parental satisfaction with their child care programs. Parents who were more involved in the programs tended to be more satisfied with the programs. The study found parents' levels of satisfaction to be a viable evaluative measure and implied that parents have to continue to be involved in the evaluating their child care programs. However, the participants of the study were mainly Caucasian, female, married, with high educational backgrounds and from high income groups. So the results may not generate to other groups of parents.

Parents' levels of satisfaction can be seen as a measurement for evaluation (Jinnah & Walters, 2008). Furthermore, their results can be used by directors to make program improvements and to meet the needs of families (Teleki & Buck-Gomez, 2002). The information of parental satisfaction with child care programs can provide beneficial knowledge for policy makers, directors or principals, and teachers, in regard to policies, regulations or parental education.

It is important to note that parents' levels of satisfaction did not reflect the actual quality of child care programs. For example, from a social exchange perspective, high parental ratings of satisfaction with their selections may reflect a cost or benefit evaluation. Parents want to believe they have made the right choices for their children; therefore, they frequently rated lower quality programs as high performing in denial of the fact they were sending their children to inadequate child care programs (Keiningham, Aksoy, Andreasen, & Estrin, 2006).

3. Methodology

This study utilized the survey method to investigate the differences of selections and perceptions when parents were grouped by parental income, educational background, maternal employment, child's age, and types of schools. The study consisted of four public and 16 private preschools. Data were collected from parents and guardians with at least one three- to five-year-old child enrolled in one of 20 preschools in Taiwan.

3.1 Instrument

Questionnaires were designed by the researcher, and informed by the literature reviews and knowledge of educational programs in Taiwan. *Parents' Ratings of the Importance of Quality and Satisfaction with Preschool*.

- Part I: Child and Preschool Information include 6 items which investigated information regarding child's age and gender; preschool programs such as private or public programs, year of enrollment, and monthly tuition.
- Part II: Perceptions of Child Care Quality and Satisfaction focused on ratings of the importance of preschool quality and satisfaction with their child's preschool program. The 36 items use the 5-point Likert scale to identify the importance of perceived quality, ranging from 5 (*very important*) to 1 (*unimportant*). The items were derived from the *Early Childhood Environment Rating Scales-Revised Edition* (ECERS-R; Harms, Clifford, & Cryer, 1998) with permission from the authors. The scale included 27 indicators adapted from ECERS-R, four items adapted from NAEYC Accreditation standards (NAEYC, 2006), and an additional five items which address current circumstances in Taiwan.
- Part III: Of the questionnaire, Satisfaction with Preschool program and Program Improvements asked parents about overall satisfaction with preschool program ranging from 5 (*high*) to 1 (*low*). In addition,

an open-ended question was utilized to collect the information for program improvement.

- Part IV: Of the questionnaire, Parents' Demographic Information was used to investigate parental age, marital status, educational background, employment status, household incomes, and family size.

3.2 Validity of the Instrument

The original questionnaire was developed in English, then, translated to Chinese. To account for different cultural and educational systems in this study, the researcher established a panel of experts to examine the translated questionnaires for the evaluation of content validity. The three panel members met the following criteria: two Early Childhood Education university faculty members in Taiwan with a related doctoral degree obtained in an English speaking country, and a director in preschool with more than ten years experiences in teaching young children with related a master's degree from an English speaking country. The researcher e-mailed the English and Chinese versions to each expert and discussed the items by e-mail and phone until an agreement on each sentence was reached.

3.3 Data Analyses

All quantitative data were coded, entered and analyzed using the *Statistical Package for the Social Sciences 15.0 version for Windows*. Frequencies and percentages were used to analyze ordinal and nominal data. Means and standard deviations were calculated for indicators and categories of ratings of importance of quality, satisfaction. Correlations were first conducted in order to determine if relationships of subscales existed. Multivariate analysis of variance (MANOVA) was implemented to compare category means by demographic descriptors and assess whether an overall difference existed between groups. Post hoc tests of group differences were used to determine which group means differed significantly from others. A paired *t*-test was calculated to identify the significant difference between overall parents' ratings of the importance of quality and satisfaction with their child care programs.

4. Results

4.1 Description of Sample

A total of 1190 parents were recruited for this study. Of the 1190 parents, 810 completed and returned their surveys, yielding a 68% return rate. Of the 810 participants, 76.4 % of the participants were mothers and 21.6% were fathers, with the remaining 2 % of the participants consisting of step-parents, grandparents and legal guardians. The majority of parents (94.4%) were married, 2.6% of the parents were divorced, and 2.2% were cohabitating, single, or widowed.

The mode age group for mothers was 31-35 years old (46.2%), followed by 36-40 years old (29.3%). The most frequent age group for fathers was 36-40 years old (40.6 %), followed by 31-35 years old (33.8%). With regards to parents' education, 5.9% of the mothers and 6.7% of the fathers had only completed high school or less, and 32.7% of the mothers and 29.9% of the fathers had attended senior high school. Over half of the mothers (52.7%) and 48.6% of the fathers had a college or bachelor's degree. Furthermore, 8.4% of the mothers and 13.6% of the fathers had obtained graduate degrees. The vast majority of the fathers (93%) stated that their work schedules included full-time employment, whereas 67.4% of the mothers reported that they worked full-time.

4.2 Children's and School Information

Demographic data for the sample indicated that 11.9% of the children were three years old, 31.7% were four years old, and 56.4% of the children were five years old. Gender was evenly distributed (49.9% girls, 50.1%

boys). These data also indicated that 75.2 % ($n = 609$) of the children were enrolled in private preschools while 24.8% ($n = 201$) of the children attended public preschools.

4.3 Parents' Ratings of Importance of Quality

Parents' perceptions of the quality of their current child care programs were assessed with a 36-item scale. Parents were asked to rate the quality indicators using a 5-point scale ranging from 5 (*very important*) to 1 (*unimportant*). These indicators encompass Program Characteristics, Teacher Characteristics, Interactions, Curriculum, Safety and Health, Physical Environment, and Evaluation of child care programs.

Reliability testing of items provides a quantitative measurement of how well an instrument performs in a given population. Internal consistency for this measure was examined in the study by using Cronbach's alpha. Good internal consistency was found for the parents' ratings of importance of quality and ratings of satisfaction in the current study (0.95 and 0.96, respectively).

Table 1

Subscales Reliability-Parents' Ratings of Importance of Quality

Category	Cronbach's Alpha	Number of Items
Program Characteristics	0.76	5
Teacher Characteristics	0.70	4
Interactions	0.81	6
Curriculum	0.87	6
Safety and Health	0.92	7
Physical Environment	0.84	4
Evaluation	0.84	4
Overall-Importance of Quality	0.95	36

As presented in the Table 2, the respondents also expressed strong agreement with items on the parents' rating of importance of quality. The greater the mean value, the more important of quality was for the preschool programs. The Taiwanese parents rated the category of Health and Safety as highly important on quality indicators for the current child care programs. By contrast, they rated the category of Program Characteristics as less important on quality indicators. Category means ranged from 4.70 to 4.20 on a 5-point scale. Therefore, the mean scores of the seven categories revealed that Taiwanese parents agreed with the indicators as important quality criteria.

Table 2

Category Means of Parents' Ratings of Importance of Quality (N=810)

Category	M	SD
Safety and Health	4.70	0.42
Teacher Characteristics	4.54	0.43
Interactions	4.52	0.44
Physical Environment	4.45	0.49
Evaluation	4.43	0.55
Curriculum	4.42	0.51
Program Characteristics	4.20	0.54

Note. 5 = very important, 1= unimportant

The parents' ratings of importance of quality were clustered into three levels by the researcher. The three levels were: 4.51-5.00, high; 4.01-4.50, medium; and 3.51-4.00, low (see Table 3). The results showed that 19 items were located at the high levels, while 15 items were grouped at the medium levels. The results showed that Safety and Health is the most important category. For example, Taiwanese parents indicated that "Play areas are arranged to avoid dangerous conditions"; "Teachers take action to prevent dangerous problems both indoors and outdoors environment."; "Indoor space is clean and well maintained" were the important indicators of quality in their children's programs. Only two indicators were categorized at the low levels. "The daily schedule is posted

in the classroom.” and “The daily schedule provides a variety of play activities during the indoor and outdoor play.”

Table 3

Ranking of Means Scores- Parents’ Ratings of Importance of Quality (N=810)

Indicators	<i>M</i>	<i>SD</i>
<i>Level I High (Means range 4.51--5.00)</i>		
Play areas are avoid dangerous conditions	4.75	0.47
Teachers take action to prevent dangerous problems	4.72	0.49
Indoor is clean	4.71	0.48
Playground is maintained in good condition	4.71	0.52
Teacher teaches children to manage health practices	4.70	0.50
Teacher is good model of healthy habits	4.69	0.49
Teacher respond to children in warm manner	4.69	0.49
Providing to learn positive peer interactions	4.68	0.51
Teachers model good social skills	4.68	0.52
Indoor is not crowed	4.66	0.53
Nutritious, varied meals are provided	4.65	0.56
School provides emergency procedure	4.64	0.53
Children are encouraged to use a variety of methods to communicate	4.61	0.55
Child sized furniture	4.58	0.57
Working experiences with children	4.58	0.55
Teacher is consistent in school	4.56	0.64
Providing child’s performance/ documentation	4.56	0.59
Parent and teacher share children’s information	4.55	0.56
Activities are used to promote math/number	4.51	0.59
<i>Level II Medium (Means range 4.01--4.50)</i>		
School provides ample materials for play	4.50	0.61
The classroom has books/storytelling tapes/DVD	4.47	0.64
Program meets children’s and families’ needs	4.44	0.63
Activities are promoted diversity	4.43	0.64
Daily events are used for science and nature	4.42	0.65
The school provides staff opportunities for training	4.39	0.72
Teacher-child ratio is low	4.39	0.64
Providing at least five learning centers	4.36	0.73
Parents’ feedback is used for improvement	4.36	0.68
School is evaluated by professional annually	4.35	0.75
No physical punishment or severe methods	4.33	0.79
Teacher with related ECE bachelor degree	4.28	0.76
Group size is less than 20	4.25	0.73
Parents take decision-making roles	4.17	0.74
Dramatic play materials are easily accessible	4.09	0.85
<i>Level III Low (Means range 3. 50--4.00)</i>		
Daily schedule provides play activities	3.99	0.84
Daily schedule is posted in classroom	3.87	0.90

Analysis of the Relationships between Parents’ Ratings of Importance of Quality among Demographics -

Correlation analyses was performed to determine the relationships among the categories of quality indicators. Pearson product-moment correlations were conducted to assess the correlations among Program Characteristics; Teacher Characteristics; Interactions; Curriculum; Safety & Health; Physical Environment; and Evaluation. Analyses revealed statistically significant moderate, positive correlations among these categories. Therefore, the overall relationships between independent variables (family characteristics, types of schools, and child’s age) and dependent variables (parental ratings of importance of quality) were implemented through the multivariate procedures. First, Box’s Test was used to examine homogeneity of variance-covariance. If homogeneity is assumed, Wilki’s Lambda is utilized to interpret the MANOVA results. If the assumption of equal variance is questioned, Pillai’s Trace was utilized (Mertler & Vannatta, 2005). Table 4 showed the categories of parents’

ratings of importance of quality and parental demographic characteristics. A significant MANOVA was found for “types of schools” and their demographic descriptors.

Table 4

Multivariate Analysis of the Relationships between Family Char. & Parents' Ratings of Importance of Quality

Variables	Wilks' Lambda Value	F	p	Partial Eta Squared
Parent's Education	0.96	1.48	0.07	0.01
Types of Schools	0.94	6.76	0.00*	0.05

Variables	Pillai's Value	F	p	Partial Eta Squared
Maternal Employment	0.00	1.07	0.37	0.00
Household Incomes	0.01	0.79	0.67	0.00
Child's Age	0.02	1.64	0.06	0.01

Note. * $p < .05$

Furthermore, MANOVA examined the difference between the categories of parents' ratings of important quality and types of program (see Table 5). The results indicated that there was significant difference among the categories of parents' ratings of importance, except Programs Characteristics ($F(1,801) = 0.125, p > .05$). Parents who selected private programs rated higher categories mean scores among Teacher Characteristics (M difference = 0.13, $p = 0.001, d = 0.28$), Interactions (M difference = 0.17, $p = 0.000, d = 0.38$), Curriculum (M difference = 0.19, $p = 0.000, d = 0.37$), Safety and Health (M difference = 0.10, $p = 0.002, d = 0.23$), Physical Environment (M difference = 0.20, $p = 0.000, d = 0.40$), and Evaluation (M difference = 0.18, $p = 0.000, d = 0.33$) than parents who sent their children to public preschool programs.

Table 5

MANOVA of Parents' Ratings of Importance of Quality by Types of Schools

Category	Types of Schools	n	M	SD	F	p
Program Characteristics	Private	603	4.22	.53	2.36	0.12
	Public	200	4.15	.56		
Teacher Characteristics	Private	603	4.49	.47	10.94	0.00*
	Public	200	4.35	.52		
Interactions	Private	603	4.56	.42	25.10	0.00*
	Public	200	4.39	.46		
Curriculum	Private	603	4.47	.49	22.10	0.00*
	Public	200	4.28	.55		
Safety and Health	Private	603	4.72	.41	9.70	0.00*
	Public	200	4.62	.43		
Physical Environment	Private	603	4.63	.46	27.14	0.00*
	Public	200	4.43	.52		
Evaluation	Private	603	4.48	.53	17.44	0.00*
	Public	200	4.29	.60		

Note. * $p < .05$

4.4 Satisfaction with Preschool Programs

In term of rating the satisfaction of their children's current preschool programs, parents were asked to respond to same set of the indicators, which ranged from 5 (*very satisfied*) to 1 (*very unsatisfied*). All items on program characteristics, teacher characteristics, interactions, curriculum, safety and health, physical environment, and evaluation referred to satisfaction indicators of child care programs. Parents were asked to provide an overall satisfaction regarding preschool programs ($M = 4.23, SD = 0.56$). As shown in Table 5, results provided the following means. Specifically, ratings indicated that Taiwanese parents were most satisfied with Safety and

Health. By contrast, they rated the category of Evaluation as indicators of least satisfaction.

Table 6

Category Means of Parents' Ratings of Satisfaction (N=810)

Category	<i>M</i>	<i>SD</i>
Safety and Health	4.34	0.52
Interactions	4.31	0.51
Physical Environment	4.26	0.60
Curriculum	4.25	0.56
Teacher Characteristics	4.20	0.56
Program Characteristics	3.99	0.54
Evaluation	3.97	0.74

Note. 5 = Very satisfied, 1 = Very unsatisfied

Table 7

Ranking of Means Scores-Parents' Satisfaction with Preschool Programs (N = 810)

Indicators	<i>M</i>	<i>SD</i>
Level I High (Means from 4.51 to 5.00)		
None		
Level II Medium (Means from 4.01 to 4.50)		
Teacher teaches children to manage health practices	4.46	0.63
Teachers respond to children in warm manner	4.44	0.60
Teachers are good models of health practices	4.42	0.62
Providing to learn positive peer interactions	4.42	0.63
Teachers take action to prevent dangerous problems	4.40	0.60
Indoor is clean	4.40	0.61
Teachers model good social skills	4.38	0.66
Children are encouraged to use a variety of methods to communicate	4.37	0.66
Play areas are avoid dangerous conditions	4.36	0.64
Providing child's performance/ documentation	4.35	0.71
Parent and teacher share children's information	4.35	0.69
Working experiences with children	4.34	0.64
Nutritious, varied meals are provided	4.32	0.71
Activities are used to promote math/number	4.31	0.65
No physical punishment or severe methods	4.29	0.70
Teacher is consistent in school	4.28	0.79
Indoor is not crowded	4.28	0.75
Child size is less than 20	4.28	0.70
The classroom has books/storytelling tapes/DVD	4.27	0.69
School provides ample materials for play	4.27	0.67
School provides emergency procedure	4.26	0.70
Activities are promoted diversity	4.26	0.68
Program meets children's and families' needs	4.23	0.70
Daily events are used for science and nature	4.20	0.72
Playground is maintained in good condition	4.18	0.73
Providing at least five learning centers	4.11	0.81
Parents' feedback is used for improvement	4.11	0.75
School is evaluated by professional annually	4.10	0.80
Teacher with related ECE bachelor degree	4.09	0.75
The school provides staff opportunities for training	4.09	0.76
Dramatic play materials are easily accessible	4.07	0.78
Level III Low (Means from 3.50 to 4.00)		
Parents take decision-making roles	4.00	0.75
Teacher-child ratio is low	3.96	0.81
Daily schedule is posted in classroom	3.94	0.76
Daily schedule provides play activities	3.93	0.80
Group size is less than 20	3.85	0.92

Note. 5 = very satisfied, 1 = very unsatisfied

The parents' ratings of parental satisfaction were divided into three levels by the researcher. The ratings of the three levels was classified from high to low (Table 7). Only 5 indicators were grouped at the low levels and 31 indicators were located at the medium level. The majority of parents were very satisfied with these indicators: "Teacher teaches children to manage healthy habits" ($M = 4.46, SD = 0.63$), "Teachers usually respond to children in a warm, supportive manner" ($M = 4.44, SD = 0.60$), and "Teachers are good models of health practices" ($M = 4.42, SD = 0.62$). Compared with the highly satisfied items, parents were less satisfied with these following indicators: "The group size is less than 20" ($M = 3.85, SD = 0.92$), "The daily schedule provides a variety of play activities during the indoor and outdoor play period" ($M = 3.93, SD = 0.80$), and "The daily schedule is posted in the classroom" ($M = 3.94, SD = 0.76$).

Analysis of the Relationships Between Satisfaction with Preschool Programs Among Demographics - Multivariate analyses of variance (MANOVA) assumed that multiple dependent variables were related to each other. Thus, MANOVA was conducted to determine if there were group differences among parents' ratings of satisfaction with child care programs across parents' educational levels, mothers' employment, household incomes, child's age and types of schools. The null hypothesis was rejected based on the following result showed in Table 8. There were significant differences among these categories and parents' education, maternal employment, child's age, and types of schools.

Table 8

Multivariate Analysis of the Relationships between Family Char. and Satisfaction with Preschool Programs

Variables	Wilks' Lambda Value	F	p	Partial Eta Squared
Parent's Education	0.93	2.49	0.00*	0.022
Maternal Employment	0.93	3.17	0.00*	0.027
Household Incomes	0.95	2.64	0.00*	0.023
Types of Schools	0.90	11.84	0.00*	0.094
Child's Age	0.96	2.35	0.00*	0.020

Note. * $p < .05$

Parents' Education - MANOVA revealed no significant differences on parental satisfaction among Teacher Characteristics, Interactions, Curriculum, Safety and Health, Physical Environment, and Evaluation. Program Characteristics was found $F(3, 789) = 2.89, p < .05$ among parents' educational levels. Post hoc tests were examined to determine if there were significant differences between varied groups. The results showed there were no significant differences among parents' educational levels.

Maternal Employment - A MANOVA was conducted to determine whether or not parents' employment status (part-time, unemployment and full time) affect their satisfaction with preschools. Mothers who were employed full-time expressed more satisfaction with their children's programs among these categories: Program Characteristics (M difference = 0.13, $p = 0.003, d = 0.22$); Teacher Characteristics (M difference = 0.11, $p = 0.009, d = 0.19$); Interactions (M difference = 0.11, $p = 0.003, d = 0.21$); Curriculum (M difference = 0.11, $p = 0.007, d = 0.21$); and Evaluation (M difference = 0.20, $p = 0.012, d = 0.19$), respectively.

Household Incomes - A MANOVA was carried out to examine group differences between household incomes and parental satisfaction with their child care programs. The parents' household incomes were divided into three groups (low: \$30,000 or less, medium: \$30,001-\$90,000, and high: > \$90,001 NTD). Parents in different income groups revealed significant differences among these categories: Teacher Characteristics $F(2, 797) = 5.63, p = .00$; Interactions $F(2, 797) = 6.37, p < .05$; Curriculum $F(2, 797) = 3.83, p < .00$, respectively. Post hoc tests revealed that parents in the lower income group rated less satisfied with Teacher Characteristics (M difference = -0.20, $p = 0.002, d = -0.37$) and Interactions (M difference = -0.21, $p = 0.000, d = -0.42$) than parents with higher income groups. Parents in medium and higher income groups were more satisfied with Teacher Characteristics and Interactions. In addition, in the categories of Curriculum, parents in the medium income group (M difference = 0.18, $p = 0.000, d = 0.32$) were more satisfied with these indicators than parents

in the lower income group.

Types of Schools - Parental satisfaction with child care programs were also found to be affected by the type of school to which children were sent. To compare differences in parental satisfaction based on whether their children attended public or private preschools, mean scores were computed for each of the categories. Specifically, there were significant differences in all categories of parental satisfaction across both types of schools. Parents who selected private preschools rated greater satisfaction with seven categories, compared to parents who selected public programs.

Child's Age - A MANOVA was carried out to examine differences between child's age and parental satisfaction with child care programs. The results showed that there were significant differences among Program Characteristics $F(2, 802) = 8.78, p = .00$; Teacher Characteristics $F(2, 802) = .93, p < .05$; Interactions $F(2, 802) = 6.48, p < .05$; Curriculum $F(2, 802) = 3.84, p < .05$; and Evaluation $F(2, 802) = 4.15, p < .05$. Post hoc tests were utilized to determine if differences existed between different age groups. Curriculum showed no differences between age groups after post hoc tests. As exhibited in the Table 30, the post hoc test revealed that parents with three- and four-year old children reported more satisfaction with Program Characteristics (M difference = 0.15, $p = 0.001, d = 0.27$) and Teacher Characteristics (M difference = 0.16, $p = 0.010, d = -0.29$) than parents who had five year old children. In addition, parents of children in the three-year old group were more satisfied with Interactions (M difference = 0.20, $p = 0.001, d = 0.36$) and Evaluation (M difference = 0.18, $p = 0.002, d = 0.31$) than those in the five-year old groups.

4.5 Difference on Quality of Importance and Satisfaction

The pairs of mean scores between parents' ratings of the importance of quality and satisfaction were computed to compare the differences. Mean scores and differences between parents' ratings of the importance of quality and satisfaction with child care preschools were shown in Figure 1. Overall, the categories of the importance of quality were consistently higher than parental ratings of satisfaction with current child care programs.



Figure 1. Category means of parents' ratings of importance of quality and satisfaction

Parents who provided higher ratings of the importance of quality were more likely to report a higher level of satisfaction with their current selections of preschools, and the only exception was the item "schedule is posted in the classroom". Specifically, the results revealed parents showed different perceptions quality and satisfaction among these indicators: "Playground is maintained in good condition," "The teacher-child ratio is low," and

"The group size is less than 20".

Total mean scores were calculated to determine if parents' ratings of the importance of the quality and satisfaction with preschool programs showed significant differences by a paired sample *t*-test. The result of paired *t*-test indicated there was significant difference between parents' ratings of the importance of the quality and satisfaction (see table 9).

Table 9

Paired t-test for Total Mean Scores of Importance of Quality and Satisfaction

Paired <i>t</i> -test	N	<i>M</i>	<i>SD</i>	<i>t</i>	<i>df</i>	<i>p</i>
Total Importance	801	4.47	0.41	16.28	800	0.00**
Total Satisfaction		4.22	0.48			

Note. ** *p* < .01

5. Discussions & Implications

5.1 Discussions

Numerous studies have been conducted concerning child care quality and its association with child development. Researchers acknowledge that parents are crucial persons for children's well-being and are included in making decisions regarding their children's educational programs. Quality is not a global standard and should take cultural perspectives, such as parents' beliefs, values and expectations into consideration. Taiwanese parents are increasingly choosing center-based child care programs to meet their children's developmental and educational needs as well as those of the family. Understanding parents' and families' needs is an important issue when considering child care programs.

Overall, Taiwanese parents rated higher values on 36-item of the ratings of the importance of quality. Parents' perspectives on satisfaction of child care were based on their children's current preschools. Therefore, since parents chose to send their children to current programs, it is possible that they may have more satisfactions on their current selections. When it comes to quality indicators, parents in this study implied Health and Safety as an important category when they perceived quality indicators for their current child care programs. Consistent with findings from previous studies, parents placed heavy concerns on safety and health issues at the preschool level (Cryer & Burchinal, 1997; Foot et al., 2000). Particularly, the Taiwanese parents placed a great emphasis on "Play areas are arranged to avoid dangerous conditions", "Teachers take action to prevent dangerous problems both indoors and outdoors environment", and "Indoor space is clean and well maintained" as the important indicators of quality in their children's programs. Parents also emphasized the safety issues and preferred indoor environments that were maintained in good conditions. Parents' perceptions of program quality were more practical, instrumental and directly linked to a phenomenon they could observe and also compare to their expectations. These results provided support for the findings of Barbarin et al. (2006).

When the relationships between parents' demographic characteristics and categories of parents' ratings of the importance of quality were compared, only parents who selected private and public programs showed significant differences between the ratings category of importance of quality. Parents from a variety of socioeconomic and educational backgrounds with children enrolled in private programs were more heavily concerned among about categories: Teacher Characteristics, Interactions, Curriculum, Safety and Health, Physical Environment, and Evaluation. Taiwanese parents who selected private child care programs pay more tuition than parents who chose public programs and required more quality indicators in their preschools.

Generally, the results showed that parents were satisfied with their current preschool programs. These results were consistent with previous findings (Liang, 2001; Teleki & Buck-Gomez, 2002), which investigated parental satisfaction regarding quality and services of early childhood education. Specifically, the Taiwanese parents

reported that they were more satisfied with the category of Safety and Health and less satisfied with Evaluation. Parents were most satisfied with indicators related to teachers' for managing healthy habits and as the good models of health practices for their children. In addition, parents also were satisfied with teacher-child interaction that was warm and supportive.

With regards to child's age, parents in the three-year-old group rated more satisfaction on Program Characteristics, Teacher Characteristics, Interactions, and Evaluations than parents in the five-year-old group. Parents with children in different age groups may have varied expectations and concerns, especially for their older children; for example, extra curriculum, preparations for elementary schools, or second language learning. Therefore, some programs may not meet parents' expectations and, thus, parents rated lower satisfaction on these categories. When comparing relationships between parents' ratings of the importance of quality and satisfaction with current child care programs, the results showed parents indicated a higher rating for importance than satisfaction at the same set of indicators. The mean scores of parents' ratings of importance in each set were higher than parents' satisfaction, except on school schedule. The results of parents' ratings of the importance of child care quality and satisfaction showed higher levels of concordance.

5.2 Implications

Parent Education - Their findings concluded that parents share professional attitudes about the importance of early childhood education programs, but have difficulty differentiating degrees of quality in their programs. As noted earlier, parents and professional perceptions showed different views on quality indicators. In addition, it was difficult for parents to directly observe services they had purchased for their children. Furthermore, parents perceived fewer child care choices, resources, and had limited knowledge of their selections that could influence their children's daily experiences and have a long-term impact on the care received (Phillipsen, Burchinal, Howes, & Cryer, 1997). In order to strengthen parents' roles in selecting high quality Early Childhood Education and evaluating the quality of children's preschools, more comprehensive information on child care quality should be provided to parents, such as detailed information about the school's settings and regulations. Phillipsen et al. (1997) indicated that parental education could assist parents in selecting quality child care programs. Therefore, parental education could play an essential role in providing precise information and skills to support parents in selecting better quality on child care programs.

Policy - Parents emphasized the importance of quality; however, quality costs money and parents may not be able to afford it. Besides that, finances and resources are needed in order to maintain quality child care programs. Research supported the findings that high quality child care improves children's kindergarten readiness (NICHD, 1999). Policy makers, practitioners, and program administrators should work together to eliminate those gaps between affordability and quality child care programs. Because child care quality is an important issue which affects children's well-being, it deserves both increased attention and funding. This can be accomplished through a number of methods, including educational vouchers, sliding fee scales, and subsidies to help parents in extending their selections and by making child care available.

Parent-Teacher partnerships - According to Epstein (1995), there are six genre types of involvement in a comprehensive program of a school, family and community partnerships. Most parents need more and better information from schools to become and remain productively involved in their children's education (Epstein, 2001). Almost all early childhood programs have some kind of parent component, but these may be limited. Parents in this study indicated that schools or teachers should provide information and ideas to families about how to help their children with their learning and other curriculum-related materials.

Recommendations for Further Study - Quality child care programs have been linked to positive outcomes for children; however, this study did not directly examine relationships between quality indicators and children's development. In Taiwan, the criteria for preschool and kindergarten evaluation varied in different counties, and few research studies examined relationships between quality and children's outcomes in different development

domains. Future studies should examine quality indicators and children's development in varied quality programs.

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