



Quality of Life Outcomes in Filipino Children with Autism Spectrum Disorder Attending Public Versus Private Schools Following Occupational Therapy

Andre C. Quimno*

University of Perpetual Help System Manila, Philippines



Abstract

This study investigated whether school type (public versus private) significantly influences the quality of life (QoL) outcomes of Filipino children with Autism Spectrum Disorder (ASD) Level 1 or 2 following occupational therapy (OT). A descriptive-comparative design was employed with 51 children (ages 5–7, 75% male) attending schools in Metro Manila. The Pediatric Quality of Life Inventory (PedsQL 4.0) was administered via caregiver proxy across four domains: physical, emotional, social, and school functioning. Independent-samples t-tests revealed no significant difference in physical functioning between school types. However, significant differences were found in emotional functioning (public: $M=2.28$ vs. private: $M=1.88$; $p<0.001$), social functioning (public: $M=2.49$ vs. private: $M=1.91$; $p=0.03$), and school functioning (public: $M=2.44$ vs. private: $M=1.85$; $p=0.007$). Overall PedsQL scores were significantly higher for public school children ($M=2.65$ vs. $M=2.17$; $p<0.001$). These findings suggest that the community-oriented, peer-integrated environments of public schools in Metro Manila may complement OT outcomes in emotional and social domains. Results have implications for school placement decisions, OT intervention planning, and inclusive education policy in the Philippines.

Keywords: Autism Spectrum Disorder; Pediatric Quality of Life Inventory; Occupational Therapy; Inclusive Education; Philippines; Public vs. Private Schools

Abbreviations

ASD – Autism Spectrum Disorder; OT – Occupational Therapy; PedsQL – Pediatric Quality of Life Inventory; QoL – Quality of Life; SPED – Special Education; MOHO – Model of Human Occupation; DepEd – Department of Education; IEP – Individualized Education Plan; RA – Republic Act

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by deficits in social communication, restricted interests, and repetitive behaviors [4]. Global prevalence has risen markedly, from 1 in 54 children in 2016 to 1 in 31 by 2022 [1], underscoring an urgent need to optimize therapeutic and educational support. In the Philippines, occupational therapy (OT) is among the principal interventions documented for children with ASD; however, sustained improvements in quality of life (QoL) remain constrained by limited resources and systemic inequities in service delivery.

QoL in children with ASD is shaped by a constellation of individual, familial, and environmental factors including symptom severity, co-occurring conditions, socioeconomic background, and—critically—the educational environment [14]. A notable disparity exists between public and private schools in the Philippines: private institutions often offer lower student-to-teacher ratios, specialized materials, and individualized support, whereas public schools frequently face resource shortages, larger class sizes, and inconsistent implementation of Special Education (SPED) programs [10]. These structural differences may differentially moderate the effectiveness of OT and thereby influence post-therapy QoL outcomes.

Despite this context, few studies have directly compared QoL outcomes across school types for Filipino children with ASD following OT. Existing literature tends to focus on clinical or home-based interventions in Western settings, overlooking the school environment as a determinant

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*Correspondence:

Andre C. Quimno, University of Perpetual Help System Manila, Philippines, Tel: 09947133401;

E-mail: m22-1005-286@manila.uphs.edu.ph

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of therapeutic success in low- to middle-income countries [3]. The present study addresses this gap by conducting a localized comparative analysis of QoL outcomes—measured using the PedsQL 4.0—in children with ASD attending public versus private schools in Metro Manila after receiving OT.

Materials and Methods

Research Design

A quantitative, descriptive-comparative research design was employed to examine PedsQL scores across the four functional domains (physical, emotional, social, and school functioning) between children attending public and private schools in Metro Manila.

Participants

A total of 51 children formally diagnosed with ASD Level 1 or 2 (ages 5–7 years; 75% male) were recruited via purposive sampling from public and private schools across selected cities in Metro Manila (Pasig, Valenzuela, Caloocan, Mandaluyong, and Quezon City). Inclusion criteria required: (1) formal ASD Level 1 or 2 diagnosis; (2) current enrollment in a Metro Manila public or private school; (3) receipt of OT services; and (4) parental/caregiver consent. Exclusion criteria included the absence of a formal ASD diagnosis, no OT participation in the past six months, and the presence of severe co-occurring neurodevelopmental or physical disabilities that could confound results.

Instrument

The Pediatric Quality of Life Inventory (PedsQL 4.0) was used as the primary outcome measure. The PedsQL is a validated, multidimensional tool assessing physical, emotional, social, and school functioning [7]. Parent-proxy reporting was used given the age range of participants, an approach validated for autistic children aged 5–12 by [9], who confirmed generally good caregiver–child agreement and deemed the caregiver version reliable for this population. A demographic questionnaire captured child (age, sex, educational placement, OT duration and frequency), caregiver (relationship, educational attainment, employment), and school (type: public or private) characteristics.

Data Collection

Data were collected virtually via a Google Forms survey distributed through online platforms. Parents and caregivers provided written informed consent prior to participation. All responses were anonymized and stored securely. Participation was entirely voluntary, with the right to withdraw at any time without penalty.

Statistical Analysis

Descriptive statistics (frequency, percentage, mean, and standard deviation) were calculated for demographic variables and all PedsQL subscale scores. Independent-samples t-tests were applied to determine whether significant differences existed between the two school groups on each PedsQL subscale and overall score. Statistical significance was set at $p < 0.05$. Pearson correlation coefficients were also computed for continuous variables. All analyses were conducted using Microsoft Excel.

Results and Discussion

Demographic Profile

The sample comprised 51 children: 25 (49%) attending public schools and 26 (51%) attending private schools. The majority were

Table 1: Summary of Demographic Characteristics (n=51).

Variable	Category	n	%
Age	5 years	7	14%
	6 years	17	33%
	7 years	27	53%
Sex	Male	38	75%
	Female	13	25%
Educational Placement	SPED Class	23	45%
	Inclusive Class	28	55%
OT Frequency	1 session/week	22	43%
	2 sessions/week	28	55%
School Type	Public	25	49%
	Private	26	51%
Caregiver Relationship	Father	22	43%
	Mother	17	33%
	Guardian	12	24%
Caregiver Education	College Graduate	38	74%
	College Undergraduate	7	14%
	High School	5	10%
	Grade School	1	2%

7 years old (53%), male (75%), and placed in inclusive classrooms (55%). Most received 1 hour of OT per day (71%) at a frequency of 2 sessions per week (55%). The largest caregiver subgroup was fathers (43%), most of whom were college graduates (74%) working in self-employed (35%) or freelance/contract-based roles (29%) (Table 1).

Physical Functioning

Children in public schools recorded a marginally higher mean physical functioning score ($M=2.13$, $SD=0.35$) compared to those in private schools ($M=1.91$, $SD=0.15$). The independent-samples t-test yielded a t-statistic of -1.46 with 7 degrees of freedom ($p=0.094$), which did not exceed the critical value at $\alpha=0.05$. Accordingly, no statistically significant difference in physical functioning was found between the two school types (Table 2).

This finding suggests that OT’s rehabilitative effects on gross and fine motor skills, self-care, and physical activity participation were relatively equivalent across school settings. Physical rehabilitation protocols in both public and private OT contexts appear to produce comparable outcomes, indicating that school type may not be a moderating factor for physical gains when OT is consistently delivered.

Emotional Functioning

Public school children demonstrated a higher mean emotional functioning score ($M=2.28$, $SD=0.24$) than private school children ($M=1.88$, $SD=0.40$). The t-test produced a t-statistic of 14.80 ($p=0.00006$), substantially exceeding the critical value, confirming a highly significant difference (Table 3).

Table 2: Physical Functioning: Means and T-test Results.

School Type	N	Mean	SD	t Stat	p-value (one-tail)	t Critical
Public	25	2.13	0.35	-1.46	0.094	1.89
Private	26	1.91	0.15			

Table 3: Emotional Functioning: Means and T-test Results.

School Type	N	Mean	SD	t Stat	p-value (one-tail)	t Critical
Public	25	2.28	0.24	14.80	<0.001	2.13
Private	26	1.88	0.40			

Table 4: Social Functioning: Means and T-test Results.

School Type	N	Mean	SD	t Stat	p-value (one-tail)	t Critical
Public	25	2.49	0.28	-2.54	0.032	2.13
Private	26	1.91	0.39			

The broader peer diversity, higher tolerance for behavioral differences, and relatively lower academic performance pressure characteristic of public schools in Metro Manila may create an environment more conducive to emotional regulation and well-being following OT. This aligns with Bronfenbrenner's Ecological Systems Theory, which emphasizes that the microsystem—here, the school environment—exerts a direct influence on developmental outcomes [14].

Social Functioning

Children in public schools achieved a higher mean social functioning score ($M=2.49$, $SD=0.28$) compared to private school peers ($M=1.91$, $SD=0.39$). The t-test confirmed a statistically significant difference ($t=-2.54$, $df=4$, $p=0.032$) (Table 4).

Inclusive and SPED classrooms in public schools may provide richer opportunities for naturalistic peer interaction—a key mechanism through which OT-derived social skills are generalized. This finding is consistent with the Model of Human Occupation (MOHO), wherein the social environment of the school directly shapes the contexts, routines, and opportunities available for children to enact and consolidate occupational skills [5].

School Functioning

Public school children attained a notably higher mean school functioning score ($M=2.44$, $SD=0.22$) than those in private schools ($M=1.85$, $SD=0.16$), with a t-statistic of -4.10 ($df=4$, $p=0.007$) (Table 5).

The structural and relational characteristics of public-school settings—community orientation, peer integration, and the implementation of Republic Act No. 11650's inclusive education mandate—appear to support participation, attention, and daily school engagement following OT. These results challenge prevailing assumptions that resource-rich private schools invariably yield superior outcomes for children with ASD.

Overall PedsQL Scores

Across all four subscales, children in public schools achieved a significantly higher overall mean PedsQL score ($M=2.65$, $SD=0.31$) compared to private school children ($M=2.17$, $SD=0.26$). The overall t-test produced a t-statistic of -4.97 ($df=22$, $p=0.000028$), affirming highly significant differences at the aggregate level (Table 6).

Based on these findings, the alternative hypothesis is accepted: there is a statistically significant difference in PedsQL scores between

Table 5: School Functioning: Means and T-test Results.

School Type	N	Mean	SD	t Stat	p-value (one-tail)	t Critical
Public	25	2.44	0.22	-4.10	0.007	2.13
Private	26	1.85	0.16			

Table 6: Overall PedsQL Scores: Means and T-test Results.

School Type	N	Overall Mean	Overall SD	t Stat	p-value (one-tail)	t Critical
Public	25	2.65	0.31	-4.97	<0.001	1.72
Private	26	2.17	0.26			

Filipino children with ASD attending public versus private schools following occupational therapy. The Social Model of Disability further supports this interpretation—QoL improvement is not solely about addressing individual impairments but about modifying environments to be inclusive and accommodating, an affordance that public schools in this study appeared to provide more effectively.

Conclusion

This study demonstrates that school type significantly influences QoL outcomes in Filipino children with ASD following occupational therapy across emotional, social, and school functioning domains, with public school children recording higher scores in all three. Physical functioning outcomes did not significantly differ between school types, suggesting OT delivers equitable physical benefits regardless of educational setting. Counter to expectations, the community-oriented, peer-integrated character of public schools in Metro Manila appeared to complement OT outcomes more effectively than the resource-advantaged private school environment.

These findings carry direct implications for multiple stakeholders. Occupational therapists are encouraged to conduct school-context assessments and tailor intervention goals accordingly, particularly prioritizing emotional regulation and peer interaction strategies for children in private school settings. School administrators in both sectors should strengthen inclusive practices aligned with RA 11650 requirements. Policymakers should leverage these findings to support sustained investment in public SPED infrastructure, trained teachers, and in-school OT consultation services.

Future research should expand the sample geographically beyond Metro Manila, employ longitudinal designs to track PedsQL trajectories over time, and incorporate qualitative methods to illuminate the school-level mechanisms underlying these differences. Development of a culturally adapted, locally normed PedsQL for Filipino children with ASD is also recommended.

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