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Perceived Influence of Recreational Activities on Activities of Daily Living, Academic Performance, and Social Participation among Children Ages 10–12: A Parent-Based Study

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Abstract

This study assessed how children aged 10 to 12 years who participated in recreational team sports performed across occupational domains. The research aimed to determine how playing team sports affects activities of daily living (ADLs), instrumental activities of daily living (IADLs), social participation, and academic performance compared to non-participating peers. The study was grounded in three theoretical frameworks: Bandura's Social Cognitive Theory, the Occupational Adaptation Theory by Schkade and Schultz, and the Self-Determination Theory by Deci and Ryan. Using purposive sampling, 56 participants were selected and divided into sports participants and non-participants. Data were collected online using the Children Participation Questionnaire (CPQ), a validated instrument assessing participation levels, required support, enjoyment, and parental approval, with parents serving as respondents. Statistical methods including independent samples t-tests, descriptive statistics, and regression analysis were used. The typical respondent was a 10-year-old male in Grade 6 from a middle-income household who preferred badminton, accounting for 33.93% of leisure activities. Results revealed statistically significant differences across all occupational domains, with sports participants demonstrating markedly higher ADL frequency, social participation, IADL engagement, and academic enjoyment than non-participants. Parental satisfaction with academic performance was the only domain showing no significant group difference. These findings support incorporating recreational team sports into occupational therapy practice and school programming in the Philippine context.

Introduction

The participation of children in recreational team sports is encouraged due to multiple associated benefits including improved physical health, social skills, and cognitive development. Participation has been linked to better coordination and improved muscular and cardiovascular development. There is, however, mounting interest in understanding how exactly participation in recreational team sports influences a child's functioning in daily life — specifically in activities of daily living (ADLs), social participation, and academic performance.

Children who are regularly involved in activities demonstrate better executive functions, including time management and efficiency in carrying out academic tasks. These day-to-day activities in sports foster skills like teamwork, communication, and resilience. While these impacts are broadly recognized, there remains a distinct lack of studies comparing the functional daily outcomes of children playing recreational team sports with those who do not [3].

Few studies probe the social interaction dimension of sports participation among younger children, and fewer still examine IADLs in the Philippine context. The consensus that team sports teach teamwork and communication does not tell us whether these skills translate into observable differences in everyday social participation and academic performance. The present study fills this gap by comparing children engaged in recreational team sports with non-participants, assessing the potential impact on functional capabilities and overall development.

Materials and Methods

Research Design

A comparative quantitative research design was used to identify differences between children

who engage in recreational team sports and those who do not. This design enabled exploration of shared and distinct factors influencing outcomes in ADLs, IADLs, social participation, and academic performance. T-tests were used to analyze group differences across all domains.

Participants

The study included 56 children aged 10 to 12 years, divided into two groups: those who participate in recreational team sports (n = 48) and those who do not (n = 8, representing approximately 12.50% of the sample). Purposive sampling ensured balanced representation aligned with the study's inclusion criteria.

Instrument

Participants were first classified into sports participants and non-participants. Informed consent was obtained from parents and guardians. The CPQ was then administered online. Responses were collected and analyzed statistically to determine the impact of recreational team sports on all measured outcome domains

Data Collection

The study was conducted online. Parents and guardians of the selected participants responded to the survey instrument, providing flexibility, comfort, and efficient data collection without requiring in-person sessions.

Statistical Analysis

Independent samples t-tests were used to compare means between the two groups. Descriptive statistics summarized demographic data, while regression analysis examined relationships between sports participation and key outcome variables. The significance level was set at $\alpha = 0.05$.

Results and Discussion

Demographic Data of the Respondents

Table 1 presents the frequency and percentage distribution of respondents by age, sex, household income, grade level, and recreational activity. Exactly half of the respondents (50%) were 10 years old, while 11-year-olds comprised the smallest group at 12.50%. Males accounted for 53.57% of respondents. The largest income group was middle-income households (₱24,060–₱144,360) at 46.43%, followed by low-income households at 35.71%, and high-income households at 17.86%. Grade 6 was the most represented grade level at 39.29%. Badminton was the most common recreational activity (33.93%), followed by basketball (16.07%) and volleyball (14.29%). Notably, 12.50% of respondents reported no recreational activity.

The profile of a 10-year-old Grade 6 male from a middle-income household who plays badminton represents a typical urban Filipino child in this sample. The dominance of low-cost, accessible sports reflects real socioeconomic constraints, while the 12.50% with no recreational activity forms the critical non-participating comparison group.

Differences in Activities of Daily Living (ADLs) Between Participants and Non-Participants

In terms of frequency of ADL performance, sports participants maintained a total mean score of 4.66, interpreted as "Twice a week," while non-participants scored 1.38, interpreted as "Once in three months." A t-statistic of 158.64, far exceeding the critical value of 2.02, confirmed the difference was highly statistically significant. Regression analysis revealed that approximately 74% of the variance in ADL frequency was explained by sports participation (Multiple R = 0.859).

Table 1:

Demographic Profile		Frequency	Percentage
Age	10 years old	28	50.00
	11 years old	7	12.50
	12 years old	21	37.50
	Total	56	100.00
Sex	Male	30	53.57
	Female	26	46.43
	Total	56	100.00
Household Income (Monthly Family Income)	Low-income household (₱12,000 – ₱24,000)	20	35.71
	Middle income household (₱24,060 – ₱144,360)	26	46.43
	High income household (₱144,360 and above)	10	17.86
	Total	56	100.00
Grade Level	Grade 4	13	23.21
	Grade 5	17	30.36
	Grade 6	22	39.29
	Grade 7	2	3.57
	Grade 8	2	3.57
	Total	56	100.00
Recreational Activity/ Sports	Volleyball	8	14.29
	Cheerdance	1	1.79
	Basketball	9	16.07
	Soccer	1	1.79
	Badminton	19	33.93
	Swimming	1	1.79
	Scooter/Go Kart	1	1.79
	Chess	1	1.79
	None	8	12.50
	Total	7	12.50

For degree of independence in ADLs, both groups fell within the "Very Independent" or "Mostly Independent" range. Non-participants scored slightly higher (M = 5.69) than participants (M = 5.23), a significant difference confirmed by $t = 6.22$ ($p < 0.05$). This finding likely reflects greater parental observation at home and higher ADL expectations among families of athletic children, rather than superior skill among non-participants.

Regarding child pleasure in performing ADLs, sports participants reported higher enjoyment (M = 5.69) than non-participants (M = 5.11), with the difference confirmed significant ($t = 13.24$). Parental satisfaction, however, was slightly higher for non-participants (M = 5.64 *vs.* 5.29; $t = 5.5$, $p < 0.05$), reflecting greater home-based observation rather than superior child performance. These findings align with the Occupational Adaptation Theory: structured athletic engagement builds routines and adaptive capacity that transfer into daily self-care habits.

Impact on Social Participation

Sports participants demonstrated substantially higher social participation frequency across all categories (M = 2.75, "1–2x a

month") compared to non-participants (M = 1.38, "Once in three months"). For activities such as visiting friends, inviting guests, attending family events, and sleeping over at a family home, non-participants received interpretations of "Never." The t-statistic of 8.21 confirmed the frequency gap was highly significant, and regression analysis attributed approximately 20.7% of social participation variance to sports frequency (Multiple R = 0.455).

In terms of degree of assistance required for social activities, sports participants generally functioned with Minimal to Moderate Assistance (M = 2.80), whereas non-participants consistently required Much Assistance (M = 1.27). The t-test yielded t = 4.94 ($p < 0.05$). Regression analysis showed sports participation explained approximately 43.2% of variance in social independence (Multiple R = 0.657). Team sports inherently train children to navigate peer communication, conflict, and shared goals without adult mediation.

Sports participants reported "Moderate Pleasure" in social activities (M = 4.54), while non-participants "Rarely Took Pleasure" (M = 2.19). This produced the study's most dramatic statistical difference (t = 18.45). Parental satisfaction followed the same pattern: parents of sports participants were "Very Satisfied" (M = 4.37), while parents of non-participants were "Not At All Satisfied" (M = 1.71; t = 18.87, $p < 0.05$). These findings are consistent with Self-Determination Theory's explanation that sports satisfy the basic psychological needs of competence, autonomy, and relatedness, creating motivation that generalizes across social domains.

Differences in Instrumental Activities of Daily Living (IADLs)

Sports participants engaged in IADLs once to twice a week on average (M = 3.73), while non-participants performed them only once every three months (M = 1.48). The t-statistic of 10.71 confirmed a highly significant difference, and regression analysis attributed approximately 42.9% of IADL frequency variance to sports participation (Multiple R = 0.655). The highest IADL frequency among sports participants was for operating electronic devices (M = 4.29), followed by meal preparation (M = 4.06) and room organization (M = 3.98).

For degree of IADL independence, sports participants fell in the "Sometimes Independent" range (M = 3.78), while non-participants required "Much Assistance" (M = 1.21; t = 19.58, $p < 0.05$). Sports participants reported "Slight Pleasure" in performing IADLs (M = 3.97), while non-participants "Rarely Took Pleasure" (M = 1.86; t = 18.14, $p < 0.05$). Parental satisfaction with IADL performance was "Very Satisfied" for sports families (M = 4.04) and "Not At All Satisfied" for non-participating families (M = 1.21; t = 31.92, $p < 0.05$). Regression analysis of parental satisfaction yielded the study's strongest explanatory model (Multiple R = 0.700, $R^2 = 0.490$), indicating that sports participation accounted for approximately 49% of variance in how families perceived a child's domestic capability.

These findings are consistent with prior research by Carbone et al. (2021) demonstrating that recreational activities support overall child development across physical, social, and cognitive domains. The discipline cultivated in team sports appears to transfer directly into household responsibility and domestic independence.

Impact on Academic Performance

Sports participants engaged more frequently in school-related activities (M = 2.87, "1–2x a month") compared to non-participants (M = 2.43, "Once in three months"). The t-statistic of 3.47 confirmed a statistically significant difference ($p < 0.05$), with sports participation explaining approximately 30.2% of activity frequency variance.

Regarding degree of independence in academic activities, non-participants scored slightly higher (M = 4.35, "Mostly Independent") compared to sports participants (M = 4.24, "Sometimes Independent"; t = 3.08, $p < 0.05$). Non-participants demonstrated greater independence in individually oriented activities such as arts, crafts, and music lessons, while sports participants excelled in communal and physical school activities. These represent complementary developmental pathways.

Sports participants reported higher pleasure in school activities (M = 4.21, "Takes Slight Pleasure") compared to non-participants (M = 3.62; t = 3.08, $p < 0.05$). Regression analysis indicated that pleasure in participation explains approximately 34.6% of academic performance variance. However, parental satisfaction with academic performance was statistically equivalent between groups (M = 4.38 *vs*. 4.36; t = 0.39, p = 0.35). Regression showed sports participation explained only 3.9% of parental academic satisfaction. This finding likely reflects Filipino cultural expectations of high academic performance regardless of extracurricular involvement, rather than a true absence of sports-related academic benefit. Future studies should incorporate objective academic metrics such as grades and standardized test scores rather than relying solely on parental perception [1].

Taken together, these findings are consistent with the studies of [3] and [8, 9], supporting the conclusion that recreational team sports positively and significantly influence children's ADLs, IADLs, social participation, and academic engagement. The null hypothesis is rejected across the majority of measured domains; the alternative hypothesis is accepted.

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