



The Relationship Between Family Income and Unmet Therapy Needs Among Children with Functional Limitations

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Introduction

Functional Limitation (FL): The extent to which a condition affects a child's ability to do things other children of the same age do¹

- ❖ Children with FL from low income families face greater barriers to activity participation compared to those from high income families²
- ❖ Children living below or just above the poverty level have more unmet service needs related to cost than children from high income households³

Unrecognized Therapy Need: Child with a FL whose caregiver does not report a need for therapy

Hypotheses

- ❖ Children with FL from low income families will be more likely to have unmet therapy needs compared to those from high income families
- ❖ Children with FL from low income families will be more likely to have unrecognized unmet therapy needs than those from high income families

Research Design & Methods

Participants

- ❖ From the 2009-2010 National Survey of Children with Special Health Care Needs (NS-CSHCN), a cross-sectional random-digit dial telephone survey
- ❖ CSHCN for whom caregivers indicated 1 or more functional limitations (N = 27,513)
- ❖ Areas of functional difficulty: behavior, self-help, gross/fine motor development, cognition, and communication

Independent Variable

- ❖ **Overall unmet therapy need:** Includes physical, occupational, and speech therapy
- ❖ Parent-reported vs. unrecognized therapy need

Dependent Variable

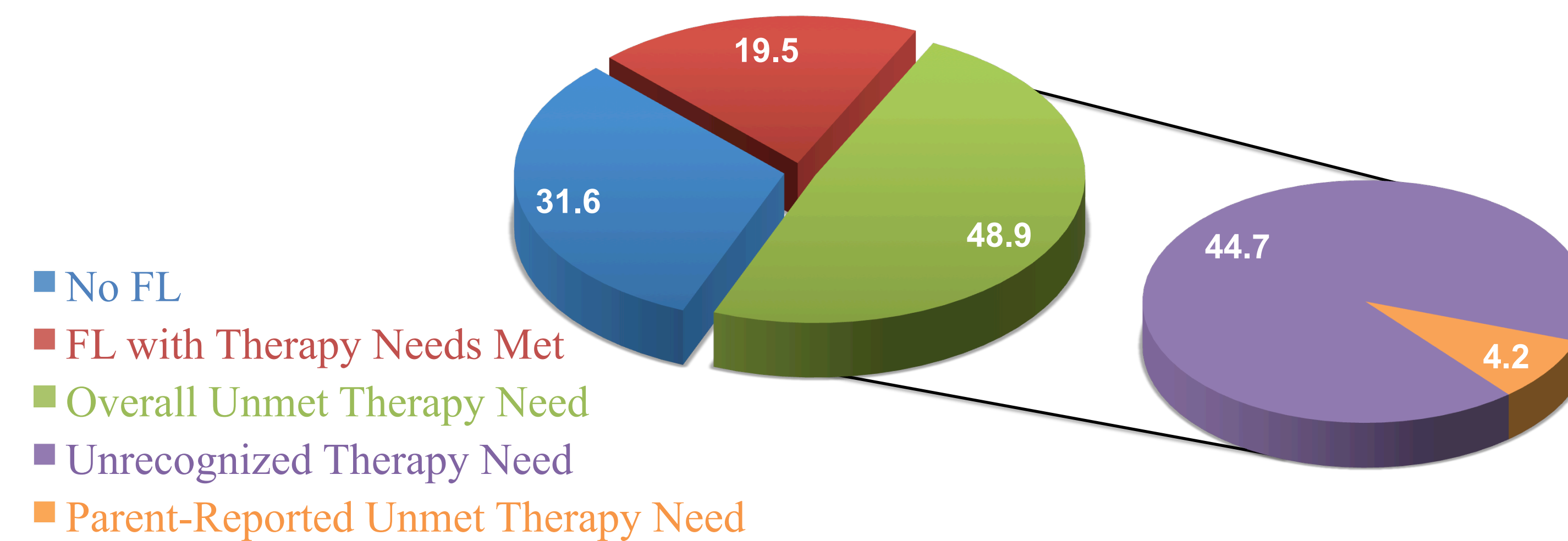
- ❖ **Income level:** < 100%, 100-199%, 200-399%, and ≥ 400% of the federal poverty level (FPL)
- ❖ **Covariates:** FL, age, sex, race, parental education, insurance consistency/adequacy, and employment

Analyses

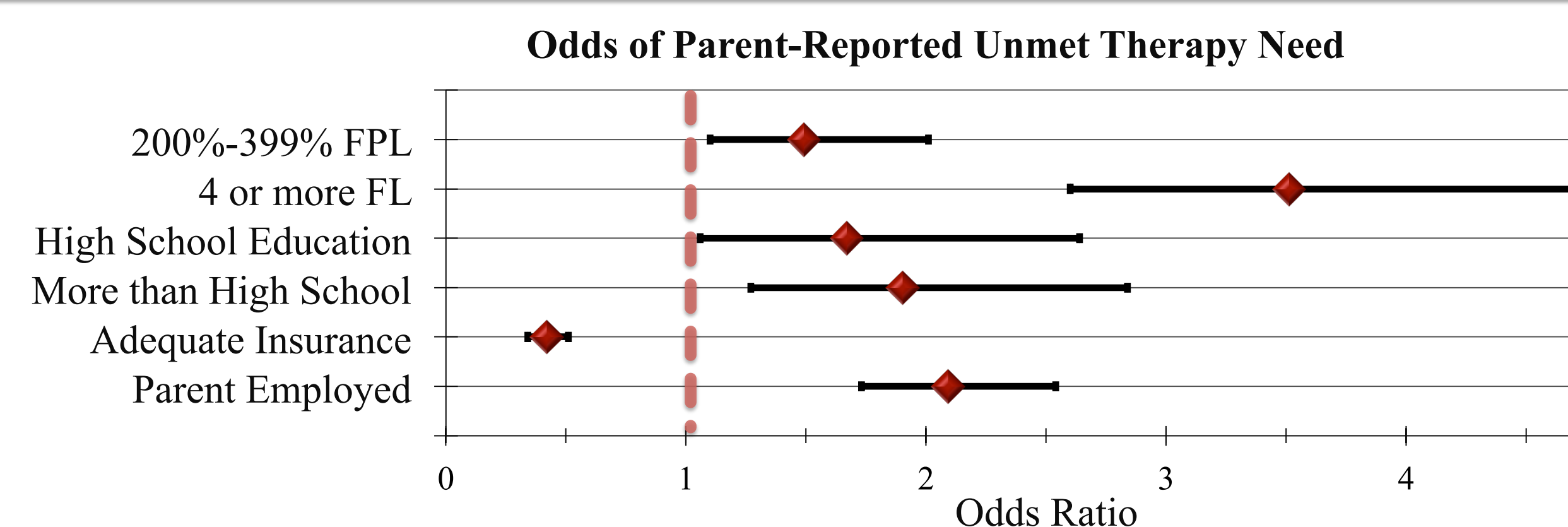
- ❖ Chi-square analyses were conducted to examine the unadjusted relationship between independent and dependent variables. Multiple logistic regression was conducted to control for covariates.

Results

Sample Characteristics, N = 40,242



Parent-Reported Unmet Therapy Need, N = 25,990



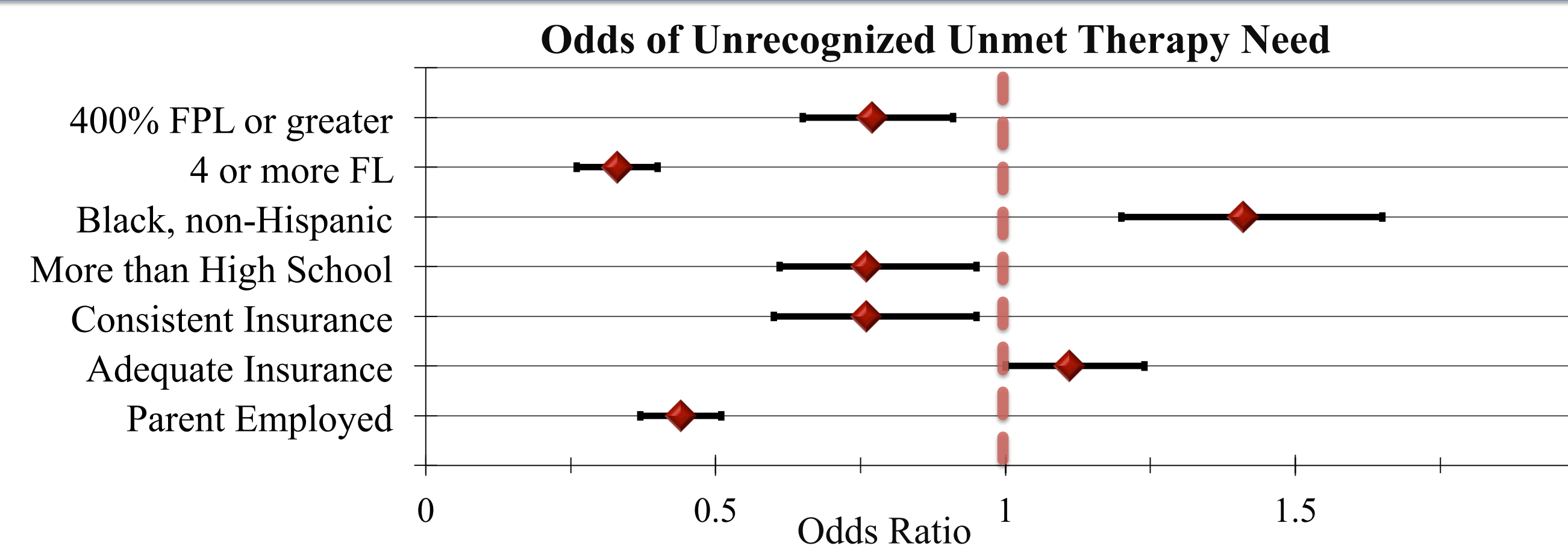
Positive Predictors of Parent-Reported Unmet Therapy Need

Predictor	Adjusted Odds Ratio (95% CI)	Reference
Family Income 200%-399% FPL	1.49 (1.10 - 2.01)	Family Income 0%-99% FPL
4 or more Functional Limitations	3.51 (2.60 - 4.73)	1-3 Functional Limitations
High School Education	1.67 (1.06 - 2.64)	Less than High School Education
More than High School Education	1.90 (1.27 - 2.84)	Less than High School Education
Parent Employed	2.09 (1.73 - 2.54)	Stopped Working

Negative Predictors of Parent-Reported Unmet Therapy Need

Predictor	Adjusted Odds Ratio (95% CI)	Reference
Adequate Insurance	0.42 (0.34 - 0.51)	Insurance Not Adequate
Ages 6-11 years	0.57 (0.45 - 0.72)	Ages 0-5 years
Ages 12-17 years	0.30 (0.23 - 0.39)	Ages 0-5 years

Unrecognized Therapy Need, N = 26,049



Negative Predictors of Unrecognized Therapy Need

Predictor	Adjusted Odds Ratio (95% CI)	Reference
Family Income 400% FPL or greater	0.77 (0.65 - 0.91)	Family Income 0%-99% FPL
4 or more Functional Limitations	0.33 (0.30 - 0.37)	1-3 Functional Limitations
More than High School Education	0.76 (0.61 - 0.95)	Less than High School Education
Consistent Insurance	0.76 (0.60 - 0.95)	Insurance Not Consistent
Parent Employed	0.44 (0.38 - 0.50)	Stopped Working

Positive Predictors of Unrecognized Therapy Need

Predictor	Adjusted Odds Ratio (95% CI)	Reference
Ages 6-11 years	2.38 (2.07 - 2.73)	Ages 0-5 years
Ages 12-17 years	5.57 (4.83 - 6.43)	Ages 0-5 years
Female	1.12 (1.01 - 1.25)	Male
Black, non-Hispanic	1.41 (1.21 - 1.66)	White, non-Hispanic
Adequate Insurance	1.11 (1.01 - 1.24)	Insurance Not Adequate

Conclusions

- ❖ Consistent with our first hypothesis, children from low income families are more likely to have unmet therapy needs than children from high income families.
- ❖ Consistent with our second hypothesis, children from low income families are more likely to have unrecognized unmet therapy needs compared to those from high income families.
- ❖ The findings of this study support previous work demonstrating disparities in access to quality therapy services based on financial barriers including: family income, parental education, parental employment, and insurance adequacy and consistency.

Implications for Practice

Occupational Therapists (OT) should:

- ❖ Advocate for their clients and families from low income backgrounds who face challenges navigating the healthcare system to obtain therapy services
- ❖ Consider whether financial barriers are contributing to unmet needs among children with FL
- ❖ Incorporate culturally responsive services into practice to better meet the needs of clients with limited socioeconomic status (SES) and improve client health outcomes

References

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