

The Impact of Disability in the Family on Child Mental Health

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OBJECTIVE

Survey evidence indicates a relatively high prevalence of emotional and/or behavioral problems for U.S. children. Estimates vary according to the measure used. Several such measures have been included in the U.S. National Health Interview Survey.

The Strengths and Difficulties Questionnaire (for 2001 forward) indicates that 5% of non-institutionalized children ages 4-17 had emotional or behavioral difficulties.

The emotional difficulties question (EMODIFF, analyzed here for 2001 forward) indicates that 5% of non-institutionalized children ages 4-17 had definite or severe difficulties with "emotions, concentration, behavior, or being able to get along with other people."

A question on child depression (KIDDEPRES, analyzed here for 1999 to 2000) indicates that 16% of non-institutionalized children age 4-11 were sometimes or often "unhappy, sad, or depressed" during the past 6 months.

RESEARCH QUESTIONS

LeClere and Kowalewski (1994) found that the presence of a disabled family member in the household significantly increased the mean number of severe and common behavior problems of nondisabled children. Children were most likely to have severe behavioral problems if they lived with more than one disabled person. A higher mean number of severe behavioral problems was associated with the presence of (in descending order) a disabled parent, sibling, or other relative.

Altman, Cooper, and Cunningham (1999) studied physician visits and medical expenditures. They found that "children who live with a disabled adult female family member have a 7.5 percentage point greater probability of having a physician visit than children living in a family without a disabled female" (p. 53).

Parental disability can affect the psychological well being of the parent directly and indirectly through its impact on employment and participation in social networks. Okoro et al. (2009) found that the age-adjusted prevalence of serious psychological difficulties among adults with disabilities was nearly seven times higher than among adults without disabilities (14.1 % vs. 1.8 %, respectively).

RESEARCH QUESTION

How do different types of disability in other family members affect the likelihood of a child having reported emotional or behavioral problems or depression?

METHODOLOGY

We use logistic regression to assess children's probability of having emotional or behavioral difficulties (EMODIFF) and the probability of their being sad, unhappy, or depressed (KIDDEPRES), over the past 6 months.

Our data source, the National Health Interview Survey/IHIS, uses a complex sample design. Therefore, we use sampling weights to obtain correct point estimates, and we used STATA's svy commands to account for the impact of sample design stratification and clustering to obtain appropriate variance estimates.

Because our dependent variables are only obtained for one sampled child per family, we pool data across several years (1999-2000 and 2001-2009) to increase our sample sizes. As such, it is necessary to adjust the sampling weights so that the total sample is representative of the U.S. population. Using the STATA command subpop, we are able to perform our analysis on a subpopulation while retaining the sample design information needed for variance estimates.

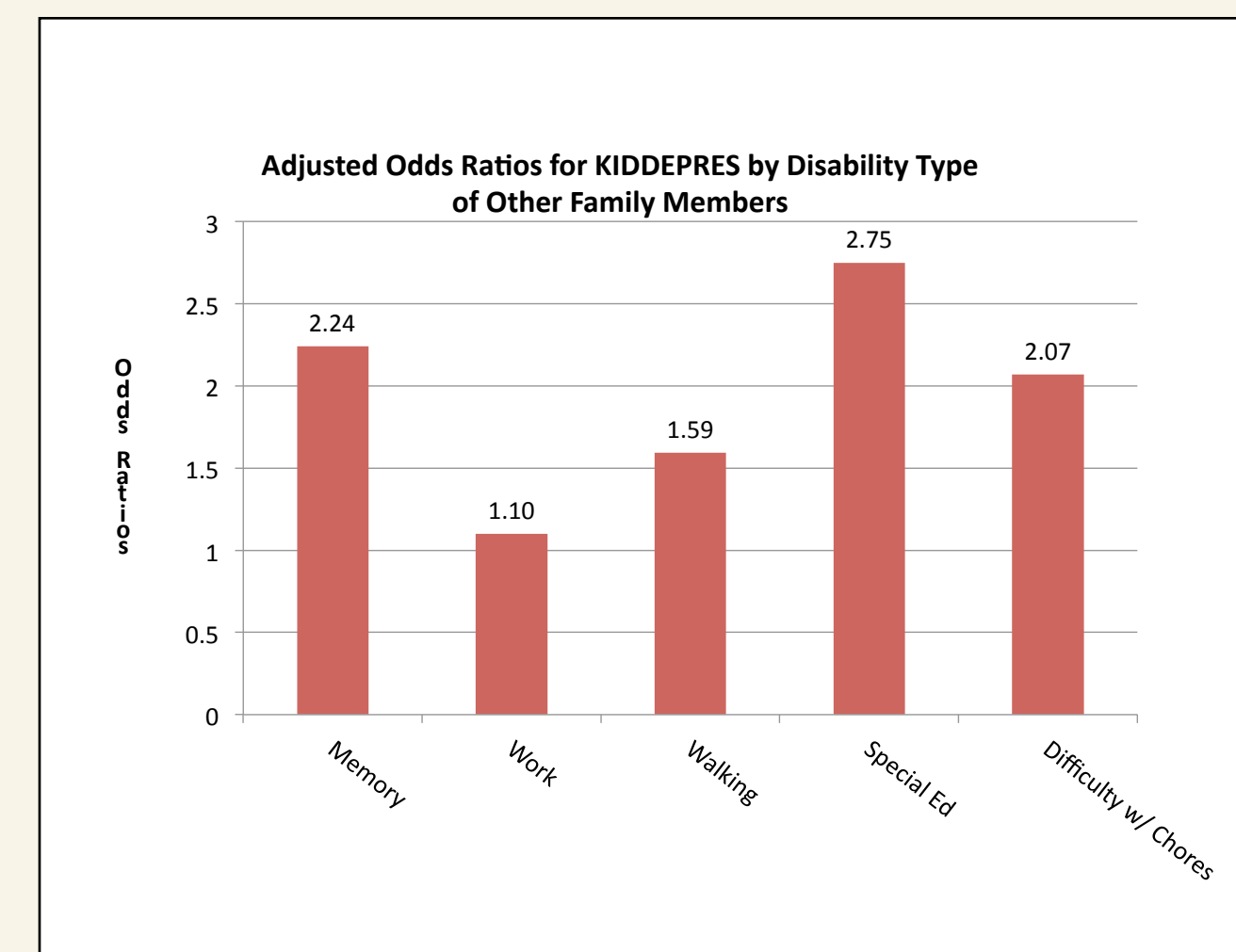
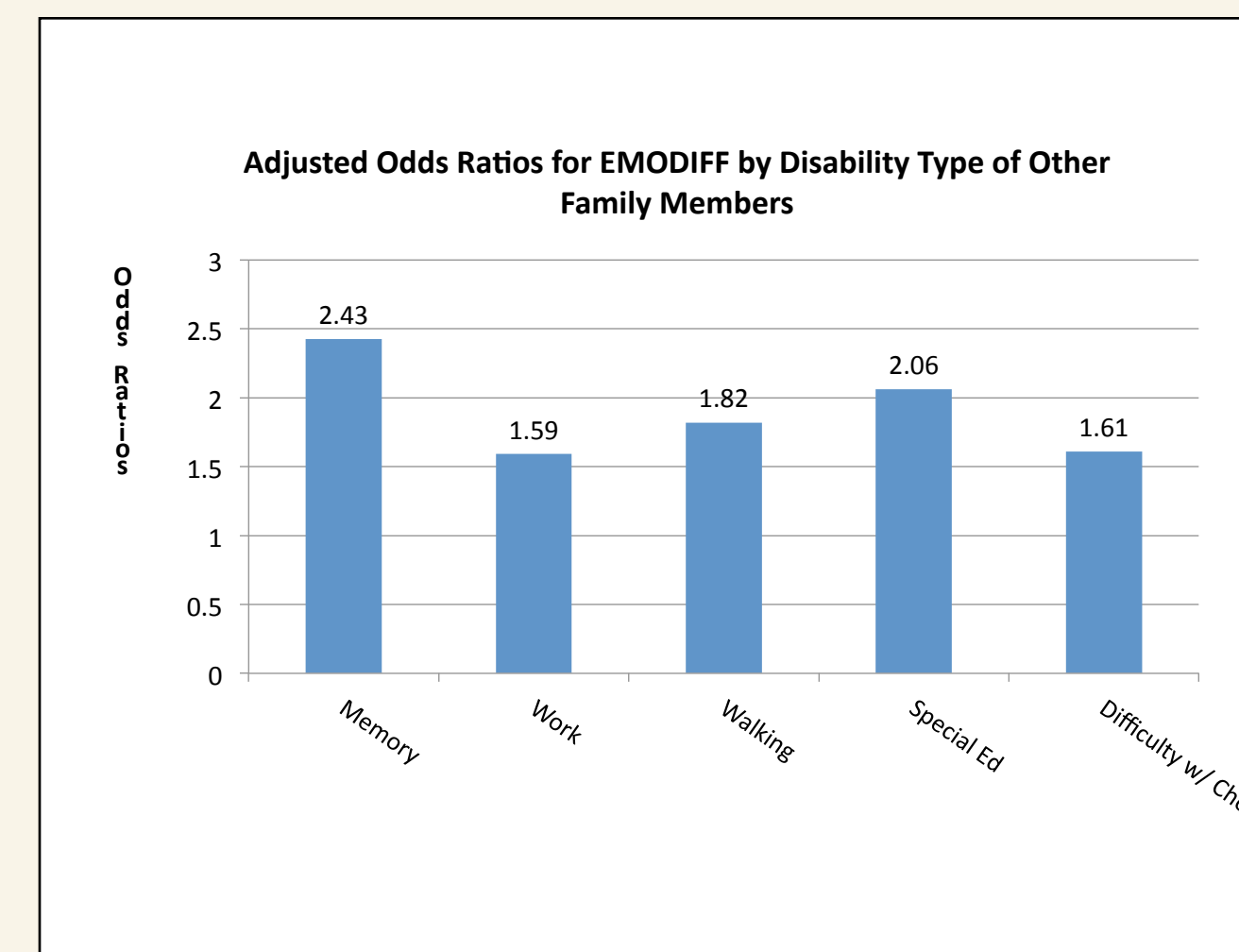
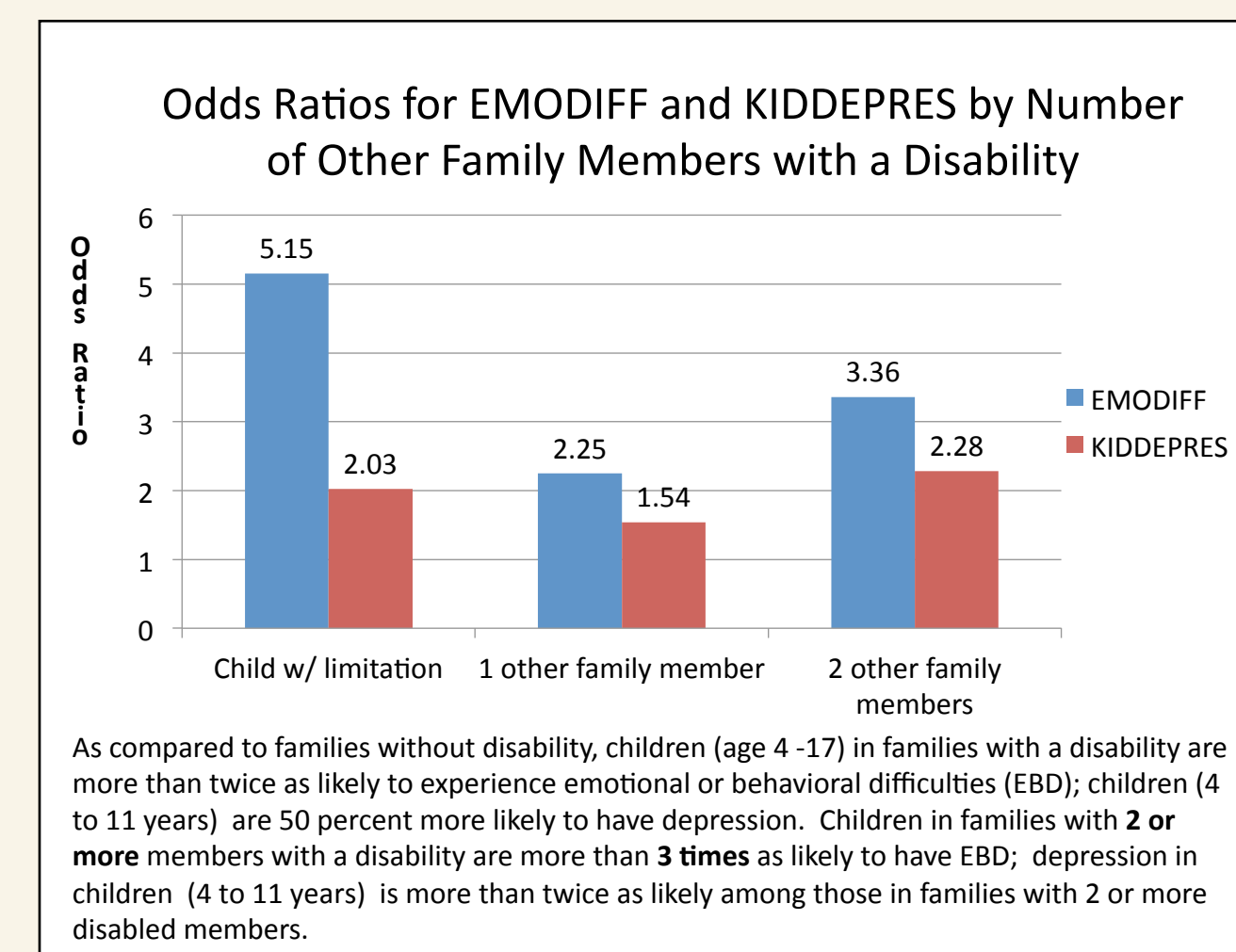
We also examined whether the relationship between limitation of other family members and the child's likelihood of emotional/behavioral difficulties or depression varies by whether the child has a disability (results not pictured here). We found no significant interaction ($p=.229$ for EMODIFF, $p=0.513$ for KIDDEPRES), which indicates that there may be no difference in the effect of any other family member's limitation on the odds of emotional/behavioral problems in children with and without disability. We assessed the basic model fit with "linktest" and found the model was adequately specified.

DATA

Data come from the public use files of the U.S. National Health Interview Survey (NHIS). The NHIS is the principal source of information on the health of the U.S. population and has been fielded annually since 1957. The NHIS is representative of the non-institutionalized, civilian population and includes approximately 100,000 persons per year.

Most of the NHIS variables used here are available through the Integrated Health Interview Series (IHIS), a harmonized set of data created at the Minnesota Population Center with funding from NICHD. (See www.ihis.us.) In IHIS, the data are coded consistently over time, fully documented, and disseminated for free over the Internet. A few of the variables used in this analysis are not yet available through IHIS, but they will be added to the database soon.

GRAPHICAL RESULTS



COEFFICIENTS

Odds Ratios for EMODIFF and KIDDEPRES Adjusted for Social Structural Factors

Social Factor	EMODIFF	KIDDEPRES
Presence of any limitation	8.923428	2.254631
Non-Hispanic White	1.00 (ref)	1.00 (ref)
Hispanic/White	0.634782	0.781385
Black	0.950422 (not sig)	0.664672
AIAN	0.610155	1.861455
Asian	0.356203	0.347498
Multiple, other	1.545276	0.9304 (not sig)
Below Poverty line	1.577713	1.236208
Two adults in household	0.751267	0.559871
Female child	0.69093	0.900925 (not sig)

Minority children, girls, and children in households with two adults are less likely to have EMODIFF. Poverty has the largest effect on EMODIFF and 2nd largest effect on KIDDEPRES. The child's own disability greatly increases the likelihood of emotional problems.

CONCLUSIONS

A child's own disability is the best predictor of having difficulties with "emotions, concentration, behavior, or being able to get along with other people." However, living with another family member who is disabled also increases the likelihood of such problems. The effect is greater when 2 or more disabled family members are present. The type of disability of the other family member(s) also matters, with limitation from memory difficulties or the presence of another child needing special education services having the greatest effect.

For children 4-11, living with 2 or more disabled family members has a greater effect on the child's likelihood of depression than the child's own disability. Here, too, the effect is greatest when family members are disabled by memory problems or are children needing special education services.

These results persist when controlling for the effect of race, poverty, family structure, and sex. Our future research will examine the effect of poor health of self and others on children's emotional and behavioral problems and explore the differing effect of disability in specific family members (e.g., mothers vs. fathers).

ACKNOWLEDGEMENTS

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