Time spent with children and parents’ willingness to medicate ADHD-like behaviors

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Outline:

- Background: ADHD and parental time
- Merton’s theory of purposive action
- Methodology
- Highlights of findings
- Discussion of findings
- Future studies
In a nutshell this work…

proposes that *time spent with children* relates to working parents’ willingness to medicate ADHD-like behaviors.

compares results to willingness to medicate other behavioral problems.

explores working parents’ reports on the most difficult aspect of childrearing.
Diagnosis of ADHD on the rise

5.4 million children were diagnosed with ADHD in 2007—5.5% annual increase from 2003 to 2007.

66.3% of diagnosed children take psychiatric medications.

CDC, 2010
The ADHD controversy

neurobehavioral disorder OR individual difference?

DSM-IV-TR - definition of ADHD

DSM-5 – proposed changes
Challenges of diagnosing ADHD

No test or measure to detect ADHD

All children exhibit similar behaviors

Exclusive reliance parents’ reports

Barkley, 2000; Sonna, 2005; Wolraich, 1999
## Pros and Cons of medications

<table>
<thead>
<tr>
<th><strong>Pros</strong></th>
<th><strong>Cons</strong></th>
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<tbody>
<tr>
<td>improved behaviors</td>
<td>insomnia</td>
</tr>
<tr>
<td>better school performance</td>
<td>irregularities in appetite</td>
</tr>
<tr>
<td>better concentration</td>
<td>increased blood pressure</td>
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<tr>
<td>increased self-esteem</td>
<td>anxiety</td>
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<tr>
<td></td>
<td>depression</td>
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<td></td>
<td>tics</td>
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<td></td>
<td>suppression of growth</td>
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<td></td>
<td>psychotic reactions</td>
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<td>sudden deaths</td>
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</tbody>
</table>

Cohen, 2006; Fernandez & Arcia, 2004; Gould et al., 2008; Nissen, 2006;
Similar behavioral problems of children

- Oppositional Defiant Disorder (ODD)
  - Depression
  - Suicidal talk
Parents’ dilemmas

- Normal vs. ADHD
- Handle behaviors
- Follow up with a professional
- Psychiatric medications use
- Find the right medication combo

Bussing & Gary, 2001; Blum, 2007; Cohen, 2006; Hansen & Hansen, 2006
The value of spending *time* with children

- Improves academic performance
  - Well-being and health
  - Positive child development
- Reduces problematic behaviors

Hofferth & Sandberg, 2001; Hsin, 2009
Complexity of available parental time

- Working parents
- One-parent families vs. two-parents families
- Mothers vs. fathers
- Race and ethnicity
- Number of children per family

Craig et al., 2010; Golden, 2008; Hofferth, 2003; Milkie et al., 2009; Sayer et al., 2004;
Socio-emotional selectivity theory

- Time as open-ended – knowledge related goals
- Time as limited – emotional goals

Lueck, 2007; Rieskamp & Hoffrage, 2008
Merton’s theory of purposive action

- **purposive action** – manifest and latent function
  - *manifest* functions – known, recognized, and intended
  - *latent* functions – unknown, unrecognized, and unintended

Merton, 1936; 1957
Following Merton’s theory of purposive action

This study proposes that the latent (unintended and unrecognized) function of administering medications to control or manage ADHD-like behaviors is to compensate for the lack of parental time while trying to reach a certain goal (improving academic performance and children’s behaviors).
Directional hypothesis

Such relation will hold only for working parents who have a child with an emotional/behavioral problem.
Data source

- NIMH funded study (PI: David Cohen).
- 1146 parents interviewed from May-October 2009 in Miami-Dade and Broward counties.
- Sample stratified by race and ethnicity.
- The first population-based study to gather information on willingness of parents from the three main racial/ethnic groups to medicate children with psychotropic medications.
- Institute for Public Opinion Research (IPOR) at FIU conducted the interviews.
Measures used in the study

- Intervening variable: time spent with children

- Exogenous variables: gender, work satisfaction, race/ethnicity, number of children per family, and family type

- Endogenous variables: willingness to medicate ADHD-like, ODD-like, depression, and suicidal ideation

- Open-ended question
Steps of the path analysis

- Cleaning data and preparation
  - Normality, linearity, and homoscedasticity
  - Pearson’s and Spearman rho two-tailed correlations
  - Dummy coding
- Analysis run on Amos 20.0 incorporated in SPSS 20.0
Description of subsample

- 551 working parents (17.9% have child with emotional/behavioral problems)
- 35.4% Hispanic, 33.9% White non-Hispanic, 30.7% African American
  - 65.3% mothers
- 22.5% one-parent families
More time with children – less willing to medicate ADHD-like behaviors

Parents of children with emotional and behavioral problems

African American parents

- \( \beta = -0.76 \)

Available time

White parents

- \( \beta = 0.49 \)

Willingness to medicate ADHD-like behaviors

Nr. of children

- \( \beta = -0.27 \)
More time with children – less willing to medicate ADHD-like behaviors
More time – less willing to medicate suicidal talk
Parents of children with problems
\( \beta = -0.14; p < 0.05 \)

More time – less willing to medicate suicidal talk
Parents of typical children
\( \beta = -0.20; p < 0.001 \)
Willingness to medicate behaviors for both groups of parents

<table>
<thead>
<tr>
<th>Willingness to medicate behaviors</th>
<th>Parents of children with problems</th>
<th>Parents of typical children</th>
<th>Chi-square</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Likely</td>
<td>Unlikely</td>
<td>Likely</td>
<td>Unlikely</td>
</tr>
<tr>
<td>ADHD</td>
<td>62.6%</td>
<td>37.4%</td>
<td>31.6%</td>
<td>68.4%</td>
</tr>
<tr>
<td>ODD</td>
<td>58.5%</td>
<td>41.4%</td>
<td>38.5%</td>
<td>61.5%</td>
</tr>
<tr>
<td>DEPR.</td>
<td>79.8%</td>
<td>20.2%</td>
<td>63.1%</td>
<td>36.9%</td>
</tr>
<tr>
<td>SUIC.</td>
<td>80.8%</td>
<td>19.2%</td>
<td>71.5%</td>
<td>28.5%</td>
</tr>
</tbody>
</table>
Consistent relation between number of children and willingness to medicate behaviors

More children – less willing to medicate

- ADHD ($\beta = -0.27; p < .04)$ ($\beta = -0.145; p < .008)$
- ODD ($\beta = -0.33; p < .02)$ ($\beta = -0.169; p < .003)$
- Depression ($\beta = -0.15; p < .01$)
- Suicidal talk ($\beta = -0.28; p < .03)$ ($\beta = -0.20; p < .001)$

Note: Parents of typical children are underlined.
Some other findings

White non-Hispanic parents are:

- more likely to have children with emotional and behavioral problems
- more willing to medicate children’s behaviors in both groups, across all behaviors
Steps of analyzing parents’ open-ended answers on the most difficult aspect of childrearing

- Translation from Spanish on 26 answers
  - Word file with headings
  - Creating categories
  - Transforming categories in 14 codes
- Procedure repeated second time (after 4 weeks)
- Procedure repeated three times for 18 answers
Lack of time is the most voiced concern from parents of typical children

\[ \chi^2 (551) = 25.03, \text{ df}=13, p < .02 \]
Parents’ concerns vary by race and ethnicity

Parents of children with problems:
- 25% of African American and 20.4% of White – discipline
- 23.3% of Hispanic – education

Parents of typical children:
- 16.7% of White and 16.1% of African American – lack of time
- 16.4% of Hispanic – instilling family and moral values

χ²(551) = 77.43, p < .000; χ²(452) = 64.83, p < .000; χ²(99) = 42.12, p < .02
Mothers and fathers differ on most difficult aspect of childrearing

Parents of children with problems:
- Mothers: 17.6% – discipline; 11.8% - outside influences; 11.8% - successful children
- Fathers: 19.4% – handling behaviors; 16.1% - lack of time; 16.1% - successful children

Parents of typical children:
- Mothers: 14.4% - lack of time; 10.6% - instilling family values
- Fathers: 16.3% - lack of time; 12.3% - education

\[ \chi^2(551) = 25.18, \ p < .02 \ \chi^2(452) = 21.95, \ p < .05 \ \chi^2(99) = 15.46, \ p < .28. \]
Different concerns for one-parent and two-parent families

Parents of children with problems:
- 20.8% one-parent families – discipline;
- 16% two-parent families – successful children

Parents of typical children:
- 12% one-parent families – lack of time
- 15.9% two-parent families – lack of time

\( \chi^2 (551) = 42.88, p < .000; \chi^2 (452) = 24.20, p < .029; \chi^2 (99) = 33.88, p < .001. \)
Limitations

- cause-effect relationship
- the variable of time
- interpretation of the open-ended answers
- subsample of parents of children with emotional and behavioral problems
- measure of education
- households without a landline phone
Implications about the ADHD controversy

- Parents of children with problems
  - Are they spending less time with children?
  - Are they more concerned with discipline?
- Less time with children – more willing to medicate ADHD-like behaviors
- Is time related to the inception of ADHD?
Implications for diagnosing ADHD

Consideration to
- family circumstances
- ways parents perceive behaviors
- time parents spend with children
Future studies

- investigating cause-effect relationships
  - exploring quality of time
  - race and ethnicity and culture of medications
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CRUSADA

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References:


