Media Use and Emotional and Behavioral Problems

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Introduction

CATS
The Childhood to Adolescence Transition Study

- Electronic media use has been negatively associated with many physical health problems e.g., obesity.
- But there has been limited research on the effects of media use on mental health in children.

Aim

- Examine associations between emotional and behavioral problems and electronic media use during late childhood, in a large community sample.

Methods

- A prospective, longitudinal study following 1239 students from 8-9 years of age, across Melbourne, Australia.
- At wave 1, parents completed the Strengths and Difficulties Questionnaire (SDQ) and reported on their child’s duration of electronic media use:
  - Video games
  - General computer use
  - Television
- Regression analyses were conducted separately for males and females, adjusting for demographic variables (age, SES) and BMI, and taking account of potential correlation of responses within schools.

Results

<table>
<thead>
<tr>
<th>Sample demographics</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (n = 403)</td>
<td>Mean (n = 475)</td>
</tr>
<tr>
<td>Age</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>SD</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>SES (IRSAD, SEIFA)</td>
<td>1021.9</td>
<td>1018.3</td>
</tr>
<tr>
<td>SD</td>
<td>60.5</td>
<td>62.5</td>
</tr>
<tr>
<td>BMI (z-score, WHO 2007)</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>SD</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Born in Australia (n / %)</td>
<td>354</td>
<td>438</td>
</tr>
<tr>
<td>SD</td>
<td>88.7</td>
<td>90.7</td>
</tr>
</tbody>
</table>

* Index of Relative Socio-Economic Advantage and Disadvantage, Socio-Economic Indexes for Areas (based on residential postcode)

![Figure 1](image1.png)

Figure 1: Estimated marginal means (with 95% confidence intervals) for the SDQ total difficulties score, estimated for each of the three categories of time spent playing videogames (a) males, (b) females

![Figure 2](image2.png)

Figure 2: Estimated marginal means (with 95% confidence intervals) for the SDQ total difficulties score, estimated for each of the three categories of time spent using a computer (a) males, (b) females

![Figure 3](image3.png)

Figure 3: Estimated marginal means (with 95% confidence intervals) for the SDQ total difficulties score, estimated for each of the four categories of time spent watching TV (a) males, (b) females

Discussion

- Playing video games for over 1 hour was associated with increased total difficulties in boys. It was also associated with increased emotional symptoms, conduct problems and hyperactivity/inattention in boys.
- Using a computer for over 1 hour was associated with increased total difficulties in girls BUT lower total difficulties in boys.
- Time spent watching TV was not associated with increased problems.

Conclusions

- Electronic media use is associated with emotional and behavioral problems in late childhood.
- Rates of electronic media use are increasing in children, thus these results may have important implications for child mental health.
- Our results suggest future interventions may be more effective if they are targeted at specific types of electronic media use rather than overall screen time.

Acknowledgments

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- We would like to thank all CATS investigators, as well as staff, students and volunteers involved in recruitment and data collection.

REFERENCES

4. For more information on these and other studies, please visit www.mcri.edu.au