INTRODUCTION

Although divorce has been found to have detrimental impact on children's adjustment, most of these findings were obtained from research comparing divorced families and non-divorced families using retrospective data in the post-divorce period (Amato, 2010).

Only a large dataset containing a sufficient number of divorced families that includes both post-divorce and pre-divorce periods can show how children's emotional adjustment changes over time.

The family systems perspective suggests that the poorer outcomes among children from divorced families may be related more to marital conflicts between parents that occurred prior to divorce rather than the obstacles of single parenting after divorce (Biblarz & Gottainer, 2000; Sun, 2001).

Also, the impact of divorce on children's adjustment seems to depend on the child's gender (Videon, 2002).

Hypotheses
- The levels of depression of children will increase over time before divorce, but will not increase over time after divorce.
- The patterns of changes in depression will be different depending on children's gender.

METHOD

Data
- Data from the National Longitudinal Survey of Youth 79 (NLSY79) & NLSY79 Children and Young Adults (CY) from 1986 to 2010 were used.
- Children, ages 5 to 20, whose mothers had experienced their first divorce or separation any time during the survey years were selected (5,251 observations in total)

Measures
- Child Depression – Three measures are combined. The Behavior Problems Index Anxious/Depressed subscale, Behavior Problems Scale, and Center for Epidemiologic Studies Depression (CES-D). The standardized Z scores of each year were used.

Analysis
- A series of piecewise two-level, multilevel modeling analyses were estimated using SAS 9.3 software.
- Divorce Time Points – From two years before the mother's marital status changed from married to divorced or separated to two years after ('before-divorce period' and the 'after-divorce period').
- Age was controlled and gender was a moderator.

Table 1. Longitudinal Models of Children's Depression Before and After Divorce (N = 5,251)

<table>
<thead>
<tr>
<th>Fixed Effects</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time level characteristics Before divorce</td>
<td>0.038*</td>
<td>0.043*</td>
<td>0.009</td>
</tr>
<tr>
<td>After divorce</td>
<td>0.029</td>
<td>0.020</td>
<td>0.054*</td>
</tr>
<tr>
<td>Child level characteristics Child gender (Male=1)</td>
<td>-0.52</td>
<td>-0.090</td>
<td></td>
</tr>
<tr>
<td>Child Age</td>
<td>0.018***</td>
<td>0.018***</td>
<td></td>
</tr>
<tr>
<td>Interaction Before*Gender</td>
<td></td>
<td>0.071*</td>
<td></td>
</tr>
<tr>
<td>After*Gender</td>
<td></td>
<td>-0.075*</td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-0.028</td>
<td>0.000</td>
<td>0.019</td>
</tr>
</tbody>
</table>

Random Effects
- Intercept variance | 0.787*** | 0.787*** | 0.787*** |
- Before divorce slope variance | 0.129*** | 0.129*** | 0.128*** |
- After divorce slope variance | 0.130*** | 0.129*** | 0.128*** |
- Residuals | 0.173*** | 0.173*** | 0.172*** |

Deviance | 13121.2 | 13102.3 | 13096.1 |
| # parameters | 6 | 7 | 9 |
| AIC | 13141.2 | 13126.3 | 13124.1 |
| BIC | 13200.6 | 13197.6 | 13207.3 |

* p < 0.05, ** p < 0.01, *** p < 0.001.

RESULTS

- Model 1
  - Children's depression score at baseline was not significantly different from zero (b=-.028, ns) and the depression levels increased by .038 SD each year before divorce (b=.038, p < .05) and remained stable after divorce (b=.029, ns).

- Model 2
  - This tendency was similar even when age and gender were controlled for. Depression increased in 'before-divorce period' only (b=.043, p < .05) and did not increase in 'after-divorce period' (b=.020, ns).

- Model 3
  - When gender interactions were added in the model, both interactions were statistically significant.

  Figure 1 presents that the depression scores of boys tended to develop before their parents divorced and stabilize after divorce whereas the depression scores of girls did not increase before divorce but grew over time after divorce.

DISCUSSION

- The results showed that overall divorce seemed to keep children's depression from growing more.
- However, the trajectories of children's depression were moderated by gender. Boys became depressed more over time before divorce whereas girls became depressed more over time after divorce.
- Recent studies tend to be inconsistent about gender moderation effects with regards to parents’ divorce (Nederhof, Belsky, Ormel, & Oldehinkel, 2012) although research in earlier days suggested that boys tend to be more sensitive to their parents’ divorce (Zaslav, 1988).
- The results in this study imply that boys are more internally affected by their parents’ conflicts whereas girls become more depressed when they are in single-parent households.
- Further research is necessary to determine the mechanisms for the sex differences.