Longitudinal associations between parental incarceration and children's emotional and behavioural development: results from a population cohort study

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Abstract

Background. Parental incarceration (PI) is associated with adverse developmental outcomes for children affected. However, research in this area often reports conflicting results with few studies following children across time in non-US populations. Additionally, more research is called for using multi-informant perspectives rather than relying on adult reports of child outcomes alone.

Methods, This study used data from the first two waves of a nationally representative cohort study of 8,568 children aged 9 years and followed up at age 13 living in the Republic of Ireland (2007-12). Propensity score matching was used to match children who had experienced PI by the age of nine to children who had not experienced PI by socio-demographics and experience of other stressful events. Mental health, as measured by self-concept (Piers-Harris II) and externalising and internalising difficulties (Strength and Difficulties Questionnaire- SDQ) was compared across both groups.

Results. 50 of the 8,568 children (weighted percentage 0.9%) reported experiencing PI by the age of nine. These children came from more socially disadvantaged homes and were more likely to have experienced other potentially stressful life events. In comparison to a matched sample of children not affected by PI, children affected by PI reported higher levels of anxiety at age 9. Longitudinal analysis indicated these children affected by PI also reported lower levels of happiness at age 13 with higher levels of emotional difficulties reported by their primary caregiver.

Conclusions, Children of incarcerated parents face a greater array of life challenges. PI had an association with child-reported levels of anxiety at age nine. PI also had a medium term association on caregiver assessments of emotional difficulties of children affected as well child-reported levels of happiness over time.

Key words; child development, child mental health outcomes, growing up in Ireland, cohort study, parental incarceration, SDQ.

Longitudinal associations between parental incarceration and children's emotional and behavioural development: results from a population cohort study

[Insert Key message box here]

As rates of incarceration have grown, the proportion of children affected by PI has grown dramatically. Similar to other western countries, Ireland experienced a rise in prison population in the later part of the 20th century, which reached a peak of 4,600 inmates in 2011. This represented an increase of almost 100% during the period 2007-2011 (IPRT, 2017). Murray and colleagues (2014) found evidence that PI increases the risk of anti-social behaviour in childhood, mental health problems, poor educational performance and drug use. However, some researchers argue that the effects of PI are not universal but may differ across socio-political contexts (Besemer et al., 2011). For example, Murray and colleagues (2014) highlight how contextual factors such as poverty, maternal education, being from a single parent home, as well as mental illness or drug abuse in the immediate family may all contribute to negative outcomes in the context of PI. This has led researchers to disagree about whether PI is a marker or a causal factor in youth maladaptation and adjustment. Unsurprisingly, this remains a very difficult issue to address and there have been calls for further research in this area (Flynn & Butler, 2018; Haskins, 2015).

Haskins (2015) argues that early childhood represents a critical period in a child's emotional, behavioural and social development and can be negatively impacted by PI. Previous researchers (Arditti, 2005), emphasise the importance of the ecological context to understanding this relationship. Ecological theory highlights the family, community and societal influences associated with child development. These influences are characterised through four nested systems of the microsystem, the mesosystem, the exosystem and the macrosystem (Bronfenbrenner, 1979). From this standpoint, human development is best

described as a dynamic interrelationship between the changing person and their changing environment, with positive interactions contributing to positive developmental outcomes (See Poehlmann Dallaire, Loper, & Shear, 2010).

From an ecological perspective, PI can affect childhood development in a number of different ways. For example, PI can disrupt the caregiving environment of children undermine attachment patterns between the child and their primary carers as well as undermine positive community and societal interactions (Poehlmann, 2010). Disrupted caregiving environments can negatively impact their sense of value and self (Cicchetti & Lynch, 2005). Additionally, poor self-perceptions confer increased risk of developing externalising and internalising difficulties (Flynn, Cicchetti & Rogosch, 2014). Previous research found that for boys, exposure to PI in the first 10 years of their life doubles their risk of future behavioural and internalising difficulties (Murray & Farrington, 2008). Furthermore, in a review of the literature, Miller (2006) found that children exposed to PI can suffer long term psychological effects such as depression, anxiety and emotional difficulties.

Conversely, a number of other studies have found no association between PI and mental health or behavioural problems (Kinner, Alati, Najman & Williams, 2007; Murray, Janson, & Farrington, 2007). In some instances, researchers argue that PI may be constructed as beneficial, as it removes a potentially destabilizing parental influence from the home (Murray and Murray, 2010). Equally, the gender of the incarcerated parent can have different impact with maternal incarceration resulting in greater disruption to the caregiving environment (O'Malley & Delaney, 2016). Together this emphasises the need for further research in this area (Macdonald, Livingstone, Dempster, & McLaughlin, 2016).

Differing penal and social contexts may account for some of these mixed results (Farrington & Lober, 1999). For example, PI is not randomly distributed in the population

(Murray 2005). Households and families affected by incarceration tend to be poorer, affected by substance misuse, and report higher levels of negative life events (Myers et al., 1999). Life stress can have adverse consequences for child outcomes and children from incarcerated homes will be exposed to multiple risks by virtue of the nature of those homes affected by incarceration (Murray, Farrington & Sekol, 2012). For this reason, it is important that any observed association between PI and child outcomes is attributable to the incarceration rather than the accumulated life stress (Dallaire, Zeman, & Thrash, 2015).

Although experimental research in this area is not feasible, longitudinal designs allow us to examine, and control for, the effects of hypothesized predictor variables such as PI at an earlier time point on outcome variables at a later time point. Many longitudinal studies rely on adult reports of child outcomes (Johnson & Easterling, 2012). More research is called for using longitudinal data (Boswell, 2018) and multi-informant perspectives when researching children's internalising and externalising difficulties (De Los Reyes et al. 2015).

Current Study

Using a national representative sample of Irish children, we addressed the question: Is children's psychological adjustment associated with by PI? Specifically, we were interested in whether experiencing PI before the age of 9 had an impact on children's psychological adjustment and whether this experience still had an effect when the child is 13. In doing so, the present study contributes to the literature in two ways. First, this paper contributes a more nuanced picture of the impact of PI on children's psychological adjustment by using both parent and child-reported outcomes and following these perspectives as the child develops (Haskins, 2015). Additionally, this study provides longitudinal analysis of a previously unstudied national context, Ireland. We test the following hypotheses: (1), Children who have experienced PI by the age of nine (Wave 1) will have higher levels of difficulties

compared to children who have not experienced PI even when we match for social demographics and experience of other stressful life events. (2), these difficulties will remain over time.

Methods
Participants, procedure

We used data collected in the first two waves of the *Growing up in Ireland National Longitudinal Study of Children* (GUI, 2010) (Murray et al., 2011). GUI is a nationally representative longitudinal cohort study of children living in the Republic of Ireland which commenced in 2007/2008 when the children were aged nine. A two- stage sampling method was used, with children and their families selected through the primary school education system. A representative sample of 910 schools (82% response rate) agreed to participate. 15,000 randomly selected families from within these schools were selected and 8,568 (57% response rate) agreed to participate. Data was re-weighted to represent the population of nine-year-olds in Ireland using information from the 2006 Census of Population. Weighting accounted for features such as socio-economic status, household characteristics and social class (see Murray et al. (2011)). Data collection was performed by specially trained interviewers through computer assisted personal interviews and questionnaires with primary and secondary caregivers, children, teachers and school principals. Informed consent was obtained from all participants. Ethical approval was granted by the Irish Health Research Board's Research Ethics Committee.

Design and Approach to Analysis

The sample (*n*=8,568) in 2007/8 (Wave 1) represents 1 in 7 of all nine-year-old children living in Ireland at that time. The second study wave was carried out in 2011/12 (Wave 2) when the children were aged 13 with an 87% follow up rate (*n*=7,423).

Our Wave 1 analysis compares demographic characteristics and the experience of drug taking or alcoholism in the immediate family for those children who were reported to have had prior experience of PI to study children who had not experienced PI. We also compare beliefs and attitudes held by the children about themselves and externalising and internalising difficulties (as reported by the primary care giver (PCG)) of the children who have experienced PI to a matched sample of children who had not experienced PI. Our Wave 2 analysis considers the change in these outcomes for 13-year-old children who had already experienced a parent in prison by the age of nine and for the matched sample.

Measures

Socio-demographics

Socio-demographical information relating to the family was reported by the PCG and included age, gender, ethnicity and highest level of education (primary, secondary, tertiary) of the PCG, whether the PCG was the biological parent of the child, and the percentage of the household's income ($< 50\%$, $\geq 50\%$) derived from social welfare payments

Parental Incarceration and Drug taking/Alcoholism

At Wave 1, PCGs indicated whether the study child had ever experienced a list of potentially stressful life events. This included the question 'Has the child ever experienced a parent in prison?' with a dichotomous response of yes or no and without specifying which parent (mother or father) was incarcerated. The question, 'Has the child ever experienced drug taking or alcoholism in the immediate family?' was also asked (dichotomous response of yes/no).

Pier-Harris II

Pier-Harris II is a widely used 60-item scale measuring self-concept of the study child (GUI, 2010). Responses are from the child on whether the item (statement) applies to them or not. The scale is divided into six subscales Behavioral Adjustment, Intellectual & school status, Physical Appearance, Freedom from Anxiety, Popularity, and Happiness & Satisfaction. Scores are summed to give a total score from 1 to 60; higher scores indicate a more positive outcome. (Piers & Herzberg, 2002). All subscales had acceptable reliability in GUI (Cronbach's alpha > 0.70).

Strengths and Difficulties Questionnaire

The Strengths and Difficulties Questionnaire (SDQ) (Goodman and Goodman, 2009) is a 25 item behavioural screening questionnaire administered to the child's PCG measuring internalising and externalising difficulties. This scale has been previously used to assess mental health difficulties in the context of PI (Shehadeh, et al., 2015). This scale is divided into 5 subscales of 5 items each, one of which assesses prosocial behaviour ($\alpha = 0.63$ in GUI); the remaining four form the "total difficulties" score: (these are emotional symptoms ($\alpha = .67$), Conduct problems ($\alpha = .57$), Hyperactivity ($\alpha = .74$), and Peer relationship problems ($\alpha = .52$)) (Nixon, 2012). Responses to each item were measured on a Likert scale ranging from 0 (Not True) to 2 (Certainly True).

Statistical Analysis

Children who had experienced PI (cases) were matched to children who had not (controls) using propensity score matching. One-to-one matching without replacement was carried out with the following matching variables used as predictors of group in a logistic regression: PCG age and PCG education, whether the PCG was the biological parent, whether the child had experienced drug taking or alcoholism in the immediate family and the

percentage of the family income derived from social welfare. A control was considered a

match for a case if the absolute difference in the propensity scores from the logistic

regression was less than or equal to a match tolerance of 0.005.

Weighted counts and percentages are presented for categorical data. Numeric data was tested

for normality and presented as mean (standard deviation) for normally distributed data and

median (interquartile range or first quartile, third quartile) for skewed data. Across groups

(cases and controls), means were compared using an independent samples t-test and 95%

confidence intervals for the difference between means; medians were compared using non-

parametric tests. Chi-square tested for significant associations between categorical variables.

Paired t-tests or related non-parametric tests evaluated significant changes in outcomes over

time (from Wave 1 to Wave 2). A 5% level of significance was used for all hypothesis tests.

Cramer's V coefficient was used as a measure of the strength of the association, where ≥ 0.1,

≥ 0.3 and ≥ 0.5 represent a weak, moderate or strong association respectively.

Results

Profile of Children affected by PI

50 of the 8,568 children (weighted percentage 0.9%) reportedly experienced PI of a

parent by the age of nine. No information was available regarding the gender of the

incarcerated parent but the PCG for 43 of the 50 children was the biological mother which

may suggest the incarcerated parent was the father in these families. The majority (95.4%) of

those incarcerated in Ireland are male (IPRT, 2017).

Households of children who have experienced PI were more likely to be headed by a younger

mother (p=0.001) or non-biological parent (p<0.001) compared to PCGs of children who had

not. The PCGs of children who had experienced PI were also more likely to have attained a lower level of education (p=.002) and a higher percentage had >50% of household income from social welfare payments (p<0.001). Children who had experienced PI were also more likely to have experienced drug taking or alcoholism in the immediate family (p<0.001). Groups did not differ by ethnicity of the PCG (*p*=0.62) (See Table 1).

[Insert Table 1 here]

Children who had experienced PI were matched to children who had not using five matching variables. Table 2 compares these variables in the cases (n=50) and matched controls (n=50). There were no statistically significant differences in these variables between the two groups (p>0.05, see Table 2).

[Insert Table 2 Here]

Mental health difficulties and psychological well-being at Wave 1

There were no statistically significant differences in mean levels of internalising and externalising difficulties as measured by the SDQ total score or subscale scores (p>0.05, see Table 3) between children who had experienced PI and matched controls at Wave 1. Similarly, there were no statistically significant differences in Piers-Harris II total score or subscale scores (p>0.05, see Table 3) apart from the Freedom from Anxiety subscale. Children who had experienced PI had lower levels of freedom from anxiety compared to matched controls (mean difference -1.23, 95% confidence interval -2.43 to -0.03, p=0.049).

[Insert Table 3 Here]

Mental health difficulties and psychological well-being at Wave 2

Wave 2 was conducted when the children were aged 13 with 76% follow up (*n*=38) for children who had experienced PI by the age of nine and 82% follow up (n=41) for matched controls. Table 4 summarises SDQ and Piers-Harris II total scores and subscale scores by

group at Wave 2. There were no statistically significant differences in mean levels of internalising and externalising difficulties as measured by the SDQ total score or subscale scores (p>0.05, see Table 4) between children who had experienced PI and matched controls at Wave 2 apart from the Emotional symptoms subscale . Children who had experienced PI had higher levels of emotional symptoms compared to matched controls (mean difference 1.31, 95% confidence interval 0.28 to 2.34, p=0.01).

Similarly, there were no statistically significant differences in Piers-Harris II total score or subscale scores (p>0.05, see Table 4) apart from the Happiness and Satisfaction subscale. Children who had experienced PI had lower levels of happiness compared to matched controls (mean difference -0.88, 95% confidence interval -1.51 to -0.25, p=0.007).

[Insert Table 4 Here]

Mean SDQ total and subscale scores tended to decrease over time in both groups and there was no statistically significant differences in mean changes between cases and controls (p>0.05). Mean Piers-Harris II total and subscale scores tended to increase over time in both groups and there was no statistically significant differences in mean changes between cases and controls (p>0.05, see Table 5).

[Insert Table 5 Here]

Discussion

This paper investigated the association of experiencing PI before the age of 9 with children's psychological adjustment and whether this association was still evident when the child reached 13. Findings highlight the array of life stressors experienced by children affected by PI. Those who report PI at age 9 are more likely to have a lower socioeconomic status and have increased likelihood of experiencing many negative life events. Partially

supporting our hypothesis, findings emphasise that PI was associated with higher child reported levels of anxiety at Wave 1 as well as lower levels of child reported levels of happiness at Wave 2. Findings also indicate that PI was associated with higher levels of caregiver reported emotional difficulties when compared to non-affected peers at Wave 2. Our study adds to the literature in two ways, first, the study addresses previous methodological limitations by using a matched control in a longitudinal data set (Murray et al., 2008; Dallaire et al., 2015: Boswell, 2018). Second, the study uses multi-informant perspectives contributing a more nuanced understanding of the potential impact of PI on child development (Johnson & Easterling, 2012).

Our findings can be understood from an ecological standpoint (Arditti, 2005). Children affected by PI face a challenging developmental context (Poehlmann et al., 2010). Caregivers experience greater social, financial and psychological stressors that can undermine the caregiving environment of the child (Bradshaw & Muldoon, 2017). Additionally, stigma associated with PI can compromise the child's social and community interactions. In an Irish context stigma associated with PI may be exacerbated, owing to its rarity (Murray et al., 2014). This can have implications for the developmental trajectories of the child beyond the immediate term of incarceration.

Fergusson and colleagues (2006) emphasise that early behavioural issues can increases the risk for later difficulties such as antisocial personality disorder and crime in early adulthood. These effects are particularly relevant for children who have exposure to early psychosocial adversity such as PI (Rutter et al., 2005). Children who had experienced PI reported increased levels of anxiety and reduced levels of happiness when compared to a matched sample. This emphasises the enduring impact of PI on children's psychological well-being. Mirroring this, PCGs reported elevated emotional difficulties in children at age

13. Previous research highlights that where these types of difficulties are reported during childhood, future mental health and anti-social issues are likely (Rutter et al., 2005).Taken together, these findings are important in understanding the impact of PI on children's psychological adjustment. While caution is required before interpreting causation, results point to the need for intervention measures to support families affected by imprisonment. Significant reductions in future mental health difficulties could be achieved by targeting support towards populations, such as those affected by PI, which are at an elevated risk of life stressors (Shonkoff et al., 2012).

        Several study limitations are noted. First, there was a small sample size of children who had experienced PI identified in the dataset. However, this may reflect national trends of incarceration. While there is no national data on the number of children affected by PI in Ireland, the figure of 1% of the population estimated from this study is in line with the population estimates of imprisonment for Ireland [IPRT, 2017]. Second, as with all secondary analyses of existing datasets, analysis is limited by the availability and measurement of relevant variables. Incarceration was measured through a one-item dichotomous variable, with no additional information such as number of incarceration episodes, gender of the incarcerated parent, duration and timing of PI. While longitudinal datasets offer a unique opportunity to study children affected, Ahalt and colleagues (2011) found that, after reviewing 36 national datasets, only one included multiple questions surrounding incarceration and followed the population across waves. National cohort studies need to include relevant measures of incarceration if accurate assessments of the impact of imprisonment on child development are to be achieved. Finally, while this study matched cases and controls across several relevant variables identified in the literature including socio-economic factors as well as life events, other confounders may also be relevant.

In spite of the challenges outlined above, population cohort studies such as GUI provide a unique opportunity not only to accessing data relating to this hard to reach population but also to follow them across time points, control for potential confounds and compare their experiences to the general population of children. The GUI study is one of the few national cohort studies, which follows this population across such an extended period, highlighting the long-term effects of any level of PI on a child's development in a hitherto unstudied context. National cohort studies are essential in analysing international differences in the effect of PI as this effect impacts differently across different national contexts (Besemer et al., 2011). Finally, a particularly useful aspect of the current study was that psychological well-being levels were reported by the child themselves rather than a proxy report. Consequently, we provide a more nuanced understanding of child development in the context of parental incarceration.

Key Messages
• Children of incarcerated parents face an increased risk of an array of life stressors when compared to non-affected peers.
• Our results, based on a national cohort study, indicated that parental incarceration was associated with higher levels of child reported anxiety at age 9 as well as a medium term association with reduced levels of child reported happiness and increased levels of primary care giver reported emotional difficulties.
• Use of multi informants can increase our understanding of the impact of parental incarceration.
• When designing population cohort studies, researchers need to be mindful of the difficulties surrounding recruiting and retaining participants as well as including measurement that can accurately address the needs of children developing in the context of parental incarceration.
• Parental incarceration represents a significant risk marker for children developing in this context, and as such, represents an opportunity to provide vital supportive measures to families affected.

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Appendix A

Appendix B

Table 1. Socio-demographic variables by group in the full cohort (n=8,568)

		Parental Incarceration		P-value	Cramer's V
		Yes (n=50)	No (n=8,518)		
Median age of PCG (IQR)		34 (10.25)	40 (7)	**0.001***	**0.11**
Highest level of education	Primary	6 (12%)	280 (3%)	**0.002***	**0.04**
	Secondary	23 (46%)	3899 (46%)		
	Tertiary	21 (42%)	4339 (51%)		
PCG's relationship to the child[1]	Biological Parent[1]	43 (86%)	8417 (99%)	**<0.001****	**0.09**
	Non-biological parent	7 (14%)	101 (1%)		
Ethnicity of PCG	White Irish	47 (94%)	7750 (91%)	0.62	0.01
	Other	3 (6%)	760 (9%)		
% of household's income derived from Social Welfare	<50%	32 (64%)	7828 (93%)	**<0.001****	**0.08**
	50%-100%	18 (36%)	609 (7%)		
Drugs/alcohol in the immediate family	Yes	23 (46%)	189 (2%)	**<0.001****	**0.22**
	No	27 (54%)	8,329 (98%)		

[1] Primary caregivers of PI group were all female
*P <.05, **P <.001

Appendix C

Table 2. Socio-demographic variables by cases and matched controls

		Cases (n=50)	Controls (n=50)	P-value
Age group of PCG	< 40 years	36 (72%)	38 (76%)	0.65
	≥ 40 years	14 (28%)	12 (24%)	
Highest level of education of PCG	Primary	6 (12%)	3 (6%)	0.50
	Secondary	23 (46%)	22 (44%)	
	Tertiary	21 (42%)	25 (50%)	
PCG's relationship to the child	Biological Parent	43 (86%)	46 (92%)	0.34
	Non-biological parent	7 (14%)	4 (8%)	
% of household's income derived from Social Welfare	<50%	32 (64%)	29 (58%)	0.54
	50%-100%	18 (36%)	21 (42%)	
Drugs/alcohol in the immediate family	Yes	23 (46%)	22 (44%)	0.84
	No	27 (54%)	28 (56%)	

Appendix D

Table 3. Wave 1 Mental health difficulties and psychological well-being by cases and matched controls

		Cases (n=50) M(SD)	Controls (n=50) M(SD)	t statistic (p-value)
SDQ	Total	12.52 (7.47)	11.14 (6.48)	0.98 (0.33)
	Emotional	3.52 (2.60)	2.82 (2.19)	1.45 (0.15)
	Conduct	2.32 (2.30)	1.84 (2.03)	1.11 (0.27)
	Hyperactivity	4.42 (2.77)	4.65 (2.90)	-0.41 (0.68)
	Peer	2.26 (1.96)	1.96 (1.63)	0.83 (0.41)
	Prosocial	8.64 (2.04)	8.57 (1.76)	0.18 (0.86)
Piers Harris	Total	43.17 (8.61)	43.60 (9.55)	-0.22 (0.82)
	Behavioral adjustment	10.61 (2.84)	10.50 (2.92)	0.18 (0.86)
	School	12.19 (2.73)	11.68 (2.97)	0.87 (0.39)
	Physical Appearance	7.49 (2.09)	7.17 (2.54)	0.68 (0.50)
	Anxiety Free	9.35 (3.07)	10.58 (2.97)	**-1.99 (0.049)***
	Popularity	7.67 (2.55)	7.75 (2.59)	-0.16 (0.87)
	Happiness	8.30 (1.68)	8.33 (1.97)	-0.09 (0.93)

*P<0.05

Appendix E

Table 4. Wave 2 Mental health difficulties and psychological well-being by cases and matched controls

		Cases (n=38) M(SD)	Controls (n=41) M(SD)	t statistic (p-value)
SDQ	Total	11.37 (6.90)	9.61 (6.34)	1.18 (0.24)
	Emotional	3.53 (2.58)	2.22 (1.99)	**2.53 (0.01)***
	Conduct	2.03 (2.03)	1.37 (1.53)	1.64 (0.11)
	Hyperactivity	3.79 (2.52)	4.42 (2.87)	-1.03 (0.31)
	Peer	2.03 (2.31)	1.61 (1.63)	0.93 (0.35)
	Prosocial	8.63 (1.79)	8.29 (1.65)	0.88 (0.38)
Piers Harris	Total	45.95 (9.15)	47.83 (7.33)	-1.01 (0.32)
	Behavioral adjustment	12.00 (2.29)	12.02 (2.15)	-0.05 (0.96)
	School	11.24 (3.37)	11.27 (3.49)	-0.03 (0.97)
	Physical Appearance	7.70 (2.74)	8.32 (2.51)	-1.03 (0.31)
	Anxiety Free	10.18 (3.60)	11.29 (2.67)	-1.56 (0.12)
	Popularity	9.39 (2.51)	9.46 (2.10)	-0.13 (0.90)
	Happiness	8.29 (1.74)	9.17 (1.02)	**-2.77 (0.007)***

*P<0.05

Appendix F

Table 5. Change (Wave 2 – Wave 1) in mental health difficulties and psychological well-being by cases and matched controls

		Cases (n=38) M(SD)	Controls (n=41) M(SD)	t statistic (p-value)
Change in SDQ	Total	-0.58 (5.37)	-0.85 (4.11)	0.25 (0.80)
	Emotional	0.16 (2.30)	-0.39 (1.26)	1.30 (0.20)
	Conduct	-0.05 (1.94)	-0.07 (1.39)	0.05 (0.96)
	Hyperactivity	-0.53 (2.14)	-0.18 (2.35)	0.69(0.49)
	Peer	-0.16 (2.05)	-0.29 (1.82)	0.31 (0.76)
	Prosocial	-0.08 (1.78)	-0.44 (1.79)	0.90 (0.37)
Change in Piers Harris	Total	2.47 (10.47)	2.64 (9.82)	-0.07 (0.94)
	Behavioral adjustment	1.26 (3.12)	1.08 (2.64)	0.27 (0.79)
	School	-1.09 (3.89)	-0.69 (4.10)	-0.42 (0.68)
	Physical Appearance	0.24 (2.97)	0.68 (2.44)	-0.70 (0.49)
	Anxiety Free	0.94 (3.33)	0.28 (3.16)	0.90 (0.37)
	Popularity	1.58 (2.55)	1.13 (2.22)	0.84 (0.41)
	Happiness	0.11 (1.89)	0.65 (1.98)	-1.19 (0.24)