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Adolescent Family Factors Promoting Healthy Adult Functioning: A Longitudinal Community Study

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Abstract

Background—Although long-held wisdom and current research suggests that accepting and supportive family relationships may positively influence adult psychosocial functioning, few studies have prospectively investigated these associations. This study examined whether positive family factors during adolescence are associated with healthy adult functioning.

Method—The 353 participants were part of a single-age cohort whose psychosocial development has been prospectively traced. Two aspects of family functioning - feeling highly valued as a family member and having a family confidant - were measured at age 15. Developmentally-relevant areas of functioning were assessed at age 30.

Results—Both positive family factors were predictive of adaptive adult functioning across several domains, including mental health and social/interpersonal functioning.

Conclusions—Findings provide evidence about the salient relationships between positive family relationships and later healthy functioning.

Keywords

Positive adolescent family relationships; adult functioning; prospective

Introduction

Accepting and supportive family relationships during childhood and adolescence may have long-term associations with psychosocial functioning into adulthood. Cross-sectional studies provide evidence of the two complementary ways in which positive family relationships promote adaptive functioning: (a) by increasing the likelihood of positive outcomes, including better self-esteem and quality of life (Heider et al., 2007; Milevsky, 2005; Shaw et al., 2004) and higher educational and occupational attainment (DiRago & Vaillant, 2007; Franz, McClelland, & Weinberger, 1991), and (b) by reducing the risk for negative outcomes, including psychopathology (Milevsky, 2005; Shaw et al., 2004), suicidal behaviour (Heider et al., 2007), and poor health (Shaw et al., 2004). Although these investigations have identified the myriad aspects of functioning that may benefit from positive family relationships, accepted limitations of cross-sectional studies, such as

potential biases in the retrospective recall of adolescent family interactions, allow them to provide only limited conclusions (Hardt & Rutter, 2004).

Prior prospective investigations of community groups extending to full adulthood (late 20s and older) have yielded limited information about the areas of functioning influenced by positive childhood and adolescent family relationships because most have concentrated on only a few adult outcomes. Findings across studies do, however, suggest that positive family relationships may have a beneficial impact across multiple domains. Studies focusing on adult psychological well-being have found that positive family relationships during adolescence increase the likelihood of positive self-image, higher self-esteem (Bell & Bell, 2005; Roberts & Bengtson, 1996) and quality of life (Bell & Bell, 2005; Flouri, 2004), and decrease the risk of later psychological distress (Flouri, 2004). Other investigations have identified a link between early positive family relationships and the stability and quality of participants subsequent relationships with their spouses/partners (Bell & Bell, 2005; Flouri & Buchanan, 2002; Moller & Stattin, 2001; Whitton et al., 2008). Additional research has shown that positive family relationships can significantly reduce the risk for psychopathology, including depressive symptoms (Waldinger, Vaillant, & Orav, 2007), alcohol use (Galaif et al., 2001; Waldinger et al., 2007), and illicit drug use (Doherty et al., 2008; Waldinger et al., 2007). Although limited in number, some research suggests that different aspects of the family dynamic may have differential effects on later adult functioning (Moller & Stattin, 2001; Reinherz et al., 2008).

A number of important family factors, such as socioeconomic status (SES) and parental psychopathology, are likely to be related to both adolescent family interactions and aspects of adult functioning. It is therefore necessary to control for the effects of such factors to determine whether the presence of positive family relationships has an independent effect on long-term functioning. The limited evidence available from prospective studies suggests that positive family relationships remain significant, independent predictors of some aspects of adult functioning after adjusting for the effects of potentially confounding variables, including gender, family SES, family structure, and family history of disorders (Doherty et al., 2008; Flouri, 2004; Flouri & Buchanan, 2002; Roberts & Bengtson, 1996; Waldinger et al., 2007).

Present study

The current analyses build on prior work with this community sample illustrating that feeling valued and supported by family members at age 15 promoted healthy mental health and psychosocial functioning at age 18 (Reinherz et al., 2008). Other research has also found that adolescents who believe they are highly valued by their family and can communicate with family members tend to have healthier outcomes (Ford-Gilboe, 1997; Youngblade et al., 2007; Zdanowicz, Janne, & Reynaert, 2004). In this study we examined two research questions: (1) To what extent are feelings valued by family members and being able to confide in family members at age 15 related to current functioning at age 30 across multiple domains? (2) Is the impact of these two indicators of positive family interactions on adult functioning independent of the effects of gender and other aspects of the family context?

A notable strength of this work was our ability to prospectively follow participants until age 30, a key developmental period when career decisions are solidified, intimate relationships are established, and parenting is often begun (Arnett, 2000). We focused on two aspects of the family environment that are potentially modifiable or amenable to prevention and intervention efforts. It also permitted us to examine whether differing aspects of the family environment may have differential effects on subsequent functioning. Additionally, we

examined a wide array of adult outcomes that fully encompass the developmental tasks of this life stage rather than focusing on only a limited number of areas of functioning.

Method

Sample

Analyses draw on data from the Simmons Longitudinal Study, a community-based study that has traced the life course of a single-aged cohort from childhood (age 5) to adulthood (age 30). The original sample included all children entering kindergarten in 1977 within a single community school district in New England participating in state-mandated preschool testing of developmental, academic, and behavioural factors ($N=763$). The sample reflected the community composition at that time; two-thirds of the households were working- or lower-middle class, and nearly all participants were white (98%). Because principal data collection occurred within the public schools, children not enrolled in public school were excluded from follow-up at age 9 resulting in a core sample of 519 participants (see Reinherz et al., 1993 for an attrition analysis from ages 5–18). Since age 18, high rates of retention were maintained. Prior analyses have shown that the representativeness of the sample was not compromised by either cumulative attrition or sequential attrition between data waves (Reinherz et al., 2006). Written informed consent was obtained from parents and, starting at age 15, written consent was also provided by the participants.

The current analyses include 353 participants (175 men and 178 women) with data on both aspects of positive family relationships at age 15 and at least one indicator of adult functioning. At age 30, most participants (98%) had completed at least a high school education, and 39% had a 4-year college degree or higher. Over 88% were currently employed, 43% were married, and 36% had children.

Measures

Feeling highly valued by family members at age 15—Five true-false items from the Piers-Harris Children's Self-Concept Scale (Piers, 1984), such as 'I am an important member of my family', ($\alpha=0.66$), assessed participants' perceptions of being valued and accepted by parents and siblings. Due to the skewed distribution of this variable, a binary (yes/no) indicator was created, with a score of 5 categorised as feels highly valued and scores <5 categorised as does not feel highly valued.

Able to confide in family members at age 15—The open-ended item 'If you wanted to talk to someone about things that are very personal, who would you talk to?' (Barrera, 1980) evaluated whether adolescents believed they could confide in immediate family members. Participants were classified as being 'able to confide in family members' if they identified at least one parent or sibling as a confidant.

Mental health at age 30—Four general aspects of current mental health were included: (1) mental disorders; (2) suicidal ideation; (3) self-rated behaviour problems; and (4) interviewer assessed functioning. The Diagnostic Interview Schedule, version IV (DIS-IV) (Robins et al., 1997) provided 1 year *DSM-IV* diagnoses for major depression, alcohol abuse/dependence, and drug abuse/dependence. Thoughts of suicide were determined by a 'somewhat' or 'very true' response to the Young Adult Self-Report (YASR) (Achenbach, 1997) statement 'I think about killing myself' or a positive response to the DIS-IV item asking participants if they 'thought about committing suicide', if this ideation occurred within the past year. The internalising scale ($\alpha=0.91$, 24 items) of the YASR provided self-assessments of anxious/depressed and withdrawn behaviour, whereas the externalising scale ($\alpha=0.86$, 28 items) provided self-evaluations of delinquent and aggressive behaviour.

Trained interviewers rated participants current psychological, social, and occupational functioning on the Global Assessment of Functioning (GAF) scale (American Psychiatric Association., 1994).

Psychological functioning at age 30—Indicators in this domain included participant reports of self-esteem on the Rosenberg Self-Esteem Scale ($\alpha=0.85$; 10 items) (Rosenberg, 1986), and coping and self-efficacy on the General Perceived Self-Efficacy Scale ($\alpha=0.86$; 10 items) (Jerusalem & Schwarzer, 1992).

Social/interpersonal relations at age 30—Self-reports of interpersonal problems were measured by a project-created scale assessing how often during the past 6 months participants encountered problems such as difficulty communicating with others ($\alpha=0.79$; 6 items) (Reinherz et al., 1993), and satisfaction with social support received in 5 areas (e.g. advice, positive feedback) was evaluated by the Arizona Social Support Interview Schedule ($\alpha=0.66$; 5 items) (Barrera, 1980). Additional information was collected for specific subsamples of participants. For individuals with children ($n=130$) parenting stress was assessed by self-reports on the Parental Stress Scale ($\alpha=0.83$; 18 items) (Berry & Jones, 1995). Respondents currently involved in an intimate relationship ($n=191$) rated the overall quality of their relationship using the Dyadic Adjustment Scale ($\alpha=0.93$; 32 items) (Spanier, 1976).

Occupational/career functioning at age 30—Indices of functioning included self-reports of feeling ‘satisfied’ or ‘very satisfied with career progress’; higher SES, defined as the highest three categories on the Hollingshead Two-Factor Index of Social Position (Hollingshead & Redlich, 1958); and interviewer-ratings on the Social and Occupational Functioning Scale (SOFAS) (American Psychiatric Association., 1994).

Physical health at age 30—Measures of physical health (past year) included self-reports of experiencing any serious health problems and tobacco use.

Family context variables—Two general indicators were used: family adversity and family psychopathology. An index of family adversity was computed as the number of adversities (0, 1, 2, > 3) the participant experienced by age 15: lower family SES (lowest two categories on the Hollingshead index), marital disruption (separation /divorce of parents), living in a single parent household, and death of a parent. All aspects of family adversity were assessed prospectively at ages 5, 9, and 15 using parent and participant reports. Assessments of family history were based on combined participant and parent reports using the Family History Assessment Module (Janca, Bucholz, & Janca, 1992), administered at age 21 and age 26 interviews. Participants were considered to have a family history of psychopathology if any parent or sibling met criteria for either DSM-III-R alcohol or drug abuse/dependence or major depression by the time the participant was age 15.

Analytic strategy

A two-step approach was used to address our primary research objectives. First, to address our initial question about the link between positive family relationships during adolescence and subsequent adult functioning, a series of simple logistic regression (for binary outcomes) and linear regression (for dimensional outcome measures) analyses were conducted. These initial models separately evaluated the relationship between (a) feeling valued as a family member at age 15 and each indicator of age 30 functioning, and (b) having a family confidant at age 15 and each aspect of later functioning. For the binary outcomes, unadjusted Wald χ^2 tests and unadjusted odds ratios and 95% confidence intervals were computed. For the dimensional outcome measures, F tests and Cohen’s d (a measure of

effect size) were computed. In general, .20 indicates a small effect size, whereas .50 and .80 signify moderate and large effects, respectively (Cohen, 1988). Second, to determine whether the impact of each indicator of positive family relations on adult functioning was independent of the effects of gender and family context, we conducted a series of multivariable logistic and linear regression analyses that included gender, family adversity, and family psychopathology as covariates. Adjusted test statistics and effect estimates were computed.

Results

Both aspects of positive family relationships were prevalent in this sample: 65.4% of participants reported feeling valued by family members and half of the sample (50.7%) disclosed having at least one family confidant at age 15. Although these variables were correlated ($\sigma=0.20$, $p<0.001$), there was a substantial percentage of participants who reported experiencing only one of these family indicators. For instance, only 58% of those with confiding family relationships also reported being highly valued by family members. This suggests that these two indices of family functioning are measuring somewhat different aspects of the family and supports our decision to examine each predictor separately.

Feeling highly valued by family members at age 15 and functioning at age 30

Unadjusted results showed that feeling highly valued by family members at age 15 played an important role both in reducing the likelihood of negative adult outcomes and in promoting healthy functioning (Table 1). Statistically significant effects were found for 9 of 19 indicators examined, representing 4 of the 5 major outcome domains (all except occupational/career functioning). Results from multivariable analyses reveal that, with few exceptions, controlling for gender, family adversity, and family psychopathology did not impact observed associations. Only one relationship (i.e. the reduced occurrence of major depression among those who reported being valued by family members) was no longer statistically significant in the adjusted models.

At age 30, youth who felt highly valued by members of their families at age 15, compared to their peers, were less than half as likely to experience a current mental disorder (adjusted odds ratio [AOR]=0.46; 95% confidence interval [CI]:0.24–0.87) and were significantly less likely to report serious internalising ($d=.24$) and externalising ($d=.28$) behaviour problems. Their overall functioning was also rated by trained interviewers as significantly higher than that of participants who did not previously report feeling highly valued by family members ($d=.22$).

In the domains of psychological and social/interpersonal functioning, feeling highly valued by family members during adolescence was significantly associated with higher self-esteem ($d=.21$), greater satisfaction with social support ($d=.27$), and fewer interpersonal problems ($d=.28$). In the area of physical health, this indicator of positive family relationships significantly reduced the risk (nearly by half) of tobacco use in the past year (AOR=0.52; 95% CI:0.33–0.80).

Able to confide in family members at age 15 and functioning at age 30

In the unadjusted analyses we found that being able to confide in parents and/or siblings during adolescence was significantly associated with 11 of 19 areas of functioning that were assessed (Table 2). Significant relationships were found across three domains of functioning: mental health, social/interpersonal relations, and occupational/career functioning. Results from the unadjusted analyses were upheld after controlling for gender, family adversity, and family psychopathology.

In the domain of mental health, being able to confide in a family member was associated with a substantially reduced risk for any current mental disorder (AOR=0.39; 95% CI:0.21–0.72), including alcohol abuse/dependence (AOR=0.30; 95% CI:0.12–0.77) and drug abuse/dependence (AOR=0.15; 95% CI:0.04–0.55). Moreover, youth with family confidants were less than a third as likely as their peers to experience suicidal ideation at age 30 (AOR=0.30; 95% CI:0.10–0.96), and they reported significantly fewer externalising behaviour problems ($d=.24$). Trained clinical interviewers also rated those who previously reported having a family confidant as having substantially higher overall functioning on the GAF ($d=.26$).

Having a family confidant during adolescence also promoted healthy social/interpersonal functioning. Being able to confide in a family member was associated with greater satisfaction in the social support received in adulthood ($d=.35$). Among participants involved in an intimate relationship at age 30, those who disclosed having a family confidant at age 15 rated the quality of their subsequent relationships with spouses/partners as significantly better than their peers lacking a family confidant ($d=.39$).

This indicator of positive family relationships also had a noteworthy impact on subsequent occupational/career functioning. Compared to their peers, adolescents who identified themselves as having a family confidant were nearly twice as likely to be satisfied with their career progress at age 30 (AOR=1.96; 95% CI:1.22–3.14) and to have achieved a higher SES (AOR=1.74; 95% CI:1.07–2.82). Interviewers also rated their overall occupational and social functioning as significantly higher ($d=.24$).

Two additional sets of adjusted analyses were conducted to examine the specificity of identified relationships. First, we re-examined the associations using an indicator of the number of available family confidants at age 15. We found that the number of confidants was significantly related to only a subset of 6 of the 11 adult outcomes identified for the any family confidant variable (i.e. a decreased likelihood of (a) drug abuse/dependence and (b) having one or more current mental disorders; higher GAF scores; greater satisfaction with social support; better intimate relationship quality; and higher SOFAS scores), suggesting that the presence of any confidant is more important than the number of family members in which one can confide. Second, since peer relationships gain salience during the adolescent period, we were interested in comparing findings for peer and family confidants. Having at least one peer confidant at age 15 was not significantly linked to any of the age 30 outcomes, indicating the particular importance of family relationships during adolescence for subsequent psychosocial functioning.

Discussion

Findings from our longitudinal study provide empirical evidence about the significant associations between positive family relationships during adolescence (age 15) and healthy functioning in adulthood (age 30). These results extend what is currently known about the long-term protective influences of the family and lend support for several conclusions that have important implications for clinical practice and future research.

First, our findings add to an accumulating literature showing that, despite the expected adolescent developmental push for autonomy from parents and family, accepting and supporting family relationships during this life stage continue to have an important influence on healthy functioning into adulthood. In fact, we found evidence to suggest that confiding family relationships during adolescence were more influential than confiding peer relationships in promoting positive adaptation at age 30. Together, accepting and supporting family relationships were significantly related to nearly all assessed indicators of adult functioning (15 of 19 in multivariable analyses). Consistent with prior research, we found

that positive family relationships: (a) reduced the risk for poor mental health, including substance abuse/dependence (Doherty et al., 2008; Galaif et al., 2001; Waldinger et al., 2007) and suicidal behaviour (Heider et al., 2007), and (b) increased the likelihood of positive psychological (Bell & Bell, 2005; Flouri, 2004; Heider et al., 2007; Milevsky, 2005; Roberts & Bengtson, 1996; Shaw et al., 2004), social/interpersonal (Flouri & Buchanan, 2002; Moller & Stattin, 2001; Whitton et al., 2008), and occupational/career (DiRago & Vaillant, 2007; Franz et al., 1991) functioning. Yet a unique contribution of the current research was our ability to evaluate a wide array of adult outcomes in the same study, providing a more complete picture of the breadth of influence positive family relationships may have on later functioning.

Second, our findings suggest that varying dimensions of positive family relationships may differentially influence aspects of healthy adult functioning. Although our two indicators of positive family relationships were each significantly related to multiple indices of adult functioning, only 4 of 15 significant results from the multivariable analyses were shared in common. For example, while feeling valued in the family was significantly associated with higher self-esteem, lack of interpersonal problems, and a reduced likelihood of tobacco use, these important areas of adult functioning were not significantly impacted by having a family confidant during adolescence. Alternatively, while being valued in the family was not significantly related to later occupational/career functioning, this domain was one of the areas most strongly influenced by having a family confidant. Having a family confidant was also more influential in reducing the risk of mental health concerns at age 30, such as suicidal ideation and substance disorders. Additional analyses also showed that the presence of any family confidant during adolescence was more important for healthy adult functioning than the number of available confidants.

Third, the impact of adolescent family relationships on later adult functioning was largely independent of the effects of gender, family adversity (e.g. low SES, marital disruption, parental death), and family psychopathology. This is particularly important because family interactions are potentially amenable to intervention efforts, unlike broad contextual factors (e.g. low SES) which may identify youth at-risk for later poor functioning but which cannot themselves serve as foci for targeted interventions.

Limitations and areas for future research

Several potential limitations of the current study should be noted, as well as areas for future research. While our results suggest that positive family relationships during adolescence have a role in promoting healthy adult functioning, we cannot conclude that these relationships are causal. Although we controlled for several important factors (gender, early family adversity, and family psychopathology) that are likely to impact both the quality of adolescent family relationships and adult functioning, we did not account for all confounding variables. For instance, it is possible that individual characteristics of the respondents (e.g. mental health, personality, relational skills) explain the observed associations between age 15 family relationships and later psychosocial functioning. Additionally, if family relationships do indeed causally influence subsequent adult functioning, our results do not indicate how these effects may arise. For example, it is unclear (a) whether family relationships have short-term effects on adaptation in adolescence (e.g. psychopathology, smoking initiation, school attainment) which, in turn, impact age 30 outcomes, or (b) if there is continuity in family functioning so that adolescents with supportive and accepting families later benefit from these healthy family relationships as adults. Additional studies are needed to clarify these relationships. Further research is also needed to examine the question of whether aspects of family functioning mediate the association between aspects of the family context and adult outcomes.

Because our sample was from a predominately white working-class community, results may not be generalisable to more racially and economically diverse populations, but should be examined in these groups. Our measures of positive adolescent family relationships did not allow us to disaggregate the effects associated with relationships with mothers, fathers, and siblings. Prior research suggests that there may be differing effects for relationships with siblings versus parents (Waldinger et al., 2007) and for mothers versus fathers (Moller & Stattin, 2001), highlighting the importance of evaluating these relationships separately in other studies. Although the inclusion of a relatively large number of outcomes permitted us to examine the effect of positive family relationships on multiple areas of age-appropriate functioning, it raises potential concerns about multiple comparisons. However, with α set at the 0.05 significance level, we would anticipate only 1 chance finding when comparisons are made on 19 outcome variables. The relatively large number of significant group differences reported in Tables 1 and 2 is an important finding that cannot be explained by chance. Lastly, although our study extended to age 30 it will be important to assess whether the beneficial effects of early positive family relationships persist into middle and late adulthood, as suggested by some research (Shaw et al., 2004).

Conclusions

Results from this study illustrate the multifaceted influence that two specific aspects of adolescent family relationships may have across critical domains of adult functioning. This study also shows the specificity of influence of each family factor, implying the need for broad-based interventions. There are increasing numbers of prevention and positive youth development programs in community settings seeking to strengthen positive family relationships. Although it is encouraging that many of these programs have embodied the idea of targeting family-youth interactions, many focus on pre-adolescent groups. It is crucial that programs be developed that focus specifically on the distinct complexities of the adolescent-parent relationship (Steinberg, 2001) to help promote positive adaptation through the transition to adult roles (Stormshak et al., 2005). Age 30 is a particularly important developmental time and our findings suggest that adaptive functioning may continue to be influenced by the family of origin. During this time many adults begin creating families, solidifying long-term goals, and forming stable careers. The intergenerational importance of healthy family relations makes the development of effective intervention efforts essential.

Key Practitioner Message

- Despite the expected adolescent developmental push for autonomy from parents and family, accepting and supporting family relationships during this life stage may have an influence on healthy functioning into adulthood.
- Thus, there is a critical need for practitioners to develop programs targeting the complex adolescent-parent relationship to promote positive adaptation in adulthood.
- Clinicians should consider using broad-based interventions since each of the family factors studied influenced a number of non-overlapping areas of adult functioning.

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Table 1

Feeling valued by family members at age 15 and adult functioning at age 30

Functioning	Feels valued by family members					
	Yes (n=179)		No (n=174)		Adjusted regression models ^a	
	%	%	Wald χ^2	Odds ratio(95% CI)	Wald χ^2	Odds ratio(95% CI)
Mental health						
Current DSM-IV disorders						
Major depression	4.5	10.9	4.89*	0.38(0.16–0.90)	3.75	0.43(0.18–1.01)
Alcohol abuse/dependence	5.0	6.9	0.55	0.72(0.29–1.74)	0.73	0.67(0.27–1.67)
Drug abuse/dependence	1.7	5.8	3.65	0.28(0.08–1.03)	3.85	0.27(0.07–1.00)
≥1 current disorders	9.5	19.0	6.28*	0.45(0.24–0.84)	5.77*	0.46(0.24–0.87)
Current suicidal ideation	2.3	5.2	2.00	0.42(0.13–1.40)	2.03	0.42(0.12–1.39)
Psychological						
Internalising behaviour	Mean(SD) 7.1(5.9)	Mean(SD) 8.8(7.4)	F 5.69*	Cohen's d ^b .25	F 4.78*	Cohen's d ^b .24
Externalising behaviour	5.1(4.7)	6.5(6.1)	5.89*	.26	6.97**	.28
Interviewer-rated GAF	81.1(8.6)	78.9(10.2)	4.93*	.23	4.15*	.22
Self-esteem	33.8(4.0)	32.9(4.5)	4.31*	.21	4.48*	.21
Coping and self-efficacy	33.8(3.6)	33.2(4.2)	1.74	.15	1.40	.13
Social/interpersonal						
Interpersonal problems	11.7(4.2)	13.1(4.3)	8.61**	.33	7.65**	.28
Satisfied w social support	14.5(0.9)	14.2(1.3)	10.08**	.27	7.96**	.27
Quality of intimate relationship ^c	118.3(14.2)	115.1(18.9)	1.76	.19	1.50	.17
Parenting stress ^d	73.4(8.2)	75.5(7.1)	2.45	.28	2.65	.29
Occupational/career						
Interviewer-rated SOFAS	82.3(7.7)	80.9(9.4)	2.32	.16	1.87	.14

Functioning	Feels valued by family members					
	Yes (<i>n</i> =179)		No (<i>n</i> =174)		Adjusted regression models ^d	
	%	%	Wald χ^2	Odds ratio(95% CI)	Wald χ^2	Odds ratio(95% CI)
	%	%	Wald χ^2	Odds Ratio(95% CI)	Wald χ^2	Odds Ratio(95% CI)
Satisfied w career progress	58.4	58.9	0.01	0.98(0.63–1.53)	0.05	0.95(0.61–1.49)
Higher SES	72.6	70.7	0.16	1.10(0.69–1.75)	0.27	1.13(0.71–1.82)
Physical health						
Health problems	15.1	22.4	3.08	0.62(0.36–1.06)	2.02	0.67(0.39–1.17)
Tobacco use	33.5	48.3	7.89**	0.54(0.35–0.83)	8.60**	0.52(0.33–0.80)

Note: GAF=Global Assessment of Functioning; SOFAS=Social and Occupational Functioning Assessment Scale; SES=socioeconomic status.

^a Adjusted for gender, family adversity, and family psychopathology.

^b .20 indicates a small effect size, whereas .50 and .80 signify moderate and large effects, respectively

^c Assessed only among subsample involved in romantic relationships (*n*=191).

^d Assessed only among subsample with children (*n*=130).

* *p*<.05

** *p*<.01, two-tailed

Table 2

Being able to confide in family members at age 15 and adult functioning at age 30

	Able to confide in family members					
	Yes (n=231)		No (n=122)		Adjusted regression models ^a	
	%	%	Wald χ^2	Odds ratio(95% CI)	Wald χ^2	Odds ratio(95% CI)
Mental health						
Current DSM-IV disorders						
Major depression	6.9	9.0	0.49	0.75(0.34–1.67)	0.55	0.73(0.32–1.66)
Alcohol abuse/dependence	3.5	10.7	6.70**	0.30(0.12–0.75)	6.38*	0.30(0.12–0.77)
Drug abuse/dependence	1.3	8.2	8.21**	0.15(0.04–0.55)	8.04**	0.15(0.04–0.55)
≥ 1 current disorders	10.0	22.1	9.30**	0.39(0.21–0.71)	8.95**	0.39(0.21–0.72)
Current suicidal ideation	2.2	6.6	3.91*	0.32(0.10–0.99)	4.12*	0.30(0.10–0.96)
	Mean(SD)	Mean(SD)	F	Cohen's d^b	F	Cohen's d^b
Internalising behaviour	7.5(5.9)	8.9(8.1)	3.51	.21	3.79	.21
Externalising behaviour	5.3(4.7)	6.7(6.6)	5.36*	.26	4.76*	.24
Interviewer-rated GAF	80.9(8.6)	78.3(10.9)	5.72*	.27	5.60*	.26
Psychological						
Self-esteem	33.6(4.2)	32.9(4.5)	2.32	.16	2.27	.16
Coping and self-efficacy	33.5(3.8)	33.5(4.2)	0.00	.00	0.01	.00
Social/interpersonal						
Interpersonal problems	12.2(4.2)	12.7(4.5)	1.23	.12	1.19	.12
Satisfied w social support	14.5(0.9)	14.2(1.5)	6.11*	.26	6.54*	.35
Quality of intimate relationship ^c	118.9(15.5)	112.7(18.2)	6.40*	.38	6.70*	.39
Parenting stress ^d	74.6(8.1)	74.4(7.0)	0.02	.03	0.02	.03
Occupational/career						
Interviewer-rated SOFAS	82.4(7.8)	80.1(9.9)	5.37*	.27	5.16*	.24

	Able to confide in family members					
	Yes (<i>n</i> =231)		No (<i>n</i> =122)		Adjusted regression models ^d	
	%	%	Wald χ^2	Odds ratio(95% CI)	Wald χ^2	Odds ratio(95% CI)
	%	%	Wald χ^2	Odds Ratio(95% CI)	Wald χ^2	Odds Ratio(95% CI)
Satisfied w career progress	64.0	48.2	7.43**	1.91(1.20–3.05)	7.83**	1.96(1.22–3.14)
Higher SES	75.8	63.9	5.44*	1.76(1.10–2.84)	5.05*	1.74(1.07–2.82)
Physical health						
Health problems	16.0	23.8	3.12	0.61(0.35–1.06)	3.38	0.59(0.34–1.04)
Tobacco use	39.4	43.4	0.54	0.85(0.54–1.32)	0.36	0.87(0.55–1.37)

Note: GAF=Global Assessment of Functioning; SOFAS=Social and Occupational Functioning Assessment Scale; SES=socioeconomic status.

^a Adjusted for gender, family adversity, and family psychopathology.

^b .20 indicates a small effect size, whereas .50 and .80 signify moderate and large effects, respectively

^c Assessed only among subsample involved in romantic relationships (*n*=191).

^d Assessed only among subsample with children (*n*=130).

* *p*<.05;

** *p*<.01, two-tailed