

The Underlying Mechanism Linking Family SES to Depression in Late Adolescence:
Aspiration Discrepancy in Educational Achievement and Emotional Support

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The association between family SES and mental health could be complicated for Taiwanese adolescents. On the one hand, parents with higher SES are capable to provide more resources to enhance children's mental health development. Adolescents from richer family are less vulnerable to economic hardship and have more opportunities to academic success. On the other hand, the higher achievement aspiration from parents for children may also create pressure for adolescents and cause adverse psychological effects. Actually, evidence has shown that Taiwanese adolescents with better academic performance tend to display worse mental health status. Using panel data derived from the Taiwan Youth Project, this article attempts to investigate the underlying mechanism linking family SES to depressive symptoms during the late adolescence by constructing a path model to examine the mediating effects of adolescent's aspiration discrepancy on educational achievement and parents' emotional support for children. In addition, this research intends to access to what extent that parental aspiration affect adolescents' own aspiration on educational achievement.

Background

Adolescence is coined a period of heightened “storm and stress” (Hall 1904).

Adolescents experience enormous changes in physical, mental, and social aspects and have to cope with problems such as unstable emotion, conflict with parents, and peer approval. Thus, compared to childhood, individuals tend to be more vulnerable to depressive symptoms during adolescence. Depressed adolescents not only suffer from both negative mood and malaise, but also tend to be more suicidal. Depression during adolescence can even affect individuals’ psychological well-being and social achievements during adulthood.

Distribution of depression among adolescents tends to display social gradation. As depression often results from daily difficulties such as economic hardship, illness, strain relationships, discrimination, and alienation, which poor people higher chance to encounter, adolescents from family with lower socioeconomic status are more likely to suffer from depression. On the contrary, adolescents from well-to-do families have less exposure to and more resources to deal with those difficult situations. In addition, parents with higher SES are more likely to provide emotional support for their children, which can buffer negative effects of adverse life events and in turn decreases the degree of psychological distress. Consequently, adolescents from higher SES family tend to report less depressive symptoms.

In a society such as Taiwan which highly value educational achievement, adolescents' mental status is supposed to be associated with their educational performance. Compared to parents in lower social standings, Those with higher SES are more capable to provide financial and social resource to assist children's educational performance, which may in turn reduce adolescent's anxiety while facing school entrance exams. However, Meng-Li Yang's research (2005) indicated that adolescents' with better academic performance actually display higher degree of psychological distress. She found that the higher educational expectation the parents and adolescents have, the worse mental health the adolescents experience. This evidence implies that family SES may have negative impacts on adolescents' mental health.

As we may figure, high educational expectation itself would not cause negative mental health. Actually, it is the unexpected failure which results in psychological distress. As long as one's educational achievement meets one's educational expectation, he or she would not feel disappointed. Thus, the differential between ones performance and expectation is a more proximate predictor of depression than expectation itself. As Marcussen (2006) argues that depression can result from the absence of desirable outcomes, she proposes the concept "aspiration discrepancy," the differential between reality and aspiration, as a predictor of depression. Accordingly,

aspiration discrepancy in education is defined as the differentials between one's educational attainment and previous educational expectation.

Based on the above discussion, this study intends to investigate the potential complicated mechanism between family SES and depression for Taiwanese adolescents. Parental emotional support and aspiration discrepancy in education are regarded as mediators which respectively convey positive and negative effects of family SES on adolescents' mental health. In addition, this study attempts to examine to what extent that children's educational expectation is determined by parental educational expectation for them.

Methods

The research objectives of this study are to identify the mediating mechanism between family SES and adolescents' depression in age 18. Parental emotional support and adolescents' aspiration discrepancy in educational attainment are regarded as the potential positive and negative mediators, respectively. In addition, this study accesses the impacts of family SES, parental educational aspiration, and academic performance on adolescents' own educational aspiration. Research hypotheses are listed as below:

HP 1: Family SES is negatively associated with adolescents' degree of depression.

HP 2: Father's emotional support mediates the protective effect of family SES on

adolescents' depression.

HP 3: Aspiration discrepancy in educational attainment mediates the adverse effect of family SES on adolescents' depression

HP 4: Adolescents' educational expectation positively associated with family SES, parental educational expectation, and academic performance.

Data and Samples

This research uses the data drawn from the Taiwan Youth Project (TYP), a panel study conducted at the Institute of Sociology, Academia Sinica, Taiwan. The project was started in the year 2000, and has conducted 8 waves of interviews since then. The original respondents of this project include 2,800 7th graders (1st grade of junior high) and 2,800 9th graders (last year of junior high) as well as one of their parents and their headmaster of the class. The goal of the comprehensive research design is to cover various aspects of the interplay among family, school and community which shape adolescents' future development.

These students were sampled from junior high schools located in the northern part of Taiwan in the year 2000, including Taipei City, Taipei County, and Yi-Lan County. Taipei is the largest metropolitan city in Taiwan, whereas the economic activities in Yi-Lan are mostly agriculture-based, and Taipei County is in between these two regions, so the sample covers various levels of urbanization and economic

structure. The sampling method applied by TYP was divided into two stages. In the first stage, they decided to select one thousand students each in Taipei City and Taipei County, and five hundred students in Yi-Lan County. In the second stage, they used the stratified sampling method to determine the number of schools to be chosen from each of the three cities or counties based on the number of students registered. They finally chose 40 schools, among them 16 from Taipei city, 15 from Taipei County, and 9 from Yi-Lan County. In each school, the investigators randomly chose two classes and surveyed all the students and their parent. In each class, the headmaster was asked to complete one questionnaire for each student in his/her class to comment on their school performance.

Among the several groups of subjects contained in the TYP, this research adopts the sample of the original 7th graders in the first wave. The size of this student sample successfully interviewed in the first wave was 2,690. In the eight wave, there are still 1,739 student cases remaining in the sample (the attrition rate is 35.35%).

Measures

Depressive symptoms, measured at the eighth wave of the survey, is the dependent variable of this study. Items used as measurement of depressive symptoms are adopted from the short version of Symptom Checklist-90-Revised (SCL-90-R, Derogatis, 1983) which measures the frequency of seven symptoms occurred during

the past week: headache, loneliness, depressed mood, insomnia, feeling numb or punctured in certain parts of the body, feeling congestion at throat, and weakness in certain parts of the body¹. Each item is rated on a 5-point scale from 1 (never) to 5 (oftentimes). The Cronbach alphas for this scale is .83.

Father's education is used as an indicator of respondents' family SES. Since both parents' educational levels are highly correlated ($r=0.70$), and father's education is more associated with children's self-esteem, we choose father's level of education to measure family SES. The measure includes seven levels of educational attainment (1 = elementary school or below, 7 = graduate school).

Parental support was measured in the first survey. Although father's support and mother's support are highly correlated ($r=0.65$ and 0.66 in each wave), preliminary analyses showed that including both variables indeed significantly decreases the model deviance. Accordingly, we decide to adopt both parents' responses during model estimations. In this study, parental support is measured by the average of a 3-item scale: "When you really need her/him, your mother/father will be there;" "Your mother/father understands what you think;" "Your mother/father often cares about your feelings or your problems." Responses were recorded with a 4-point scale (1 = never, 4 = always). The alphas for father's and mother's support at the first wave are 0.80 and 0.78, respectively.

Parental educational expectation was measured at the first wave of the survey by the question: "What is the least educational attainment that you expect this child to

¹ In the seventh wave of survey, only "loneliness" and "depressed mood" were measured. The depression scores of this wave were weighted by $7/2$ to fit the range of scores in other waves.

have?” Answers of this question ranges from “below high school” (coded as 1) to “vocational/general college (coded as 4)..

Personal educational expectation was measured at the third wave of the survey by the question: “Given your current environmental conditions and academic ability, what is the highest level of school education you expect yourself to have?” Answers of this question ranges from “below high school” (coded as 1) to “vocational/general college (coded as 4).

Aspiration discrepancy is the differentials between adolescents’ actual educational attainment (measured in year 2007) and their educational aspiration (measured in year 2002). Adolescents’ actual educational attainment is coded as the same as the educational aspiration (from 1 to 4, as aforementioned). Thus, the differentials between the two variables range from -3 to 3. Positive values represent adolescents’ educational achievements surpass their educational aspiration. Negative values mean their achievements are below aspirations.

Academic performance was measured by the grade of the first Basic Achievement Test for Junior High Students taken by students in the 9th grade. The records were provided by the school teachers and ranges from 0 to 300.

Regarding the gender differences in depressive symptoms, gender is controlled during the data analysis. Male is coded as 1 and female is coded as 0.

Analytic Strategies:

In order to identify how variables are associated with each other, we first examine binary correlations between all variables (results shown in Table 2). We then apply path analyses to disentangle the complex mechanism between family SES and adolescents' depression. The software of AMOS 4.0 is employed to carry out the model estimation. The path model is shown in Figure 1, and the estimated regression weights are shown in Table 3.

(Figure 1 is about here)

Results

Table 1 displays descriptive statistics in this research. According to Table 1, about 80% of parents (78.0%) have educational attainment lower than vocational/general high school. Only about 15% of parents have college degree. On the other hand, about 60% (57.8%) of parents expect their children "at least" to obtain either technical college or general college degree, suggesting most parents expect their children to have higher educational attainment than themselves. While about 80% parents (79.6) expect their children to attain junior college or technical/general college, only about 70% (68.55) of children think they are capable to reach the same educational levels. This implies that parents' educational expectation for children tend to be higher than children's own expectation.

(Table 1 is about here)

Before estimating the complicated path models, we first examine binary correlations for all variables to obtain rough ideas about how they are related. Table 2 displays the results of analyses for correlations. Looking at the first column of Table 2, we find that father's education is significantly and positively associated with father's support, parental educational aspiration, academic performance, and adolescents' own educational aspiration. However, against to our expectation, father's education is not significantly associated adolescents' depression. This implies that the positive and negative effects of family SES on adolescents' depression probable offset each other. In the second column, we see father's support is significantly and positively associated with parental aspiration, academic performance, and adolescents' educational aspiration. The negative association between father's support and adolescents' depression is also significant, suggesting parental support provide effective protective impacts on adolescents' mental health. In the third and fourth columns, we find parental aspiration for children's educational attainment and academic performance are both significantly associated with children's own educational aspiration. Parental aspiration is positively associated with adolescents' academic performance and negatively associated with aspiration discrepancy in education. By definition, adolescents' own educational expectation displays negative association with aspiration discrepancy in column five. In column six, aspiration

discrepancy in education is significantly and negatively associated with depression.

This suggests that adolescents who fail to meet their own educational aspiration are more likely to suffer from depressive symptoms. In addition, if we scan through the bottom row, we see that male adolescents are more likely to feel receiving support from fathers, have poorer academic performance, have lower educational aspiration, experience more positive aspiration discrepancy, and suffer less from depressive symptoms.

(Table 2 is about here)

Table 3 exhibits the regression weights in the path model shown in Figure 1. The path model shows no significant direct association between father's educational attainment and adolescents' depression, they are mainly linked with each other through mediators. As expected, the protective effects of family SES on adolescents' depression appear to be mediated through parental emotional support. The regression weights between father's education and father's support, and the one between father's support and depression are .056 and -.735, respectively, and both of them are significant. Also, results in Table 3 show that the adverse effects of family SES on adolescent's depression is significantly mediated by negative aspiration discrepancy (the regression weight is -.265), which results mainly from very high educational aspiration. According to Table 3, father's SES, father's emotional support, parental

expectation, and adolescents' academic performance all exhibit significant positive direct effects on adolescents' own educational expectation. This indicates that, even with adjustment of family SES and academic performance, parental expectation still have significant and positive effects on children's educational expectation. The influence of parental expectation on children's own expectation is not only significant, but also very strong. When comparing the standardized direct effects of each of these variables on adolescents' educational expectation (unshown results upon request), we find that the strength of impact of parental expectation is only next to that of academic performance.

(Table 3 is about here)

Preliminary Conclusion

This research proposes four main hypotheses, three of them are supported and one is rejected. First, we hypothesize that family SES is negatively associated with adolescents' degree of depression. Results reveal no significant association between family SES and adolescents' depression. Thus, this hypothesis is rejected. Family SES have only indirect, not direct, on adolescents' depression. Second, we expect to find that father's emotional support mediates the protective effect of family SES on adolescents' depression. Our analyses support this hypothesis. Parents with higher SES are more likely to provide emotional support to their adolescent children, and

that considerate behavior pattern indeed enhances children's mental health status.

Third, we hypothesize that aspiration discrepancy in education mediates the adverse effect of family SES on adolescents' depression. This hypothesis is also supported by our analyses. Finally, we expect to find that adolescents' educational expectation is positively associated with family SES, parental educational expectation, and academic performance. Results show that these variables indeed exhibit positive association with adolescents' educational expectation. Moreover, we find that the impact of parental expectation on adolescents' educational expectation is not only significant, but also substantial.

The findings of this research have shed some light on the complex relation between family SES and adolescents' depression and suggest new perspectives for future research. As we identify that parental expectation strongly influence adolescents' own educational expectation and in turn result in adverse mental health outcomes, future researchers are recommended to further investigate how parental aspiration translates to substantial behaviors that causes children's psychological distress.

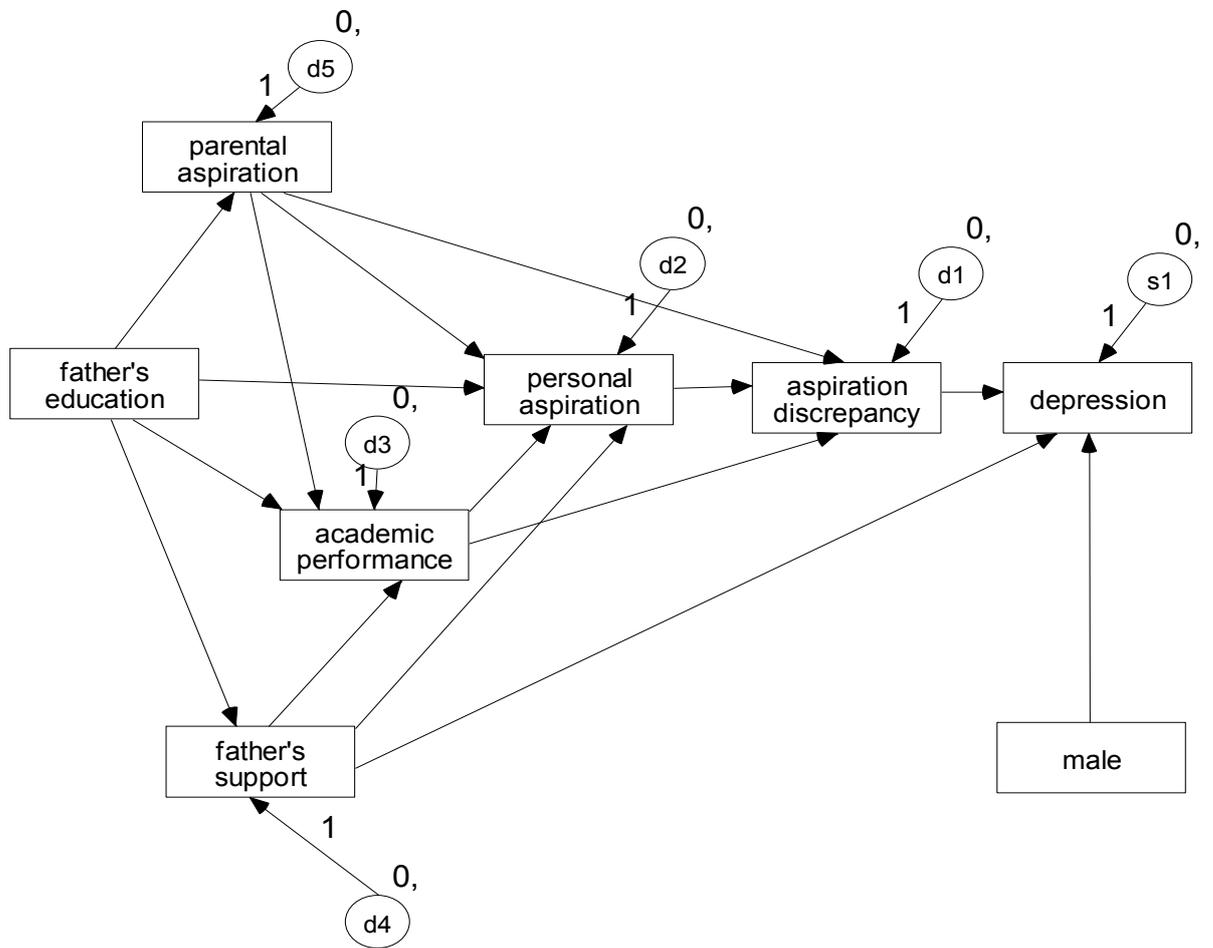


Figure 1. The path model between family SES and adolescents' depression at age 18

Table 1. Descriptive Statistics (Means or Percentages, with Standard Deviations in Parentheses)

	Mean	SD
Depressive Symptoms (at wave 8)	11.58	(4.384)
Father's educational attainment*		
Elementary school	15.2	
Junior high school	27.7	
Senior high school	26.9	
Vocational high school	8.2	
Junior college	6.9	
General college	11.6	
Graduate school	3.6	
Father's support (at wave 1)	2.50	(0.850)
Parental lowest educational aspiration for children (at wave 1)		
Below high school	1.6	
Vocational/high school	18.9	
Junior college	21.8	
Technical/general college	57.8	
Children's own educational aspiration at (wave 3)		
Below high school	2.2	
Vocational/high school	29.0	
Junior college	8.7	
Technical/general college	60.1	
Grade of the first Basic Achievement Test for Junior High Students	153.47	(56.943)
Aspiration discrepancy in educational attainment	0.06	(1.091)

Note: N= 2690. Means and percentages do not account for missing data

* 1 = elementary school or below, 7 = graduate school

Table 2. Correlations between Variables

	Fa_Edu	Fa_Sup	Par_Asp	Aca_Perf	Own_Asp	Discrep	Depress	Male
Father's education	1							
Father's support	0.113**	1						
Parental aspiration	0.330**	0.087**	1					
Academic performance	0.390**	0.099**	0.533**	1				
Own aspiration	0.283**	0.122**	0.487**	0.572**	1			
Discrepancy	-0.038	-0.049	-0.109**	-0.010	-0.525**	1		
Depression	0.016	-0.151**	0.011	0.023	0.018	-0.069**	1	
Male	0.016	0.101**	-0.030	-0.060*	-0.130**	0.054*	-0.112**	1

*p<.05; **p<.01

Table 3. Unstandardized Regression Weights in Pass-Analysis Models for Taiwanese Adolescents

Paths between variables			Weights
Father's education	→	Father's support	.056***
Father's education	→	Parental aspiration	.164***
Father's education	→	Academic performance	8.223***
Father's education	→	Own aspiration	.018†
Father's support	→	Academic performance	2.061†
Father's support	→	Own aspiration	.058**
Father's support	→	Depression	-.735***
Parental expectation	→	Academic performance	31.380***
Parental expectation	→	Own aspiration	.280***
Parental expectation	→	Aspiration discrepancy	.104**
Academic performance	→	Own aspiration	.007***
Academic performance	→	Aspiration discrepancy	.007***
Own expectation	→	Aspiration discrepancy	-.885***
Aspiration discrepancy	→	Depression	-.265**
Male	→	Depression	-.786***
		χ^2	101.463
		df	13
		CFI	.974
		NFI	.970
		RMSEA	.049

†P<.10; *p<.05; **p<.01; ***p<.001

Reference

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