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The Influence of Taiwanese Parenting Style on Adolescent Mental Health and Academic Performance

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Using a nationally representative sample of 16,178 9th grade students from the Taiwan Educational Panel Survey (TEPS), this study examines the relationships among parenting styles, adolescent mental health, and adolescent academic performance and distinguishes between two key dimensions of parenting styles (support vs. control), paternal and maternal styles, as well as outcomes between boys and girls. Results of multi-group structural equation modeling demonstrate that paternal and maternal support were related positively and significantly to the mental health of both sons and daughters as well as their academic performance. Paternal and maternal control were negatively associated with the mental health of both sons and daughters. Paternal control was negatively associated with the academic performance of both sons and daughters. However, maternal control was found to be positively related to the academic performance of sons, but this effect was not significant for mother-daughter dyads. Finally, similar to other studies using TEPS data, mental health status was negatively associated with the academic performance of both sons and daughters. The negative relationship between adolescent mental health and academic performance indicates the need to emphasize the impact of excessive academic pressure on Taiwanese adolescent mental health.

Keywords: Taiwan, parenting, mental health, achievement.

Taiwanese Adolescent Mental Health

A national epidemiological study on child and adolescent mental disorders in Taiwan found that 32 percent of children report at least one form of mental illness (Chen & Hsu, 2017, Everington, 2017). The most commonly reported mental illness is attention deficit hyperactivity disorder (ADHD), followed by nightmare disorder, phobia, conduct disorder, separation anxiety disorder, oppositional defiant disorder, social anxiety disorder, and autism (Everington, 2017). This first national epidemiological study in Taiwan utilized data collected by the Ministry of Health and Welfare on 10,122 students in 3rd, 5th, and 7th grades in 69 schools in 19 counties and cities from 2013 to 2016 (Everington, 2017). According to Susan Gao, professor in psychiatry at the College of Medicine of National Taiwan University, the rate is similar to Western studies, which shows that around 25 percent of children and adolescents experienced mental disorders (Chen & Hsu, 2017). Previous Western studies have demonstrated that childhood and adolescent mental disorders are predictors of poor adjustment in adulthood (e.g., Copeland, Shanahan, Costello, & Angold, 2009; Hofstra, van der Ende, & Verhulst, 2002). Mental health among adolescent is an important part of overall health, and investments in adolescent health and well-being could bring benefits into adulthood.

The social determinants of adolescent mental health are the conditions in which they are born and grow. In Taiwan, studies have shown that educational tracking, which begins in adolescence, significantly increases stress in Taiwanese students (Chen & Lu, 2009; Lin & Yi, 2016; Yang, 2005). The first major educational tracking takes place after nine years of compulsory education (elementary and junior high school), when students take nationwide entrance examinations which determine whether

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a student is placed on a general high school or vocational high school. In order to obtain entry into a better senior high school, students attend private cram schools on evenings and weekends. Cram schools in Taiwan are called "buxiban" literally, they are after-class academic-enrichment programs that train their students to meet particular goals, most commonly to pass the entrance examinations of high schools or universities. In a longitudinal study, Chang (2013) reported the time Taiwanese adolescents spend in cram classes increased successively over three years from 7 to 13 hours. The second tracking occurs three years later, with alternate tracks of general university versus technical college. Typically, students in the former track are garnered higher social status because this track allows graduates to apply to higher-level educational institutions. Although relatively few studies examining the effect of the educational process on developmental trajectories of mental health have been conducted, past studies based on longitudinal data have shown that Taiwanese adolescents report more depressive symptoms in the third year of both junior high and senior high (Yi, Wu, Chang, & Chang, 2009; Yi, 2013) as these years coincide with the entrance examination years. The educational competition apparently has a greater impact on Taiwanese adolescent mental health than the biological maturation effects often documented in the Western literature (Atkins et al., 2008; Yi, 2013).

Using national survey of the Taiwan Educational Panel Survey (TEPS), Yang (2005) found that Taiwanese adolescents with higher academic achievement were likely to have a lower mental health status characterized by "excessive achievement pressure." Similarly, Lin and Yi (2016) reported that Taiwanese adolescent mental health was closely linked to and intertwined with academic performance. In another study with Taiwanese adolescents, Chen and Lu (2009) also reported that academic performance was negatively associated with adolescent general happiness. Further, Chen and Lu (2009) found that time spent on homework and after-class academic-enrichment programs was positively related to adolescent academic performance, while negatively related to their psychological well-being. These findings suggest that students with higher levels of academic achievement tend to feel greater pressure toward educational competition and are more likely to have mental health problems. Excessive achievement pressure from the normative tracking is not a unique phenomenon in Taiwan. It has also been reported in studies of adolescent from other Asian nations. For example, Ahn and Baek (2013) reported that academic-related stress was the most crucial determinant for psychological well-being of Korean adolescents, followed by parents-related stress, appearance/material-related stress, and friends-related stress. Although the above studies have indicated the relation between excessive academic achievement pressure and psychological well-being, the literature examining these relations in Taiwanese adolescents is limited.

Culture and Parenting Styles

Parental support and control have emerged as key dimensions from previously proposed concepts of parenting styles that predict adolescent development (Baumrind, 1991; Barnes & Farrell, 1992; Maccoby & Martin, 1983). Although cross-cultural research identify parenting style as an important predictor of adolescent well-being and academic performance (e.g., Chao, 1994; McKinney & Renk, 2008; Nguyen, 2008; Ozer, Flores, Tschann, & Pasch, 2013; Pong, Johnston, & Chen, 2010; Shek, 2007; Spera, 2006), the research findings, have not been universal with respect to replication across different cultural groups (national or ethnic). Some scholars (e.g., Chao, 1994; Darling & Steinberg, 1993; Russell, Crockett, & Chao, 2010) argue that the effects of parenting styles on adolescent development differ across cultural backgrounds due to differences in sociocultural understandings of parenting. For example, the large research of literature on parenting styles has been shaped by the predominantly European- and U.S.-focused studies. Chao's work (1994) suggested that the measurement of parenting styles (e.g., Baumrind, 1991) based on European American culture may miss crucial factors that inform the parenting style of Chinese. For example, Chao (1994) pointed out that the authoritarian parenting style defined by Baumrind's work reflects unquestioning obedience to parents along with low parental responsiveness and it may not be applicable to Chinese parents. For Chinese parents, the parenting concept "authoritarian" may be equated with parental concern, caring, or involvement. The purpose of their strictness is to

protect their children, not inhibit them. This type of behavioral control should be distinguished from psychological control, which appears to be more manipulative and guilt based. In order to fully understand parenting styles relevant to Chinese, Chao (1994) proposed an indigenous concept of "training" (*chiao shun*) which distinguished the Chinese parenting style from European-Americans beyond the concept of "authoritarian". The Chinese concept of "training" was derived from the role relationships defined by Confucian tradition. These role relationships are structured hierarchically to maintain social order and harmony. For example, in a family, the child is expected to respect their parents; while the parents need to responsibly govern, teach, and discipline the child. As stated by Chao (2001), "training centrally emphasizes the importance of parental control in instilling the need to work hard, be self-disciplined, and do well in school. Training also distinguishes a type of parental responsiveness that includes an investment, involvement, and support of children" (p. 1834). The high demand within the Chinese parenting style reflects traditional Asian values with emphasis on the value of education, filial piety, and family hierarchy and harmony. One distinctive feature of the "training" concept is high involvement and caring, which is not part of the traditional authoritarian concept.

Although attention to cross-cultural differences has grown in recent years, with respect to research on cultural variability in parenting styles, few studies have tried to examine within-group differences among Asian parenting. For example, parenting in adolescence in Chinese families has been influenced by Confucian-based culture values (Chao & Tseng, 2002). In contrast, parenting in Filipino families has been historically influenced by Catholicism and Spanish culture values (Russell, Crockett, & Chao, 2010). Blair and Qian (1998) found that the association between parenting style and school performance varied among Asian American subgroups. Based on their findings, parental control was positively related to school performance of Chinese adolescents, but not related to the performance of Filipino adolescents. In summary, while Asian parenting share an Asian culture origin, distinct subcultural and historical differences in family socialization points to the possibility of distinct parenting beliefs and behaviors. Thus, more research needs to be conducted with an in-depth look at parenting style differences among Asian subgroups.

Based on the existing literature, most studies have focused on the effects of Asian parenting style on adolescent academic achievement, while research on adolescent health and well-being as outcome variables is limited (Yang, 2005; Tu, Lee, Chen, & Kao, 2014). Furthermore, only few studies have tried to examine the gender effects on the specific link between parenting styles and adolescent mental health among Asian subgroups. For example, one study conducted by Dwairy and Menshar (2006) for Egyptian adolescents showed that, in rural areas, male adolescents reported a higher level of parental control, when compared to their female counterparts. However, this trend was reversed in urban areas in which female adolescents reported a higher level of parental control than their male peers. Moreover, female adolescents reported a stronger family-child bond than that of male adolescents. Their findings also revealed that poor mental health was not significantly associated with parental control. Dwairy and Menshar, therefore, concluded that the effect of parental control within an authoritarian culture is not as harmful as within a liberal culture (2006). Taking these findings into consideration, the current study proposes that parenting style may affect boys and girls differently, in part because their needs for parental resources may be different.

To address the limitations in the existing literature, the goal of this study is to investigate Taiwanese parenting styles and their influences on adolescent mental health as well as academic performance. The theoretical perspective undertaken by this study is that parenting styles are socially constructed, vary across cultures, and are influenced by a variety of contextual factors (Chao, 1994, 2001; Chao & Tseng, 2002; Darling & Steinberg, 1993; Harkness & Super, 2002; Huang & Gove, 2015; Russell, Crockett, & Chao, 2010). Specific to Taiwanese families, Ruth Chao's (1994, 2001) concept of "training" (*guan*) is used in this study to guide the development of the hypothesized model. Specifically, the present study extends prior work and addresses the following questions:

1. What is the relationship among parenting style, adolescent mental health, and adolescent academic performance?

2. Do paternal and maternal parenting styles exhibit differential effects for sons and daughters

in both mental health as well as academic performance?

Method

Data

The present study utilized the data obtained from the second wave of the Taiwan Educational Panel Survey (TEPS), a nationally representative sample of 16,178 Taiwanese students (8,377 males and 7,801 females) surveyed in 2003 as 9th graders. The age of students in 9th grade ranged from 13 to 16 years (mean age = 14.70 ± 0.60 years). The 9 th grade cohort sample was selected from 1,938 classes of 333 junior high schools. This database consists of students' self-reported information, responses from parents as well as teachers. The measurement variables used in this study are from the students' self-report questionnaire.

Measures

Parenting styles. In wave 2 of the TEPS, 15 items were used to measure students' perceptions of their parenting behaviors. Some examples of support include: *father listens to you carefully about your thoughts, father respects who you are, father encourages you for new ideas, and father spends time with you when you have difficulties*. Some examples of control include: *father disciplines you strictly on daily routine, father disciplines you strictly on school work, father compares your performance with others, and father is in charge of decisions about your personal matters*. Students were able to provide responses at 2 levels: 1 = *no*; 2 = *yes*. These same questions but with "mother" replacing "father" were administered to students to capture students' perception of mothers' parenting behaviors. Using Cronbach's alpha, the reliability coefficients for paternal support were .69 and .71 for maternal support. For parental control, the reliability coefficients were 0.83 for fathers and 0.82 for mothers. These reliability indices indicate moderate to high levels of internal consistency for the measures.

Mental health. For the measurement of adolescent mental health, 12 items were utilized from the TEPS students' questionnaire that assessed frequencies of depressive, anxious, aggressive, suicidal ideation, and physical complaints. Some examples include: *don't want to be around people, feel down and frustrated, and feel easily irritated by others*. The items were on a 4-point Likert scale (1 = *never*, 2 = *seldom*, 3 = *sometimes*, 4 = *often*). For ease of interpretation, the scale for the 12 items was reversed, with higher value indicating better mental health status. Using Cronbach's alpha, the reliability coefficients for adolescent mental health were 0.85 for males and 0.84 for females, indicating a high level of internal consistency for the measure.

Academic achievement. TEPS constructed its own standardized test to assess performance in general analytic ability, including reading, math, and science. The current study used item response theory scores on the standardized test, provided by the publicly released file of TEPS, to measure student academic achievement in the survey. Item Response Theory (IRT)-based ability score is normally distributed with a mean of 0 and standard deviation of 1. The mean score was 0.68 (SD = 1.21) for the 9th grade sample.

Data Analysis

The present study applied multi-group structure equation modeling (SEM) to model the relationships among parenting styles, adolescent mental health, and their academic achievement. By using a latent variable modeling program, Mplus version 7.0 (Muthén & Muthén, 1998 – 2010), multi-group SEM allows for: (a) examining invariance of structural path coefficients across gender groups; (b) evaluating whether the observed items measure the same theoretical construct across gender groups; and (c) simultaneously estimating the structural model with the measurement model. The comparative fit index (CFI), the Tucker-Lewis index (TLI), and the root mean square error of approximation (RMSEA) were selected as indices of model fit. According to Brown (2006), CFI and TLI larger than 0.90, and RMSEA less than 0.05 are acceptable fit.

Results

Descriptive Data Analysis

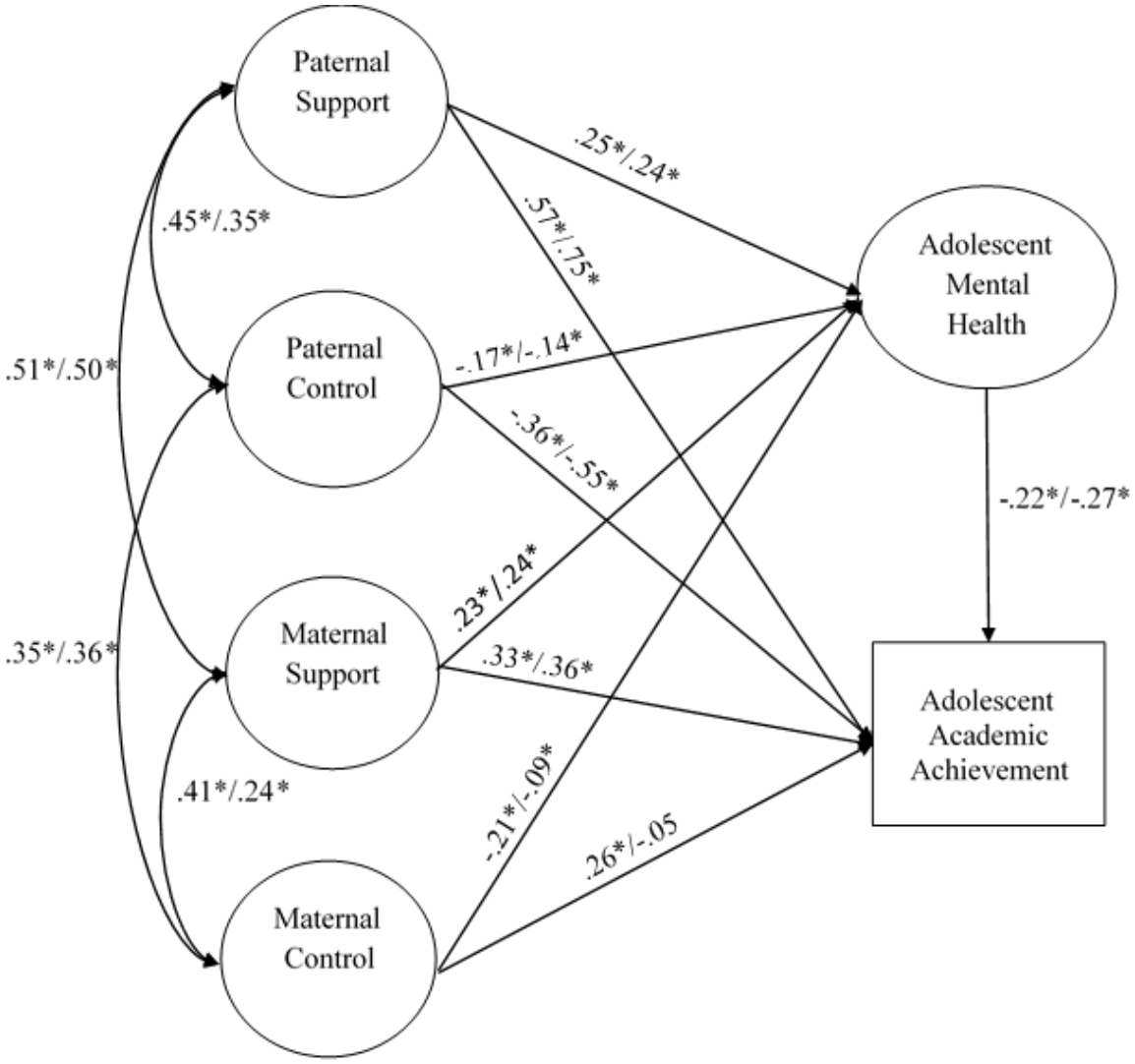
Table 1 (see Appendix) presents the mean and standard deviation of each measurement variable for the sample of boys and girls, respectively. On average, girls ($Mean_{Girl}$ = 2.85, SD = 0.51) were more likely to have a lower level of mental health status than boys ($Mean_{Boy}$ = 2.97, SD = 0.54). The results of Chi-Square

test showed that there was statistically significant association between gender and mental health status ($\chi 2$ (36) = 325.88, $p < .05$). Additionally, independent *t*-test was conducted to compare mean gender difference (α = .05, two-tailed) for academic performance. The result indicated significantly higher mean scores of academic achievements for girls when compared to boys ($t(16442) = -8.63$, $p < .05$).

Multi-group Structural Equation Model

Fit statistics indicated an adequate fit (CFI = 0.91; TLI = 0.90; RMSEA = 0.05) of the proposed statistical model. Comparison of the latent scores of parenting styles among the parent-child gender dyads (i.e., father-son, father-daughter, mother-son, and mother-daughter) showed four noteworthy results: (1) paternal control for sons was significantly greater than for daughters (discrepancy = -0.14, SE = 0.02, $p < .01$); (2) no significant mean differences were found for paternal support between father-daughter and father-son dyads (discrepancy = 0.02, SE = 0.02, $p = .24$); (3) maternal control for daughters was greater than for sons (discrepancy = 0.14, SE = 0.02, $p < .01$); and (4) maternal support for daughters was greater than for sons (discrepancy = 0.14, SE = 0.02, $p < .01$).

Figure 1.
Structural Model of Parenting Styles on Adolescent Mental Health and Academic Achievement
Note. * $p < .05$, two-tailed; path coefficients are listed as sons/daughters



The results from multi-group structural equation modeling are shown in Figure 1. Paternal control was found to be negatively related to the mental health of both sons (γ = -0.17, SE = 0.04, $p < .01$) and daughters (γ = -0.14, SE = 0.03, $p < .01$). Similarly, maternal control was negatively related to the mental health of both sons (γ = -0.21, SE = 0.03, $p < .01$) and daughters (γ = -0.09, SE = 0.03, $p < .01$). However, maternal control was found to be positively related to the academic performance of sons (γ = 0.26, SE = 0.06, $p < .01$), but this effect was not significant for mother-daughter dyads (γ = -0.05, SE = 0.05, $p = .36$). In contrast, paternal support was found to be positively related to the mental health of both sons (γ = 0.25, SE = 0.04, $p < .01$) and daughters (γ = 0.24, SE = 0.04, $p < .01$), and this positive effect was also significant for the academic performance of sons (γ = 0.57, SE = 0.07, $p < .01$) and daughters (γ = 0.75, SE = 0.07, $p < .01$). This trend was significant for mother-son and mother-daughter dyads; that is, maternal support was shown to be beneficial for the academic and psychological development of both adolescent sons and daughters. Furthermore, similar to other studies using TEPS data, we found that mental health status was negatively associated with academic performance for both sons (β = -0.22, SE = 0.02, $p < .01$) and daughters (β = -0.27, SE = 0.02, $p < .01$).

Discussion

The present study makes a unique contribution by examining the extent to which different dimensions of parenting styles (support vs. control) vary in their influence on Taiwanese adolescent mental health and academic performance. Findings of the present study expand on past research by showing that adolescent mental health and academic achievement are each uniquely predicted by paternal and maternal parenting styles. Furthermore, Chao's work (1994, 2001, 2002, 2011) has stressed the importance of examining the role of culture or sociocultural contexts in the links between parenting styles and adolescent outcomes. Few studies have utilized multi-group structural equation models to explore the effects of parenting styles in Taiwanese adolescence and across gender. The current investigation, by using a nationally representative dataset, extends the findings presented in Chao's study and sets the foundation for further research to understand the process by which parenting behaviors shape the mental health and academic achievement of adolescents in Taiwan. The findings demonstrate that paternal and maternal support are beneficial for the mental health as well as the academic achievement of both sons and daughters, whereas paternal and maternal control appear to be detrimental for the mental health of sons and daughters. Paternal control appears to be detrimental for the academic achievement of both sons and daughters. However, our results demonstrate the beneficial effect of maternal control on the achievement of sons. This finding for maternal control is consistent with results from another study using longitudinal data on comparing the perceived differences in parent-adolescent relational quality in Hong Kong (Shek, 2007). The findings of Shek's study reveal that both boys and girls tended to have higher satisfaction with maternal control and more readiness to communicate with mothers. These findings seem to indicate that maternal control has different impact when compared to paternal control. Overall, these differences highlight the importance of examining the consequences of parenting styles separately for mothers and fathers.

With regard to the association between mental health and academic achievement, our study found a negative association for both Taiwanese sons and daughters. This result is consistent with findings from earlier studies using the TEPS (Chen & Lu, 2009; Yang, 2005), though inconsistent with findings from European- and U.S.-focused studies (Cheng & Furnham, 2002; Fleming et al., 2005; Leung, Chang, & Lai, 2004). For example, Cheng and Furnham (2002) tested whether academic self-concept and school performance is associated with happiness among 90 high school students in the United Kingdom. They found that psychological well-being is significantly associated in the positive direction with both actual school grades and self-confidence in terms of academic performance, the association with the latter being stronger. In another longitudinal study conducted in the United States, Fleming and his colleagues (2005) found that social, emotional, and decision-making skills predict adolescent academic achievement.

This study highlights the role of cultural norms in modulating the effects of academic competition in Taiwan. The study of psychological well-being of Taiwanese adolescents needs to consider the

sociocultural context in which Taiwanese adolescents are socialized. For Taiwanese adolescents growing up in a competitive examination-oriented educational context, cram schooling has become a normal part of life (Yi, 2013). Consequently, time spent on homework and after-class academic-enrichment programs are found to be positively related to adolescent academic achievement, while negatively associated with their psychological well-being (Chen & Lu, 2009). In another study with Taiwanese adolescents, Yang (2005) found that adolescents with higher academic achievement were likely to have a lower mental health status. They identified "excessive achievement pressure" (p. 5) as the phenomenon that negatively links the two outcomes. A better understanding of the excessive achievement pressure or academic competition in Taiwan will provide a basis for further examining the link between academic achievement and mental health.

There are limitations to the current study. First, the relationships among parenting styles, adolescent mental health, and academic achievement were examined via a cross-sectional design. This is because the parenting variables measured in TEPS data were not repeated in each wave. Without longitudinal data, directional causal relationships cannot be inferred. For example, it is possible that higher levels of mental health status elicit positive family emotional environment and supportive parenting style. Longitudinal designs with more recent data would allow researchers to draw more definitive conclusions about the directionality of the association between parenting styles and the development of adolescent mental health as well as academic performance.

The second limitation is the large sample size. Since significance testing is largely dependent on the sample size, this study may lead to significant but small effects. For example, regarding the effect of maternal control on the mental health of daughters, the regression is as small as 0.09. This means that the effect of maternal control on the mental health of daughters is relatively small. Future research should replicate this study with a different sample. A third limitation is that within-group differences in the Taiwanese population are not examined; for example, rural/urban, indigenous group, or socioeconomic class distinctions are not made. Future studies that distinguish between these types of Taiwanese sub-groups would provide a better understanding of the subcultural variations that may exist. This study, however, deserves attention because it adds to the literature on the relations among parenting styles, adolescent mental health, and adolescent academic performance. Understanding cross-cultural differences in parenting styles is important for researchers or policy makers who focus on parenting and adolescent development. Those professionals who work with Taiwanese adolescents need to be sensitive to differences in Taiwanese parental goals and behaviors. How Taiwanese parents support their children may differ from parents in other parts of the world because the meaning of these concepts vary across cultures.

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Appendix

Table 1.
Descriptive Statistics for Boys and Girls
Note. The sample size for boys ranged from 7,112 to 8,311 and the sample size for girls ranged from 6,841 to 7,948.

Variable	Mean (Boy)	SD	Mean (Girl)	SD
Paternal Support				
Father listens to you carefully about your thoughts	0.34	0.47	0.28	0.45
Father gives you what you need	0.29	0.45	0.40	0.49
Father respects who you are	0.53	0.49	0.58	0.48
Father encourages you for new ideas	0.16	0.36	0.17	0.37
Father spend time with you when you have difficulties	0.37	0.48	0.32	0.46
Maternal Support				
Mother listens to you carefully about your thoughts	0.54	0.49	0.58	0.49
Mother gives you what you need	0.35	0.47	0.40	0.49
Mother respects who you are	0.68	0.46	0.71	0.45
Mother encourages you for new ideas	0.16	0.36	0.23	0.41
Mother spend time with you when you have difficulties	0.55	0.49	0.59	0.49
Paternal Control				
Father disciplines you strictly on daily routine	0.60	0.49	0.56	0.50
Father disciplines you strictly on spending money	0.31	0.46	0.23	0.42
Father disciplines you strictly on schoolwork	0.45	0.49	0.44	0.50
Father disciplines you strictly on how you dress	0.61	0.48	0.70	0.45
Father disciplines you strictly on your eating habits	0.46	0.49	0.44	0.50
Father disciplines you strictly on making friends	0.32	0.46	0.33	0.47
Father advises you not do something would upset or embarrass your parents	0.38	0.48	0.31	0.46
Father advises you do not interrupt a conversation or talk back	0.44	0.49	0.43	0.49
Father asks you to complete something immediately	0.31	0.46	0.27	0.44
Father scolds you because you made a minor mistake	0.18	0.38	0.17	0.37
Father hits you because you made a minor mistake	0.08	0.27	0.06	0.22
Father compares your performance with others	0.33	0.47	0.30	0.46
Father constantly repeats or reminds you about the same things	0.38	0.48	0.37	0.48
Father is in charge of decisions about your personal matters	0.33	0.47	0.30	0.45
Father disciplines you very strictly	0.50	0.50	0.44	0.49

Maternal Control				
Mother disciplines you strictly on daily routine	0.76	0.42	0.81	0.39
Mother disciplines you strictly on spending money	0.52	0.49	0.51	0.50
Mother disciplines you strictly on schoolwork	0.61	0.48	0.60	0.49
Mother disciplines you strictly on how you dress	0.61	0.48	0.70	0.45
Mother disciplines you strictly on your eating habits	0.69	0.46	0.74	0.43
Mother disciplines you strictly on making friends	0.44	0.49	0.51	0.50
Mother advises you not do something would upset or embarrass your parents	0.50	0.50	0.50	0.50
Mother advises you do not interrupt a conversation or talk back	0.42	0.49	0.49	0.50
Mother asks you to complete something immediately	0.26	0.43	0.27	0.44
Mother scolds you because you made a minor mistake	0.18	0.38	0.22	0.41
Mother hits you because you made a minor mistake	0.07	0.25	0.07	0.24
Mother compares your performance with others	0.52	0.49	0.58	0.49
Mother constantly repeats or reminds you about the same things	0.76	0.42	0.77	0.43
Mother is in charge of decisions about your personal matters	0.43	0.49	0.51	0.50
Mother disciplines you very strictly	0.44	0.49	0.50	0.50
Adolescent Mental Health				
Don't want to be around people	3.26	0.84	3.26	0.80
Feel down and frustrated	2.91	0.88	2.63	0.88
Feel like you want to scream, smash something, argue, or hit someone	2.94	0.91	2.80	0.89
Feel that your body is shaking, feel intense and unable to focus on something	3.05	0.88	2.97	0.87
Feel that you are lonely	3.12	0.92	2.84	0.93
Have a sleeping disorder, easily wake up at night or have nightmares	3.22	0.85	3.06	0.87
Feel that you never sleep enough	2.46	1.07	2.14	1.00
Scatter garbage in public	3.06	0.84	3.22	0.72
Feel that you have a bad fortune	2.68	0.89	2.62	0.80
Physical pressure over head, limbs trembling	3.40	0.80	3.34	0.83
Feel easily irritated by others	2.78	0.83	2.74	0.80
Feel guilty or regret of something	2.71	0.88	2.60	0.84
Students' academic achievement	0.60	1.25	0.76	1.16