Abstract

Objectives: The objective of the current study was to examine parent’s level of depressive symptoms, education level, and their association with their child’s aggression and delinquency level. Methods/Statistical Analysis: Using Mplus, path analysis was conducted using the most current 2014 Korean Welfare Panel Study data (KWPS) including a total of 471 adolescents’ cases. Parents’ depressive level was measured using the CES-D 11 scale, parent’s education level, parents’ positive and negative parenting style based on their level of physical, emotional abuse, and neglect experience in children, and children’s aggression and delinquency level were also examined. Findings: Overall, the results showed a satisfactory model fit [(Model $\chi^2$ (22) = 272.37 p < .001, CMIN/d.f. = 12.38, CFI = .992, TLI = .987, RMSEA = .020)]. The CFI value obtained in the current study was .992, indicating that the hypothesized model well fits the data. The RMSEA value was .02, which also indicates a very good fit (< .05). TLI value of .987 also supported the notion of a good fit. There was a positive relationship between mother’s education level and positive parenting, while father’s education level had no effect on parenting styles. As expected, positive parenting was associated with less aggression and delinquency. As for parents’ level of depressive symptoms, against the expectation, there was no direct impact on parenting and children’s aggression or delinquency. In short, the findings suggest the importance of parenting, rather than the existence of mental issue itself in parents. Improvements/Applications: Future research should study individuals with actual clinical diagnosis, measure level of care management, and obtain more diverse and accurate operationalization of emotional or behavioral problems in children.

Keywords: Child Aggression, Delinquency, Education Level, Parent Mental Health, Path Analysis

1. Introduction

It is reported that children of parents with mental illness may also follow their parent’s steps by developing psychological problems themselves at some point in their lives\(^1\). This may be due to children of mentally ill parent frequently experiencing negative emotions from their parents or social isolation from having to take care of their parent(s), such as anger, fear, and sadness. The significance of this problem is that they are likely to internalize such issues, and may result in depression and/or anxiety\(^1\) themselves, and to also externalize problems, including exhibition of aggression and rule-breaking behaviors. The implication of such internalization and externalization of the problems in children is that they, too, may predict later mental disorders in themselves, such as mood and anxiety disorders\(^2\) or, in some individuals, antisocial personality disorder\(^3\). Although the majority of mental illnesses in adults can be well cared-for with proper treatment, thus individuals with mental illness are able to take good care of their children, yet, apparently, some fail to do so. Therefore, it is important to understand if or how parental mental health issue may be associated with emotional and/or behavior problems in their offspring. This will improve our understanding on how parental mental issues may affect their children and provide better clinical practice.

The link between parent’s mental health and that of their children may be understood from biopsychosocial perspectives, in which a combination of predisposition of certain genes, psychological factors, as well as environment factors associated with a variety of mental illnesses

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may all contribute to the development of mental illness in family members. Particularly, among children raised under parent(s) suffering from mental illness, it is suggested that they can become socially isolated, unlike other average children who take time with friends or play sports that are normal for their developmental stages. On another note, children’s poor mental health can be linked with the deprivation of quality relationships within the family, because parents with mental illness may have trouble appropriately interacting with their child, spending quality time, or providing the care and emotional support they need specifically fit for their developmental stages. In fact, one of the most common signs of mental illness is having problems with interpersonal relationships. For instance, mentally ill parents are reported to less likely to be emotionally available for their child, or are less likely to provide parental nurturance, given the condition limited by mental illness issue. It is interesting, however, differences in parental diagnoses does not matter when it comes to its effect on children’s emotional or behavioral problems, known as the transgenerational equifinality. In other words, diverse parental diagnoses have quite similar impact on problems in children; therefore, clinical interventions targeting this population are usually grouped into children’s developmental ages, rather than the types of mental illnesses their parents present.

Some researchers suggested that more conflictual situations tend to occur in families with a mentally ill parent than their counterparts, and this conflict may also contribute to greater problem behaviors in children raised in such families. What is more, exhibition of more negative behaviors towards their children in depressed mothers, compared to non-depressed mothers, is also noteworthy in understanding why such children have a tendency to show considerable emotional or behavioral issue, hence require clinical attention. In this sense, inappropriate expression of negative emotions or exhibition of problematic behaviors in children of mentally ill parent(s) are quite understandable, given insufficient parent nurturing or lack of time and effort to teach effective stress management, coping skills, and social skills, particularly among children of parents whose mental health issues are not well managed. As children, they may lack a positive role model, usually primary caretakers, to learn and mimic socially acceptable behaviors. This is known as the importance of good parenting; hence, important factor, because the level of children’s ability to socially interact appropriately is developed from modeling healthy behaviors of their primary caretakers, usually parent(s). In essence, familial context is the most important societal setting where children develop emotional and behavioral skills in a healthy manner. Because not all children of mentally ill parents(s) show negative emotions or behaviors, the quality of parenting should be simultaneously considered in understanding the role of parent’s mental health and its effect on children’s emotion and behaviors.

In essence, a combination of poor physical, psychological, and emotional availability of parents for their children as well as parenting style, in turn, may influence their children’s developmental experiences, personality traits, emotional states, cognitive styles that may result in negative habitual patterns of perceiving, thinking, feeling, and acting. This essentially echoes the core importance of family environment for minors. Unfortunately, there are currently least evidence to suggest any close association between parent’s level of depressive symptoms, education level, in particular, and their children’s (of minor age) mental health, particularly behavioral and emotional problems.

2. Proposed Work

The current study focused on parent’s level of depressive symptoms and parent’s education level and the association with their child’s aggression and delinquency. In this study, only adolescents of high school ages were included in the analysis, because the study focused on delinquency. The hypothesized model is presented in Figure 1 and Figure 2 shows finalized model with only significant paths. As shown in Figure 1, parent’s depressive symptoms were hypothesized to significantly link with negative parenting, parents’ education level with positive parenting, and these affecting their child’s aggression and delinquency.

![Figure 1. Proposed Path Model.](image-url)
Figure 2. Final model.

2.1 Data and Sample Description

Path analysis was conducted using the 2014 Korean Welfare Panel Study (KWPS), original data set of a representative sample of 7,072 Korean households including a total of 15,251 individuals. Among these individuals, a total 471 adolescent data were included in the analysis. Originally conducted by the Korean Institute of Social and Health Affairs in conjunction with the Social Welfare Research Institute at Seoul National University, this comprehensive dataset contains a variety of information on families and individuals related to their economic and demographic characteristics, emotional and behavioral health, social service needs, and utilization of social security systems. As for children, a series of questions in the KWPS asks about a variety of children’s thoughts and behaviors, including self-esteem, depression or anxiety, attention, withdrawal, aggression, delinquency, and school bullying experiences. Of 471 adolescents included in the analysis, one thirds were freshmen (31.2%), one thirds (33.6%) sophomore, and remaining 35.2% junior level students all in school at the time of survey. Mean age of their parents were 44 years (SD=4.83) for fathers and 41 years (SD=4.52) for mothers.

2.2 Measures

2.2.1 Parent’s Depressive Symptoms

The Korean version of Center for Epidemiologic Studies Depression scale (CES-D), a short-form 11-item version scale, was used to measure self-reported depressive feelings and behaviors. This 11-item version is the shorter index of the original CES-D\textsuperscript{18}, reported as a reliable measure in previous Korean studies (Cronbach's α=.88-.89)\textsuperscript{19} and closely associated with the full 20-item version (Pearson r=.95)\textsuperscript{20}. The CES-D evaluates depressive symptoms within the last week from the time point of the scale administered, with each question having four response categories on frequency of such experience (0=rarely or none of the time, 1=some or a little, 2=occasionally or moderate, 3=most or all the time). Question items included “I did not feel like eating; my appetite was poor”, “I felt depressed”, and “I felt that people disliked me”. The total CES-D score ranges between 0 and 33, with high scores indicating greater depressive symptoms. Reliability of the CES-D-11 in this study was .86.

2.2.2 Parent’s Education Level

Parent’s education level was included in the analysis, categorized into the following three attributes: less than high school, high school graduated, or some college or higher education. With regards to parent’s educational attainment, KWPS originally measured each education level of mother and father of the respondents. Both father’s and mother’s education were each included in the analysis.

2.2.3 Parenting Style: Positive and Negative

Both positive and negative parenting style variables were created based on recoding and total score computation of 16 question items in the original data, inquiring about parent’s physical abuse, emotional abuse, and neglect experience in children. Positive parenting was composed of eight positive aspects among 16 items. Cronbach’s alpha value of positive parenting was .84 in this study. Negative parenting was composed of negative aspect, remaining 8 items. Cronbach’s alpha value of negative parenting was .69 in this study.

2.2.4. Child’s Aggression and Delinquency

In this research, adolescent’s aggression and delinquency were examined. Aggression was based on a total computation of 19 question items on child’s aggression. Delinquency variable was created based on a total computation of eight question items. Cronbach’s alpha value was .83 and .58, respectively.

2.3 Data Analysis

Testing of the hypothesized model was conducted using the following fit indices: Chi-square statistics (CMIN); the Root Mean Square Error of Approximation (RMSEA); Tucker-Lewis index (TLI); and the Comparative Fit Index (CFI). Given that the chi-square statistic is sensitive to sample size, the CFI (exceeding .90 is ideal, with values of .95 or higher considered to demonstrate an excellent fit\textsuperscript{21}), TFI (values over .90 or over .95 are considered acceptable\textsuperscript{22}), and the RMSEA (values of less than .05 indicate a good fit\textsuperscript{23}) were used for supplementary purposes. Path analysis was conducted using Mplus version 7.4.
3. Results

Overall, the results showed a satisfactory model fit \[ (\text{Model } \chi^2 (22) = 272.37, p < .001, \text{CMIN/d.f.} = 12.38, \text{CFI} = .992, \text{TLI} = .987, \text{RMSEA} = .020) \]. The CFI value obtained in the current study was .992, indicating that the hypothesized model adequately represents the data. The RMSEA value was .02, which also indicates a very good fit (< .05). TLI value of .987 also supported the notion of a good fit. The correlation coefficients, path coefficients, and the final model with significance paths are shown in Table 1, Table 2, and Figure 2, respectively.

As shown in Figure 2, there was a positive relationship between mother's education level and positive parenting (\[ \beta = .166, p < .01 \]), while father's education level had no effect on parenting styles. That is, the higher the mother's education level, the greater likelihood of mothers to exert positive parenting behaviors. As expected, positive parenting was associated with less aggression (\[ \beta = -.256, p < .001 \]) and delinquency (\[ \beta = -.085, p < .01 \]). As for parents' level of depressive symptoms, against the expectation, there was no direct impact on parenting and children's aggression or delinquency. This finding is inconsistent with previous research where many researchers suggested a significant impact of parent's mental stability on their children's mental health. Although level of depressive symptoms or education level had nothing to do with negative parenting behaviors, negative parenting had a substantial impact on child delinquency (\[ \beta = .873, p < .001 \]). Adolescents' aggression and delinquency significantly affected each other

Table 1. Correlation matrix of major variables

| Variables                      | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 Father's education level     |       |       |       |       |       |       |       |       |
| 2 Father's depressive symptoms | -.064 |       |       |       |       |       |       |       |
| 3 Mother's education level     | .582  | -.054 |       |       |       |       |       |       |
| 4 Mother's depressive symptoms | -.154 | .452  | -.174 |       |       |       |       |       |
| 5 Positive parenting           | .202  | -.014 | .221  | -.004 |       |       |       |       |
| 6 Negative parenting           | -.008 | .115  | -.012 | .123  | -.134 |       |       |       |
| 7 Adolescent aggression        | -.064 | .071  | -.021 | .083  | -.233 | .319  |       |       |
| 8 Adolescent delinquency       | -.049 | .032  | -.071 | .051  | -.168 | .247  | .596  |       |

*p < .05, **p < .01, ***p < .001

Table 2. Unstandardized, standardized, and significance levels for model in Figure 2

| Paths                                         | Path coefficients | S.E. | p   |
|-----------------------------------------------|-------------------|------|-----|
| Negative parenting on \rightarrow Father's depressive symptoms | 6.925              | .030 | .057 |
| Negative parenting on \rightarrow Mother's depressive symptoms | -3.929            | -.016| .057 |
| Positive parenting on \rightarrow Father's education level | .888               | .112 | .061 |
| Positive parenting on \rightarrow Mother's education level | 1.311              | .166 | .061 |
| Adolescent Aggression on \rightarrow Negative parenting | .002               | .308 | .261 |
| Adolescent Aggression on \rightarrow Positive parenting | -.027             | -.256| .051 |
| Adolescent Delinquency on \rightarrow Negative parenting | .003               | .873 | .056 |
| Adolescent Delinquency on \rightarrow Positive parenting | -.044             | -.085| .030 |
| Aggression with Delinquency                   | 2.436             | .607 | .033 |

**p < .01, ***p < .001
both ways ($\beta = .607, p < .001$), suggesting that mother’s education level as well as parenting styles are important in predicting antisocial behaviors in the young population.

4. Conclusion

The findings may perhaps suggest the importance of parenting, rather than the existence of mental issue itself in parents. In fact, a variety of mental illness can be manageable with early intervention with the help of mental health professionals as well as proper and consistent care among individuals with mental illness. Therefore, it may be too early to determine or predict children’s mental health issue solely based on parent’s mental status. Although because this research was not able to determine how well parents managed their mental health issue, due to data limitation by conducting a secondary data analysis and most parents not having a clinically worrisome level of depression, future research should study individuals with actual mental illness (diagnosis), measure level or success of management by individuals, and be able to obtain more diverse and accurate operationalization of emotional or behavioral problems in children. In this sense, this study only focused on exhibition of aggression and delinquent behaviors, which may be limited to understanding a variety of negative emotions and internalized sufferings in the offspring of parents experiencing mental illness.

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6. References

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