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Abstract: Korean secondary school students (n=263) responded to surveys measuring their family contexts and school adjustment during the time period August-September 2004. Structure Equation Modeling tests were conducted to identify the nested model on school adjustment, a latent variable constructed with peer relations, teacher-adolescent relations, and academic attitude. In the nested model, parental involvement was a powerful predictor for school adjustment. Family conflict had a negative impact on school adjustment and was statistically significantly when correlated with the other predictors in the model. These finding suggested that family contexts play an important role in Korean adolescents’ school adjustment. Hence, adolescents’ perceived GPA level and satisfaction for school were important predictors for school adjustment.

Key Words: school adjustment, family contexts, parental involvement, family conflict, satisfaction for school and structured equation modeling (SEM)

I. Introduction

Education of children and youth has been at the center of public attention for many years. Nonetheless, in the United States, 5 out of every 100 individuals aged 15-24 dropped out of high school and only about 86.5% of youths completed their high school education in 2001 (U.S. Department Education, 2004). Still, a large number of students, who remain in school, have difficulties in school adjustment (Wei & Williams, 2004). In Korea, about 1.7% of the youths did not graduate from school and comprised about 67,000 middle/high school drop-outs in 2001 (Korea Educational Department, 2002). Of these 67,000 drop-outs, 39% reported difficulties in school adjustment as the main reason for their failure in academic success, followed by family contextual problems (i.e., economic hardships or parent-adolescent conflicts). In turn, school adjustment and family contexts were critical factors for educational success.

Previous studies have been conducted on school adjustment, probing both distal- and proxy-family contextual variables. The distal-family contextual variables, such as family structure, family interdependent attitudes, immigrant status, and family organization were significantly related to school adjustment. Family organization, social support, and parental rejections were significantly related to scholastic self-concept (DuBois et al., 1994), and family interdependent attitudes (i.e., family royalty) had counteracting influences on academic adjustment (Tseng, 2004). Strong educational emphasis by parents

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and peers was strongly correlated to academic achievement rather than socioeconomic status in the immigrant families (Fuligni, 1997), and immigrant status influenced academic success among young adult Austrians (Majorbanks, 2005).

Meanwhile, proxy-family contextual variables, such as family conflict and parent-child relationships, were stronger predictors of school adjustment than distal-family variables-proxy-family contextual variables, such as parental involvement and acceptance-significantly predicted school competence and behaviors than distal-family variables, such as immigration status or family organization (Fuligni, 1997; Ohannessian et al., 1996). Also, family conflicts and structural changes (i.e., divorce) significantly predicted disruptive behavior at school (Kurdek et al., 1995).

Despite Cummings and Wilson (1999) reporting that constructive family conflict resolution helps children/ youth learn appropriate coping skills to resolve interpersonal conflict situations, most research on family conflicts evinced that hostile and negative marital conflicts had negative influences on children/ youth adjustment. The angry affect, where experienced marital conflicts had spill-over effects into the parent-child relationships (Coiro & Emergy, 1998), and parents, who were in hostile and unresolved marital conflicts, were less emotionally available for their children and reported more tension in parent-child relationships (Margolin et al., 1996), especially in late childhood and adolescence, where inter-parental conflict was less important than parent-child /-adolescent conflict for socio-emotional adjustment (Acocck & Demo, 1999).

More recently, Doyle and Markiewicz (2005) determined that parent-adolescent relationships mediated the influence of marital conflicts on adolescent adjustment. In their study, marital conflict influenced adolescents to lower self-esteem and more externalized symptoms at age 13 and, in turn, influenced lower academic achievement at age 14. However, in the same study, positive parent-youth relationships in youth, aged 13, increased adolescents optimal adjustments and decreased the externalizing symptoms of maladjustment, fading the effects from marital conflict (Doyle & Markiewicz, 2005).

Research conducted in Korea supported the results from the studies stated above. The significant link between family relationship (s) and adolescent school adjustment was congruently shown in previous research (Yee, 2002; Kim, 2001; Park, 2000). Adolescents’ perceptions on marital relationships showed positive relationships with adolescent school adjustment as well as teacher-adolescent relationships and peer relations. Lee (1991), Seo (1999), and Kim (1999) found strong influences from parent-adolescent relationships on school adjustments. These studies congruently reported that parent-adolescent communications, especially mother-adolescent communication quality, were a strong predictor of adolescents’ school adjustments. More recently, Choi (2001), and Choi and Shin (2003) reported the father-adolescent relationship was a stronger predictor for school adjustment than the mother-adolescent relationship or other distal-family contextual variables.

Related research has indicated that proxy-family contextual variables, communication, or supportiveness in parent-adolescent relationships, are rated as important influential factors for school adjustment in Korea (Choi, 2001; Choi & Shin, 2003; Kim, 1999; Lee, 1991: Seo, 1999). Meanwhile, a lack of research attention exists on influences from the parent-adolescent conflicts on students’ school adjustments. Hence, relationships between adolescent school adjustment and conflicts from the various family domains have been not fully investigated, neither in the U.S. nor in Korea. Also, researchers have been more attentive in looking at adolescents’ school adjustment in single rather than multiple contexts. Most of the previous studies focus on the influence of families or schools or peers. Few studies examined the school adjustment in multiple contexts (DuBois et al., 1994).

Therefore, to fill the gap in previous research, school adjustment will be investigated with predictors from
multiple contexts such as family and school with a Korean adolescent sample in this study. Also, school adjustment will be studied with various constructs and measures such as academic attitude, peer relations, or teacher-adolescent relations. The lack of agreement among family scholars on the definition of school adjustment may create confusion in the field. Thus, this study will integrate the constructs related to school adjustment by producing a latent variable with those constructs.

The purpose of this study is to identify a nested model of school adjustment by employing a latent exogenous variable. To pursue this purpose, a school adjustment model will be identified as the nested model by testing with proxy-family contextual variables such as parental involvement, communication with father, communication with mother, and family conflicts, as well as proxy-school contextual variables, such as perceived GPA level and satisfaction of school. In this study, the authors hypothesize that

(a) Parental involvement positively predicts student school adjustment.
(b) Communication with father positively predicts student school adjustment.
(c) Communication with mother positively predicts student school adjustment.
(d) Family conflict negatively predicts student school adjustment.
(e) Perceived GPA level positively predict student school adjustment.
(f) Satisfaction of school positively predicts student school adjustment in the nested school adjustment model.

II. Methods

Based on previous research, the self-administered survey-instrument was developed by the primary investigator, Eun-Joo Kim. To test the variability and reliability of the survey instrument, a pilot sample was collected in August 30-31, 2004-25 adolescents were recruited and completed the pilot instrument. Three hundred copies of the modified self-administered survey-instrument were distributed randomly in a convenience sample of adolescents (n = 300), who were attending middle and high school in Seoul, Korea during the period of September 9 through 11, 2004. Thus, this study’s sample is totally random and non-probabilistic.

A total of 278 copies were returned. The return rate was 92.7%. Of these returns, 15 surveys were uneuseable, due to responses with the same value to all questions or too many missing values. Thus, in the final analysis, only 263 surveys were used. The self-administered survey includes 62 items measuring 1) demographic characteristics, 2) school adjustment, 3) conflicts from family contexts, and 4) self-esteem. To create a latent variable (exogenous), school adjustment, and to test the effects of predictors on the school adjustment construct, structural equation modeling analyses (LISREL, ver. 8.7) were employed. Structural equation analyses enable researchers to: (1) test several specified causal relationships simultaneously, (2) postulate several alternative models to identify a model that most appropriately explains the data, and (3) incorporate error terms into the analyses to account for problematic features of linear analysis such as autocorrelations, error variances of observed variables, or measurement errors (Joreskog, 1993). A correlation matrix was produced to examine the relationships between all observed and constructed variables <Table 1>.

A latent construct, school adjustment, was created from three constructed scales-peer relations, teacher-adolescent relations, and academic attitude. The peer relations scale was formatted by summing three observed variables, including comfortableness to speak in front of classmates, have supporting friends, and share secrets. The teacher-adolescent relations was created by summing 12 observed variables, including ‘experiencing no discrimination’ and ‘teacher trusts me well’. The academic attitudes were measured by summing five observed variables, including ‘enjoying class’ and ‘prepare and do home work’. The scale formations and
<Table 1> Correlation matrix of the school adjustment model

\[(n = 263)\]

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Academic Attitude (Scale)</td>
<td>1.0000</td>
<td>.332**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Peer Relations (Scale)</td>
<td></td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Teacher-Adolescent Relations (Scale)</td>
<td>.364**</td>
<td>.164**</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Perceived GPA Level</td>
<td>.145*</td>
<td>.159**</td>
<td>.130*</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Parental Involvement</td>
<td>.322**</td>
<td>.291**</td>
<td>.094</td>
<td>.112</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Communication with Mother</td>
<td>-0.024</td>
<td>.066</td>
<td>-0.017</td>
<td>.081</td>
<td>.079</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Communication with Father</td>
<td>.043</td>
<td>.161**</td>
<td>.079</td>
<td>.111</td>
<td>.166**</td>
<td>.323**</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Family Conflicts (Scale)</td>
<td>-0.082</td>
<td>-.108</td>
<td>-.113</td>
<td>-.199**</td>
<td>-.132*</td>
<td>-.125*</td>
<td>-.173**</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>9. Satisfaction on School</td>
<td>.300**</td>
<td>.281**</td>
<td>.214**</td>
<td>.130*</td>
<td>.223**</td>
<td>.071</td>
<td>.148*</td>
<td>-.203**</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed)

<Table 2> Measurement of variables in the school adjustment model

\[(n = 263)\]

<table>
<thead>
<tr>
<th>Exogenous Variable</th>
<th>Internal Consistency, Scale's Item Mean &amp; Scale Item Variance</th>
<th>Item/Measure</th>
</tr>
</thead>
</table>
| Peer Relations Scale     | STD Alpha: .628 Scale Item Means: 3.50 Scale Item Variance: 1.052 | 5-point measure ranging 1 (strongly disagree) – 5 (strongly agree):
|                          |                                                                  | Comfortableness to speak in front of classmates; have supporting friends; and share secrets with friends (3 observed variables) |
| Teacher-Adolescent Relations Scale | STD Alpha: .851 Scale Item Means: 3.081 Scale Item Variance: 1.242 | 5-point measure ranging 1 (strongly disagree) – 5 (strongly agree):
|                           |                                                                  | My teacher does not discriminate students; my teacher shows me a discriminatory attitudes (reversed); my teacher teaches well; my teacher’s lecture is not difficult to me; my teacher rewards students; my teacher has authoritative (reversed); I communicate with my teacher; sometimes I hesitate to ask my teacher (reversed); sometimes, my teacher makes me down (reversed); sometimes, my teacher preaches on me (reversed); and I am my teacher’s pet; my teacher trusts me (12 observed variables) |
| Academic Attitude Scale  | STD Alpha: .580 Scale Item Means: 2.69 Scale Item Variance: 1.230 | 5-point measure ranging 1 (strongly disagree) – 5 (strongly agree):
|                           |                                                                  | I enjoy class; I understand the contents in the class; I prepare the class and do my home works; I enjoy school activities; and I think that my classes promote learning environments (5 observed variables) |
| Perceived GPA Level      | Mean: 1.98 SD:.618                                               | 3-point ordinal measure ranging 1 (low level) – 3 (high level):
|                           |                                                                  | My overall GPA level is... |
| Parental Involvement     | Mean: 3.821 SD: 7.918                                           | 5-point measure ranging 1 (not at all) – 5 (heavy involvement):
|                           |                                                                  | Please rate your parental involvement in your life including your school life. |
| Communication with Mother | Mean: 4.72 SD: .8394                                            | 5-point measure ranging 1 (once a month) – 5 (everyday):
|                           |                                                                  | How often you communicate with your mother? |
| Communication with Father | Mean: 4.04 SD: 1.21                                             | 5-point measure ranging 1 (once a month) – 5 (everyday):
|                           |                                                                  | How often you communicate with your father? |
| Family Conflicts Scale    | STD Alpha: .749 Scale Item Means: 2.35 Scale Item Variance: 1.188 | 5-point measuring ranging 1 (strongly disagree) – 5 (strongly agree):
|                           |                                                                  | Recently, I experienced disputes between parents; parental conflicts on parenting; job/career conflict; conflicts on health such as illness among family members; and constrains in kin-relations (5 observed variables) |
| Satisfaction on School    | Mean: 2.82 SD: 9.71                                              | 5-point measure of very dissatisfied (1)–very satisfied (5):
|                           |                                                                  | How are you satisfied with your school? |

test results were presented in <Table 2>. Also, the measurement model with three indicators was tested and the model fit well with the data showing the perfect fit <Table 3>.

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### Table 3: Summary of models

<table>
<thead>
<tr>
<th>Latent Construct</th>
<th>School Adjustment</th>
<th>Item/Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor Loading</td>
<td>0.91*(.51 :.435)</td>
<td>Peer Relations Scale</td>
</tr>
<tr>
<td>(Standardized value: t value)</td>
<td>1 (.44)</td>
<td>Teacher-Adolescent Relations Scale</td>
</tr>
<tr>
<td></td>
<td>2.02* (.69 :.23)</td>
<td>Academic Attitude Scale</td>
</tr>
<tr>
<td>Goodness of fit Index</td>
<td>GFI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>AGFI</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The model was saturated, the fit was perfect.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nested School Adjustment Model Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goodness of fit Index</td>
</tr>
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</tbody>
</table>

| R2 of School Adjustment            | 0.63               |

The predictors of the school adjustment model were perceived GPA, general satisfaction on the school, parental involvement, communication with father, communication with mother, and family conflicts were introduced. The family conflicts variable was created by summing five family conflict measures, including parental disputes, parental communication conflicts, job/career conflicts, conflicts with health, and kinship constraints, and showed that the observed variables clustered well <Table 2>.

### III. Results

This study used multiple indicators to measure school adjustment. Construct validity for the measure was tested. <Table 3> illustrated the significance of factor loadings for each indicator, goodness of fit, and evidence of construct validity using LISREL. A nested and parsimonious model was identified, proceeding from a fully recursive model. The relationships (paths) among the variables and constructs of the model were tested using LISREL <Figure 1>.

![Diagram](image.png)

*significant at the 0.05 level of t-value (t > 2)

<Figure 1> Measurement model of school adjustment with standardized coefficients.

Family conflicts negatively predicted school adjustment, but the path was not statistically significant. About 6% of the school adjustment variance was explained by family conflicts. It was very interesting to notice that communication with father positively impacted school adjustment, although the path was not statistically significant. The communication with mother negatively impacted school adjustment, but the path was not statistically significant.

The standardized path coefficient from perceived GPA level to school adjustment was .16. Also, the standardized path coefficient from satisfaction of school was .37. Both paths from GPA and satisfaction of school to
school adjustment were statistically significant. It was quite interesting to notice that GPA and satisfaction of school were positively correlated (corr = .13) to each other and their relationship was statistically significant.

Predictors from family contexts such as parental involvement, communications with father and mother, and family conflicts were statistically significantly and correlated with each other. In the nested model, Communication with mother and communication with father were positively correlated to each other and the relationship was statistically significant. It was noticeable that in a negative way, family conflicts were statistically significantly correlated to all of the predictors in the model. Family conflicts showed negative correlation to communication with mother and communication father as well as parental involvement. In addition, family conflicts were negatively correlated with GPA and satisfaction of school.

Overall, this nested model of school adjustment fits the data well. The results of model-fitness tests were presented in <Table 3>. The estimate of squared multiple correlation ($R^2$) for the six endogenous variables was .63. Sixty-three percent of the total variance of school adjustment were explained by the predictors in the nested model.

**IV. Conclusions and Discussion**

The purpose of this study was to identify the nested model for Korean secondary school students’ school adjustment. To pursue the purpose, relationship with teacher, peer relationships, and academic attitudes were integrated into a latent variable, school adjustment, and tested in the structural equation models. Predicting variables from family and school contexts were introduced in the model and tested. The nested model showed a good fit with the data set. However, it should be articulated that the sample of this study was not collected with the probabilistic sampling technique. Thus, use caution to generalize this study’s findings.

It was interesting to notice that parental involvement played a key role in the model. Parental involvement strongly predicted Korean students’ school adjustment; thus, it was a stronger predictor than family conflicts in the nested model. Parental involvement was statistically significant when related to the other predictors, such as communication with father, family conflict, and satisfaction of school. Thus, the more parents were involved in their students’ lives, the more likely these students would communicate with their father and less likely to experience family conflict. Also, the more parents were
involved in their students' lives, the more likely these students were satisfied with their school. These results showed a similar picture from the previous studies on school adjustment with U.S. samples (Doyle & Markiewicz, 2005; Fuligni, 1997; Ohannessian et al., 1996); in the studies with the U.S. sample, positive parent-adolescent relationships increased adolescents' optimal adjustments and decreased the externalizing symptoms of maladjustment.

The authors of this study hypothesized that conflicts from family context predicted negative school adjustment. Even though the direct path from family conflicts to school adjustment was not statistically significant, it showed negative impacts on school adjustment. Also, family conflicts were statistically significant when correlated to the other predicting variables, implying its influences on the other variables. Negative experiences in family life, such as parental disputes, economic constraints, an ill family member, conflict in kinship relations, and so on may negatively influence students' communications with their fathers, communications with their mothers, as well as parental involvement. Also, the family conflicts were related to students' lower levels of GPA and a lower level in their satisfaction of school. The more students experienced conflicts in their families, the more likely they were to report lower levels of GPA and less likely to be satisfied with their schools. In turn, family conflicts were disruptive to students' school lives. Also, these results are congruent with previous studies of late childhood or adolescents sample in the U.S.-the impacts of family conflicts (such as marital disputes or parental conflicts) faded away when a higher level of parental involvement was introduced (Doyle & Markiewicz, 2005) or parent-adolescent conflict were introduced in the socio-emotional adjustment model (Acocq & Demo, 1999).

It was disappointing that communications with father and mother showed mixed results, and the effect of the sizes of the variables were very small and insignificant in the nested model. Communication with father had a positive impact on school adjustment, thus supporting the results from previous studies by Choi (2001) and Choi and Shin (2003). In their studies, father-adolescent relationship was a strong predictor for school adjustment. In this study, the measures of communication were only based on the frequency of the communication with father and mother. Thus, the authors of this study suggest that quality of parent-adolescent communication should be added in future studies to predict school adjustment.

In conclusion, the results from this investigation clearly showed strong impacts from the family contexts on students' school adjustment. Parental involvement and communication with the father may promote students' optimal school adjustment. Also, family conflicts were important in the model, showing influences on the other variables from family contexts. In addition to the influences from the family contexts, predictors from school contexts, such as GPA and students' satisfaction of school, significantly predicted school adjustment. Since these two variables were proxy-variables of school adjustment, they showed strong influence on school adjustment.

Therefore, the presented model in this study suggested that support from both family contexts and school contexts are important and critical for students' school adjustment. Also, this study's model presented complicated and web-woven relationships among the variables from family and school contexts, implying spillover effects from family life to school life or vice versa. In general, these results support previous research (Choi, 2001; Choi & Shin, 2003; Doyle & Markiewicz, 2005; DuBois et al., 1994; Fuligni, 1997; Ohannessian et al., 1996), since positive influences from family contexts, such as parental involvement, may increase school adjustment. Also, negative influences from family contexts, such as family conflicts, may disturb other family life, such as parental involvement, which was a strong predictor of school adjustment, and communications with father and mother in this study.
V. Limitations and Implications for Future Research

In this study, a complete random sample was used. Thus, in future studies, more advanced sampling techniques, based on probabilistic sampling techniques, should be employed to produce a representative Korea secondary school students' data set. The results from this study imply that both family and school contexts were influential to students' school adjustment. GPA and satisfaction of school had positive impacts on school adjustment. Also, parental involvement was an important predictor in school adjustment; whereas, the time spent with father and mother-adolescent communications were not. These results imply that quality of parent-adolescent relationships play a key role in school adjustment. Adolescents' ratings on parent-adolescent communication may be a better measure for parent-adolescent relationships than the time spent communicating.

In this study, school adjustment was investigated in multiple contexts-family and school contexts. In addition to the family and school contexts, individual's socio-psychological contexts, such as self-rated competence, perceived social attractiveness or self-worth, may be additional contexts for a future study on school adjustment. For example, classroom roles influenced the school adjustment (Rossem & Vermande, 2004) and self-worth was negatively related to both internal and externalized problems among high school students (Hoffmann et al., 2004). Also, this study did not investigate the school adjustment model by sub-groups such as gender or age groups. In previous studies, girls had more worries about interpersonal relationships, school demands, and social adjustment than boys (Friedman, 1991), but reported less externalized problems at school than boys (Hoffmann et al., 2004). Coping skills vary by age group (Donaldson et al., 2000). Since coping or adjustment mechanisms vary by gender and age groups, the authors of this study suggest these variables should be considered included in the models or in research designs in future studies on school adjustment.

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