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ABSTRACT

This longitudinal study responds to a need for new perspectives and research tools for studying school transition stress by identifying changes in student role strains and assessing sex differences in these changes during the transition from elementary school to a middle school for grades six through eight. Subjects included 120 fifth-grade students who attended one of two elementary schools which fed into the same middle school in a small city school district. The Early Adolescent School Role Strain Inventory was administered as a part of the larger Middle School Transition Study Questionnaire. Results indicated that: (1) students did not experience more strain in the team-taught middle school program as compared to elementary school; (2) boys endorsed more strains in elementary school than did girls but were not more bothered by the strains; and (3) boys exhibited relatively greater declines in the number and magnitude of strains during the transition to middle school than did girls. Although results are not generalizable to different school and community contexts, the role strain approach promises to be a useful tool for identifying strains that may affect early adolescents' adjustment to school and school transitions. (Author/ABL)

The Transition to Middle School: Longitudinal Trends and Sex Differences in Student Role Strains

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ABSTRACT

The present longitudinal study responds to a need for new perspectives and research tools for studying school transition stress by identifying changes in student role strains and assessing sex differences in these changes during the transition from elementary school to a 6-8 middle school. Findings, consistent with predictions, include: (a) students did not experience more strain in the team-taught middle school program as compared to elementary school, (2) boys endorsed more strains in elementary school than did girls but were not more bothered by the strains, and (c) boys exhibited relatively greater declines in the number and magnitude of strains during the transition to middle school than did girls. Although results are not generalizable to different school and community contexts, the role strain approach promises to be a useful tool for identifying strains that may affect early adolescents' adjustment to school and school transitions.

Role Strains and the Transition to Middle School: Longitudinal Trends and Sex Differences

Despite a growing body of research literature on school transition stress in early adolescence, many questions concerning the precipitators and effects of school-related stress are unresolved. Many current research questions center on sex differences and other personal characteristics of students as well as on school structures and teacher behaviors that affect students' adjustments to school transitions. It has been suggested that new perspectives and measurement tools are needed to address these questions (Fenzel, 1988, in press; Hirsch & Rapkin, 1987). Two perspectives, role strain (Holt, 1982; Pearlin, 1982, 1983, 1985) and the ecology of human development (Bronfenbrenner, 1979), are combined in the present study to investigate strains associated with the transition to middle school as well as sex differences in transition strain.

Role Strain

According to role strain theorists, individuals experience strain in the normal exercise of everyday roles which, when strain persists, can have detrimental effects on self-esteem (e.g., Pearlin, 1982, 1983). Until recently, studies of role strains and their effects have been limited to adult samples (Fenzel, 1988, in press). These studies, which concentrated on occupational roles, showed that adults experience strain due to role ambiguity, role overload, role underload, monotony, perceptions of insufficient control over role demands, and interpersonal conflicts with peers

and superiors associated with their roles (Holt, 1982; Pearlin, 1982, 1983, 1985).

Adolescents may experience similar strains in their roles as students (Fenzel, 1988, in press). Like adults in the workplace, early adolescents face demands in the daily exercise of their student roles that are sometimes difficult and contradictory. Demands placed upon early adolescents by parents, teachers, peers, and other "role senders" at school may all contribute to student role strains.

The Ecology of Strain

The investigation of these multiple sources of strain--parents, peers, and teachers--is consistent with the ecological perspective of Bronfenbrenner (1979) who suggested that all settings that affect role behaviors should be investigated to understand the full impact of a role or role change on development. A role change, or ecological transition (Bronfenbrenner), such as the change from an elementary school student to a secondary school student, can trigger changes in an individual's role ecology as role senders change or impose new expectations. As Benedict (1938) suggested, when abrupt role alterations occur during a transition, the experience may be quite stressful.

School Transitions

Some studies, such as the early school transition research of Simmons and Blyth in Milwaukee (Blyth, Simmons, & Carlton-Ford, 1983; Simmons & Blyth, 1987; Simmons, Blyth, Van Cleave, & Bush,

1979), have shown that the transition to junior high school may be stressful for some students. In their pioneering work, Simmons and Blyth found that both gender and school context factors contributed to changes in students' self-esteem during the transition from sixth to seventh grade. Specifically, females who changed schools at that time experienced a greater self-esteem decline than did members of two comparison groups: males who made the school change and all students, male and female, who remained in a K-8 elementary school.

In a study that compared junior high school contexts, Hawkins and Berndt (1985) showed that the success of the transition was associated with school structural features. Specifically, they found that students who made the transition to a junior high school that adopted a team-teaching approach experienced an increase in global self-worth relative to students who made the transition to a traditional departmentalized junior high. Participants in the team-teaching structure may have benefitted from the smaller overall student-teacher ratio that team teaching afforded. The benefits of nontraditional school structures was echoed by Lipsitz (1984) who found that organizing middle schools into "teams" or "houses" enhances communication, personalization of the school experience, and opportunities for individual choice as well as reduces the incidence of disruptive behavior.

Context issues have also dominated the research of Eccles, Midgley, and their colleagues (e.g. Eccles & Midgley, in press; Eccles (Parsons), Midgley, & Adler, 1984; Midgley & Feldlaufer,

1987). These investigators found that students generally described their junior high school environments as affording less decision-making opportunity and lower level cognitive involvement compared to their elementary school environments. In addition, these researchers found that teachers exerted greater control over student behavior in junior high school tha. in elementary school. Thus, their findings suggest that junior high schools may serve as potential sources of strain due to role underload, monotony, low perceptions of control, and a poor match between students' own role expectations and teacher demands.

The work of Eccles and Midgley-(Eccles & Midgley, in press; Eccles (Parsons) et al., 1984; Midgley & Feldlaufer, 1987) and Hawkins and Berndt (1985) suggests that middle-level schools that meet the developmental needs of early adolescents for intimacy, autonomy, and cognitive challenge (see Hill, 1980) provide a more appropriate "fit" between personal requirements and environmental opportunities than do traditional departmentalized schools. The im cation of this work is that the better the fit, the less stressful the new school experience for early adolescents (Fenzel, 1988; Midgley & Feldlaufer, 1987). Recent work suggests that non-traditional middle schools are more likely to provide a better fit for early adolescents than traditional junior high schools (Cawelti, 1988).

Sex Differences

Although Simmons and Blyth (Blyth et al., 1983; Simmons & Blyth, 1987; Simmons et al., 1979) found that the transition to

junior high school was more stressful for girls with respect to self-esteem indicators, this finding has not been replicated in other school transition studies (e.g., Fenzel & Blyth, 1986; Hawkins and Berndt, 1985; Hirsch & Rapkin, 1987; Thornburg & Glider, 1984). These studies suggest that transition stress among females may be limited to certain contexts, such as the transition to a large, traditional, urban junior high school.

One difficulty with much of the research on school transitions is that few reliable indicators of transition stress other than self-esteem change have been employed to date. In a study that used multiple indicators of transition effects, Hirsch and Rapkin (1987) found that girls reported a significant increase in psychological symptomatology relative to boys during a transition to junior high school. Although no sex difference in self-esteem change was found, these results provide some support for the suggestion that the junior high school transition may be more stressful for girls than boys.

Research that examinies sex differences in the effects of stress not related to school transitions provides little additional clarity on these differences during early adolescence, but does suggest a developmental trend in the differential effects of stress on males and females. This research shows that females experience greater stress, especially stress related to peers and family, than males in adolescence and adulthood (Burke & Weir, 1978; Kessler & McLeod, 1984; Siddique & D'Arcy, 1984). However,

this sex difference does not appear to extend to stresses related to the demands of school on adolescents (Siddique & D'Arcy).

In contrast to the findings of studies on adolescent and adult stress, research on childhood stress suggests that boys experience greater difficulty when exposed to stressful events and environments. In an excellent study conducted by Hetherington, Cox, and Cox (1982), for example, boys were found to exhibit greater psychological distress and behavioral problems than girls following their parents' divorce and to show signs of maladjustment for a longer period of time. In addition, Rutter (1981) reported consistent sex differences in the effects of stressful events such as hospital admission, birth of a sibling, and parents' divorce, in that pre-pubertal boys were more negatively affected than girls by such events. As shown by Longfellow and Belle (1984), the effects of such childhood stressors are often exhibited in school. These researchers found that boys exhibited more behavioral problems in school than girls when exposed to stressful home environments. Further, these findings are consistent with Humphrey's (1984) report that boys were more adversely affected by school environments which tend to be more "feminized" in elementary school and, therefore, provide a poor fit between boys' more aggressive temperaments and the school's demands for order and passivity.

An additional dimension to the sex difference issue is provided by Maccoby and Jacklin (1974) who suggested that, although boys may be more strained than girls, they are less

likely than girls to report being adversely affected by strain. Nevertheless, the developmental trend implicit in the stress research is that males are more adversely affected by stress during childhood and females more adversely affected during adolescence and adulthood. Thus, stress research suggests that, although girls are likely to be less strained in elementary school, boys should benefit more from the move into middle school when the new school affords ample opportunity for physical activity, provides more male role models, and allows students more autonomous movement between classes.

The preceding discussion establishes two needs of early adolescent school transition research which are addressed in the present study: the need for new perspectives on and measures of transition stress and the need to further clarify the influence of gender on transition outcomes. This study addresses these needs by employing a framework that utilizes the perspectives of role strain and the ecology of human development. Because of the team-teaching structure of the middle school used in the present study, it was hypothesized, first, that no significant increase in strain between elementary school and middle school would occur. In addition, it was hypothesized that boys would report a greater number of strains than girls in elementary school and experience a relatively greater decline in strain quantity and magnitude during the transition to middle school.

METHOD

Subjects

Subjects included 120 fifth-grade students who attended one of two elementary schools which fed into the same 6-8 middle school in a small city school district in New York State. The final subject pool of students present for all three questionnaire administrations represented 93 percent of students making the transition to middle school from the two elementary schools selected. The mean age of subjects at the time of the first questionnaire administration was 10 years, 7 months. Subjects were predominantly white (90%) with blacks and Asians representing 4.2 percent and 3.3 percent of the sample, respectively. In addition, 71 percent of subjects reported living with two married parents and had a mean of 2.2 siblings. Subjects' parents were very well educated with 82 percent of fathers and 72 percent of mothers having at least one college degree.

Procedures

Students were administered the Early Adolescent School Role Strain Inventory (EASRSI) as part of a larger Middle School Transition Study Questionnaire (MSTSQ) in classroom groups of 20 to 30. The MSTSQ was a collection of several instruments that, in addition to school-related strains, assessed students' perceptions of competence, social support, self-esteem, anxiety, the classroom environment, and significant life events not related to schooling. Students completed the instrument at three points in time: in Spring of fifth grade, approximately three weeks prior to the end

of the school year (Pretransition); three weeks after the beginning of middle school (Early Transition); and again four months later (Settling In). Classroom teachers remained in the classroom with the experimenter during the administration of the MSTSQ to help maintain a quiet and orderly environment. Only student responses to the EASRSI are used in the present study.

Instrument

The Early Adolescent School Role Strain Inventory (EASRSI, Fenzel, 1988, in press) is a 27-item scale that assesses the quantity and magnitude of school-related role strains. Factor analyses, described elsewhere, identified four strain subscales representing demands from a variety of settings and role senders: School Demands, Teacher Relations, Parent Control, and Peer Relations (Fenzel, 1988, in press). Sample EASRSI items are: My teacher(s) give too much homework (School Demands), Teachers don't treat me fairly (Teacher Relations), My parents get upset about poor reports from my teacher (Parent Control), and Some kids are mean to me at school (Peer Relations).

When completing the EASRSI, subjects first indicated whether a given statement, which described a potential source of strain, was "True" or "False" for them. If subjects chose "True," they then proceeded to indicate how much the strain bothered them on a 7-point scale from 0 (not bothered at all) to 6 (Bothered a lot).

Measures: Mean strain magnitude and proportion

For purposes of analyses, responses were transformed into mean proportion and mean magnitude scores for each of the four

strain subscales and the full strain scale. Mean proportion is a decimal numeral from 0 to 1 indicating the percentage of items endorsed on the scale or subscale. Mean magnitude is the mean of the magnitude scores of all of the items on the scale or subscale. Overall, subjects endorsed a mean proportion of .33 items and reported a mean strain magnitude of 1.1 on the 7-point scale (0 through 6; Fenzel, in press). The relatively low mean magnitude score results in part from assigning a magnitude score of 0 to a "False" response, which occurs for 67 percent of items. The full strain scale and strain subscales were found to possess good internal reliability and validity (see Fenzel, in press).

Analyses

Repeated measures multiple analyses of variance were conducted to examine the hypothesized changes in the mean proportion and mean magnitude of school-related strains as students move from elementary school to middle school. Three points in time were represented in these analyses: Time 1, or Pretransition; Time 2, or Early Transition; and Time 3, or Settling In. Subjects' sex served as the independent variable in the MANOVAs. To test for sex differences in Time 1 strains, one-way analyses of variance were conducted with the appropriate strain variable serving as the dependent variable and sex as the independent variable.

RESULTS

General Transition Trends

It was hypothesized, first, that the transition to middle school would not be accompanied by an increase in strain magnitude or proportion. Table 1 presents the mean proportion of strain items endorsed by students for the full strain scale and each of the four strain subscales. In addition, results of repeated measures MANOVAs testing the effects of changes in mean strain proportion over time by sex are presented in Table 1. Planned comparisons of change between fifth grade (T1) and both the beginning (T2) and middle (T3) of sixth grade are shown. Because no significant T2-T3 changes were predicted or found, the results of this comparison are excluded from the table.

Insert Table 1 about here

Table 2 shows mean strain magnitude scores for students, also broken down by sex, for the full scale and each of the strain subscales as well as the results of the repeated measures MANOVAs testing the significance of changes in strain magnitude over time. Overall Time effects and Sex x Time interaction effects in changes in strain magnitude are shown in Table 2. As with strain proportion results, results of T2-T3 changes in strain magnitude are omitted from the table.

Insert Table 2 about here

In support of the first hypothesis, results showed that the transition was not characterized by an increase in strain magnitude or proportion for students. Ironically, some declines in strain were found during the transition. Considering the full-scale strain proportion results, shown in Table 1, a highly significant overall effect for Time was found, multivariate $F(2,115) = 4.67$, $p = .011$, with strains generally declining between Pretransition and Early Transition. As Table 2 shows, no increase in mean strain magnitude over time was found for the full strain scale. Strain subscale changes were also examined to provide insight into the kinds of strains that declined or remained unchanged.

With respect to Peer Interaction strains, there was a highly significant overall Time effect for mean strain proportion, showing a decrease in strain proportion, as well as highly significant T1-T2 and T1-T3 declines. As the scores found in Table 1 illustrate, subjects showed declines in Peer Interaction strains between Times 1 and 2 and held these lower levels into the Settling In period (Time 3). A similar significant Time effect for mean strain magnitude on the Peer Interaction subscale, shown in Table 2, was also found.

Similarly, but less dramatically, strains related to Teacher Relations showed a marginally significant overall decline for both

mean proportion and mean magnitude. Because the overall F statistic tests the significance of change over three measurement points, and no T2-T3 difference was expected, a marginally significant overall change in strain was used as the criterion for further examination of individual Time contrasts. Using this criterion, a significant decline was found for the T1-T2 mean proportion and magnitude contrasts and the T1-T3 mean magnitude contrast for Teacher Relations strains. No significant overall change in School Demands or Parent Control strains, with respect to magnitude and proportion, were found.

In sum, these results showed that strains, in terms of both mean proportion and mean magnitude, generally decreased during the transition to middle school, especially during the Early Transition phase. The decline was most evidenced with respect to interpersonal relations with peers and teachers.

Sex Differences

With respect to sex differences, it was predicted that boys would report a greater proportion (i.e., number), but not magnitude, of strains than girls in elementary school. It was also predicted that boys would exhibit a greater drop in strain proportion and magnitude during the transition to middle school.

Fifth-grade sex differences. The results of analyses of variance, presented in Table 3, snowed that boys generally reported more strains than girls, in terms of mean strain proportion, in elementary school. This sex difference was demonstrated for the full strain scale and three of the four

subscales, the exception being the Teacher Relations subscale. With respect to strain magnitude, analyses of variance showed that boys did not differ significantly from girls with respect to the full strain scale, $F(2,117) = 1.60$, NS. Boys exhibited marginally greater strain magnitude than girls on only two subscales: School Demands, $F(2,117) = 2.98$, $p = .087$, and Parent Control, $F(2,117) = 3.58$, $p = .061$. (Note that mean strain magnitude scores are shown in Table 2.) As hypothesized, therefore, boys generally reported more strains than girls in fifth grade but did not report being bothered by strains more than girls.

Insert Table 3 about here

Analyses of variance were performed with individual strain magnitude and proportion items to examine particular strains that affected boys more than girls in fifth grade. It was found, for example, that boys were more likely than girls to report that school had too many rules, $F = 15.99$, $p < .001$, that parents find out about their school problems, $F = 5.56$, $p = .02$, that parents get upset about poor reports from school, $F = 6.95$, $p = .01$, and that kids push or hit them in school, $F = 5.66$, $p = .019$. Similar sex differences were found for these four items with respect to strain magnitude.

Transition sex differences. It was hypothesized that boys would demonstrate a less stressful transition than girls with respect to mean strain magnitude and proportion. Results of

repeated measures MANOVA analyses, presented in Table 1 for mean strain proportion, showed significant overall Sex x Time effects for the Parent Control subscale as well as marginally significant Sex x Time effects for the full strain scale and the Peer Interaction subscale. Again, marginally significant overall effects permitted analyses of individual contrasts. For the full strain scale and the two subscales mentioned, T1-T2 contrasts were significant. In addition, marginally significant T1-T3 differences were found for the full scale and the Parent Control subscale. Specifically, boys' strain proportion scores declined more than girls' scores from Pretransition to Early Transition (T1-T2) as well as from Pretransition to Settling In (T1-T3). A similar, although nonsignificant, pattern of adjustment was found for the School Demands subscale as well.

With respect to changes in mean strain magnitude, shown in Table 2, no significant sex differences were found in the full strain scale or the Peer Interaction and School Demands subscales, although scores generally declined during transition. Marginally significant Sex x Time differences were evidenced in the Parent Control and Teacher Relations subscales. For these latter two subscales, T1-T2 differences were not significant. T1-T3 Sex x Time differences were marginally significant for the Parent Control subscale and not significant for the Teacher Relations subscale. The T2-T3 Sex x Time difference was significant for the latter subscale.

These findings provide support for the hypothesis which predicted a less stressful transition to middle school for boys than girls. It must be pointed out, however, that the transition for females was not problematic in terms of changes in number (i.e., proportion) or magnitude of strains perceived. On the full strain proportion scale, for example, boys showed a decrease in strains from Time 1 to Time 2 and from Time 1 to Time 3 and girls little or no change.

The sex differences in changes in strain during the school transition can be attributed, in part, to the higher fifth grade strain proportion levels of boys. The finding of few sex differences in strain magnitude change may be attributed to similar fifth grade levels for boys and girls. Analyses of variance (results not reported) showed no significant sex differences in Time 2 strain magnitude or proportion scores, an indication that boys and girls were similarly strained, however mildly, in the middle school environment, regardless of their elementary school strain levels.

Strains Affecting Adjustment

Repeated measures MANOVAs were conducted on individual items of the mean strain magnitude and proportion scales to determine which strain items were responsible for the effects found in the analyses of subscale changes. Strains related to School Demands that increased between Times 1 and 2 included teachers giving too much homework, students not having enough time in school to spend with friends, and students facing boring work in school.

On the Peer Interaction subscale, on which decreases in strain were found for students as a whole, items showing a decline over the Early Transition period included kids being mean to them at school and students getting pushed or hit by other kids at school. Items on the Teacher Relations subscale showing similar declines include teachers blaming subjects for things they didn't do, teachers not seeming to like them, and teachers not treating subjects fairly.

DISCUSSION

The present study makes use of a role strain framework, similar to that used to investigate sources of stress in adult occupational roles, in order to examine the transition early adolescents make to middle school. Changes in student role strain were examined from Pretransition in fifth grade to Early Transition in the Fall of sixth grade in middle school to the Winter of the same year (Settling In), using the Early Adolescent School Role Strain Inventory (EASRSI; Fenzel, 1988, in press). This instrument also utilizes an ecological framework by identifying strains that emanate from relations with teachers, parents, and peers and the demands of school regulations and work. Measures of strain proportion (percent of items endorsed on a scale) and magnitude were used in the present investigation of changes in strain and sex differences in school-related strains.

Results showed, as hypothesized, that the middle school transition was not a stressful event for most students as strains generally declined, especially between late fifth grade and early

sixth grade. An examination of the strain subscales showed that relationships with teachers and parents contributed most to the decreases in strain.

The finding of decreased strain during the middle level school transition is consistent with the findings of previous transition research in suburban communities (e.g., Fenzel & Blyth, 1986; Hawkins & Berndt, 1985). As suggested by Hawkins and Berndt, the team-teaching approach adopted by the middle school used in the present study may have contributed to the findings of general decreases in strain magnitude and proportion during the transition. Team-teaching may contribute to decreased school strain by reducing the size of an early adolescent's reference group and providing more intimate contact with teachers and peers (see also Lipsitz, 1984). It has been shown that 6-8 middle schools are more likely to employ structures and strategies that may provide a better fit between early adolescent needs and school activities than traditional middle level school programs (Cawelti, 1988). These features include, in addition to interdisciplinary team teaching, teacher involvement in student advisement and nontraditional teaching approaches that include cooperative learning. Results which showed students less worried about other kids being mean to them or hitting them in middle school than in elementary school suggest that the middle school used in the present study may have provided an comparatively safe and worry-free school environment for students. Future research efforts might be directed at uncovering more information about the factors

that contribute to a relatively stress-free middle level school experience.

With respect to sex differences in strain during the transition, boys experienced a particularly beneficial adjustment to middle school. Although middle school strain levels were quite similar for boys and girls, boys showed greater strain declines than girls, especially during the early phase of the transition, due to their higher incidence of strain reports in elementary school. Boys were particularly likely to show decreased strain in their relations with peers and parents during the transition.

The work of Humphrey (1984) suggests that boys may experience higher strain levels in elementary school due to a mismatch between their aggressive and restless behaviors and the "feminized" passive environment of elementary schools. The results of the present study suggest that, while boys may be more strained as elementary school students, they may experience reduced strain in a middle school environment that responds less antagonistically to their aggressiveness and restlessness. Because norms for the EASRSI have not been established, results may also reflect the phenomenon that the elementary school environment may simply be more beneficial for girls and not particularly unpleasant for boys.

The present study takes an important step in providing a useful framework to guide the investigation of the kinds of strains that operate during the transition from elementary to middle school by utilizing the concept of role strain previously

applied primarily to adults. An ecological orientation (see Bronfenbrenner, 1979), used in conjunction with the role strain approach, provides a potentially fuller understanding of transition strains by allowing the examination of strains that emanate from a variety of settings. This combined framework permits an examination of the kinds of strains that increase, decrease, and remain relatively unchanged during a potentially stressful time in the lives of adolescents.

Because findings to date on school transition stress vary with the community context, whether urban or suburban, in which schools are located as well as with characteristics of schools themselves, results of the present study cannot be generalized to all middle school contexts. Characteristics of students and their families, such as the relatively high educational levels of parents, also preclude generalizing results beyond the present sample.

Future analyses are planned to examine the effects of different elementary school backgrounds on students' adjustment to the first year of middle school and the relationship between strain and such student characteristics as perceived competence, social support, self-esteem, and school performance. Additional research is anticipated to provide improved understanding of the connections between school strain and subsequent motivation and problematic behavior in adolescence. Finally, it is recommended that future research also examine changes in role strains in a variety of communities involving different ethnic groups.

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Table 1

Mean Proportion of Strain Items Endorsed and Results of Repeated Measures MANOVAs

Strain (N)	Sex (N)	Mean Strain Proportion T1	T2	T3	Results of Repeated Measures MANOVAs: Independent Variable	Overall F	Overall p	Contrasts [t (p)] T1-T2	T1-T3
FULL SCALE (27)	Males (54)	.38	.30	.31					
	Females (66)	.29	.27	.28	TIME	4.67	.011	2.98 (.003)	2.44 (.014)
	Total (120)	.33	.28	.29	SEX X TIME	2.41	.095	2.19 (.035)	1.86 (.065)
PEER (9)	Males	.39	.25	.27					
	Females	.29	.24	.21	TIME	11.77	<.001	4.46 (<.001)	4.38 (<.001)
	Total	.33	.24	.24	SEX X TIME	2.39	.096	2.19 (.035)	1.46 (NS)
SCHOOL (7)	Males	.42	.40	.42					
	Females	.30	.32	.37	TIME	1.75	--		
	Total	.35	.36	.39	SEX X TIME	1.63	--		
PARENT (6)	Males	.46	.38	.37					
	Females	.34	.37	.34	TIME	2.01	--		
	Total	.39	.37	.35	SEX X TIME	3.54	.032	2.48 (.011)	1.95 (.055)
TEACHER (5)	Males	.24	.18	.18					
	Females	.22	.14	.19	TIME	3.02	.053	2.46 (.015)	1.43 (NS)
	Total	.22	.16	.18	SEX X TIME	2.11	--		

Table 2

Mean Magnitude of Strain Items Endorsed and Results of Repeated Measures MANOVAs

Strain (N)	Sex (N)	Mean Strain Proportions T1	T2	T3	Results of Repeated Measures MANOVAs: Independent Variable	Overall F	p	Contrasts [t (p)] T1-T2	T1-T3
FULL SCALE (27)	Males (54)	1.26	1.07	1.01					
	Females (66)	.97	.89	.97	TIME	1.90	--		
	Total (120)	1.10	.97	.99	SEX X TIME	1.83	--		
PEER (9)	Males	1.19	.83	.89					
	Females	.92	.74	.67	TIME	4.61	.012	2.93 (.004)	2.81 (.006)
	Total	1.04	.78	.77	SEX X TIME	.67	--		
SCHOOL (7)	Males	1.36	1.47	1.38					
	Females	1.03	1.11	1.32	TIME	1.44	--		
	Total	1.18	1.26	1.34	SEX X TIME	1.26	--		
PARENT (6)	Males	1.57	1.35	1.21					
	Females	1.14	1.22	1.24	TIME	1.09	--		
	Total	1.33	1.31	1.22	SEX X TIME	2.58	.078	1.38 (NS)	1.96 (.055)
TEACHER (5)	Males	.89	.63	.48					
	Females	.76	.47	.70	TIME	2.57	.081	2.21 (.029	2.13 (.038)
	Total	.82	.54	.60	SEX X TIME*	2.85	.062	-.17 (NS)	1.44 (NS)

* Significant T2-T3 contrast, $t = 2.26$, $p = .026$

Table 3

Sex Differences in Mean Strain Proportion in Fifth Grade

(N = 120)

Subscale (N of items)	Male Proportion	Female Proportion	Difference (M - F)	F	p
Total Scale (27)	.38 (.21)	.29 (.17)	.09	6.71	.011
Peer Influence (9)	.39 (.29)	.29 (.25)	.10	4.06	.046
School Demands (7)	.42 (.30)	.30 (.27)	.12	4.67	.033
Parent Control (6)	.46 (.27)	.34 (.27)	.12	5.63	.019
Teacher Relations (5)	.24 (.26)	.22 (.26)	.02	.12	NS

Note: Standard Deviations appear in parentheses.