

CLASSROOM ENVIRONMENT AND STRESS-COPING BEHAVIOR AMONG SECONDARY SCHOOL TEACHERS IN CAGAYAN DE ORO CITY: A CROSS-SECTIONAL STRUCTURAL EQUATION MODELING STUDY

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ABSTRACT- *Teacher stress is shaped by interacting personal, classroom, and organizational demands, yet local evidence linking these conditions to coping behavior remains limited. This cross-sectional correlational study developed and evaluated a structural model of stress-coping behavior among 423 public and private secondary school teachers in Cagayan de Oro City, Philippines. Participants completed a self-administered teacher-stress and coping questionnaire. Data were examined using descriptive statistics, correlation analysis, stepwise multiple regression, and structural equation modeling. Teachers reported moderately noticeable personal-distress and time-management concerns ($M = 2.88$). Discipline and motivation ($\beta = .189$, $p = .003$), time pressure ($\beta = .153$, $p = .006$), management problem-solving ($\beta = .138$, $p = .010$), and personal time management ($\beta = -.141$, $p = .038$) jointly explained 7.7% of the variance in coping behavior. Among five tested models, Model 5 showed the best reported fit ($\chi^2/df = .838$, $p = .473$, $NFI = .999$, $CFI = 1.000$, and $RMSEA = .000$) and linked classroom environment directly with coping behavior, accounting for 57% of its variance. The findings support classroom-level and organizational interventions addressing workload, time pressure, student discipline, motivation, and access to adaptive coping resources.*

Keywords- Teacher Stress, Coping Behavior, Classroom Environment, Structural Equation Modeling, Secondary, School Teachers

1. INTRODUCTION

Teaching requires sustained cognitive, emotional, and relational labor. Recent studies have identified workload, working conditions, role demands, limited resources, and organizational pressures as recurring sources of teacher stress. Philippine evidence likewise indicates that moderate-to-heavy workloads and less favorable workplace conditions can coexist with teachers' continued efforts to maintain instructional performance. [1-3]

Stress and coping profiles differ across teachers, and job demands such as disruptive student behavior, excessive workload, low engagement, and limited organizational resources are associated with burnout, weaker instructional functioning, and reduced occupational commitment. [4-7]

The school and classroom context is therefore central to understanding teacher well-being. Studies have linked burnout to teacher-, student-, and organization-level conditions, while person-centered research indicates that adaptive coping patterns are associated with better emotions, job satisfaction, and persistence. Multilevel evidence further shows that workload, student behavior, and expectation stress can cluster differently across teachers and schools. [8-10]

Teachers have reported emotional strain, administrative overload, instructional challenges, and the need to balance multiple responsibilities. Workload management, communication, administrative support, and positive workplace conditions have consequently emerged as important institutional concerns. [1-3]

Occupational stress, personal strain, emotional exhaustion, technology-mediated teaching challenges, and learners' emotional or behavioral needs can affect how educators manage their work. These findings support an ecological interpretation in which coping is shaped by the interaction

between teachers' personal resources and the demands of their immediate work setting. [14-17]

A useful interpretive lens because teachers' capacity to initiate, decide, and adapt is enabled or constrained by their work context. However, agency and professionalism were not directly measured in the present dataset and should not be treated as empirical outcomes. Similarly, cross-sectional structural models can estimate directional paths but do not establish temporal or causal effects. Structural equation modeling remains useful when theory, measurement quality, and model identification are clearly reported. [18-20]

The study sought to: (1) describe the personal and professional characteristics of public and private secondary school teachers; (2) summarize reported stress-related attributes and coping behavior; (3) identify significant predictors of coping behavior; and (4) determine which of the proposed structural models best represented the reported association between classroom environment and coping behavior. The revised title deliberately reflects the measured variables and the cross-sectional SEM methodology rather than unmeasured constructs such as performance, agency, or professionalism.

MATERIALS AND METHODS

Research Design

The study employed a cross-sectional correlational design. Structural equation modeling was used to examine the covariance structure among the reported stressor and coping variables and to compare five candidate models. Because all variables were measured at one point in time, the analysis estimated associations and predictive paths rather than causal effects.

Participants and Sampling

A stratified random sampling procedure was reported across public and private secondary schools in Cagayan de Oro City. The sample comprised 423 teachers: 290 from public schools and 133 from private schools. The sample was predominantly female and largely composed of teachers aged 20-39 years, with nearly half reporting five years or less of teaching experience.

Measures

Data were obtained through a validated self-administered questionnaire incorporating the Teacher Stress Inventory and Coping Strategy Indicator. The domains covered personal attributes and time management, classroom environment, school environment, management role, and coping dimensions identified as proactive, reflective, strategic, preventive, instrumental-support seeking, emotional-support seeking, and avoidance coping.

Data Analysis

Frequency, percentage, and mean were used to summarize respondent characteristics and scale responses. Correlation analysis and stepwise multiple regression were used to identify predictors of coping behavior. Structural equation modeling was conducted in AMOS after preliminary analyses in SPSS. The model fit using chi-square/df (< 2.00), NFI ($> .95$), TLI ($> .95$), CFI ($> .95$), GFI ($> .95$), and RMSEA ($< .05$). Statistical values originally reported as $p = .000$ are presented as $p < .001$.

RESULTS

Respondent Characteristics

Table 1 The demographic and professional profile of the respondents. Women represented 82.5% of the sample. Most teachers were 20-39 years old (78.5%), and 48.5% had five years or less of teaching experience. Public-school teachers constituted 68.6% of respondents.

Table 1. Personal and professional characteristics of respondents (N = 423)

Charact	Category	n	%
Gender	Male	77	17.5
	Female	349	82.5
Age	20-29	173	40.9
	30-39	159	37.6
	40-49	72	17.0
	50-59	14	3.3
	60 and above	5	1.2
Education	Bachelor's degree	250	59.10
	With master's units	140	33.09
	Master's degree	12	2.83
	With doctoral units	6	1.41
	Doctoral degree	14	3.30
Experienc	Other	1	0.24
	5 years and below	205	48.46
	6-10 years	97	22.93
	11-15 years	35	8.27
	16-20 years	40	9.46
School	21 years and above	46	10.87
	Public	290	68.56
	Private	133	31.44

Note. Percentages may not total exactly 100 because of rounding.

Personal Distress and Time Management

The overall mean for the reported personal-distress and time-management items was 2.88, interpreted in the source manuscript as moderately noticeable. The highest item means were recorded for thinking about unrelated matters during conversations ($M = 3.21$) and over-committing oneself ($M = 3.20$), followed by multitasking ($M = 3.14$) and rushing in speech ($M = 3.04$).

Table 2. Selected personal-distress and time-management indicators

Indicator	M	Interpretation
Lack of recognition for extra work	2.91	Moderately noticeable
Need for status and respect at work	2.78	Moderately noticeable
Inadequate salary for work	2.77	Moderately noticeable
Limited promotion opportunities	2.73	Moderately noticeable
Think about unrelated matters	3.21	Moderately noticeable
Easily over-commit oneself	3.20	Moderately noticeable
Attempt to multitask	3.14	Moderately noticeable
Rush in speech	3.04	Moderately noticeable
Overall personal attributes	2.88	Moderately noticeable

Predictors of Coping Behavior

Stepwise multiple regression identified four statistically significant predictors of coping behavior. Discipline and motivation had the largest standardized coefficient, followed by time pressure, management problem-solving, and personal time management. The negative coefficient for time management indicates that higher scores are associated with lower coping scores, although the direction depends on how the items were coded. Collectively, the predictors explained 7.7% of the variance, indicating a statistically significant but modest model.

Table 3. Stepwise multiple regression predicting coping behavior

Predictor	B	beta	t	p
Constant	2.538	-	25.006	$< .001$
Discipline and motivation	.104	.189	3.039	.003
Management problem-solving	.061	.138	2.575	.010
Time pressure	.072	.153	2.791	.006
Personal time management	-.080	-.141	-2.084	.038

Note. $R^2 = .077$; $F = 8.761$; $p < .001$. B = unstandardized coefficient; beta = standardized coefficient.

Structural Equation Modeling

Five candidate models were evaluated. Model 4 showed favorable incremental and residual fit indices but retained a statistically significant chi-square test. Model 5 showed the strongest reported fit and represented a direct path from classroom environment to coping behavior.

Table 4. Reported goodness-of-fit indices for the structural models

Model	chi-square/df	p	NFI	CFI	RMSEA
1	10.732	< .001	.779	.794	.152
2	9.525	< .001	.819	.833	.142
3	10.582	< .001	.821	.834	.151
4	1.295	< .001	.994	.999	.026
5	.838	.473	.999	1.000	.000

Note. Th TLI = 1.003 and GFI = .999 for Model 5. Degrees of freedom and confidence intervals for RMSEA were not provided. Model 5 reportedly accounted for 57% of the variance in coping behavior. The source manuscript also listed regression weights of 2.096 for reflective coping, 1.972 for proactive coping, and 1.316 for avoidance coping.

The findings position the classroom environment as the principal contextual correlate of coping behavior in the final reported model. Student behavior, limited engagement, workload, and classroom-level demands can activate teacher stress and shape emotional exhaustion and instructional practice. Administrative duties, and difficult instructional conditions as persistent challenges for teachers. [3, 5-7, 11, 12, 16, 17]

The observed predictors explained only 7.7% of the variance in coping behavior. This modest explanatory power suggests that coping is influenced by additional factors not represented in the regression model, including social support, school leadership, psychological resources, professional experience, and broader organizational conditions. The much larger variance reported for Model 5 (57%) should therefore be interpreted with caution [8-10, 13, 18]

Contemporary person-centered research indicates that teachers often use combinations of engagement and disengagement coping strategies. Adaptive profiles characterized by problem-solving and support seeking are generally associated with better well-being, whereas avoidance and social withdrawal are linked with greater burnout and intentions to leave. [4, 6, 9]

The framing connected coping with professional agency and professionalism. The agency treats only as a contextual implication: supportive school conditions may enable teachers to respond proactively, whereas excessive demands may constrain their choices. Empirical claims about agency would require a validated agency measure and a structural model in which agency is explicitly specified. [18,19]

CONCLUSION AND RECOMMENDATIONS

Secondary school teachers in Cagayan de Oro City reported meaningful stress-related concerns involving time pressure, discipline and motivation, problem-solving demands, and personal time management. The structural model identified classroom environment as a strong statistical correlate of coping behavior. This finding should not be interpreted causally, but it directs attention toward modifiable classroom and organizational conditions rather than placing responsibility solely on individual teachers.

Schools may strengthen evidence-informed classroom-management support, reduce avoidable administrative burdens, clarify workload expectations, and provide accessible consultation and peer-support mechanisms.

Professional development may address adaptive problem-solving, emotion regulation, time management, and support seeking while avoiding approaches that frame stress exclusively as an individual weakness. Future studies may report complete psychometric evidence, compare public and private school contexts, test theoretically specified indirect effects, and use longitudinal designs to determine how stressors and coping change over time.

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