

The Relationship of Elementary Teachers' Years of Teaching Experience, Perceptions of Occupational Stress, and Self-Acceptance to Burnout Symptoms in the United States and Germany

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Introduction

- ∇ U.S.: High teacher turnover, national shortage, every second teacher quits after 5 years
- ∇ Germany: 74% of all teachers retired early compared to 46% of early retirements in other professions (2005), for 52% of those a psychological or psychiatric diagnosis was given
- ∇ Important to identify factors depleting teaching force in order to best support teachers

Significance

- ∇ Inform efforts to increase coping skills in teachers to prevent burnout
- ∇ More job satisfaction, teacher health, lower attrition
- ∇ Enhance student achievement
- ∇ Cross-cultural perspective (replication)

Theoretical Framework

Research in the U.S.:

1. Response Models (Selye, 1956)
2. Stimulus Models (Holmes & Rahe, 1967)
3. Conservation of Resources (Hobfoll, 1989)
4. Transactional Models (Lazarus & Folkman, 1984)

Research in German speaking countries:

5. Personal Coping Strategies (Schaarschmidt & Fischer, 1996)
6. Stress and Strain (Rudow, 2000)

Expanded Transactional Model

(McCarthy & Lambert, 2006)

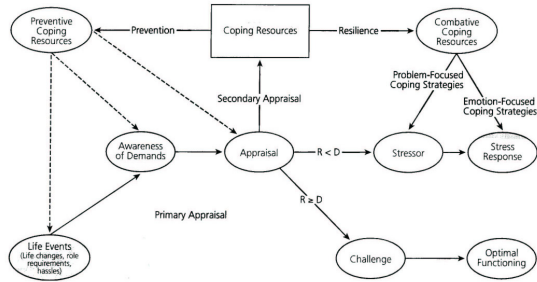


Figure 1.1. Hypothesized model of prevention in stress and coping. Note: Dashed lines represent points in the stress process where preventive coping resources might be most relevant.

Expanded Transactional Model

	Preventive	Combative
Problem Focused	Organization Scanning Perceived Control Humor Maintaining Perspective Self-Acceptance	Structuring Stress Monitoring Self-Directedness Tension Control Cognitive Restructuring Acceptance
Emotion Focused	Maintaining Perspective Social Resourcefulness Self-Acceptance Scanning Humor	Cognitive Restructuring Social Support, Self-Disclosure Acceptance Stress Monitoring Tension Control

Lambert (2006)

Perceived Inequality = Risk for Stress

		Resources		
		High	Moderate	Low
Demands	High	D=R	D>R	D>R
	Moderate	D<R	D=R	D>R
	Low	D<R	D<R	D=R

(Lambert, 2006)

- Predictors of teacher stress and burnout**
1. Cultural and societal factors
 - ∨ Educational systems
 - ∨ Educational leadership
 2. School-specific factors
 - ∨ Type of school
 - ∨ Interactions with students and parents
 3. Teacher-specific factors

- 3. Teacher-specific factors**
- ∨ Demographic variables
 - ∨ Gender, age, marital status (Körner, 2002)
 - ∨ Years of experience (Forlin, 2001)
 - ∨ Individual personality characteristics/ coping resources
 - ∨ Locus of control (Byrne, 1999)
 - ∨ Self esteem (Greenberg et al., 1992)
 - ∨ Social support (Greenglass et al., 2003)
 - ∨ Self-efficacy (Brouwers & Tomic, 2000)
 - ∨ Self-acceptance (Lambert et al., 2008)

Flaws in Previous Research

- ∇ Not clear what matters more
- ∇ Lack of longitudinal research
- ∇ Self-report measures
- ∇ Small sample sizes
- ∇ Limited cross-cultural comparison

Purpose

- ∇ Examine relationship of elementary teachers' years of experience, perceived occupational stress, and preventive coping/ self-acceptance to burnout symptoms in the U.S. and Germany
- ∇ Explore if teacher or school-specific factors account for more variance in burnout

Research Design

- ∇ Quantitative cross-sectional survey
- ∇ Questionnaire consisted of 3 parts
- ∇ Convenience sampling

Participants and Setting

- ∇ U.S. sample: 451 elementary teachers from 12 Cabarrus County Schools (grade levels k-5)
- ∇ German sample: 469 elementary teachers from 62 Baden-Württemberg schools in 4 districts (grade levels 1-4)
- ∇ Response rate U.S. sample 77.62%/ German sample 5.6%

Procedures

- ∇ Translation (Hambleton & Patsula, 2000)
 - ∇ Secured approval of overall education ministry (MKJS)
- ∇ Principals were contacted by email
 - ∇ Letter that outlined purpose of study
 - ∇ Letter of support (Päd. Hochschule Ludwigsburg)
 - ∇ Questionnaire including cover letter for teachers
- ∇ Letter offered information for survey administration:
 - ∇ In staff meetings/ printing & postage reimbursement
 - ∇ Provide questionnaires, envelopes, postage
 - ∇ Individual summary of results for their school

Independent Variables

- ∇ Years of experience
- ∇ Classroom Demands (CARD; Lambert et al., 2001)
- ∇ Occupational stress (CARD difference score)
- ∇ Self-acceptance (PRI; McCarthy & Lambert, 2001)

Dependent Variable

- ▽ Burnout (MBI-ES; Maslach, Jackson, & Leiter, 1996/ MBI-D; Enzmann & Kleiber, 1989)
 - ▽ EE refers to feelings of being overextended emotionally
 - ▽ DP refers to taking a cynical stance towards others
 - ▽ PA is related to lowered feelings of competence

Measures

- ▽ CARD (84 items)
 - ▽ 19 questions about demographics and classroom characteristics
 - ▽ 35 items to assess classroom demands
 - ▽ Ratings on a Five Point Scale (Not Demanding to Extremely Demanding)
 - ▽ 30 items assess helpfulness of resources
- ▽ Validity evidence (Lambert et al., 2007)
 - ▽ Demands $\alpha = .916$
 - ▽ Resources $\alpha = .954$

Measures

- ▽ PRI (82 items), validity evidence (Lambert et al., 2006)
 - ▽ Perceived Control $\alpha = .897$
 - ▽ Maintaining Perspective $\alpha = .873$
 - ▽ Social Resourcefulness $\alpha = .822$
 - ▽ Scanning $\alpha = .861$
 - ▽ Self-acceptance $\alpha = .850$
- ▽ MBI (22 items), validity evidence (Maslach et al., 1997)
 - ▽ Emotional Exhaustion (EE) $\alpha = .88$ to $.90$
 - ▽ Depersonalization (DP) $\alpha = .74$ to $.76$
 - ▽ Personal Accomplishment (PA) $\alpha = .72$ to $.76$

Results

- ∨ Reliability (Cronbach's Alpha)
 - ∨ Demands $\alpha=.926/.932$, Resources $\alpha=.945/.984$
 - ∨ Stress $\alpha=.945/.965$
 - ∨ SAC $\alpha=.842/.835$
 - ∨ EE $\alpha=.859/.853$
 - ∨ DP $\alpha=.630/.619$
 - ∨ PA $\alpha=.623/.604$
 - ∨ BO $\alpha=.881/.868$

Research Question #1

What challenges do teachers report as most demanding?

	U.S. sample		German sample	
	<i>M</i>	%	<i>M</i>	%
Student Behavior	3.76	62.48	3.34	46.08
Other Student-related Demands	2.89	48.67	2.25	20.50
Administrative Demands	3.09	51.97	2.18	16.83
Instructional Resources	2.21	14.38	1.62	4.80

Research Question #2

What percentage of teachers are at risk for stress?

- ∨ Based on their CARD scores, teachers were classified into 3 groups :
- ∨ Chi square test of association to test relationship between groups significant

		U.S.	German
(1)	R>D	33.00%	40.00%
(2)	R=D	34.40%	27.40%
(3)	D>R	32.60%	32.70%

Research Question #2

Burnout and SAC by Stress Group

- Chi square test of association to test relationship between groups and MBI scales significant

	U.S. sample	German sample
EE	3>2>1	3>2>1
DP	3,2>1	3>2>1
PA	3,2>1	3>2>1
BO	3,2>1	3>2>1
Preventive Coping/ SAC	No difference	3,2>1

Research Question #2

- Total burnout higher for U.S. sample (U.S. sample M=38.10/ German sample M=32.49)
 - EE scores higher than for DP and PA in all 3 groups
 - Highest EE means occurred in D > R group (stress) (U.S. sample M=22.121/ German sample M=19.046)
- German sample: EE scores higher in D > R and R = D, but not in R > D group: PA scores higher!
 - Higher means on PA in all 3 stress groups
 - Higher scores on DP in D > R group
 - Lowest scores on SAC in the D > R group

Research Question #3

Is any of the variance in reported burnout symptoms among elementary teachers found between individual schools?

- Unconditional HLM models for all MBI scales and total burnout were fit
- $Y_{jk} = \pi_{0jk} + c_{jk}$
- Y_{jk} - Individual score on the DV at level 1, for teacher j within school k
- π_{0jk} - Intercept (mean) for the DV in teacher j (level 2) varying across schools k
- c_{jk} - Deviation of an item score from the teacher's mean, assumed mean of 0, variance to be estimated

Research Question #3

	U.S. sample			German sample		
MBI	Variance in % between					
	Items within scales	Teachers on scale scores	Schools on scale scores	Items within scales	Teachers on scale scores	Schools on scale scores
EE	69.00	28.92	2.09	81.31	18.67	0.017
DP	87.48	11.29	1.23	83.46	16.53	0.014
PA	89.96	9.59	0.45	87.65	12.35	0.002
BO	84.01	14.91	1.08	84.19	15.81	0.003

Research Question #4

Is there an association between burnout symptoms of teachers, perceived classroom demands, self-acceptance, and teaching experience?

$$Y_{jk} = \pi_{1jk}EE_{jk} + \pi_{2jk}DP_{jk} + \pi_{3jk}PA_{jk} + r_{jk} \quad \text{Level 1}$$

$$\pi_{pjk} = \beta_{pk00} + \beta_1*(YRSEXP) + \beta_2*(YRS@CRTSCHOOL) + \beta_3*(NEW2TCH) + \beta_4*(NEW2SCH) + \beta_5*(SAC) + \beta_6*(DEM) + \beta_7*(STRESS) + u_{jk} \quad \text{Level 2}$$

$$\beta_{pk} = g_{pk} + v_{pk} \quad \text{Level 3}$$

(p=1,2,3)

Research Question #4

BO dimension EE

Predictors associated with EE	U.S. sample β	German sample β
Years at current school	.024	-.010
New to teaching	-	-.248
Classroom demands	.224	.199
Classroom stress	.190	-
Preventive coping/SAC	-.305	-.314

Research Question #4

BO dimension DP

Predictors associated with DP	U.S. sample β	German sample β
Years of experience	-	.013
Years at current school	-	-.019
Classroom demands	-	.217
Stress	.169	-
Preventive coping/ SAC	-.154	-.263

Research Question #4

BO dimensions PA

Predictors associated with PA	U.S. sample β	German sample β
Classroom demands	.158	.110
Stress	-	.129
Preventive coping/ SAC	-.280	-.225

Research Question #4

Total BO score

Predictors associated with BO	U.S. sample β	German sample β
Years at current school	.015	-.011
Classroom demands	.159	.177
Stress	.129	.100
Preventive coping/ SAC	-.261	-.271

Research Question #4

Major differences

Predictors	U.S. sample	German sample
Years at current school	EE ↑	EE ↓
New to teaching	-	EE ↓
Years at current school	-	DP ↓
Years of experience	-	DP ↑
Years at current school	BO ↑	BO ↓
Stress	EE ↑	
Stress	DP ↑	
Stress		PA ↑

Discussion

- ∇ Both individual teacher level and classroom demands were associated with burnout in the predicted direction
- ∇ Consistent with most recent research findings (Kokkinos, 2007)
- ∇ Confirms McCarthy et al.'s (2009) model of stress and coping and empirically substantiates importance of coping in the stress equation

Implications for Practice

- ∇ Important to address both individual teacher development and organizational improvement of schools
 - ∇ Support in using PBS strategies
- U.S.:
 - ∇ Reducing administrative demands
 - ∇ Strengthening organizational, managerial skills
- Germany:
 - ∇ Need for leadership training & ongoing support
 - ∇ Promoting preventive coping in teacher training
 - ∇ Systematically fostering social support among teachers

Limitations

- ∇ Potential response bias
- ∇ Cultural and societal expectations of appropriate student behavior and of parent responsibilities
- ∇ Differences in teacher training and educational systems
- ∇ Small response rate
- ∇ Lengthy survey

Future Research

- ∇ Qualitative data to provide greater depth
 - ∇ Explore causal relationships through observational studies (correlate stress level and teaching/ coping strategies/ frequency of challenging student behavior)
- ∇ Impact of other variables, e.g., job satisfaction, CWV
- ∇ Evaluate effectiveness of prof. dev. related to burnout
- ∇ Explore differences in induction programs
- ∇ Include district or policy level aspects, school level aspects
- ∇ Samples from different grade levels, school types, cultures
