

DOCUMENT RESUME

ED 348 108

JC 920 406

AUTHOR Crabtree, Robert D.; Selman, James W.  
 TITLE Countering Stress with Leisure and Recreational Activities: An Analysis of 2-Year College Presidents or Directors.  
 INSTITUTION Auburn Univ., AL. Coll. of Education.  
 PUB DATE 92  
 NOTE 15p.  
 AVAILABLE FROM Auburn University, Department of Vocational and Adult Education, Auburn, AL 36849-3501 (\$10).  
 PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.  
 DESCRIPTORS \*Administrator Attitudes; \*Administrators; College Environment; \*College Presidents; Community Colleges; Comparative Analysis; Educational Background; \*Leisure Time; National Surveys; Private Colleges; Public Colleges; \*Recreational Activities; \*Stress Management; Stress Variables; Technical Institutes; Two Year Colleges

ABSTRACT

In 1992, a study was conducted to ascertain the opinions of selected public and private two-year college administrators regarding the use of 15 leisure and recreational activities for countering work-related stress. Questionnaires eliciting self-perceptions were sent to all presidents/directors of two-year institutions accredited by the Southern Association of Colleges and Schools. Univariate, bivariate, and multivariate analyses were conducted of the data collected. Survey findings, based on 373 responses, representing 175 public community colleges, 119 public technical colleges, and 79 private technical colleges, included the following: (1) the majority of respondents were white (92.2%) males (84.7%); their average age was 50.7 years; and they had been educational leaders for an average of 9.7 years, employing 3.25 administrative assistants; (2) 81% reported using hobbies and recreational activities as a form of recreation; (3) while public technical college presidents were equally concerned with health maintenance, they appeared to use diversionary coping strategies significantly less than public community and private technical college presidents; and (4) many of the respondents had not structured leisure activity plans to assist them in countering work-related stress, and some appeared to be unaware of the value of these activities as components of a coping strategy. (MPH)

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Countering Stress with Leisure and Recreational Activities:  
An Analysis of 2-Year College Presidents or Directors

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Running Head: Countering Work Related Stress

JC 920406

**ABSTRACT**

**TITLE:** COUNTERING STRESS WITH LEISURE AND RECTIONAL  
ACTIVITIES: AN ANALYSIS OF 2-YEAR COLLEGE  
PRESIDENTS OR DIRECTORS

**AUTHORS:** CRABTREE, ROBERT D. AND SELMAN, JAMES W.

**DESCRIPTORS:** \*ADMINISTRATION; \*ADMINISTRATOR ATTITUDES;  
\*ADMINISTRATORS; \*COLLEGE ADMINISTRATION;  
\*COMMUNITY COLLEGES; \*EDUCATIONAL ADMINISTRATION;  
\*INSTITUTIONAL ENVIRONMENT; \*TWO YEAR SCHOOLS;  
\*STRESS MANAGEMENT; \*STRESS VARIABLES

**NOTE:** 13P., 1992

**ABSTRACT:** THIS STUDY EXAMINED THE PERCEPTIONS OF 373 PUBLIC AND PRIVATE TWO YEAR COLLEGE ADMINISTRATOR'S REFARDING THE USE OF 15 LEISURE AND RECREATIONAL ACTIVITIES FOR COUNTERING WORK RELATED STRESS. INSTITUTIONS INCLUDED IN THIS STUDY WERE LIMITED TO THOSE ACCREDITED BY SOUTHERN ASSOCIATION OF COLLEGES AND SCHOOLS. DEMOGRAPHIC DATA REVEALED A WIDE RANGE OF DIFFERENCES BETWEEN THE EDUATIONAL BACKGROUNDS, AGES, AND YEARS OF ADMINISTRATIVE EXPERIENCE BETWEEN PUBLIC AND PRIVATE TWO YEAR COLLEGE ADMINISTRATORS.

THE DATA REVEALED SYSTEMATIC ACTIVITY CLUSTERS OF PERCEIVED IMPORTANCE WITHIN GROUPINGS OF ADMINISTRATORS: SIGNIFICANT DIFFERENCES OF OPINION WITH RESPECT TO THE IMPORTANCE OF THOSE ACTIVITY CLUSTERS BETWEEN ADMINISTRATIVE GROUPS DID EXIST; THE DIFFERENCE IN PERCEPTIONS OF IMPORTANCE OF THESE COPING ACTIVITIES VARIED SIGNIFICANTLY BETWEE PUBLIC COMMUNITY COLLEGE PRESIDENTS, PUBLIC TECHNICAL COLLEGE PRESIDENTS, AND PRIVATE TECHNICAL COLLEGE PRESIDENTS.

FINDINGS INDICATED COMMON PERCEPTIONS AND DIFFERENCES OF PERCEPTIONS BETWEEN TYPES OF PRESIDENTS MAY HAVE IMPLICATIONS FOR ORGANIZATIONS AND PROGRAMS DESIRING TO BETTER SERVE COLLEGE PRESIDENTS. THESE MAY INCLUDE THOSE INTERESTED IN PROVIDING PRE-SERVICE EDUCATIONAL PROGRAMS FOR DEVELOPING POTENTIAL COLLEGE PRESIDENTS; IN-SERVICE PROGRAMS DESIGNED AND OFFERED ACCORDING TO THE RELATIVE EMPHASIS GIVEN TO THE VARIOUS ACTIVITY CLUSTERS; AND ASSISTANCE FOR INSTITUTIONAL ACCREDITATION.

**AVAILABILITY:** REPRINTS AVAILABLE; AUBURN UNIVERSITY; DEPARTMENT OF VOCATIONAL AND ADULT EDUCATION; AUBURN ALABAMA 36849-3501 (\$10.00)

**INSTITUTION:** AUBURN UNIVERSITY, AUBURN, ALABAMA

**SPONSOR:** DEPARTMENT OF VOCATIONAL AND ADULT EDUCATION, COLLEGE OF EDUCATION  
AUBURN UNIVERSITY, AUBURN, ALABAMA

## Countering Work Related Stress

### Countering Stress with Leisure and Recreational Activities:

#### An Analysis of 2-Year College Presidents or Directors

The demand for more effective educational programs and public pressure for accountability and relevance is receiving national attention. Top administrators of two year colleges are under increased pressure to address these and other important issues. Because of the diversity of publics served by viable two year colleges, it becomes especially important that administrators budget their time and effort in responding to these demands. The scope of executive duties associated with stress-related activities with their varying levels of intensity is a contingency limiting the amount of time and physical stamina available for conducting more primary responsibilities in daily operations of a two year college (Selman, 1990).

Time or lack of time produce and magnify stress. Time constraints often diminish administrator capacity to address job related problems without experiencing the effects of stress. Heart and arterial disease, chronic indigestion and ulcers, migraine headaches, mental breakdowns, occupational burn-out, and alcoholism and drug addition are only a few of the more familiar ailments said to be associated with time induced stress. The question of whether or not stress takes a heavy toll on physical and mental health ultimately depends on how time induced stresses are handled. In any case academic preparation for formalized educational degrees attempts to provide administrators with skills needed to recognize and respond to job responsibilities.

The concern of how individuals cope with stress has resulted in a growing

body of research (Knopf, 1972; Brightbill & Mobley, 1977; Veninga & Spradley, 1981; Schuler, 1981; Selye, 1983; Kerr, 1984; Crabtree, 1992). In the study of stress, the use of leisure-time activities comes into play as a means to relieve work related pressures.

#### Statement of the Problem

The central problem of the study was to ascertain the opinions of selected public and private administrator groups from 2 year colleges (accredited by the Southern Association of Colleges and Schools) regarding the use of 15 leisure and recreational activities for countering work related stress. To achieve this purpose, two major objectives were formulated to provide direction and investigative constraints for structuring and conducting the study. They were:

1. To cluster the 15 selected leisure and recreational activities into empirically related groups or factors.
2. To investigate differences in activity clusters related type of institution: Public Community Colleges, Public Technical Colleges, and Private Technical Colleges.

#### Methodology

##### Subjects and Institutions

Questionnaires used to reflect self perceptions of college administrators were sent to all Presidents/Directors of 2-year post-secondary institutions accredited by the Southern Association of Colleges and Schools (SACS, Proceedings 1990). Data (collected from 373 respondents) were broken down by institutions as follows: (a) 175 public community colleges accredited by the College Commission, (b) 119 public technical colleges accredited by the

Occupational Commission, and (c) 79 private technical colleges accredited by the Occupational Commission of SACS.

The average age of the 373 educational executives responding to the questionnaires was 50.6 years. The majority, 316 (84.7%), were males. The executives had an average of 9.7 years experience as educational leaders and an average of 3.25 administrative assistants. The majority, 344 (92.2%), were Caucasian and 18 (4.8%) were Black. One-hundred seventy-eight (47.7%) held Ph.D. or Ed.D. degrees; 19 (5.1%), Ed.S. degrees; 105 (28.2%), Masters' degrees; 34 (9.1%), baccalaureate degrees, 21 (5.6%), some other degree; and 13 (3.5%) held no degree. Hobbies and recreational activities were used by 303 (81%) as a form of relaxation.

Of the 373 institutions, 182 (48.8%) were located in urban areas. The majority, 149 (39.9%), were governed by local boards, 54 (14.5%) by state boards, 80 (21.4%) by chancellors, and 81 (21.7%) had some other form of governance. The majority 229 (61.4%) were single campus operations, while 129 (34.6%) had two or more campuses. Campuses were located in rural (43.7%), urban (48.8%), and combinations of rural-urban (7.5%) communities.

#### Data Analysis

The data were obtained with a modified existing instrument for determining the levels of perceived importance of 15 leisure/recreational activities considered helpful in counter work related stress (Edwards, 1984 and Pinney, 1989). The college president/directors were asked to indicate on a scale ranging from "Always" to "Never," which, if any, they utilized.

Data collected were investigated univariately, bivariately and multivariately. Statistics employed had non-parametric and parametric attributes. Univariately, responses were tested against chance; bivariately,

combinations of responses were tested; multivariately, factor analytic with principal components extractions and MANOVA techniques were employed. Additional post hoc analyses based on Scheffe' considerations were used to determine univariate between groups differences under experiment wide protection at the 0.05 level.

Factor analysis with principal components extraction reduced the 15 counter stress activities (variables) to 2 spanning dimensions (representing patterns or components groupings) preserving the essential original variability of the data set.

Results

Factor Analysis

Table 1 reports final communality estimates for each variable. The measure of sampling adequacy of .724 was determined to be high enough to proceed with the reporting. Five factors (on the basis of the eigenvalues-criterion) contributed 54.0% of the variance associated with the 15 variables. It was determined that two factors accounting for 31.7 % would be rotated and retained for additional statistical analysis on the basis of the scree criterion.

-----  
 Insert Table 1 About Here.  
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Table 2 further reports results of principal component analysis of the 15 coping strategies/activities. The rotated factor matrix of loadings is in the center columns for components 1 and 2. In defining and naming, greater credence was given to the higher loadings on each of the two components. The two components were labeled Heth-Mnt (Health Maintenance), and Diverson



(Diversiory). Table 2 also reports a factor score coefficient matrix and a covariance matrix for estimated regression factor scores.

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Insert Table 2 About Here.  
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Statistically tested were relationships between factors representation 2 coping strategies and 3 administrative groups in Table 3 labeled; PubComC (public community college), PubTecC ( public technical college) and PvtTecC (private technical college). The table is divided horizontally into 3 parts. The means of the two factor scores are presented in the top portion of Table 3 between the two longer horizontal lines. MANOVA of the two factor scores was undertaken sequentially to control for attributes potentially affecting responses to variables measuring involvement in counter stress activities. Entered into the model first were covariates (Age of respondent, Years in the Presidency, Number of Assistants), none of which were significant. Following the covariates were two other demographic variables (Gender and Marital Status) which were confounded with type of accreditation and should be adjusted from the model before presenting findings for accreditation.

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Insert Table 3 About Here.  
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Modeling continued with testing of relationships between factors representing coping strategies and institutional group reported in terms of accreditation as a variable in Table 3. The groups are labeled; PubComC (public community college), PubTecC (public technical college) and PvtTecC (private technical college). The means, adjusted for all prior variables in

the model as listed in the foregoing, were analyzed for multivariate differences with findings described in the middle portion of Table 3. The table presents Wilk's Lambda and its approximating F-test equivalent and univariate tests. Data indicate that there was multivariate significance at the .05 level.

Univariate analyses indicate among groups significance for Diversion; Hlth-Mnt univariately was not significant. Along the bottom of Table 3 Scheffe procedures determining the post hoc differences on Diversion among the three college groups are presented. Data indicated that there was significance (.05 level) between group means for 2 of the 3 possible differences (note \*'s): (a) Public Community College and Public Technical College, and (b) Public Technical College and Private Technical College. \*'s in the lower part of Table 3 indicate the diversionary coping strategies used by Public Technical Presidents were significantly lower as compared to Public Community and Private Technical colleges presidents.

### Conclusions

It was concluded that preceptions differ significantly by tyoe of 2-year college administrator in the southern region as to the importance of leisure and recreational activities for countering work related stress. It appears that public technical college presidents are about equally concerned with health maintenance and less concerned with diversionary coping strategies than other presidents (community colleges and private technical college). Public Technical College Presidents seem to use diversionary coping strategies less often than their counter parts in the other institutional types. Private Technical College Presidents tend to use Diversionary Strategies more than the other classifications but not significantly more than Public Community College

Presidents.

The researchers conclude that many of the two year college presidents or directors had not structured leisure activity plans to assist them in countering work related stress. It appears that some may be unaware of the value of these type of activities as components of a coping strategy.

#### Implications for Practice

The primary purposes of the study were to determine if there were activity clusters of leisure and recreational activities and to determine if the perceived importance of these activities to cope with work related stress differed significantly between the three categories of administrators included in the study. It was determined that there were 2 clusters of perceptions of activities and that there were differences between types of presidents.

Implications of these findings are:

1. It appears that College administrators should be made more aware of benefits that can be derive from using leisure and recreational activities to countering job related stress.
2. Increased awareness of leisure and recreational benefits will require assessment to identify and structure the elements of a healthy and meaningful activity program. Self-assessment instruments and measures need to be developed consistent with the demographic profiles of college administrators; their spiritual, social, psychological, intellectual, and physical requirements should be considered in the development of these data collection instruments.
3. It appears that some college administrators will require assistance in changing the mind set that "leisure and recreational activities contribute little to the effectiveness and efficiency of their job productivity and

performance". Some college administrators appear to be "workaholics" and seldom engage in healthy leisure and recreational activities.

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Table 1

Initial and Final Communalities and Eigenvalue Properties for Principal Component Analysis of Coping Strategies

Variable	Communalities Final							
Diet	.43078	Determinant of Correlation Matrix = .1147341						
Exercise	.51733							
Hobbies	.33805	Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .72405						
MiniVac	.33666							
Advice	.42926	F a c t	Initial			Final		
Profmeet	.36534		Eigen	Pct	Cum	Eigen	Pct	Cum
Prayer	.23407		value	of	Pct	value	of	Pct
Solitude	.27179			Var			Var	
Spouse	.18786		1			2.42	16.2	16.2
Unrelate	.23346		2	3.17	21.1	.86	5.7	21.9
Musicins	.14222		3	1.59	10.6			
TV	.37023		4	1.20	8.0			
Alcohol	.43912		5	1.12	7.5			
Driving	.25975			1.02	6.8			
Fiction	.20178				54.0			

Note: Variables Names: Diet (Pay more attention to a healthy diet), Exercise (Get more exercise), Hobbies (Work at a hobbies), MiniVac (Take mini-vacation away from college), Advice (Seek advice of physician or psychologist), Profmeet (Get involved with professional meetings away from college), Prayer (Take refuge in prayer, meditation), Solitude (Take refuge in solitude; fishing or hunting), Unrelate (Seek relaxation amid those unrelated to the academic world), Musicins (Play a musical instrument), TV (Watch TV), Alcohol (Drink alcoholic beverages), Driving (Drive your car fast), Fiction (Read novels and other non-academics).

Table 2

Summary for Principal Component Analysis of 15 Coping Strategies

Activity	Factor Matrix:		Rotated Factor Matrix:		Factor Score Coefficient Matrix:	
	1	2	1	2	1	2
Diet	.55808	-.34544	.65162	.07855	.27333	-.05995
Exercise	.44935	-.56162	.70164	-.15820	.33149	-.18769
Hobby	.45884	-.35709	.58137	.00750	.25344	-.08523
MiniVac	.57479	.07918	.39958	.42070	.11956	.15217
Advice	.65472	.02461	.49609	.42796	.15171	.14107
Profmeet	.60115	.06290	.43034	.42443	.12346	.14935
Prayer	.41911	-.24169	.47829	.07285	.19830	-.03630
Solitude	.44887	-.26516	.51619	.07309	.21485	-.04198
Spouse	.31777	.29476	.06422	.42865	-.03752	.20756
Unrelate	.46846	.11837	.29205	.38492	.06895	.15049
Musicins	.37656	.02063	.28128	.25120	.08471	.08432
TV	.38827	.46849	.01083	.60837	-.08843	.30688
Alcohol	.31969	.58044	-.11264	.65302	-.14933	.34843
Driving	.28109	.42513	-.04583	.50759	-.90780	.26445
Fiction	.39193	.21950	.16913	.41615	.01034	.18515

PC Extracted 2 factors. 1 Iteration required.

Quartimax Rotation 1, Analysis 1 -- Kaiser Normalization.

Quartimax converged in 2 iterations.

Covariance Matrix for Estimated Regression Factor Scores:

	Helth-Mnt	Diverson
Health	.78118	.62430
Dversionary	-.62430	.78118

Note: Variable names are amplified as a note on Table 1.

Table 3  
Summary of MANOVA Statistics for Factors of Coping Strategies by  
Administrative Group (N=373)

Combined Observer Means for ACCREDIT Variables

College Group	N	Hlth-Mnt		Diverson	
		WGT	UNWGT	WGT	UNWGT
PubComC	175	.033	.438	.353	.553
PubTecC	119	.237	.372	-.433	-.354
PvtTecC	79	-.089	-.609	-.064	-.082
Entire	373				

EFFECT .. ACCREDIT

A d j u s t e d  M e a n s	Multivariate Tests (S = 2, M = -1/2, N = 1/2):					
	Test Name	Value	Approx. F	DF		Sig. of F
				Hypoth.	Error	
	Wilks	.00797	15.30339	4	6.00	.003
	Univariate F-tests with (2,4) D. F.					
Var	SS		MS		F	Sig. of F
	Hypoth.	Error	Hypoth.	Error		
Hlth-Mnt	.23492	7.17850	.11746	1.79463	.06545	.938
Diverson	14.52156	.37977	7.26078	.09494	76.47590	.001

Multiple Range Test By Variable GROUP, Scheffe Procedure

Table Ranges for the .050 level : 3.48, 3.48

The value actually compared with Mean(J)-Mean(I) is:

Hlth-Mnt: .6980 \* Range \* Sqrt(1/N(I) + 1/N(J))

Diverson: .6809 \* Range \* Sqrt(1/N(I) + 1/N(J))

College Group	Diverson		
	Mean	Grp 1	Grp 2 3
PubComC	.0502	*	
PubTech	-.4944		
PvtTech	.3558	*	

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