

Entrepreneurial Stress: Is It Hazardous To Your Health?*

By: E. Holly Buttner

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It is well documented that occupational stress causes health problems (Cooper and Marshall, 1976; Cooper and Smith, 1985; Harrison, 1985; Jenkins, 1971; Quick and Quick, 1984). In several work contexts, research findings have demonstrated a positive relationship between stress and angina, ulcers, and hypertension and a negative relationship between stress and job satisfaction (House et al., 1979; Matteson and Ivancevich, 1982).

Recent research has focused on the nature of stress among occupational groups, including engineers (Keenan and Newton, 1985, 1987), health care professionals (Lang et al., 1990; Tetrick and LaRocco, 1987), police officers (Arcuri and Lester, 1990; Kaufman and Beehr, 1989) and teachers (Russell et al., 1987). One business group which has received little attention in stress research is entrepreneurs.

Entrepreneurship is playing an increasing role in the U.S. economy. Kirchoff and Phillips (1988) reported that small firms are the major source of new job creation. New business ventures accounted for 55% of new jobs between 1970 and 1980 (Hoy and Carland, 1983). New firm creation enhances economic growth and expansion. However, entrepreneurship is a risky process; while more than five hundred thousand businesses are started each year, only one in five survives for ten years (*Wall Street Journal*, 1982: 15).

Recognizing the need to understand the nature of this influential business segment, researchers have begun to focus on the nature of entrepreneurship. For purposes of this study, an entrepreneur is defined as one who innovates, creating a new business and assuming full authority and control of the venture (Cunningham and Lischeron, 1991). Although an entrepreneur clearly has managerial responsibilities, the venture creation process adds a unique element to entrepreneurship. Do entrepreneurs experience high levels of stress in the initiation and management of a new business? The three research questions posed by this study are:

1. Is the nature of entrepreneurial stress different from managerial stress,
2. What factors in venture creation and growth are related to entrepreneurial stress, and

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3. Do personality and behavioral characteristics moderate the relationships between entrepreneurial stressors and health and job satisfaction?

What causes stress? Kahn et al. (1964) and Kahn and Quinn (1970) view stress as a function of discrepancies between one's expectations and one's ability to meet demands, and discrepancies between the individual's expectations and his/her personality. When one is unable to fulfill one's role demands, stress occurs. To the extent that entrepreneurs' work demands and expectations exceed their abilities to perform as venture initiators, they are likely to experience stress. However, entrepreneurs and their role demands differ from those of managers as the next section shows.

Differences Between Entrepreneurs and Managers

Research has demonstrated that entrepreneurs are a breed apart from managers in personality traits. Entrepreneurs exhibit higher autonomy, perseverance, readiness for change, and persuasiveness, and lower emotionalism, need for support, and conformity (Sexton and Bowman, 1985; Sexton and Bowman-Upton, 1986, 1990).

Entrepreneurial roles and entrepreneurs' operating environment, which differ from that of managers, can lead to stress. Initiating and running one's own business requires significant risk taking. Investing a large portion of personal savings and other assets in their businesses, entrepreneurs face the possibility of loss of these assets as well as the vagaries of the marketplace. Entrepreneurs must engage in boundary spanning activities, interacting with relevant external constituencies including customers, suppliers, regulators, lawyers, accountants, etc. to a greater extent than managers, which is stressful (Miles and Perrault, 1976).

Lacking the depth of resources available to managers in large organizations, entrepreneurs must bear the cost of their mistakes while playing a multitude of roles, such as salesperson, recruiter, spokesperson, and negotiator. These simultaneous demands can lead to role overload. Running a business requires a large commitment of time and energy, often at the expense of family and leisure pursuits. Finally, entrepreneurs are often working alone or with a small number of employees and therefore lack the support from colleagues that may be available to managers in a large corporation.

On the other hand, there are several rewards of entrepreneurship. An entrepreneur does not have to worry about being fired or face the frustration of dealing with an unreasonable boss. Entrepreneurs also set their own priorities and decide how to allocate their time. Therefore they may experience less stress as a function of role conflict. These differences in personality and role demands suggest that the nature of managerial and entrepreneurial stress will be different. The first research question addressed in this study is whether the perceived stress of managers and entrepreneurs differs, warranting a specialized examination of entrepreneurs.

The Nature of Entrepreneurial Stress

The second research question in this empirical study focuses on the nature of entrepreneurial stress. The effects of stress sources and moderators on entrepreneurial health problems and job satisfaction are examined. Role theory (Merton, 1957) identifies role ambiguity, role conflict,

and role overload as stress sources (Burke, 1988; Cooke and Rousseau, 1984; Katz and Kahn, 1978; see Van Sell et al., 1981 for a review).

Katz and Kahn (1978: 190) define role ambiguity as "the lack of information regarding . . . evaluation of one's work, about . . . scope of responsibility, and expectations of role senders." Role ambiguity causes tension, anxiety, and physical health problems (Caplan and Jones, 1975). Stress may occur as a function of how effectively entrepreneurs can define and conceptualize their role as venture initiators.

Role conflict is the "simultaneous occurrence of two or more role sendings such that compliance with one would make more difficult compliance with the other" (Katz and Kahn, 1978: 184). Role conflict causes job-related stress and job dissatisfaction (House and Rizzo, 1972). Entrepreneurs may experience role conflict due to simultaneous demands for their attention at work. Similarly, job versus non-job conflict, such as the expectations of employees and family for entrepreneurs' attention, also causes tension and stress (House et al., 1979).

The entrepreneur must be a salesperson, negotiator, money manager, dispute settler, boundary spanner, etc. These overlapping demands may lead to role overload. Role overload is receiving multiple expectations that are legitimate and are not incompatible, but completing all the tasks is beyond the capacity of the individual (Katz and Kahn, 1978: 185). As role overload increases, maintaining a high level of quality in one's work becomes more difficult (House et al., 1979). Role overload and the concern for quality have been shown to lead to high levels of stress (House et al., 1979; Matteson and Ivancevich, 1982).

Responsibility pressure comes from having to make difficult, risky decisions where the outcome could have a significant impact on the welfare of the firm. Responsibility pressure leads to high levels of stress (House et al., 1979).

In summary, based on the research reported above, the sources of stress—role ambiguity, role conflict, job versus non-job conflict, role overload, concern for quality, and responsibility pressure—were predicted to be positively related to entrepreneurial health problems. In addition, research suggests that role conflict, job versus non-job conflict, role overload and concern for quality will be negatively related to entrepreneurs' work satisfaction. The second part of the study tested the prediction that stressors significantly influence entrepreneurs' reported health problems and job satisfaction.

Moderators of Entrepreneurial Stress

The third research question is whether there are personality and behavioral characteristics that moderate the impact of stressors on the health and job satisfaction of entrepreneurs. Several variables have been shown to moderate the effect of stressors on physical and emotional well-being (Caplan and Jones, 1975; House et al., 1979; Mattesona and Ivancevich, 1983; Schaefer et al., 1981). These variables include personality type, tension discharge rate, and social support.

Friedman and Rosenman (1974) identified two contrasting personality types: (1.) Type A—characterized by aggressiveness, hostility, a sense of urgency, impatience, and achievement orientation, and (2.) its opposite, Type B—characterized by a more relaxed, slower paced and less hurried disposition. Caplan and Jones (1975), Ivancevich et al. (1982), and House et al. (1979) found that personality type moderated the effect of role stressors on the level of stress. Type A individuals experience a higher level of coronary heart disease (Shekelle et al., 1976) and lower job satisfaction (Sales, 1969) than their counterpart Type Bs. Although there is well-documented evidence of a positive relationship between Type A personality and angina (e.g., see Friedman and Rosenman, 1974), recent evidence suggests that only certain dimensions of the Type A personality such as hostility, anger, and aggressiveness are related to angina (Booth-Kewley and Friedman, 1987; Friedman and Booth-Kewley, 1987). Thus, the research findings regarding personality type are mixed. Research has shown that entrepreneurs are more likely to have a Type A than a Type B personality (Boyd and Webb, 1982). Type A entrepreneurs may be a higher risk for health problems than their more relaxed Type B colleagues. It was predicted that personality type would moderate the effect of work stressors on health problems such that entrepreneurs with Type A personality would report more health problems than Type B entrepreneurs.

The tension discharge rate, the ability to leave work worries at the office at the day's end, can reduce the deleterious effect on physical health of stressors and can enhance job satisfaction (Matteson and Ivancevich, 1983). The present study tested the prediction that the ability to discharge tension would moderate the effect of work stressors such that entrepreneurs who are able to discharge tension would report fewer health problems and greater job satisfaction.

Finally, support provided by friends, family, and co-workers reduces the negative effects of stressful situations on physical and emotional well-being (Schaefer et al., 1981). According to this argument, an entrepreneur who relies on others for support may experience less stress. On the other hand, entrepreneurs are more independent and have a lower need for support than the general population which suggests that they would rely less on others for advice, information, and support. The relationship between social support and job stress was explored.

In summary, the third part of the study examines the moderating role of personality type, tension discharge rate, and social support on the relationship between stress sources and entrepreneurial health and job satisfaction.

Method

Managers and entrepreneurs completed a questionnaire on sources of stress, moderators, and consequences of stress. The two versions of the questionnaire were identical except for modification of the wording of several items to fit the entrepreneurs' situation.

Procedure

Sample. One hundred eighty-two questionnaires were sent to randomly chosen members of an entrepreneurial networking organization located in the southeastern U.S. Seventy-two questionnaires were returned. For the purpose of this study an entrepreneur is defined as an individual who started the business and is currently an active manager of that enterprise. Four surveys were eliminated from the sample because the respondent was either not the founder or

was not actively managing the business. The final sample size was 68, constituting a response rate of 37%.

Two hundred questionnaires were sent to mid- and upper-level managers in large organizations on the east coast of the U.S. Forty-eight instruments were returned. Four responses were deleted from the sample because of incomplete forms or late return. The managerial response rate was 24%.

An introductory letter informed respondents that the questionnaire was designed to provide information about the stress they experience in their work. The questionnaire contained scales measuring stressors, moderators, and consequences of stress. Anonymity was guaranteed. Managers and entrepreneurs participated in the study by completing the survey, including demographic questions, and returning it in an enclosed postpaid return envelope.

Measures of stressors. Role ambiguity and role conflict were measured by shortened versions of the Rizzo et al. (1970) scales. Business and personal conflict was measured with House et al.'s (1979) job versus non-job conflict instrument. Role overload was measured with a shortened version of House et al.'s (1979) scale. Responsibility pressure was assessed by asking participants how often they had to make decisions where mistakes could be quite costly. Finally, concern for quality was measured by asking how often the managers/entrepreneurs were bothered by thinking the amount of work might interfere with how well it gets done.

Moderators. Personality type was measured with an abbreviated version of House et al.'s (1979) scale. Matteson and Ivancevich's (1983) instrument assessed the respondent's tension discharge rate (TDR). A high TDR score indicated that the respondent was better able to relieve tension. Schaefer et al.'s (1981) scale of social support measured the extent of reliance on spouses, partners/colleagues, coworkers, and friends for emotional support, information, and guidance.

Outcome Measures. Stress may be manifested in several ways. Individuals may experience a number of varied health problems (e.g., aches and pains), or they may suffer from a few severe symptoms (e.g., migraines, ulcers). To obtain a comprehensive assessment of stress, two measures were used. The frequency of 30 health problems including headaches, insomnia, loss of appetite, backaches, ulcers, and indigestion experienced in the past six months constituted one stress measure. Second, a summary health problems scale was calculated for each respondent by multiplying the frequency of each health problem times its severity and summing the scores. The third outcome, job satisfaction, was measured by asking respondents to indicate, on three items, the degree to which they were satisfied with their job, with their success, and how well their work meets their expectations.

Analysis. To answer the first research question, a multivariate analysis of variance test was computed to determine whether managerial and entrepreneurial stress differed. Means and t tests were then calculated to identify the dimensions of stress which differed for managers and entrepreneurs. The second research question is whether reported stress has a significant impact on entrepreneurial health and job satisfaction. Accordingly, intercorrelations were computed among the variables under study. Finally, tests of interaction via analysis of variance

procedures were conducted to address the third research question—whether personality and behavioral characteristics moderate the impact of stressors on entrepreneurial health or job satisfaction.

Results

Part I: Comparing Managerial and Entrepreneurial Stress

The demographic characteristics of the managerial and entrepreneurial participants are presented in Table 1. Entrepreneurs and managers were similar in age, sex and racial composition. Most of the participants in both samples were married, white males in their forties with a college education. The only difference was in type of business; a large number of managers were employed in manufacturing firms while entrepreneurs were fairly evenly distributed across business types.

A multivariate analysis of variance of the differences between

Table 1
Demographic Statistics on
Managerial and Entrepreneurial Samples

	Managers		Entrepreneurs	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Total participants	44	100	68	100
Sex				
Males	28	64	58	85
Females	14	32	8	12
No response	2	4	2	3
Age	44.5		48.2	
Race				
White	41	93	61	90
Other	1	2	4	5
No response	2	5	3	5
Marital status				
Married	35	80	50	74
Unmarried	7	16	16	23
No response	2	4	2	3
Types of Business				
Retail, wholesale trade	0	0	11	17
Manufacturing	30	68	14	21
Services	6	14	12	18
Others	6	14	29	43
No response	2	4	2	1

managers and entrepreneurs on stressors, moderators, and outcomes was significant ($F=5.92$, $df= 12/95$, $p<.0001$) using the Wilkes Lambda Criterion (Tabachnick and Fidell, 1983).

Accordingly, mean values and t tests for sources, moderators and outcomes for managers and entrepreneurs were calculated to identify differences in stress between managers and entrepreneurs, as shown in Table 2.

Results show that, as predicted, the nature of work stress differs for managers and entrepreneurs on several dimensions. Entrepreneurs experience significantly higher role ambiguity than their managerial colleagues. On the other hand, managers report higher role conflict. Managers' TDR was significantly higher, indicating they are better able to leave work worries at the office than are entrepreneurs. In a related vein, managers report that they are more satisfied with their work than entrepreneurs. Finally, as Table 2 demonstrates, en-

entrepreneurs' summary health problems measure was significantly higher than the managerial participants'. Overall, entrepreneurs reported higher levels of role ambiguity and health problems and lower satisfaction with work than their managerial counterparts, while managers experience more role conflict. The nature of entrepreneurial work does appear to differ in stress sources and outcomes from that of mid- and upper-level managers. In order to focus the rest of the study on the nature of entrepreneurial stress, managers are not included in subsequent analyses.

Part II: Assessing the Nature of Entrepreneurial Stress

Intercorrelations among entrepreneurial stressors, moderators, and outcome variables are reported in Table 3. Other research on male and female entrepreneurs has revealed few differences as a function of gender (Kalleberg and Leicht, 1991; Masters and Meier, 1988; Mescon et al., 1983; Neider, 1987; Sexton and Bowman-Upton, 1986, 1990; Stevenson, 1986). Since examination of responses of male and female entrepreneurs in this study also yielded no significant differences, the two groups were combined for subsequent analysis.

As Table 3 shows, consistent with prediction, entrepreneurs who reported a lack of clarity about the expectations of others, about how much authority they have, and about their responsibilities (high role ambiguity) reported significantly higher stress and marginally lower job satisfaction ($r^2 = .23$, $p < .059$).

Although role conflict was not related to entrepreneurial health problems, job versus non-job conflict was marginally correlated with frequency of health problems ($r^2 = .23$, $p < .059$). In examining the relationship between role overload, concern for

Table 2
Comparison of Means for Managers and Entrepreneurs on Antecedents of Role Stress, Moderators, and Consequences

	<u>Managers</u>	<u>Entrepreneurs</u>	<u>t</u>
N	44	68	
<u>Stress Sources</u>			
Role ambiguity	21.9	24.0	1.96*
Role conflict	14.2	12.7	1.98*
Job vs. non-job conflict	6.0	6.3	
Role overload	8.0	8.0	
Responsibility pressure	3.8	4.0	
Quality concern	2.8	2.7	
<u>Moderators</u>			
Personality type	17.2	17.9	
Tension discharge rate	28.2	24.1	2.19*
Social support	66.6	63.5	
<u>Outcomes</u>			
Job satisfaction	7.5	7.0	2.03*
Frequency of health problems	20.8	20.7	
Summary health scale	19.3	38.7	3.49**

* $p < .05$

** $p < .01$

Table 3
Correlations Among Stressors, Moderators & Outcome Variables for Entrepreneurs

	# Items	Reliability	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Stressors:														
1) Role ambiguity	4	.66	—											
2) Role conflict	3	.52	.18	—										
3) Job vs non-job conflict	2	.79	.14	.19	—									
4) Role overload	2	.73	.19	.07	.38***	—								
5) Responsibility pressure	1	—	.18	.08	.17	.35**	—							
6) Quality concern	1	—	.22	.19	.61***	.39***	.14	—						
Moderators:														
7) Personality type	4	.55	.10	.40***	.24*	.23*	.25**	.38**	—					
8) Tension discharge rate	6	.84	.38***	-.14	-.38***	-.34***	-.40***	-.32**	-.35***	—				
9) Social support	20	.88	-.18	-.06	-.07	.09	.21*	-.14	.04	.00	—			
Outcomes:														
10) Job satisfaction	3	.76	-.23*	-.04	-.14	.04	-.01	-.04	.15	.30**	-.02	—		
11) Frequency of health problems	30	.85	.25**	.01	.23*	.12	.24*	.26**	.08	-.45***	-.08	-.31**	—	
12) Summary of health problems	—	—	.19	.00	.14	.09	.14	.17	.06	-.39***	-.17	.85***	-.28**	—

* p<.10
** p<.05
*** p<.01

quality and outcomes, entrepreneurs who reported concern about the quality of their decisions also reported more health problems. However, there was no significant relationship between role overload and the outcome variables: summary of health problems and job satisfaction. In spite of the many demands entrepreneurs face, this group seems to be able to allocate their time and energy at work without undue stress.

Results showed that responsibility pressure was marginally positively related to the frequency of health problems ($r^2 = .24$, $p < .053$). Entrepreneurs who reported concern about the weightiness of the decisions they must make also suffered more from health problems.

Part III: The Effect of Personality Type, Tension Discharge Rate, and Social Support on Stress

The last part of the study concerned the effect of moderators: personality type, tension discharge rate and social support on entrepreneurial stress and satisfaction. It was predicted that entrepreneurs with Type A personality would report more stress-related health problems and lower job satisfaction, as a function of work stressors. The means reported in Table 4 show that there was no significant difference in health problems or job satisfaction as a function of personality type.

A test of the main effects and interaction of each of the stressors and personality type on health problems and job satisfaction was conducted to test for the moderating effect of personality type (Marsden, 1981). A significant interaction showed that personality type moderated the relationship between role ambiguity and the summary health problems scale ($F = 3.20$, $p < .01$).

Personality type was then divided into two levels based on a median split to determine the nature of the moderating effect. The two levels represented entrepreneurs with Type A and Type B personalities. Correlations between role ambiguity and health problems were calculated for the two groups.

Role ambiguity and frequency of health problems were significantly and positively correlated for Type B entrepreneurs ($r^2 = .57$, $p < .03$), while the correlation was insignificant for Type A entrepreneurs ($r^2 = .07$, $p < .73$). Further analysis (see Bruning and Kuntz, 1977 for a description of their test for moderation) indicates that role ambiguity and health problems were more highly correlated for Type B entrepreneurs than for Type A entrepreneurs ($z = 2.05$, $p < .05$). However, these results are quite different from the predicted moderating relationship. Findings indicate that Type A entrepreneurs in the sample can manage the ambiguity in their work more effectively and with less stress than can Type Bs. Finally, tests for the interaction of other stressors with personality type on outcome measures were insignificant. Thus, personality type did not moderate the relationships between other stressors and health problems.

Table 4
Means, Standard Deviations, and t-Test Results for
Stressors, Moderators and Outcomes as a Function of
Personality Type, Tension Discharge Rate and Social Support

N	Overall		Personality Type		Tension Discharge Rate		Social Support		
	Means 68	S.D.	A 27	B 30	Low 33	High 34	Low 32	High 35	
Stressors									
	24.0	3.1	23.9	24.2	23.1	24.9*	23.7	24.3	
Role ambiguity	12.7	4.2	13.9	11.9	13.1	12.2	12.5	12.9	
Role conflict	6.3	1.9	6.4	6.0	7.0	5.7**	6.4	6.3	
Job vs non-job conflict	8.0	1.6	8.2	7.7	8.5	7.6*	7.9	8.2	
Role overload	4.0	.9	4.1	3.9	4.3	3.6***	3.8	4.1	
Responsibility pressure	2.7	1.0	2.9	2.4*	3.0	2.5*	2.8	2.7	
Quality concern	Moderators								
	17.9	4.6	21.9	13.4***	19.5	16.2**	16.9	18.9	
Personality type	24.1	8.1	26.1	21.3*	17.2	30.3***	23.8	24.4	
Tension discharge rate	63.5	17.9	65.3	60.3	63.3	63.7	49.0	77.2***	
Social support	Outcomes								
	7.0	1.7	7.3	6.8	6.6	7.4*	7.0	7.0	
Job satisfaction	20.7	10.9	21.7	19.7	24.6	16.8**	21.0	20.4	
Frequency of health problems	38.7	28.7	36.0	39.9	46.8	30.3*	42.7	35.0	
Summary health score									

* $p < .05$

** $p < .01$

*** $p < .001$

With respect to the influence of entrepreneurs' TDR, it was proposed that entrepreneurs' ability to release tension would moderate the relationship between stressors and health problems and job satisfaction. Results reported in Table 4 showed that entrepreneurs who discharge tension reported significantly fewer health problems and greater satisfaction with their work than those entrepreneurs who had difficulty relieving tension. However, when TDR was included with each stress source as an independent variable, the entrepreneurs' ability to relieve tension failed to moderate the relationship between stressors and outcomes. Thus, while the ability to discharge tension may reduce entrepreneurs' health problems, it does not lessen the impact of stressors measured in this study.

Finally, as Table 4 shows, there was no significant difference in reported stress as a function of high versus low social support and thus support did not moderate the stressor-outcome relationship. It appears that entrepreneurs' independence and low need for support may override any influence that external sources of support might have in reducing stress.

Discussion

The purposes of this study were twofold: to determine whether managerial and entrepreneurial stress were different and to examine the nature of entrepreneurial stress. Results showed that entrepreneurial and managerial stress sources differed. Entrepreneurs reported higher role ambiguity while managers were more concerned about role conflict. Overall, as expected, entrepreneurs reported higher stress and lower job satisfaction than managers.

The findings from the study's second phase indicate that entrepreneurs, particularly Type Bs, find ambiguity stressful, and they are less satisfied when they experience a lack of direction in their work. Results also showed that entrepreneurs can successfully manage conflicting work demands without undue stress. However, they do experience stress when trying to manage the demands of home and work.

Interestingly, entrepreneurs do not experience tension associated with role overload. It appears that stress is associated not with the volume of work per se, but with the weightiness of the decisions that entrepreneurs must make and whether they are making the right decision. This finding is consistent with the results of Gladstein and Reilly's (1985) study.¹

The results suggest that entrepreneurs do find the process of undertaking a new business stressful, particularly Type B entrepreneurs, when they must confront the ambiguity inherent in venture initiation. This finding is contrary to prediction. Further, these findings seem to conflict with those of Shekelle et al. (1976) and Matteson and Ivancevich (1982) that Type A's experience higher rates of heart disease and other health problems than Type Bs. Further research is needed to determine whether the Type A personality is an asset in venture initiation where initiative and aggressiveness are critical to success.

The results show that entrepreneurs who are able to leave work -worries at the office experience fewer health problems. Thus, those entrepreneurs may have been able to invest their energy at home in family and social obligations while focusing at work on job concerns. This division of attention appears to lead to fewer health problems. Perhaps entrepreneurs who experience stress over conflicting demands of home and work would benefit from coaching in how to relieve work tension at the end of the day.

There was no difference in entrepreneurial health problems as a function of social support. Availability of support may have little effect on entrepreneurs' stress. This finding is consistent with Sexton and Bowman's (1985) research indicting that entrepreneurs are autonomous, independent, and have a low need for support.

¹ Gladstein and Reilly (1985) found that graduate business student subjects participating in a business policy game reported that stress increased as the importance of the decision increased.

Limitations of the Study

There are several limitations of this study. Due to the small sample sizes, the findings should be generalized with care. In addition, the reliability estimates for the role conflict and personality type scales also suggest that those results should be interpreted with caution.

Although there were no detected differences in male and female entrepreneurs' stress, the number of females in the sample was very small, making it difficult to test adequately for differences as a function of gender. Other investigations have found few differences between male and female entrepreneurs; however, additional research is needed to assess possible sex effects in reports of work stressors and stress.

Several other intriguing research questions emerge from these findings. Role theory provides a useful framework for examining the nature of entrepreneurial stress. A next step is to identify entrepreneurs' successful coping strategies. A second question is how entrepreneurship affects the health and life expectancy of the entrepreneur.

Managerial Implications; Strategies for Coping with Entrepreneurial Stress

Several strategies could help entrepreneurs reduce stress. In the first part of the study, entrepreneurs reported more health problems than their managerial colleagues. Due to the pressing demands of their business, entrepreneurs often do not attend to their health until it interferes with their ability to work. There are several general lifestyle changes which lead to improved health. Regular exercise can reduce the deleterious effects of stress (Braun et al., 1987). Belloc and Breslow (1972) found that moderate use or abstinence from alcohol and smoking were positively correlated with physical health. Relaxation including meditation, prayer, and faith have also been shown to have a positive effect in providing relief from stress (Matteson and Ivancevich, 1987).

In Part I, entrepreneurs also reported more difficulty discharging the tension they experience on the job than did the managerial participants. Confronting the source of stress has been shown to be an effective coping mechanism (Matteson and Ivancevich, 1982). Consultants who work with entrepreneurs may help them reduce stress by teaching them how to deal with stress sources directly. For example, if an employee is not performing at an acceptable level, the entrepreneur might benefit from coaching on how to effectively conduct a performance review with the problem employee.

Finally, in Part I, entrepreneurs reported higher role ambiguity than did the managers. Two tactics for reducing role ambiguity would be to set a clear corporate direction with strategy, and explicitly to outline the duties and responsibilities of all employees. Entrepreneurs could set up plans for themselves and for subordinates with short- and long-run objectives and target dates. This plan would help owners clarify the priorities among their many and varied activities.

In Part II of the study, entrepreneurs reported that they experienced stress as a function of competing work and family demands. It may be useful for entrepreneurs to make a concerted effort to enhance their families' awareness of the challenges and problems of venture initiation. This enhanced awareness may reduce the conflict between job and non-job concerns.

To reduce the pressures of decision-making responsibilities reported in Part H, entrepreneurs could delegate routine decision making whenever possible. Entrepreneurs can appoint advisory boards for regular consultation, particularly in the early stages of the business, to relieve pressure from the weightiness of decision making. Networking with other, noncompeting entrepreneurs and with resource providers can help business founders learn how colleagues deal with business problems (Aldrich et al., 1987).

Entrepreneurship has a significant impact on the economy. Small business accounts for almost 97% of all nonfarm business. Understanding the stresses generated by the entrepreneurial lifestyle and assisting entrepreneurs in developing more effective coping strategies could have economic as well as individual benefits in the years to come.

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