ABSTRACT

Although occupational stress has been signalled as an important issue for entrepreneurs, there has been little research on the unique obstacles faced by this group. Much of what we know about occupational stress has come from research on salaried workers with pre-defined jobs in large organisations. The sources of stress that are relevant for salaried workers may be less relevant for self-employed workers. In the current research, entrepreneurs and non-entrepreneurs completed and provided feedback on the relevance of three leading occupational stress scales. Results indicated that many scale items were “irrelevant” to entrepreneurs. Furthermore, there were several entrepreneurial stressors that were not captured by the scales. The findings confirm the need for a new scale to capture sources of stress that are salient to entrepreneurs.

INTRODUCTION

Entrepreneurs as a High Risk Group for Occupational Stress

Entrepreneurs’ lives are characteristically dominated by work (Jamal 1997). Given their psychological (and financial) investment in their firms, entrepreneurs identify with their work more strongly than do employees and managers, and typically work harder and longer than do salaried workers (Prottas and Thompson 2006). Entrepreneurs feel indispensable; many are workaholics, working an average of 60 hours per week, including nights and weekends (Bradley and Roberts 2004) Consequently, there is often no distinct separation between their work and non-work lives (Jamal 1997).

Occupational stress has been described as an adjunct to entrepreneurship (Akande 1994). Zhao and Seibert (2006) suggested that the long hours, responsibility, risk, and work-nonwork conflict associated with entrepreneurship may give rise to higher physiological and psychological stress than traditional managerial jobs. The assumption is that entrepreneurs generally experience a high level of chronic stress, given the physically and psychologically demanding nature of starting and running new ventures (Prottas and Thompson 2006). This is alarming given that chronic stress is associated with a
range of symptomatology as well as chronic illness and disease e.g., cardiovascular disease, depression (Jex 1998). Prorttas and Thompson (2006) described entrepreneurship as a double-edged sword, affording greater freedom on the one hand but greater pressure on the other. Furthermore, it would appear that entrepreneurs pay a price for their freedom in terms of their health. Studies have indicated that self-employed workers demonstrate poorer health than salaried workers (see Buttner 1992; Jamal 1997; Jamal and Badawi 1995; Lewin-Epstein and Yuchtman-Yaar 1991 exceptions are; Naughton 1987; Prorttas and Thompson 2006).

Occupational Stress: The Implications for Entrepreneurial Success

Stress is defined as a lack of fit between perceived demand and perceived ability to manage that demand (Lazarus and Folkman 1984). Stress is typically associated with an alteration in the intensity of mood, which is in turn thought to trigger a cycle of psychological and physiological change i.e., a deviation from normal functioning (Lazarus and Folkman 1984). Although the challenging nature of new venture creation may act as a catalyst for performance up to a certain point (good stress or eustress), demand that is perceived as too much for the entrepreneur to manage (negative stress or distress) will give rise to strain e.g., ill health (Hobfoll 1988).

Occupational stress is likely to be an important variable in multidimensional models of new venture success/failure. Despite considerable academic interest in entrepreneurship, our understanding of why some entrepreneurs fail is limited (Lussier and Pfeifer 2000). Past research has tended to focus on external factors, for example competition, financing, geographic location, marketing, production, and timing (van Steekelenburg et al. 2000). By comparison, little research has been conducted from a psychological or mental health perspective, although there has been some research on the demographic, family and personality characteristics of entrepreneurs (Baum et al. 2007). Historically, the study of entrepreneurship has been synonymous with economic health, far removed from psychological health. Baum et al. (2007, p.1) argued that “Despite the belief that the entrepreneur’s personal characteristics are important for new venture success, the psychology of the entrepreneur has not been thoroughly studied.”

Given that entrepreneurs own and manage their firms, their personal impact on organisational performance is much greater than for salaried managers (Morrison 1997). Thus, the association between stress and performance is likely to be stronger for this occupational group. For instance, stress in entrepreneurs may have a negative effect on communication, decision making, morale, and productivity (Jex 1998), which may affect their workers and, ultimately, the success of their firms. Accordingly, occupational stress may be a contributing factor in business success/failure, particularly in the early years (Bradley and Roberts 2004).

Identifying and Measuring Sources of Stress in Entrepreneurs

Although occupational stress has been signalled as an important issue for entrepreneurs, there has been little systematic research on the unique obstacles faced by this occupational group. In particular, research is needed to develop measures of occupational stress that are relevant for entrepreneurs. Much of what we know about occupational stress has come from research on salaried workers with pre-defined jobs in large organisations (Prorttas and Thompson 2006; Tetrick et al. 2000).

Past research on occupational stress in entrepreneurs has employed generic measures, developed with salaried workers and managers in large organisations. The sources of stress that are relevant for salaried workers may be less relevant for self-employed workers. As such, the leading occupational stress inventories (e.g., Job Stress Survey, Occupational Stress Indicator, Occupational Stress Inventory) may lack content validity for entrepreneurs, and it is possible that past studies have misrepresented the true extent and nature of occupational stress among the self-employed.

Studies comparing stress in self-employed and salaried workers have produced mixed results. Some studies report higher stress among the self-employed (Buttner 1992; Jamal 1997; Jamal and Badawi 1995), while other studies report lower stress among the self-employed (Prorttas and Thompson 2006; Rahim 1996) or no difference between self-employed and salaried workers (Naughton 1987). Tetrick et al. (2000) found that differences between self-employed and salaried workers depended on the stressors measured.

Common managerial stressors are less relevant for entrepreneurs. For instance, role insufficiency is unlikely to be an issue for entrepreneurs given that the extent to which their skills are utilised is self-determined (Harris et al. 1999). A review of the literature suggested that occupational stress among entrepreneurs may stem from cash flow (Feldman and Bolino 2000); desire for applause (Kets de Vries 1985); factors beyond their control (Boyd and Gumpert 1983); fear of failure and grief over business loss (Shepherd 2003); lack of knowledge/training (Vasumathi et al. 2003); lack of social support (Chay 1993; Rahim 1996; Tetrick et al. 2000) loneliness (Akande 1994; Boyd and Gumpert 1983; Vasumathi
et al. 2003); need for achievement (Boyd and Gumpert 1983; Vasumathi et al. 2003); need for control (Kets de Vries 1985); paper work and tax (Feldman and Bolino 2000); people problems e.g., interpersonal conflict (Akande 1994; Boyd and Gumpert 1983; Feldman and Bolino 2000); responsibility (Boyd and Gumpert 1983; Buttnar 1992); financial, career, family, social or psychic risk (Boyd and Gumpert 1983; Feldman and Bolino 2000); sense of distrust towards competitors, suppliers, and government (Kets de Vries 1985); resourcing and staffing (Feldman and Bolino 2000; Vasumathi et al. 2003); stakeholder expectations (Orgqvist et al. 2007); time pressure (Akande 1994; Clay 1993); working long hours (Harris et al. 1999; Prottas and Thompson 2006); work-life balance (Boyd and Gumpert 1983; Buttnar 1992; Parasuraman and Simmers 2001; Stoner et al. 1990; Tetrick et al. 2000; Vasumathi et al. 2003); workload (Chay 1993; Harris et al. 1999; Vasumathi et al. 2003); and worrying about client base (Feldman and Bolino 2000).

Aims of the Current Research

The current research aims to examine the relevance of three leading occupational stress scales for entrepreneurs. Entrepreneurs were expected to perceive many of the items on the scales as being “irrelevant” to their work situation and to nominate unique sources of stress not captured by existing scales. This preliminary research was conducted as part of a larger study which aims to identify sources of occupational stress among entrepreneurs and to develop a new measure of occupational stress specific to this segment of the workforce: the Entrepreneurial Stress Scale.

METHOD

Sample

The sample (N=40) consisted of 15 entrepreneurs (defined as owning and managing their own business), 10 intrapreneurs (employed by an organisation to innovate), and 15 “other” employees enrolled in the Masters of Entrepreneurship and Innovation (MEI) at Swinburne University of Technology. The MEI units New Venture Leadership (n=30), Managing the Growing Business (n=29), Creativity and Innovation (n=23) and Negotiation and Strategic Relationships (n=25) were targeted as these were expected to include the greatest concentration of entrepreneurs. The overall response rate was approximately 37%.

Descriptive statistics were run for the total sample combined. Of the total sample, 65% were male and 35% were female with an age range of 22 to 66 years (M=33.98, SD=10.02). Education varied; 7.5% had no formal education (entering the MEI from industry), 2.5% had completed Year 12 or equivalent, 12.5% had a TAFE certificate, 50% had a Bachelor degree and 27.5% had a Postgraduate degree. A third were single, 23% were in a de facto relationship, 40% were married, and 5% indicated “other” marital status. The majority (70%) of the sample were born in Australia; 8% were born in India and the remaining participants (22%) were born in other countries including Canada, Colombia, England, Malaysia, Philippines, South Africa, Thailand, and Vietnam. Of the total sample, 27.5% had an income (in Australian dollars) of over $100,000, 30% had an income between $60,000 and $100,000, 35% had an income between $20,000 and $59,999, and 7.5% had an income under $20,000 per annum.

Measures

(a) Demographic Information Questionnaire: Participants provided basic demographic information including their age, sex, education, marital status, ethnicity, and income for the purpose of sample description (see above).

(b) Job Stress Survey (JSS: Spielberger et al. 1995): The JSS measures the perceived severity (intensity) and frequency of occurrence of 30 generic sources of work-related stress encountered by men and women employed in a variety of work settings. Respondents were required to (i) rate, on a 9-point scale (1 = “low”, 9 = “high”), the perceived severity of each stressor by comparing it to a standard stressor (“assignment of disagreeable duties”), with a midpoint scale value of 5, and (ii) use a scale of 0 to 9+ days to report how often each stressor occurred during the past 6 months. The scale focuses on two major components of job stress: job pressure (pressures associated with the job itself) and lack of organisational support (lack of support from supervisory personnel, fellow workers, or an organisation’s administrative policies and procedures). As such, the JSS consists of three scales (Job Stress Index [a combination of severity and frequency ratings], Job Stress Severity Index [average perceived severity], Job Stress Frequency Index [average frequency of occurrence]) and six subscales (Job Pressure Index, Job Pressure Severity, Job Pressure Frequency, Lack of Organisational Support Index, Lack of Organisational Support Severity, Lack of Organisational Support Frequency). Administration time is approximately 10 minutes. The validity of the JSS has been examined in several
studies (Vagg and Spielberger 1999). The JSS has validity for workers at different occupational levels
in a variety of work settings, though its validity for entrepreneurs has not been established.

(c) Occupational Stress Indicator – Sources of Stress Scale (Cooper et al. 1988): This 61-item
scale consists of six subscales that measure stress from the following sources: the job itself, managerial
role, interpersonal relationships, career and achievement, organisational structure and climate, and
home/work interface. A sample item is “Lack of power and influence”. The response format is a six-
point scale ranging from “very definitely is not a source” (1) to “very definitely is a source” (6).
Internal consistency reliability (split-half reliability) for the OSI subscales ranges from .56 to .74. The
scales have good construct and predictive validity.

(d) Occupational Stress Inventory-Revised – Occupational Roles Questionnaire (ORQ; Osipow 1998): The ORQ consists of six 10-item subscales designed to measure the following stress-
inducing work roles: role overload, role insufficiency, role ambiguity, role boundary, responsibility
and physical environment. A sample item is, “At work I am expected to do too many different tasks in
too little time”. The response format is a five-point scale ranging from “rarely or never true” (1) to
“true most of the time” (5). Administration time is approximately 10 minutes. Test re-test reliability
for the OSI-R scales ranges from 0.56 to 0.68 and internal consistency reliability (Cronbach’s alpha)
ranges from .72 to .89. The scales have good construct, convergent and predictive validity (see

Procedure
MEI students were approached in class during the first few weeks of Semester 1. The
researchers provided a verbal explanation of the research project and distributed Participant Consent
Information Sheets and Consent Forms. Students who wished to participate were given the
demographic information questionnaire and the three occupational stress measures to complete in their
own time in preparation for the next class (participants were asked to bring the completed measures to
the next class to serve as a basis for group discussion). In addition to the standard instructions provided
for each occupational stress scale, participants were given the following general instructions: “In the
pages that follow, you will be asked to complete three widely used measures of occupational stress.
Please complete the measures using the individual instructions provided for each measure. In addition,
when responding to the items for each measure, I would like you to consider how relevant the items
are for measuring stress in entrepreneurs. Your views will provide the basis for discussion in next
week’s class.” Participants were asked to place an asterisk (*) next to any items which they felt were
irrelevant to them and to note any stressors they had experienced that were not captured by the
measures.

During the second class, participants took part in a 30-minute group discussion focusing on (i)
the relevance of the three measures to entrepreneurs (i.e., which stressors were applicable/not
applicable) and (ii) stressors that they had experienced themselves which were not captured by the
measures. Students who did not wish to participate in the research project engaged in an alternative
activity with the course instructor. Separate classrooms were arranged as required. All group
discussions were audio (digitally) recorded, transcribed and subjected to content analysis.

RESULTS

Overview
Results are divided into two sections. The first section focuses on the quantitative data and
compares the responses of entrepreneurs, intrapreneurs and “other” employees across the three
occupational stress scales. The second section focuses on the qualitative data obtained from the group
discussions about the relevance of the three occupational stress measures and provides a summary of
the themes that emerged from these discussions, including entrepreneurial stressors not captured by the
occupational stress scales.

Quantitative Data
In interpreting the results, it should be noted that the response scales for the three
occupational stress measures varied and included stressor frequency (JSS – “number of days per
month” and OSI-R – “rarely or never true” to “true most of the time”), stressor severity (JSS – “more
or less stressful than standard”), and whether or not something was a source of pressure (OSI). Results
indicated that there were a number of items in all three scales that were irrelevant for entrepreneurs.
Overall, the JSS scale appeared to be the least relevant, followed by the OSI and the OSI-R. In general,
Sources of stress also differed for entrepreneurs versus intrapreneurs and other employees.

(a) JSS
For the JSS, 35/60 (58%) items had been marked as irrelevant by at least one entrepreneur. Items most frequently marked as irrelevant by entrepreneurs included: “Difficulty getting along with supervisor” (57%), “Poor or inadequate supervision” (50%) and “Competition for advancement” (36%; entrepreneurs who did respond to this item rated it as occurring infrequently).

With regard to stressor frequency, performing tasks not in their job description and working overtime were frequent stressors for entrepreneurs and intrapreneurs. Frequent interruptions were a frequent stressor for intrapreneurs but not entrepreneurs. There was a descending trend for the following items whereby entrepreneurs scored highest followed by intrapreneurs and other employees in that order: covering work for another employee, excessive paperwork, personal insult from customer/consumer/colleague, and noisy work area. Furthermore, there was an ascending trend for the following items whereby entrepreneurs scored lowest followed by intrapreneurs and other employees in that order: assignment of new or unfamiliar duties, experiencing negative attitudes toward the organisation, lack of opportunity for advancement, and lack of recognition for good work. There was a trend for entrepreneurs to score higher than intrapreneurs and other employees on frequent assignment of disagreeable duties, changes from boring to demanding activities, making critical on-the-spot decisions, and periods of inactivity. There was a trend for entrepreneurs to score lower than intrapreneurs and other employees on inadequate or poor quality equipment, insufficient personnel to handle an assignment, lack of participation in policy making decisions, and meeting deadlines.

With regard to stressor severity, there was a descending trend for the following items whereby entrepreneurs scored highest followed by intrapreneurs and other employees in that order: dealing with crisis situations, frequent interruptions, noisy work area and periods of inactivity. In addition, there was an ascending trend for the following items whereby entrepreneurs scored lowest followed by intrapreneurs and other employees in that order: lack of opportunity of advancement, lack of recognition for good work, and working overtime. There was a trend for entrepreneurs to score higher than intrapreneurs and other employees on competition for advancement, conflicts with other departments (note that the frame of reference for competition may differ for entrepreneurs versus other employee groups e.g., other firms versus within the organisation). There was a trend for entrepreneurs to score lower than intrapreneurs and other employees on assignment of disagreeable duties, covering work for another employee, excessive paperwork, fellow workers not doing their job, inadequate or poor quality equipment, inadequate salary, insufficient personnel to handle an assignment, making critical on-the-spot decisions, personal insult from customer/consumer/colleague, poorly motivated co-workers, and responsibility.

(b) OSI (high scores = very definitely is a source of pressure)

For the OSI, 21/61 (33%) items were rated as irrelevant by at least one entrepreneur. Examples of these items included: “Ambiguity in the nature of the job role”, “Overpromotion, being promoted beyond my level of ability”, and “An absence of any potential career advancement”. Six of these items were marked irrelevant by 20% of the entrepreneurs. Items that were rated in the low range (i.e., were not a significant source of pressure) for entrepreneurs were “Lack of social support by people at work” and “Threat of impending redundancy or early retirement”. There was a descending trend for “Factors not under your direct control” whereby entrepreneurs scored highest followed by intrapreneurs and other employees in that order. There was a trend for entrepreneurs to score lower than intrapreneurs and other employees on several items across the subscales (see Table 1).

Table 1. Items for which Entrepreneurs Scored Lower than Intrapreneurs and Other Employees by OSI Subscale

<table>
<thead>
<tr>
<th>Factors Intrinsic to the Job</th>
<th>The Managerial Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of pay</td>
<td>Changes in the way you are asked to do your job</td>
</tr>
<tr>
<td>The cumulative effect of minor tasks</td>
<td>Simply being seen as the boss</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationships with Other People</th>
<th>Career and Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dealing with ambiguous or delicate situations</td>
<td>Absence of any potential career advancement</td>
</tr>
<tr>
<td>Misuse of time by other people</td>
<td>Attaining your personal level of performance</td>
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<tr>
<td></td>
<td>Changing jobs to progress with career</td>
</tr>
<tr>
<td></td>
<td>Opportunities for personal development</td>
</tr>
<tr>
<td></td>
<td>Unclear promotion prospects</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Organisational Structure and Climate</th>
<th>Home-work Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of the organisation’s structure/design</td>
<td>Taking my work home</td>
</tr>
</tbody>
</table>
Inadequate or poor quality of training/management development
Morale and organisational climate

(c) OSI-R (high scores = true most of the time)

For the OSI-R, 14/60 (23%) items were marked as irrelevant by at least one entrepreneur. The items most frequently marked as irrelevant were: “My supervisor provides me with useful feedback about my performance”, “I feel conflict between what my employer expects me to do and what I think is right and proper” and “My supervisors have conflicting ideas about what I should be doing”. These items were marked irrelevant by 29% of entrepreneurs and were part of the Role Ambiguity subscale. Entrepreneurs rated the following items as being true most of the time: “I feel good about the work I do”, “I like the people I work with”, and “My job requires me to make important decisions”. Entrepreneurs rated that following items as being rarely or never true: “I’m bored with my job” and “I feel overqualified for my job”. The item “I work all by myself” was rated as never or rarely true for intrapreneurs and other employees, but not entrepreneurs.

There was a descending trend for the following items whereby entrepreneurs scored highest followed by intrapreneurs and other employees in that order: “I am expected to do more work than is reasonable”, “I deal with more people during the day than I prefer”, “I feel good about the work I do”, “I feel I have enough responsibility on my job”, “I have to take work home with me”, “I spend time concerned with the problems others at work bring to me”, “My job requires me to make important decisions”, and “My talents are being used on my job”. There was an ascending trend for the following items whereby entrepreneurs scored lowest followed by intrapreneurs and other employees in that order: “I am bored with my job”, “I am expected to perform tasks on my job for which I have never been trained”, “I feel overqualified for my job”, “It is clear to me what I have to do to get ahead”, “On my job I am exposed to bright light”, “On my job I am exposed to poisonous substances”, and “On my job I am exposed to unpleasant odours”.

There was a trend for entrepreneurs to score higher than intrapreneurs and other employees on: “My career is progressing about as I hoped it would”, “I am able to satisfy my needs for success and recognition in my job”, “My job fits my skills and interests”, “I learn new skills in my work”, “I work all by myself”, “I worry about meeting my job responsibilities”, “I worry about whether people who work for or with me will get things done properly”, “If I make a mistake in my work the consequences for others can be pretty bad”, and “My job has a good future”. There was a trend for entrepreneurs to score lower than intrapreneurs and other employees on: “I know the basis on which I am evaluated”, “My job requires working with people from several departments”, and “People on the job look to me for leadership”, and “I understand what is acceptable personal behaviour on my job” (this item was most likely rated as rarely or never true because entrepreneurs set their own standard for personal behaviour in the organisations).

Qualitative Data

The group discussion revealed 20 sources of stress among entrepreneurs that were not captured by the established scales. These included building and maintaining reputation, communicating your vision, conflict with business partners, dealing with clients/customers, delegating, ethics/accountability to others, fear of failure, financing, isolation/lack of support, lack of experience/knowledge, legal issues, maintaining drive/energy, opportunity recognition/evaluation, innovating/dealing with bad ideas, resourcing/managing unforeseeable problems, time pressure, risk, role juggling (wearing too many hats), staffing and shareholders. Qualitative description (verbatim quotes) of these stressors is given in Table 2.

Some sources of stress highlighted by the entrepreneurs during the group discussion were already captured by the existing scales. These included role ambiguity (e.g., “Not knowing what to do next…If you’re starting up a business you don’t have a job description, you do everything.”); variance in workload (“I get more stressed when I’m doing nothing.”) and work-life balance. Several entrepreneurs identified work-life balance as a crucial issue. Sample quotes are provided below:

“A lot of entrepreneurs have failed marriages. There’s a lot of tension between partners so there’s a breakdown in the relationship and then also there’s a breakdown in finances when you have to split your assets. Then there are also children involved. There are stressors that come with that and then there’s your health.”
“Being obsessed with what you’re doing and working 20 hour days to get the product invented or going, to how you balance with your family is pretty critical.”

“It’s my whole family’s future and the guilt things; none of those things are there at all.”

“I think what it did leave out was a lot the personal type problems that can affect stress in the workplace. Just as business can affect your personal life, your personal life can affect your business. As an entrepreneur, you have to put your life on hold sometimes for several years but you aren’t able to have a balanced life with friends and family and all of that. And that can have an effect on your outlook on life and the goals of the business, and if it grows to a point where you can’t cut it back and you don’t necessarily want the money, you’re sort of trapped.”

“Work-life balance, whether it be health, whether it be family, whether it be personal mental health. It’s just not there.”

General comments about the established scales included:

“[Commenting on the response format of the JSS] I found it a bit difficult to quantify the number of days something happened to me in the last six months, in relation to something like resources because...I couldn’t pin point it to two days or three days if it was an event that took place.”

“I just thought the questionnaire was not built around people in leadership positions.”

“What I’d find helpful is that we understand what the phases [of the entrepreneurship process] are and therefore identify perhaps what to do and perhaps even the stressors [at each phase].”

Table 2. Sources of Stress among Entrepreneurs not Captured by Existing Scales

<table>
<thead>
<tr>
<th>Stressor</th>
<th>Qualitative description</th>
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<tbody>
<tr>
<td>Building and maintaining reputation</td>
<td>“When we deal with bigger organisations they know we’re a small organisation or they see us as a young team...and just assume that we’ll do stuff for any price because we’re a start-up business and want the money.”</td>
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<tr>
<td></td>
<td>“[The Director of my company] spent 15 years building a brand and one of the stressors that he has is loss of reputation if something happens with the brand.”</td>
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<tr>
<td></td>
<td>“Reputation is very important and a very stressful thing I guess if we have projects that don’t work out or damage the brand in any way.”</td>
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<tr>
<td>Communicating your vision (working with others who don’t understand your vision)</td>
<td>“People’s beliefs in an organisation and their single mindedness, not having an open mind and breaking through the layers of their brain, is very stressful for me. You’re trying to get a message across, but they just don’t get it. That is highly stressful.”</td>
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<td></td>
<td>“Entrepreneurs I’d put in a different basket to managers. [For managers] it’s how do you relate to your staff and how they relate to you, whereas entrepreneurs are in a league of their own. They are usually high powered, usually a lot more self-centred, and do anything at any cost.”</td>
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<tr>
<td>Conflict with business partners (co-owners)</td>
<td>“There should be an element of the questionnaire that is involved with working with peers and equals…I think the relationship between individual entrepreneurs and others who form a venture together creates a lot of stress because of different expectations, different background, and different goals. Different expectations are the key because one person may have greater expectations in terms of vision, goals, and achievement than someone else.”</td>
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<tr>
<td>Dealing with clients/customers (including venture capitalists)</td>
<td>“The majority of my stress comes from clients…I guess that’s probably one thing that it didn’t cover…stressors that your actual customers or clients can put on you.” “You are responsible for your clients and what they’re getting, but maybe your customers and clients are not exactly the same. One is the financiers that you have to make the money for, the other one is the customers that you’re selling the product to, and you’re in the middle.”</td>
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<tr>
<td>Delegating</td>
<td>“Shifting from doing everything yourself to working out how to delegate and what to delegate and how to share the knowledge that the employee needs, which has previously been totally in your head.”</td>
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<tr>
<td>Ethics/accountability to others</td>
<td>“Ethics wasn’t covered and that was the big brick wall. Ethics in terms of who do I pay the bills to? Do I pay my staff? Do I go home and feed the family? Do I pay that guy who’s going to sue me if I don’t do it now? The other ethics [issue] is am I push selling…?” “One of the stressors is associated with [the] guilt or selfishness of actually pursuing your own goal and blocking everything out.”</td>
</tr>
<tr>
<td>Fear of failure</td>
<td>“It might cost the business something…but [also] failure in a business can very severely affect your employees, your family, yourself. Just the stress of bringing home the bacon.”</td>
</tr>
<tr>
<td>Financing (see also ‘Accountability to others’)</td>
<td>“That real do or die aspect of whether you’re going to be able to meet or pay the bills.” “The bootstrap finance…that should be right up there…most entrepreneurs go through that.” “Whether you’ve got sales coming in the door to pay the bills and pay your charges.” “When your fourth credit card has just gone over the limit!”</td>
</tr>
<tr>
<td>Innovating/dealing with bad ideas</td>
<td>“Finding out that other people are actually doing [your] ideas or that your ideas aren’t actually needed. So then you’ve got to redesign your main ideas and work in other areas.” “…the stress of not being successful in finding that creativity and those solutions that keeps the business growing or moving.”</td>
</tr>
<tr>
<td>Isolation/lack of support</td>
<td>“Until you get a sort of momentum behind you, and you’ve got a...”</td>
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<tr>
<td>Topic</td>
<td>Example</td>
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<tr>
<td>Lack of experience/knowledge</td>
<td>“There’s a stress in learning new tasks which are not your area of expertise.”</td>
</tr>
<tr>
<td>Legal issues</td>
<td>“We had a client who wanted to use [copyright material] and we got them to sign off that we’re doing the wrong thing and you have to seek a retractive licence. Afterwards we went and tried to get the licence for them and they denied them. Then I had to go and tell the [copyrighter] and they got heavily fined. Obviously we’re on the side of the [copyrighter], because it’s so illegal and if we get caught helping people do it we’ll get in massive trouble.”</td>
</tr>
<tr>
<td>Maintaining the drive/energy</td>
<td>“You’ve got a hard deadline and you’re really pumped and you’re full of adrenaline, but after a week of that you start [to feel drained].”</td>
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<tr>
<td>Opportunity recognition and evaluation</td>
<td>“There’s a lot of pressure on me to make sure opportunities come about and if I don’t know where the business direction is going it’s quite unclear to me what direction I’m going in…there weren’t really questions around…opportunity evaluation.”</td>
</tr>
<tr>
<td>Resourcing/managing unforeseeable problems/time pressure</td>
<td>“I work with computer hardware and software and there have been a number of times where the computer hardware and software are not my friend and it’s therefore pressures associated with working in areas where things aren’t behaving the way they should and you need them fixed yesterday.”</td>
</tr>
<tr>
<td>Risk</td>
<td>“…stress comes in relation to the risk that as an entrepreneur you will take on.”</td>
</tr>
</tbody>
</table>

(see fraternity of believers, you tend to sort of be out there by yourself and that has all sorts of associated pressures with it."

“Lack of bouncing ideas off others, especially when you’re working in isolation.”

“Not having people to bounce ideas off; because you’re at the top you tend to have to make decisions yourself.”

“You don’t have that person to balance for you sometimes. Whereas a company has those people that go What the heck are you doing?”

There’s a stress in learning new tasks which are not your area of expertise.”

“We had a client who wanted to use [copyright material] and we got them to sign off that we’re doing the wrong thing and you have to seek a retractive licence. Afterwards we went and tried to get the licence for them and they denied them. Then I had to go and tell the [copyrighter] and they got heavily fined. Obviously we’re on the side of the [copyrighter], because it’s so illegal and if we get caught helping people do it we’ll get in massive trouble.”

“You’ve got a hard deadline and you’re really pumped and you’re full of adrenaline, but after a week of that you start [to feel drained].”

“If you are dealing with a crisis situation it energises you, but after a little while of that you start to get despondent from it and it really gets you down.”

“Entrepreneurs have past failures as well. How long has he been in a stressful situation? That actually might shift his whole stress tolerance.”

“My uncle had a heart attack when he was 40…because he had his own business and he was going through one of those phases of crazy stupidity.”

“There’s a lot of pressure on me to make sure opportunities come about and if I don’t know where the business direction is going it’s quite unclear to me what direction I’m going in…there weren’t really questions around…opportunity evaluation.”

“I work with computer hardware and software and there have been a number of times where the computer hardware and software are not my friend and it’s therefore pressures associated with working in areas where things aren’t behaving the way they should and you need them fixed yesterday.”

“I think it’s Murphy’s law that things will go wrong. You can’t predict some of these things.”

“There are two things that it didn’t touch on. One is the unknown, which is the fact that you don’t know where you’re going or you do to a point, but there are a lot of variables out there you can’t control.”

“It’s not just risk to you but risk if you have a young family.” (see...
In the current research, entrepreneurs and non-entrepreneurs completed and provided feedback on the relevance of three leading occupational stress scales. As expected, the results indicated that many scale items were “irrelevant” to entrepreneurs and that entrepreneurs experienced many stressors that were not captured by the established scales.

The JSS was the least relevant scale overall, followed by the OSI and the OSI-R in that order. It is noteworthy that frequent stressors such as working overtime were not necessarily perceived as severe stressors by entrepreneurs, suggesting that high workload is the norm for this occupational group. Although a certain level of stress may be energising, a concern with entrepreneurs is burnout; the point at which there is a decline in the stress-performance curve (see eg. Seyle 1975).

The current research identified a number of sources of stress that appear to be unique to entrepreneurs. Sources of stress for entrepreneurs that were not captured by existing scales included: building and maintaining reputation, communicating your vision, conflict with business partners, dealing with clients/customers, delegating, ethics/accountability to others, fear of failure, financing, isolation/lack of support, lack of experience/knowledge, legal issues, maintaining the drive/energy, opportunity recognition/evaluation, innovating/dealing with bad ideas, resourcing/managing unforeseeable problems/time pressure, risk, role juggling (wearing too many hats), staffing and shareholders. The results of this study are consistent with previous qualitative research which has identified factors such as loneliness/isolation (Boyd and Gumpert 1983) and work-life balance (Boyd and Gumpert 1983; Stoner et al. 1990) as salient stressors for entrepreneurs. It is noteworthy that Buttner (1992) found that work-life conflict correlated with the frequency of health problems in entrepreneurs.

In general, the results suggested that entrepreneurs are less likely to experience pressure from aspects of their work that relate to autonomy and fulfilment of their career and achievement needs and preferences. However, there is a trade-off whereby they experience more pressure from aspects of work that relate to factors not under their direct control, loneliness, responsibility, and workload.
The findings confirm the need for a new scale to capture sources of stress that are salient to entrepreneurs: an *Entrepreneurial Stress Scale*. Psychologists, Occupational Health and Safety (OHS) professionals and doctors working with entrepreneurs would be able to administer the scale to identify entrepreneurs who are at risk for stress-related illness and disease. For instance, knowledge of entrepreneurs’ scores could be used to target those who are more likely to benefit from treatment from a physician and/or psychologist. In addition, knowledge of the types of stressors that are salient to entrepreneurs should be useful in tailoring stress intervention strategies to meet their needs. For example, stressors that result from irrational beliefs or unrealistic goals (e.g., “I must do everything myself, otherwise it won’t be done properly”) could be addressed through cognitive-behavioural therapy. Other intervention strategies might include stress education coupled with professional development and training, with the aim of helping entrepreneurs to learn about occupational stress, including its sources, and helping those at risk develop more effective coping strategies. Research on occupational stress in entrepreneurs has the potential to promote new venture success. Stress is one of the factors in the business environment over which entrepreneurs *can* exert control, given appropriate intervention strategies (e.g., stress education, coping skills). Australia’s small business sector accounts for 42% of all goods exporters and employs around 3.3 million Australians (Australian Department of Foreign Affairs and Trade, 2007). Stress management in entrepreneurs is paramount, given their significant economic and societal contribution. The current research represents a preliminary attempt to explore sources of stress in entrepreneurs from both a quantitative and qualitative perspective. Further research is needed to explore these issues in more depth.

**REFERENCES**


Baum, JR, Frese, M & Baron, RA 2007, *The psychology of entrepreneurship*.


