



# Occupational stress in the chef profession

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## Abstract

**Purpose** – The purpose of this paper is to consider the occupational stress experienced by chefs and the moderating influence of coping behaviour and locus of control on stress outcomes.

**Design/methodology/approach** – A total of 40 working chefs were surveyed. They were asked to complete an occupational stress questionnaire, the General Health Questionnaire. Differences were sought between gender and locus of control and stress measures, and correlations were carried out between key variables.

**Findings** – The reported stress was markedly higher than in previous research. Excessive workload, feeling undervalued and communication issues were common and bullying and threats of violence were present for some. Unexpectedly, locus of control was unable to predict stress experiences. Explanations were offered, such as the possibility that those who perceive they have a strong sense of control may believe that this, paradoxically, affords them the opportunity to engage in unhealthy behaviours.

**Research limitations/implications** – Limitations of the research include the influence of the wider environment, specifically the history of political violence in the province, and its possible effect on stress outcomes. However, this may be negated by the many positive effects peace has brought over the last decade. In drawing conclusions it is important to note the limitations of the sample size and the self-reporting nature of survey responses. Further research could usefully incorporate well-being as well as stress measures, including physiological ones. It would be worth exploring further how one's sense of control affects perceptions of stress and, in turn, the coping behaviours engaged in.

**Practical implications** – Practical implications include the need for managers and head chefs to provide more feedback to employees, to validate their good work and to foster a supportive working environment. Norms in the working environment endorsing aggressive behaviour must be challenged. Staff appraisals should consider the need to have work that involves variety and challenge, especially where changes involve increases in workload.

**Originality/value** – This paper identifies some important ingredients to reduce distress and it will be of value to chefs and other kitchen staff and, more broadly, to those involved in people management.

**Keywords** Stress, Food industry, Hospitality services

**Paper type** Research paper

## Introduction

Occupational stress depends on an appraisal of the situation and on the coping strategies one can draw on. Increasing evidence over the last 15-20 years has documented the marked occupational stress experienced by chefs and within the hospitality and leisure industry generally, compared to other occupational groups. Within the hospitality industry a large proportion of employees work short hours due to their part-time status. However, overtime is common with a higher than average number of people working in excess of 65 hours a week (Smith and Carroll, 2006).



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According to the National Skills Task Force (1999) report, employees within the hospitality and leisure industry earn 68 per cent of average earnings in Northern Ireland and, in relation to the chef profession, skill shortages and unattractive terms and conditions are commonly cited reasons for recruitment and retention difficulties. Dissatisfaction with pay and treatment by supervisors were important sources of stress, followed closely by length of hours worked and pressures on work. Such a finding is undoubtedly linked to the finding that the proportion of the workforce in a trade union in the hospitality industry is considerably lower than the general average across other industries (Smith and Carroll, 2006).

In an interview survey of UK chefs, Johns and Menzel (1999) reported widespread physical violence and psychological abuse in kitchens. This varied from kicking, pushing and throwing objects, to deliberate burning with hot food or equipment. The study drew a link between such acts and the stressed work environment, both in terms of the physical conditions, such as a crowded, hot and noisy environment, and the psychological ones, such as the pressure to conform to the norms in the kitchen. Such norms include adherence to the strict hierarchy of authority in place and the notion that the head chef is “an artist”, whose aggressive behaviour is born out of artistry and creativity, with the tacit agreement that such aggressive tactics are necessary to motivate junior chefs and other kitchen staff. There is also considerable anecdotal evidence that high levels of pressure and aggressive management styles have played their part in a large number of UK chefs’ decisions to leave the profession (Leith, 2002).

One manifestation of the adverse effects of occupational stress is burnout. This is defined as “a psychological syndrome of emotional exhaustion, depersonalisation and reduced personal achievement that can occur among individuals who work with other people” (Maslach, 1993, p. 76) and it is a recognised consequence of a stressful working environment within the service industry. Krone *et al.* (1988), for example, administered the Maslach Burnout Inventory (MBI) to over 200 food service managers and found that 30 per cent reported high emotional exhaustion; 24 per cent high depersonalisation and 50 per cent a low level of personal achievement. This exceeds the findings in the normative data provided by Maslach and Jackson (1986). Krone *et al.* (1988) found in addition that of those single, women suffered most, with married respondents suffering least, and whilst reported stress was still evident, this finding does illustrate the buffer effect of social support.

Rowley and Purcell (2001) examined occupational stress and burnout within the hospitality industry for a Northern Ireland Skills Task Force (2002) report. Of all the occupational groups surveyed, chefs were amongst the highest in burnout. Common coping responses included increased consumption of foods high in sugars, fats and caffeine and increased alcohol intake and other drug use. Fatigue, high emotional exhaustion and low personal achievement were also characteristic. Similar results were also found by Ledgerwood *et al.* (1998), Buick and Thomas (2001) and Conte *et al.* (2001).

Implicit in these findings is the feeling of being out of control. This may be attributable to the nature of work in a commercial kitchen and, for some, compounded by poor management, but it might equally relate to the degree to which the individual has the tendency to initiate change and take control.

The term “locus of control” was coined by Rotter (1966) and it refers to beliefs about the extent to which one has control over outcomes. Those who believe events are a

consequence of their behaviour and effort are described as having an internal locus of control. Those who believe that events are more a product of luck, fate, God or significant others and that one is unable to intervene are described as having an external locus of control.

Brymer *et al.* (1991) carried out an extensive study of occupational stress in the hospitality industry. It included 440 respondents across 22 organisations. They identified considerable evidence of stress, including physical, behavioural and cognitive indicators. In common with other studies (e.g. Vallen, 1993), they recommended increasing employee control to reduce work strain.

In a survey of employees, chefs and managers employed in four Canadian hotels ( $n = 161$ ), major stressors included role ambiguity; workload pressures and low decision latitude or a lack of control over their work (Zohar, 1994). A lack of control over demands was seen as a strong predictor of work stress. This supports the Lazarus and Folkman (1984) cognitive model of stress – that where perceived demands exceed the resources one can draw on to cope, distress will follow. The stress is the result of being in charge but not in control and is supported by Karasek and Theorell's (1990) demand-control-support model, the most cited model of occupational stress. This model proposes that distress is the consequence of high job demands and low control.

There have been other studies in the industry (Marshall, 1986; Ross, 1995, 1997) that have identified that increasing employee control and autonomy have contributed to renewed enthusiasm and motivation towards work. Faulkner and Patiar (1997) argue for empowerment of employees within the hospitality industry as an important means of stress reduction. Boles and Babin (1996) are more specific still – more flexible work schedules, occasional weekends off and increased authority and flexibility are strategies for increasing employee control and reducing stress. What is not clear, however, is whether offering more opportunity for autonomy and control at work simply gives space to those who have an internal locus of control or whether such a change in work conditions actually nurtures this tendency.

Taken together, there is considerable evidence of occupational stress within the hospitality and leisure industry and within the chef profession. Sources of stress include the norms in the kitchen, hours worked, unsociable hours and the pace of work, together with feeling out of control, being unqualified or working alongside unqualified people. Behavioural responses include increased physiological stress and burnout. Coping responses were often ineffective but there is evidence that social support and perceived control can buffer against the adverse effects of stress.

Hypotheses sought to establish the extent to which locus of control was able to predict the occupational stress reported, and to look for differences in reported sources of stress and the development of stress-related symptoms (i.e. were those who reported more severe and frequent occupational stress more likely to experience stress-related symptoms?).

By implication these findings allow interpretations to be made about the coping styles used.

## Method

### *Design*

A between-samples design was used to explore a number of differences, such as sex differences in locus of control and differences in stress and workload increases. A

number of correlations were carried out on the data, principally between locus of control and how this related to reported stress and the effects of stress, as well as the relationship between environmental stress and behavioural and cognitive responses.

### *Participants*

One hundred and fifty questionnaires and tests were distributed, by post, to chefs through two main databases – the Northern Ireland Chef and Cooks Association and the Northern Ireland Tourist Board’s “Hotels, Restaurants and Pubs” database. A further ten respondents were recruited from a chef exhibition and competition held at Newry and Kilkeel Institute. Forty completed tests and questionnaires were returned. Thirty respondents were male and ten were female; 67.5 per cent fell within the 22-40 year age cohort and 22.5 per cent fell within the 41-49 year age cohort.

### *The instruments*

A questionnaire was constructed by the authors to measure the extent to which stress was experienced, the factors contributing to stress and the effects of stress and reference was made to coping responses.

The 29-item Social Reaction Locus of Control Inventory (Rotter, 1966) was used to measure internal and external tendencies. This instrument continues to be used widely because of its validity and predictability in identifying these personality constructs (Sasaki and Kanachi, 2005). Goldberg’s (1978) 12-item General Health Questionnaire (GHQ) was used as measure of the adverse effects of stress. It focuses not on life-long traits but on breaks in behaviour, on the signs of an inability to continue to carry on one’s normal “healthy” functions, and the appearance of new distressing phenomena. The GHQ continues to be one of the most widely used measures of the consequences of stress.

## **Results, analyses and discussion**

### *Demographics and reported stress*

Of the total respondents 80 per cent worked full-time and almost all had a professional qualification. Age was normally distributed. Six years was the average time spent in their present post and 16.5 years the average time as a chef. Sixty per cent worked shift patterns and 82.5 per cent had management responsibility.

In terms of hours worked, 39.5 per cent worked in excess of 40 hours a week. A further 35 per cent worked up to an additional ten hours a week unpaid and 20 per cent worked 11-21 hours unpaid. The prevalence of shift work and excessive unpaid work exceeds noticeably that of previous research (National Skills Task Force, 2002).

All respondents had experienced increased workload over the past year, and half judged their workload to be excessive some or most of the time (see Table I). These

Percentage increases	Percentage of sample	<i>n</i>
Up to 10	13	4
11-25	47	14
26-50	20	6
51+	20	6

**Table I.**  
Work increases over the  
last 12 months

findings are higher than those found by Rowley and Purcell (2001), which were cited by the authors as having a direct impact on burnout rates.

Contrary to earlier findings, absenteeism due to stress was very low (only two out of 40 replied “yes” to this). Cooper (1998) identifies presenteeism, not absenteeism, as an increasingly common sign of stress. The nature of chef work does not easily facilitate job cover, and doubly so if one is a chef with management responsibility.

Among the most frequently cited stress factors were excessive workload and staff shortages (see Table II), and it is likely that they are related – a shortfall in the latter inevitably increases workload. Similarly, a number of stress factors have in common an implicit problem in the nature of communication with management, such as a “lack of feedback on performance”, “being undervalued” and “insufficient management support”. Clearly it appears that there is a greater need for chefs to be consulted and informed more and for their output and work and frequent good will (i.e. unpaid work) to be acknowledged. It appears that increased communication could also be extended in the kitchen (“poor communication between staff”).

Limited promotion prospects are an issue for many and it is important to make available opportunities where circumstances allow. Many of the respondents were not the head chef, and increasing the amount of rotation in work could well combat its repetitive aspects and may offer more prospects for promotion, in at least making a chef more qualified for opportunities when they occur.

Almost a quarter of respondents (22.5 per cent,  $n = 9$ ) reported some experience of being bullied or harassed at work. This result would seem to confirm earlier findings (Johns and Menzel, 1999) and clearly there is a need to challenge the norms condoning aggressive tactics in the kitchen.

Despite the substantial numbers who reported working without a contract (35 per cent,  $n = 14$ ) and who experienced a marked increase in their work, the majority have maintained a considerable level of control over their work, as indicated by its low ranking in Table II.

This sample is quite likely to be a skewed representation of the chef population in terms of experience as a chef and time in post. This means that despite the frenetic nature of work in a kitchen, it is an environment most are highly used to and over which they are able to exert control, at least in terms of its predictability. Despite this,

Factors	Percentage frequency
Excessive workload	50
Lack of feedback on performance	46
Staff shortages	40
Being undervalued	35
Work is repetitive	33
Insufficient management support	32.5
Low pay	30
Poor promotion prospects	28
Poor communication between staff	27.5
Poor fixtures and fittings	15
Lack of appropriate training	13
Lack of involvement in decision-making	12.5
Lack of control over work	7.5

**Table II.**  
Factors identified as stressful “most” or “all of the time”

there is considerable evidence of poor coping (see Table III). Over 75 per cent of respondents cited one or more of these ineffective responses. Finally, that 57.5 per cent had given serious consideration to leaving their present job because of stress and 47 per cent considered leaving the profession entirely illustrates the extent of occupational stress experienced. Moreover, only two of the respondents were over 50, so the preference to leave is unlikely to be because a chef is nearing retirement.

#### *Locus of control and stress indices*

A regression analysis was carried out to gauge the extent to which locus of control was able to predict the occupational stress reported. Contrary to expectations it was unable to predict those likely to experience greater occupational stress ( $t = -0.135$ ,  $df = 35$ ,  $p = 0.893$ ).

There was no significant difference in locus of control and a number of work conditions, such as whether or not one had an employment contract, job description or the presence and type of shift pattern worked and no differences were found between locus of control and coping strategies adopted. It was anticipated that internalisers would cope better than externalisers and would be more likely to orchestrate a situation where they were in control, through having a contract and preferable shift-pattern for example.

However, it may be that working conditions that are less than favourable are, for most chefs, the norm, despite current legislation and industry guidance on practice. The absence of a pattern between locus of control and coping responses, such as problems in smoking, drinking and eating, may be because externalisers adopt such strategies in an attempt to manage their stress whilst internalisers adopt them believing they are still in control. It would be interesting to explore further locus of control differences in coping responses, especially the possibility that internalisers have such a belief in their efficacy to cope that they engage in behaviours with added health risks.

This interpretation is offered further support by the finding that those who drank to excess or ate too little or too much did not report more occupational stress than those who did not cope in this way. The externalisers may feel these habits help them cope, whilst the internalisers may simply not perceive the same work factors as stressful. As such they have a surplus of coping ability that enables them to indulge in such habits and still feel in control.

There was, however, a sex difference in locus of control ( $t = 3.176$ ,  $df = 38$ ,  $p = 0.003$ ), with women more likely to be externalisers. There has been scant previous research (Smith *et al.*, 2000) to suggest such sex differences. The chef profession, especially supervisory and management positions, is dominated by men and it may be this characteristic, not the sex of the respondent, that accounts for this observed

Coping response	Percentage frequency
Not exercising	61.5
Under/overeating	45
Drinking	35
Ignoring stress	32.5
Smoking	30

**Table III.**  
Common coping responses

difference. However tentative this finding it suggests a gender disposition towards locus of control warrants further study.

These findings and interpretations have, however, to be put in context. The maximum score possible on the locus of control instrument used was 29. The mean (11) and low SD (3.83) indicates a high clustering of scores erring slightly more towards an internal locus of control. However, this did not translate into lower reported stress. This raises questions about the ability of the measure to predict stress outcomes. This may be because perceptions of control do influence the kinds of coping behaviour engaged in – as hypothesised earlier – and how one copes affects how stressed one feels. Alternatively, Rotter’s construction of control is that it is a personality variable that is resistant to change. Others (e.g. Karasek, 1979) argue that it is a variable that can very much be influenced by non-dispositional factors, such as context, experience and the nature of the work environment. Measuring perceived control as influenced by such factors might reveal more predictive results, and if the similar coping behaviours were present in those different in perceived control it would lend support to the hypothesised link here between control and coping.

*GHQ and reported stress*

The GHQ is sensitive to stress-related symptoms that have been present for up to two weeks and which may remit without treatment but which could go on to develop into a stress-related disorder. Goldberg (1978) uses a cut-off point score of above four in the 12-item GHQ. Table IV illustrates the GHQ scores for this sample.

Cox *et al.* (1987) found that 31.6 per cent of a random sample of 6,498 respondents scored above the cut-off point in the 30-item GHQ. All respondents here scored above the cut-off point, indicating a risk of a transient stress-related disorder, and the mean GHQ (12) was over three times greater than that found by Cox *et al.* (1987).

Those who scored high on GHQ were more likely to express a preference to leave their job ( $t = 3.528, df = 37, p = 0.001$ ) and were also more likely to experience work-based as opposed to non-work based stress ( $t = 3.031, df = 35, p = 0.005$ ). This suggests the correlations observed in Table V may well be directional – i.e. that work-based factors contributed to GHQ scores – and this is supported by the observed correlation between GHQ and occupational stress ( $\rho = 0.311, p = 0.033, n = 40$ ).

Contrary to expectations, those who experienced an increase in workload by 26-50 per cent had a significantly reduced GHQ score compared to those who reported a lower increase ( $F = 6.02, p = 0.041$ ). This may be because the nature of work changes as it increases – it may become less boring and repetitive and pose more challenges. This has clear implications for those managing staff.

This result is based on comparing two cohorts – those who reported increases of 26-50 per cent and those who reported lower increases – and, as such, participant differences may play a role. However, the reported correlations between boring and

**Table IV.**  
Distribution of GHQ  
scores

Percentage frequency	<i>n</i>	GHQ score
50	20	5-10
22.5	9	11-15
12.5	5	16-20
10	6	21-30

repetitive work and GHQ (Table V) would support the earlier interpretation. The correlation between GHQ and poor communication supports the earlier finding that a lack of feedback on performance and insufficient management support contribute to stress.

That bullying and threats of violence were among the strongest correlations with GHQ implies pressures at work and communication problems are a real issue and that the “army style” discipline common to many kitchen regimes is perceived, by some, as intimidating, and this may extend to the relationship between chefs and management outside the kitchen, given the substantial numbers of head chefs in this sample. This supports the work of Leith (2002), who found that 95 per cent of workers’ compensation claims for workplace trauma were related to managers’ abuse of employees.

### Conclusions and recommendations

In interpreting these results it is important to bear in mind a number of limiting variables. An important one is the impact of the wider environment and the history of political violence in the province on the stress and coping behaviour of people, whatever their profession. Whilst this study was done more than a decade after the Peace Agreement, divided communities remain and the uncertainties of a return to political violence may have had some affect on the stress and coping patterns observed. However, this has to be offset against some of the positive effects of the peace, not least the surge of tourism and the dramatic increase in employment opportunities within the hospitality industry.

More specific to the study, the sample size and type and the common problems involved in the methodology used, notably those that relate to self-reporting and non-response mean, one has to be cautious in the conclusions drawn. A further problem in interpreting reported stress levels is that:

... ego-defensive processes [such as the use of denial] lead to the under-reporting of sources of stress which imply personal failure or deficiencies (Caspari, 1976).

It may be that the reported stress may be an underestimate of actual stress levels.

There is a clear need for increased communication in the kitchen and with management. In particular, it is important that relations are developed to nurture a more supportive environment in and out of the kitchen. Not only will a supportive environment make one feel more valued and want to communicate, it will be a critical step in tackling the problem of bullying and, for some, threats of violence, as well as challenging the norm of aggressive behaviour in the kitchen.

Stress factor	Correlation coefficient	<i>p</i>
Poor communication	0.453	0.002
Threats of violence at work	0.403	0.006
Bullying at work	0.394	0.007
Repetitive work	0.340	0.018
Boring work	0.299	0.032
Poor fixtures and fittings	0.297	0.033
Workload	0.261	0.057
Being short-staffed	0.260	0.055

**Table V.**  
Correlations between  
GHQ scores and  
occupational stress  
factors

Building in job design features that increase the variety in work is likely to increase interest and motivation and will make junior chefs more qualified for openings and these points could be addressed through staff appraisals.

It would be worth considering how changes in a chef's work – be it an increased workload or job rotation – affect stress levels given the finding here of a reduced GHQ score among those who reported a considerable increase in workload. Where increases in workload occur they may be managed best if the increase involves more variety and challenge and it is important that employers address the clear problem of an excessive workload both from the point of view of employee stress and legislative requirements such as the Health and Safety at Work Act and the European 48 hour working-week Directive.

It would be interesting to explore why locus of control was not able to predict those likely to report considerable stress. It may be that, irrespective of a chef's locus of control, distress is inherent and unavoidable in the kitchen. It may be that the experience and time in post of most chefs here meant many had developed a stronger internalising tendency in work compared to their locus of control outside work, and whilst their reported stress was high it might have been higher had this not occurred.

It would be worth considering further the possible explanations as to why some internalisers adopt the same ineffective coping strategies (excessive eating, drinking, smoking, not exercising, etc.) as externalisers. It may be that they adopt these coping behaviours because they have a surplus of coping ability and simply do not perceive as stressful factors the same things that externalisers do. It would be useful to broaden the measures of stress to include well-being measures (for example, by including physiological as well as the self-reported measures of stress), to explore more fully the coping strategies used and to consider sources of job satisfaction, and eustress, or the stress that enhances performance as well as the distress that inhibits it.

### **Practical implications**

Chefs and managers need to challenge the acceptance of aggressive tactics in the kitchen, and they would do well to encourage more open communication. Chefs should be appointed not just on their competence in food preparation but on their ability to motivate and be supportive. It is imperative that a chef or manager find some time periodically to offer support to those in their charge. Only a few minutes is needed but it is important that it is the right kind of support offered – it might be tangible support in completing a task or information related to some aspect of performance or an acknowledgement of good work done. Such support will meet an important employee need and is likely to improve commitment and motivation.

Managers should consider, perhaps in the appraisal process, the benefits of job rotation and variety in work and an appraisal also provides a forum in which to offer support. Given the legislative requirements, under the Health and Safety Executive, on employers to consider employee stress, the appraisal process provides an opportunity to consider an employee's coping style, and to challenge occasions where an individual might engage in behaviours that increase ill-health but which they perceive do not, such as the internalisers and externalisers here who engaged in excessive eating, drinking, smoking and not exercising.

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