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Alcohol, Smoking, Wellbeing and Health and Safety of Workers

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Abstract

Health effects of smoking and alcohol consumption are well-documented, but further research about associations with the wellbeing of workers is required. The WHO stated that there is more to health than the absence of disease and such an approach leads to an increased emphasis on wellbeing and quality of life. The approach to wellbeing adopted here is to consider it in a holistic way which covers health, functionality and affective states. The present study involved a survey of 1392 public sector workers from South Wales, UK (74.3% female; mean age: 43.3 years, range 17-72 years). 39.3% of the sample were smokers (mean number of cigarettes a day = 11.28, range 1-40). The average weekly alcohol consumption was 9.2 units with a range of 0-100. 32.3 % consumed more than the recommended safe level (> 14 units), and 18.4% were non-consumers. Multi-variate analyses, adjusting for established predictors of the outcomes (demographics, job characteristics and psychosocial factors) showed that smokers reported more job satisfaction, had fewer injuries but had more health problems (mostly respiratory). The interaction between smoking and level of alcohol consumption was not significant. Alcohol consumption showed two different profiles of effects. Higher alcohol intake was associated with more risk-taking and cognitive failures at work. In contrast, consumption of alcohol below the recommended safe threshold (14 units/week) was associated with higher job satisfaction, fewer physical symptoms and reduced fatigue and depression. Further research using longitudinal or intervention designs is now required to elucidate underlying mechanisms and practical implications of smoking and drinking alcohol.

Keywords: Smoking, Alcohol, Workers, Health, Safety, Wellbeing

Introduction

The harm caused by the consumption of alcohol is a high priority public health problem (Bell & Britton, 2014; WHO, 2012). The effects of smoking on health have also received considerable attention (Department of Health, 2014). However, research is required to increase our knowledge about the effects of alcohol and smoking on wellbeing, and the objective of the present study was to examine whether smoking and alcohol consumption were associated with wellbeing and health and safety outcomes when the established predictor variables were co-varied.

Approximately 20% of the UK population are smokers (HSCIC, 2013), with the highest number of smokers being in the 20-24 year age group (HSCIC, 2012). The prevalence of smoking has fallen from about 40% in the 1980s to about 20% (HSCIC, 2013). Those who smoke often report lower satisfaction with their jobs, financial

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conditions, non-working activities, friendships, family life, health and physical condition than those who do not smoke (Oshio & Kobaayshi, 2009). Non-smoking males have been found to have higher levels of wellbeing than men who smoke, and women who never smoked had higher levels of wellbeing than women who had smoked in the past (Chanfreau et al., 2013). Smokers often report increased levels of anxiety (Annual Population Survey, 2012), and there is some evidence of a causal link between the two in that quitting smoking can reduce anxiety, with those who have clinically significant levels of anxiety and those who smoke to reduce their stress showing the largest effect (McDermott et al., 2013). Smoking is highly correlated with poor mental health in general, with about 30% of those with mental health problems being smokers (McManus et al., 2010). Some of these associations may reflect reverse causality, with mental health influencing smoking rather than the other way around. There are many correlated attributes of smoking, such as employment status, social class, salary, and smoking status of family and friends (Twigg et al., 2000). A number of these variables are also associated with people's wellbeing levels, and they must be adjusted for when examining associations between smoking and wellbeing.

Findings from the General Lifestyle Survey (Office for National Statistics, 2013) showed that the number of adults exceeding 3or 4 units of alcohol on at least one day a week was higher for men (34%) than for women (28%). This gender difference was also observed for numbers drinking above recommended safe levels. A person's drinking habits often reflect those of their friends and family (Rosenquist et al. 2010). Alcohol is an established risk factor for depression, and some research has shown that up to 10% of male depression is related to alcohol consumption (Jane-Llopis & Matysina, 2006). However, moderate levels of alcohol consumption are associated with lower susceptibility to disease (Cohen et al., 1993), better cognition, higher levels of subjective wellbeing and fewer depressive symptoms, when compared with total non-consumption (Lang et al., 2006). Indeed, moderate consumption is associated with greater sociability and can be associated with higher levels of wellbeing.

A holistic approach to wellbeing was adopted here (Smith, 2011a, 2011b, Smith & Wadsworth, 2011, and Williams & Smith, 2012). This approach, first described in detail by Smith (2005a), developed from the realisation that there is more to being healthy than being free from disease. Research on smoking and alcohol consumption has often investigated associations with different types of disease, but there have also been studies relating these health-related behaviours to both physical and mental functions. Such research often uses different conceptual approaches. For example, "well-being" is sometimes replaced by the term "quality of life" or by "being able to function well" or "reporting a positive mood state". The relationship between alcohol consumption and both negative and positive mental health has also been examined, often indicating subtle changes in mood rather than the presence of clinical conditions. This holistic approach can be applied across the life-span with different functions receiving attention at certain ages (e.g. education outcomes in adolescence; performance at work in adults; and cognitive decline in the elderly).

A problem with many of the previous studies in this area is that they have not controlled for the effects of correlated attributes of both the wellbeing outcomes and health-related behaviours. Two recent studies have considered wellbeing as a process and examined the effects of smoking and alcohol consumption on the wellbeing and attainment of students (Smith, 2019a, 2019b). In these studies, established predictors of wellbeing and attainment were statistically controlled. Smith (2019a) examined associations between smoking, well-being and academic attainment. Univariate analyses showed that smoking was associated with lower attainment and greater negative wellbeing (stress, anxiety and depression). When established predictors of well-being were included in the analyses, smoking still had a significant effect on attainment but not negative well-being. Another piece of research, using this approach, then considered smoking and alcohol consumption (Smith, 2019b). Three studies examined associations between alcohol consumption, smoking, academic attainment and wellbeing of university students. The first study examined associations with the frequency of consuming alcohol, consumers versus nonconsumers, alcohol units per week, and drinking more than the recommended safe level. When established predictors of attainment and wellbeing were included in the analyses, smoking was still associated with academic attainment but not with wellbeing. There were no significant effects of the alcohol frequency or amount variables, and no significant interactions between alcohol group and smoking. Non-consumers of alcohol reported greater work efficiency but higher negative outcomes. Consumption of more alcohol than the recommended safe limit was associated with lower positive well-being, lower course stress, and lower work efficiency. A smaller study examined associations with binge drinking. There was only one significant effect, with those who never engaged in binge drinking reporting greater work efficiency than the infrequent binge drinkers, who in turn reported greater

work efficiency than the regular binge drinkers. A third study examined associations between frequency of hangovers, attainment and wellbeing. Again, the only significant effect was on work efficiency, with those who never had a hangover being more efficient than those who sometimes had a hangover who were more efficient than those who regularly had a hangover.

The chronic effects of smoking or consuming alcohol may be difficult to detect in student samples because they have only carried out these behaviours for a relatively short time. The present study involved a survey of a sample of workers who had been smoking and drinking alcohol for a longer time. The outcomes studied here were also different from those used in the student samples. Health outcomes were recorded, and it was predicted that higher consumption of alcohol and smoking would be associated with poorer health. Safety outcomes (accidents, injuries and errors) were also reported, and the literature suggests that alcohol consumption may be a risk factor for reduced safety. Mental health problems (stress, fatigue, anxiety and depression) were also recorded, as were job satisfaction and enjoyment. Correlated attributes of smoking, alcohol consumption and the outcomes were also measured and used as covariates in the multivariate analyses. These covariates covered demographics, job characteristics and personality. The sample were recruited from the staff of a local county council in South Wales and included both white-collar and blue-collar workers. Wadsworth et al. (2004) carried out a survey of a community-based population sample (N > 7000) in South Wales and found that smoking was associated with anxiety, depression, being female, lower educational qualifications and income, being aged over 25 years and being unemployed. Heavy alcohol consumption was associated with being depressed, experiencing sleeping problems, risk-taking, being male, higher income, not being married, and being under 25 years old. These variables and those related to wellbeing were examined in the present research in a sample from the same geographical region as those studied by Wadsworth et al. (2004).

2. Method

This study involved a postal survey of the well-being and health and safety of public sector workers. It was carried out with the approval of the ethics committee, School of Psychology, Cardiff University, and the informed consent of the volunteers.

2.1 Participants

The participants were 1392 public sector employees from South Wales, UK (74.3% female; mean age: 43.3 years, range 17-72 years). 15.5% were single, 74.1% married/cohabiting, 2.3% separated, 6.0% divorced and 2.1% widowed. 25.7% were educated to degree level. 76.1% were full-time staff and 23.9% part-time. 13.6% earned $< \pm 10$ K, 37% ± 10 -20K, 27.9% ± 20 -30K and 21.4% $> \pm 30$ K per annum.

2.2 Smoking and Alcohol Consumption

39.3% of the sample were smokers (mean number of cigarettes a day = 11.28, range 1-40). The average weekly alcohol consumption was 9.2 units with a range of 0-100. 32.3% consumed more than the recommended safe level (> 14 units), and 18.4% were non-consumers.

2.2 Measures

The survey consisted of sections measuring demographics and personality (Wadsworth et al., 2004), job characteristics (the HSE Management Standards - Mackay et al., 2004), job satisfaction (Warr, Cook & Wall, 1979), occupational stress (Smith et al., 2000), accidents, injuries and cognitive failures (Wadsworth et al., 2003), illness in the last year and symptoms in the last 14 days (Smith et al., 2000), risk-taking (Smith, 2016), fatigue (Ray et al., 1992), anxiety and depression (Zigmond & Snaith, 1983). Smoking and units of alcohol consumption per week were also recorded (Smith et al., 2000). The actual questions are shown in the Appendix.

2.3 Statistical analysis

Multivariate ANOVA (MANOVA) analyses examined the associations between smoking, alcohol consumption and the wellbeing and health and safety outcomes while controlling for the established predictors (demographics, personality, and job characteristics). Smoking was entered as a categorical variable. Alcohol consumption was coded as three groups: non-consumers, consumers below the recommended threshold (14 units a week) and those consuming more than the recommended limit.

3. Results

Smoking:

The MANOVA revealed a significant overall effect of smoking status (Wilks' Lambda = 4.39, p < 0.00, partial eta squared = 0.08). Smokers rated their job as significantly more enjoyable, reported fewer injuries outside of work but had more symptoms (mainly respiratory) in the last 14 days. These effects are shown in Table 1.

Table 1: Significant effects of smoking status (scores are the means (sds); higher scores = greater job enjoyment, more symptoms in last 14 days and more minor injuries).

	Smokers	Non-Smokers	p value
Job enjoyment	4.00 (1.04)	3.69 (1.07)	p < 0.001
Total symptoms	5.19 (3.95)	3.64 (3.25)	p< 0.001
Minor injuries	1.86 (0.92)	2.12 (0.98)	p < 0.005

The interactions between smoking and level of alcohol consumption were not significant. However, alcohol consumption status had a significant overall effect (Wilks' Lambda = 1.97, p < 0.001, partial eta squared = 0.04) and was significantly associated with a number of specific outcomes. Two different profiles of effect were observed. These are shown in Table 2. First, there was a linear dose-response relationship between alcohol consumption and risk-taking and cognitive failures. Secondly, those consuming alcohol at a safe level had the lowest scores for physical symptoms, fatigue and depression. Non-consumers had lower scores for these outcomes than those consuming above the recommended safe level. Finally, in terms of job satisfaction, those consuming alcohol below the safe limit had the highest job satisfaction, followed by the non-consumers, and those consuming above the recommended limit had the lowest job satisfaction.

Table 2: Significant effects of alcohol groups (scores are the means (sds); higher scores = greater job satisfaction, more frequent cognitive failures, more risk-taking, more symptoms in last 14 days, higher depression and fatigue scores).

	Non-consumers	Below 14 units a week	Above 14 units a week	p value
	124.00 (25.2)	125.06 (22.40)	124.06 (24.05)	.0.001
Job satisfaction	134.00 (25.3)	135.86 (23.40)	124.86 (24.05)	p < 0.001
Cognitive Failures	2.61 (1.07)	2.67 (0.97)	2.97 (1.00)	p < 0.01
Risk taking	1.80 (0.87)	2.05 (0.87)	2.34 (0.87)	p < 0.005
Total symptoms	4.45 (3.66)	4.09 (3.58)	4.94 (3.62)	p < 0.05
Fatigue	32.78 (15.96)	32.53 (16.51)	36.86 (15.69	p < 0.001
Depression	4.72 (3.77)	4.68 (3.62)	6.09 (4.32)	p < 0.001

4. Discussion

The results showed that after adjusting for correlated attributes of smoking and alcohol consumption, and the established predictors of the health, safety and wellbeing outcomes, relatively few effects of smoking and alcohol were significant. Furthermore, there were no significant interactions between alcohol consumption patterns and smoking. Smoking was associated with more acute physical symptoms which reflects effects on the respiratory tract. Two positive effects of smoking were observed. The first was that smokers reported more job enjoyment. This may reflect the social aspect of smoking at work, where groups of smokers may have greater social interaction

while having a cigarette. Finally, smoking was associated with fewer minor injuries, which could be due to a beneficial effect of smoking on attention (see Wesnes & Parrott, 1992).

Alcohol consumption was associated with more significant effects and two distinct profiles of effects were observed. The first, seen in the safety and performance efficiency measures (risk-taking and cognitive failures) showed a dose-response, with more alcohol being associated with more negative outcomes. Job satisfaction and physical and mental health measures showed a different profile, with high alcohol consumption revealing the most negative effects but moderate consumption, below the recommended threshold, was associated with better health and wellbeing than the non-consumer groups. This J-shaped curve has been reported before and it has been speculated that the benefits of moderate alcohol consumption reflect anti-inflammatory effects (Cohen et al., 1993).

A limitation of the current research was that it was cross-sectional which makes attribution of causality difficult. Further longitudinal studies, preferably with appropriate interventions, are now required. Another limitation was that the present study does not inform on the underlying mechanisms linking smoking and alcohol consumption with various outcomes. Future research should use a multi-variate longitudinal approach to help identify underlying mechanisms and assess the benefits of education about alcohol consumption and smoking cessation. Smoking and alcohol consumption are often associated with the use and misuse of other substances (e.g. recreational drugs – Wadsworth et al., 2004). Future research should adjust for drug use and also look at the combined effects of co-usage of tobacco, alcohol and illegal drugs.

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Appendix

STRICTLY CONFIDENTIAL

Well-Being Survey



The Centre for Occupational & Health Psychology, Cardiff University. 63 Park Place, Cardiff. CF10 3AS.

YOU AND YOUR JOB

We w	rould like to ask you some questions al	bout you and work.
1.1	What is your job title?	
1.2	What grade are you currently working	ıg at?
1.3	Is the job full-time or part-time? (Ful 30 hours per week). Please tick ONE	I-time: 30 hours per week or more, Part time: up to box.
	Full-time	1
	Part-time	2
1.4	Is your job permanent, temporary/ca	asual, or fixed contract? Please tick ONE box.
	Permanent Temporary/casual Fixed contract	1 2 3
1.5	Which one of the following best desone box.	cribes your current position at work? Please tick
	Manager (25+ employees*)	1
	Manager (less than 25 employees*	*) 2
	Supervisor	3
	Employee	4
	(* Total number in Company, no	ot just those of whom you are in charge).
1.6	In this job, how many hours per wee	k do you work on average?
1.7	What is your work pattern?	
	Fixed hours	1
	Flexi-time Shift work	2
	Still work	3
SHIF	TWORKERS <u>ONLY</u>	
1.8	What is the length of your current sh	nift?
	6hrs 1	
	8hrs 2	
	12hrs 3	
1.9	Thinking about the past year, have y caused, or made worse by work?	ou suffered from any illness that you think was
	Yes 1 No 2	

If yes, please specify:

1.10 In general, how stressful do you find your job?

Not at all stressful	Mildly stressful	Moderately stressful	Very stressful	Extremely stressful
1	2	3	4	5

1.11 In general, how much do you enjoy your job?

Really don't				Really do enjoy
enjoy my job				my job
1	2	3	4	5

1.12 Have you been subjected to bullying in the workplace in the last 12 months?

No	Seldom	Now and then	About once a week	More than once a week
1	2	3	4	5

- 1.13 INSTRUCTIONS: The questions in this scale ask you about your feelings and thoughts at work during the <u>last month</u>. In each case, please indicate by circling a number how often you felt or thought a certain way.
- a. In the last month, how often have you been upset because of something that happened unexpectedly?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

b. In the last month, how often have you felt that you were unable to control the important things in your life?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

c. In the last month, how often have you felt nervous and 'stressed'?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

d. In the last month, how often have you dealt successfully with day to day problems and annoyances?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

e. In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

f. In the last month, how often have you felt confident about your ability to handle your personal problems?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

~	In the least meanth	harraftan harra rra	u felt that things were	
g.	in the last month	now otten nave vo	II IEII INAI ININOS WER	YOUNG VAIIT WAV

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

h. In the last month, how often have you felt that you could not cope with all the things that you had to do?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

i. In the last month, how often have you been able to control irritations in your life?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

j. In the last month, how often have you felt that you were on top of things?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

k. In the last month, how often have you been angered because of things that were outside your control?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

l. In the last month, how often have you found yourself thinking about things that you have to accomplish?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

m. In the last month, how often have you been able to control the way you spend your time?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

n. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

1 = never 2 = almost never 3 = sometimes 4 = fairly often 5 = very often

1.14 How tired would you say you felt when you got up this morning?

(place a cross on the line which best corresponds to how you felt first thing this morning) e.g.

Not at all	v	Extremely
tired	X	tired

Not at all tired ------ Extremely tired

1.15 It is recognised that working conditions affect worker well-being. Your responses to the questions below will help to determine your working conditions now. It is important that your responses reflect your work in the last six months.

I am clear what is expected of me at work	Never □ 1	Seldom □ 2	Sometimes □ 3	Often	Always □ 5
I can decide when to take a break	□ 1	□ 2	□ 3	□ 4	□ 5
Different groups at work demand things from me that are hard to combine	□1	□ 2	□ 3	□ 4	□ 5
I know how to go about getting my job done	□ 1	□ 2	□ 3	□ 4	□ 5
I am subject to personal harassment in the form of unkind words or behaviour	□ 1	□ 2	□ 3	□ 4	□ 5
I have unachievable deadlines	□ 1	□ 2	□ 3	□ 4	□ 5
If work gets difficult, my colleagues will help me	□ 1	□ 2	□ 3	□ 4	□ 5
I am given supportive feedback on the work I do	□ 1	□ 2	□ 3	□ 4	□ 5
I have to work very intensively	□ 1	□ 2	□ 3	□ 4	□ 5
I have a say in my own work speed	□ 1	□ 2	□ 3	□ 4	□ 5
I am clear what my duties and responsibilities are	□ 1	□ 2	□ 3	□ 4	□ 5
I have to neglect some tasks because I have too much to do	□ 1	□ 2	□ 3	□ 4	□ 5
I am clear about the goals and objectives for my department	□ 1	□ 2	□ 3	□ 4	□ 5
There is friction or anger between colleagues	□ 1	□ 2	□ 3	□ 4	□ 5
I have a choice in deciding how I do my work	□ 1	□ 2	□ 3	□ 4	□ 5
I am unable to take sufficient breaks	□ 1	□ 2	□ 3	□ 4	□ 5
I understand how my work fits into the overall aim of the organisation	□ 1	□ 2	□ 3	□ 4	□ 5
I am pressured to work long hours	□ 1	□ 2	□ 3	□ 4	□ 5
I have a choice in deciding what I do at work	□ 1	□ 2	□ 3	□ 4	□ 5
I have to work very fast	□ 1	□ 2	□ 3	□ 4	□ 5
I am subject to bullying at work	□ 1	□ 2	□ 3	□ 4	□ 5
I have unrealistic time pressures	□ 1	□ 2	□ 3	□ 4	□ 5

I can rely on my line manager to help	□ 1	□ 2	□ 3	□ 4	□ 5
me out with a work problem	Strongly	Disagree	Neutral	Agree	Strongly
I get the help and support I need from colleagues	disagree □ 1	□ 2	□ 3	□ 4	agree □ 5
I have some say over the way I work	□ 1	\Box 2	□ 3	□ 4	□ 5
I have sufficient opportunities to question managers about change at work	□1	□ 2	□3	□ 4	□ 5
I receive the respect at work I deserve from my colleagues	□1	□ 2	□ 3	□ 4	□ 5
Staff are always consulted about change at work	□ 1	□ 2	□ 3	□ 4	□ 5
I can talk to my line manager about something that has upset or annoyed me at work	□ 1	□ 2	□ 3	□ 4	□ 5
My working time can be flexible	□ 1	□ 2	□ 3	□ 4	□ 5
My colleagues are willing to listen to my work-related problems	□ 1	□ 2	□ 3	□ 4	□ 5
When changes are made at work, I am clear how they will work out in practice	□ 1	□ 2	□ 3	□ 4	□ 5
I am supported through emotionally demanding work	□ 1	□ 2	□ 3	□ 4	□ 5
Relationships at work are strained	□ 1	□ 2	□ 3	□ 4	□ 5
My line manager encourages me at work	□ 1	□ 2	□ 3	□ 4	□ 5

1.16 Please read each item and then tick the box next to the reply that comes closest to how you have been feeling in the past week. Try to give your first reaction. This will probably be more accurate than spending a long time thinking about an answer. Please answer all questions, and tick only ONE BOX per question.

a)	I feel tense or wound up Most of the time A lot of the time From time to time, occasionally Not at all	1 2 3 4	b) I feel as if I am slowed down Nearly all the time Very often Sometimes Not at all	1 2 3 4
c)	I still enjoy the things I used to enjoy		d) I get a sort of frightened feeling like "butterflies" in the stomach	
	Definitely as much	1	Not at all	1
	Not quite so much	2	Occasionally	2
	Only a little	3	Quite often	3
	Hardly at all	4	Very often	4
e)	I get a sort of frightened feeling as if something		f) I have lost interest in my appearance	
	awful is about to happen		Definitely	1
	Very definitely and quite badly	1	I don't take as much care	2
	Yes, but not too badly A little, but it doesn't worry me	2	as I should	
	Not at all	3	I may not take quite as much care I take just as much care as ever	3 4
	Not at all	4	rtake just as much care as ever	4
g)	I can laugh and see the		h) I feel restless as if I	
	funny side of things		have to be on the move	
	As much as I always could	1	Very much indeed	1
	Not quite so much now	2	Quite a lot	2
	Definitely not so much now	3	Not very much	3
	Not at all	4	Not at all	4
i)	Worrying thoughts go		j) I look forward with	
	through my head		enjoyment to things	
	A great deal of the time	1	As much as I ever did	1
	A lot of the time	2	Rather less than I used to	2
	From time to time but not too often	3	Definitely less than I used to	3
	Only occasionally	4	Hardly at all	4
k)	I feel cheerful		l) I get sudden feelings of panic	
	Not at all	1	Very often indeed	1
	Not often	2	Quite often	2
	Sometimes	3	Not very often	3
	Most of the time	4	Not at all	4
m)	l can sit at ease and feel relaxed		n) I can enjoy a good book or radio or TV programme	
	Definitely	1	Often	1
	Usually	2	Sometimes	2
	Not often	3	Not often	3
	Not at all	4	Very seldom	4

1.17 Age: yrs				
1.18 Sex: 1 2 M F				
1.19 Current Status: (Please tic	k one box only)			
Single (never married) 1	Separated 4			
Living with partner 2	Divorced 5			
Married 3	Widowed 6			
1.20 Education Completed: (Ple	ase choose all that apply)			
No academic qualifications	1 City & Guilds / National Diploma 4			
GCSE/ 'O' Level	₂ BA / BSc ₅			
AS Level/SCE Higher/Matriculation	3 Higher degree / Professional 6 qualification			
1.21 How would you describe	yourself?			
White 1	Black Caribbean 2			
Black African 3	Black neither Caribbean or African 4			
Indian 5	Pakistani 6			
Bangladeshi 7	Chinese 8			
	None of these (Please specify) 9			
1.22 What is the total current yearly amount you receive from your wage, pension, benefit allowance or annual salary (before tax is deducted)? Please indicate one category.				
less than £2,500 ₁ £2,500-	£4,999 ₂ £5,000-£9,999 ₃			

2.1 Now we would like to ask you about where you worked in the last 2 months. For each question please tick ONE answer that best describes your work.

		Often	Some- times	Seldom	Never/ almost never
a)	Did you work at night?	1	2	3	4
b)	Did you do shift work?	1	2	3	4
c)	Did you have to work long or unsociable hours?	1	2	3	4
d)	Did you have to be "on call" for work?	1	2	3	4
e)	Did you have unpredictable working hours?	1	2	3	4
f)	Did your job ever expose you to breathing fumes, dusts or other potentially harmful substances?	1	2	3	4
g)	Did your job ever require you to handle or touch potentially harmful substances or materials?	1	2	3	4
h)	Did you ever have work tasks that leave you with a ringing in your ears or a temporary feeling of deafness?	1	2	3	4
i)	Did you work in an environment where the level of background noise disturbs your concentration?	1	2	3	4

HEALTH AND WELL-BEING

Have you ever been told by the doctor that you have, or have had any of 3.1 the following? Please tick Yes or No for EACH of the categories in the following list.

	Yes	No
Angina	1	
High cholesterol level	2	
Diabetes	3	
Stroke	4	
Heart attack (coronary thrombosis, myocardial infarction)	5	
High blood pressure	6	
Nervous trouble or depression	7	
Asthma	8	
Emphysema	9	
Bronchitis	10	
Breast cancer	11	
Other cancer	12	
Other	13	

3.2 In the last 12 months have you suffered from any of the following health problems?

Please tick Yes or No for EACH of the categories in the following list.

	Yes	No
Bronchitis	1	
Arthritis or rheumatism	2	
Sciatica, lumbago or recurring backache	3	
Persistent skin trouble (e.g. eczema)	4	
Asthma	5	
Hay fever	6	
Recurring stomach trouble or indigestion	7	
Being constipated all or most of the time	8	
Piles	9	
Persistent foot trouble (e.g. bunions, in-growing toenails)	10	
Trouble with varicose veins	11	
Nervous trouble or persistent depression	12	
Persistent trouble with your gums or mouth	13	
Problems sleeping	14	
Other		

3.3 Have you had any of the following symptoms in the last 14 days?

	Yes	No
A cough, catarrh or phlegm	1	
Diarrhoea	2	
Heartburn, wind or indigestion	3	
Shortness of breath	4	
Dizziness or giddiness	5	
Earache or discomfort in the ears	6	
Swollen ankles	7	
Nervy, tense or depressed	8	
A cold or flu	9	
A sore throat	10	
Difficulty sleeping	11	
Pains in the chest	12	
Backache or pains in the back	13	
Nausea or vomiting	14	
Feeling tired for no apparent reason	15	
Rashes, itches or other skin trouble	16	
Blocked or runny nose	17	
Headache	18	
Wheeziness	19	
Toothache or trouble with gums	20	
Other	21	

3.4 In the last year have you taken any of the following medicines prescribed by a doctor?

Pain killers	Yes ₁	No
Sleeping pills	Yes 2	No
Anti-depressants	Yes ₃	No
Medicines for stress or anxiety	Yes 4	No

3.5 Over the past 12 months, how would you say your health in general has been?

Very good	Good	Fair	Bad	Very bad
1	2	3	4	5

3.6 How do you find life in general?

Not at all stressful	Mildly stressful	Moderately stressful	Very stressful	Extremely stressful
1	2	3	4	5

ACCIDENTS AND INJURIES

4.1 Thinking about the last 12 months, have you had any accidents WHILE YOU WERE WORKING that required medical attention from someone else (e.g. a first aider, GP, nurse or hospital doctor)?

None	1	2 or more
1	2	3

4.2 How many accidents requiring medical attention have you had OUTSIDE work in the last 12 months?

None	1	2 or more
1	2	3

4.3 In the last 12 months how frequently have you had minor injuries that did not require medical attention?

a) at work

Not at all	Rarely	Occasionally	Quite frequently	Very frequently
1	2	3	4	5

b) outside of work

Not at all	Rarely	Occasionally	Quite frequently	Very frequently
1	2	3	4	5

4.4 How frequently do you find that you have problems of memory (e.g. forgetting where you put things), attention (e.g. failures of concentration), or action (e.g. doing the wrong thing)?

a) at work

Not at all	Rarely	Occasionally	Quite frequently	Very frequently
1	2	3	4	5

b) outside of work

all	Not at Rarely		Occasionally	Quite frequently	Very frequently
	1	2	3	4	5

4.5 How frequently do you take risks?

a) at work

Not at all	Rarely	Occasionally	Quite frequently	Very frequently	
1	2	3	4	5	

a) outside work

b)

Not at all		Rarely	Occasionally Quite frequently		Very frequently	
	1	2	3	4	5	

1

4

LIFESTYLE

In this section, we are interested in finding out about how you live your life. In particular, we are interested in how much (or little) you drink or smoke.

5.1	Do you smoke cigarettes now (i.e. NOT cigars/pipe)?						
	Yes	1	No	2			
5.2	How m	any ci	garettes do y	ou sr	noke per day?		
Manı	ufactured		Handro	olled			
5.3	On average how often do you drink during the week, that is weekdays. Please tick ONE BOX only.						
	Nev	er	1 - 2 Days	S	3 Days	4 Days	

5.4 How many units do you drink during an average week? ____ units

(1 unit = half a pint of beer/1 small glass of wine/1 pub measure of spirits)

2

5.5 On average how often do you drink at the weekends. Please tick ONE BOX only.

> Never 1 - 2 Days All 3 Days 1 2

5.6 How many units do you drink on an average weekend? ____ units