(i) Abstract and key words

Abstract

This article presents the findings of a survey of 225 UK registered mental health nurses. The aim of the study was to measure the subjective wellbeing of a group of UK mental health nurses using three survey measures, and to identify whether certain demographic and workplace factors correlated with subjective wellbeing measure scores. An online survey incorporating the subjective wellbeing questions used by the Office for National Statistics, the Satisfaction with Life Scale and the Warwick Edinburgh Mental Wellbeing Scale was administered to members of two professional bodies for mental health nurses. There was good consistency between the three subjective wellbeing measures, each demonstrating that UK mental health nurses had a relatively low subjective wellbeing. Apart from the Office for National Statistics question, 'Overall, to what extent do you feel the things you do in your life are worthwhile?', demographic and workplace factors did not correlate with subjective wellbeing measure scores, although the characteristics of being male, living alone and being aged 40 to 49 were associated with lower mean scores on all three measures. The findings of the exploratory study suggest that a similar study should be undertaken with a larger representative population of mental health nurses, and that qualitative research should be undertaken to explore why and how UK mental health nurses have relatively low subjective wellbeing. The limitations of this study, namely the response rate and sample representativeness mean that the results of this study must be tested in further research on the mental health nurse population.

Key words

happiness**;** mental health; personal satisfaction; psychiatric nursing; questionnaires; mental health nurses; wellbeing

(ii) Text

INTRODUCTION

This exploratory study is the first to measure global subjective wellbeing(SWB) in UK registered mental health nurses (MHNs). It was undertaken as phase one of a mixed methods PhD study into the SWB and experience of mental illness of UK MHNs. UK MHN wellbeing is of interest because of the combination of an unprecedented demand for mental health care and a dwindling mental health nursing workforce (Royal College of Nursing, 2014). The vacancy rate is highest in mental health of all of the nursing professions and there is a risk that demand for mental health nurses may outstrip supply in the UK by 2016 (Centre for Workforce Intelligence, 2012). The Boorman review of NHS staff wellbeing (Boorman, 2009) linked health care staff wellbeing to organisational performance and recommended that NHS employers took a preventive approach to staff wellbeing and mental health. In 2016 the Mental Heath Task Force commissioned by the Department of Health has called for all NHS organisations to provide workplace interventions to support staff mental health (Mental Health Task Force/ NHS England, 2016). Taking account of the SWB of the MHN workforce may proactively addressing national nurse recruitment, retention and performance concerns.

Background

The study of SWB, or happiness, has gained international research prominence in recent years with its measurement being increasingly seen as a better marker of national prosperity than fiscal wealth (Dolan et al, 2011; Dolan & Metcalfe, 2012). It may be defined in global or domain specific terms. Global SWB is a person's overall sense of their wellbeing, comprising hedonic and evaluative elements, namely current experience of positive over negative emotional states (the hedonic), combined with an overall estimation of their life satisfaction (the evaluative), along with, in some models, a 'eudaimonic' aspect: a sense of

meaning or purpose in life (Waldron, 2010). Domain specific SWB is an individual's assessment of their happiness with one aspect or domain of their life, such as work, home or family. SWB has been shown to fluctuate over the life course (Fujita & Diener, 2005) and to be influenced by life events (Gomez et al, 2009). This fluctuation suggests that there is merit in identifying how SWB may be influenced or enhanced, both at an individual and a population level. Research on SWB has encompassed a number of different populations and has tended to be cross sectional in design(Diener, 2000; Fujita & Diener, 2005). Occupational health research on nurses and health professionals has focused on domain specific SWB, either on the domain of work(Brunetto et al, 2013; Jenaro et al, 2011; Lu et al, 2012; Simpson, 2009) or on poor mental health in relation to work, focusing on psychiatric morbidity, stress, fatigue and burnout(Gärtner et al, 2011; Hegney, et al, 2014).

The relationship between SWB and demographic and workplace factors has previously been studied for the UK population in general household samples(Chanfreau et al, 2013; Dolan et al, 2008). Men have scored higher using some measures(Tennant et al, 2007; Bartram et al, 2009) and women have scored higher than men on others(Office for National Statistics, 2012; Pavot & Diener, 2008). SWB measure scores are higher at the younger and older ends of the age spectrum (Tennant et al, 2007; Office for National Statistics, 2012; Siedlecki et al, 2008). Living alone is associated with relatively low SWB for men but not for women, with male SWB being at its best when living with one of two people (National Centre for Social Research, 2011; Chanfreau et al 2013).

This is the first published investigation of UK mental health nurses using SWB measures. Outside of the UK, a range of measures of nurses' SWB have been used, most commonly the Satisfaction with Life Scale (SWLS)(Diener et al, 1985). There is evidence of correlations between high SWB in nurses and the qualities of hardiness(Abdollahi et al, 2014),

spiritual intelligence (Faribors et al, 2010; Sahebalzamani et al, 2013), emotional intelligence(Por et al, 2011)and good self esteem(Ratanasiripong & Wang, 2011). High SWB in nurses correlates with low levels of depression(Ratanasiripong & Wang, 2011) and anxiety (Zhang et al, 2014), healthy lifestyle, recent and regular physical activity (Jacobs, 2013), mindfulness training(Mackenzie et al, 2006) and social support(Rochlen et al, 2009), high job satisfaction(Gurková et al, 2014, Sparks et al, 2005), low burnout (Lee, 2014), high organisational commitment, career satisfaction (Nemcek, 2007; Nemcek & James, 2007, and flexible and balanced working patterns (Yildirim & Aycam 2008).

Demographic factors have been associated with variation in mean SWB scores for Thai nursing students(Ratanasiripong & Wang, 2011) and Iranian hospital nurses(Vanaki & Vagharseyyedin, 2009) but not in all other studies (Por et al, 2011; Ostermann et al, 2010; Sparks et al, 2005). These include nursing student age(Zwink et al, 2013), nursing students' academic grades and family income(Yildirim et al, 2013) and Slovak nurses' age(Gurková et al, 2012)and being in the 'Baby Boomer' generation(Brunetto et al, 2013; Brunetto et al, 2012), although other studies have found no association between age and nurses' happiness(Appel et al, 2013; Faribors et al, 2010; Nemcek, 2007; Nelson et al, 2014).

MATERIALS AND METHODS

Aims and hypothesis

The aim of this exploratory study was to measure the SWB of a sample of UK MHNs, with the hypothesis that demographic and workplace factors would correlate with SWB measure scores in accordance with studies of other populations. A further aim of the survey was to identify a group of MHNs with high SWB to take part in a further qualitative phase of a mixed methods study.

Design

Using an online questionnaire MHNs were invited to complete a series of demographic questions and three measures of SWB.

Setting, participants and sample size

Survey participants were 225 UK MHNs, approached via two professional bodies. They were mental health nursing members of the Royal College of Nursing (RCN) (n.16.955 MHNs approx.) and members of the Mental Health Nurses Association(MHNA) of Unite the Union(n.1950 approx.). These numbers reflect around 23% of the total UK mental health nursing population, the largest percentage of MHNs that could be contacted directly without going through their employers.

Measures

Three measures of SWB were used:

Office for National Statistics Subjective Wellbeing Questions (ONS SWBQ) (Office for National Statistics, 2012)

The SWBQ have been used in the UK Integrated Household Survey (IHS) and the annual Subjective Wellbeing Annual Population Survey (APS)dataset (Self and Beaumont, 2012). The SWBQ are:

1. Overall, how satisfied are you with your life nowadays?

2. Overall, how happy did you feel yesterday?

3. Overall, how anxious did you feel yesterday?

4. Overall, to what extent do you feel the things you do in your life are worthwhile?

All questions are answered on a scale of 0 to 10 where 0 is 'not at all' and 10 is 'completely'. Scores of 0-4 are very low; 5-6 are low; 7-8 are medium and 9-10 are high. The questions draw on the three main theoretical approaches to wellbeing: 'evaluative' - question 1, and 'hedonic' - questions 2 and 3, and ‘eudemonic' - question 4 The ONS SWBQ does not combine the measures into a single index. Responses are reported for each question separately.

Satisfaction with Life Scale (SWLS) (Diener et al, 1985)

The Satisfaction with Life Scale (SWLS) is a 5-item scale designed to measure a person’s global evaluative judgment about their life satisfaction overall using the person's own criteria. It has been used in a wide range of studies(Pavot & Diener, 2008). Participants indicate how much they agree or disagree with each of 5 statements using a 7-point Likert scale that ranges from 7 strongly agree to 1 strongly disagree. Scores range from 5 to 35. Final scores are differentiated as:

31 - 35 Extremely satisfied

26 - 30 Satisfied

21 - 25 Slightly satisfied

20 Neutral

15 - 19 Slightly dissatisfied

10 - 14 Dissatisfied

5 - 9 Extremely dissatisfied

Warwick Edinburgh Mental Well Being Scale (WEMWBS) (Tennant et al, 2007)

The WEMWBS is a 14 item scale initially developed by the Universities of Warwick and Edinburgh to measure wellbeing in the Scottish population (Braunholtz et al, 2007; Ten-

nant et al, 2007). Since 2010 it has been included in the Health Survey for England (Taggart et al, 2015). All of the items are positively phrased and rated according to ‘none’, ‘rarely’, ‘some’,’often’ and ‘all of the time’ for the past 2 weeks. The minimum score is 14 and the maximum score is 70, with a higher score denoting higher wellbeing.

The three measures were used in order to account for variation in interpretation of SWB and in order to offer a comprehensive account of MHNs' SWB, according to the hedonic, evaluative and eudaemonic aspects. The SWLS measures a single aspect of SWB (life satisfaction), whereas the WEMWBS measures the eudaimonic and hedonic aspects. The four ONS questions cover the core components of SWB, but was still at the experimental stage when used in this study (McManus et al, 2012). The SWLS is more well-established scale with history of use on nurses (the SWLS) and the WEMWBS has been well-validated for use with UK populations (Taggart et al, 2015).

The three measures had good internal consistency (Cronbach’s Alphas of 0.818 for the ONS SWBQ, 0.914 for the Diener SWLS, 0.928 for the WEMWBS) and strongly correlated with each other ($r>0.5$, $p<0.01$), using Pearson’s product-moment correlation coefficient, as shown in Table 1. Preliminary analyses were performed to ensure no variation of the assumptions of normality, linearity and homoscedasticity.

Procedure for collecting data

The survey was administered on line during January to September 2013. Prospective participants were sent a link by email to the online survey and a web page containing information about the project.

Ethical considerations

The study protocol was approved by City University London School of Health Sciences ethics committee. The ethical integrity of the study was assured by each participant being given information about the study and confirming their informed consent as part of their survey response. Participant identifiable data was not collected, apart from for those participants who volunteered their email details for part two of the study. Their details were kept in a password protected file only accessible to the principal investigator (JO).

Data analysis

Statistical analysis was undertaken using SPSS version 21. Descriptive statistics including mean, standard deviation (SD), median, were calculated. Differences between groups were explored using t-test and one-way analysis of variance (one-way ANOVA). Chi-square (χ^2) tests were used to compare proportions. Two way analyses of variance and standard multiple regression were also applied.

RESULTS

Participant characteristics

Table 2 summarises demographic information about the study population(n 225). The majority of respondents (71%, n159) were female. The largest proportion of respondents were in the 40-49 year age bracket (35.4%, n79). The majority of respondents (85.8%, n193) were White British. The majority of respondents worked full time (79.8%, n174). Respondents had been in their current nursing post between less than 1 year and up to 35 years and in the profession between less than 1 year and up to 50 years. The mean number of years in the profession was 14.8 (SD 10.9). The mean number of years in post was 5.6 (SD 6.3).

Participants' subjective wellbeing using the ONS SWBQ

The ONS(2012) reports SWB measure results as mean averages and percentages of responses across different ratings. It does not combine the results of the four questions into one overall score. For MHNs, as shown in Table 3, the mean scores (out of 10) were 6.17 (SD 2.29) (life satisfaction), 5.85 (SD 2.63) (happy yesterday), 3.42 (SD2.77) (anxious yesterday) and 7.19(SD 2.27) (life worthwhile). Using ONS criteria, MHNs had low life satisfaction, low happiness, very low anxiety and a medium sense that life is worthwhile.

Participants' subjective wellbeing using the SWLS

Diener SWLS Scores are usually presented as a mean score for the population of interest with a standard deviation (Pavot & Diener, 2008) (see Table 3). The mean score for respondents here was 21.69 (SD 7.49) out of 35. This suggests that they were 'slightly satisfied' with life (Pavot & Diener, 1993).

Participants' subjective wellbeing using the WEMWBS

WEMWBS results should be presented as a mean score for the population of interest with either a standard deviation or 95% confidence interval *(Taggart et al, 2015*). The mean score for respondents in this study was 47.57 (SD 8.32) out of 70. The WEMWBS does not have cut-off scores, although comparators are available, for example the mean score for English adults in 2010 was 50.9 (Taggart et al, 2015).

Differences between groups, using demographic and vocational parameters

The relationships between individual demographic and workplace factors and the three measures were analysed individually using independent samples t tests and One Way ANOVA. Three demographic factors(gender, age and number in household) and three work related factors(work status, years in the profession, years in current role) were considered in relation to the scores.

Women consistently scored higher than men across the SWB measures, although the difference was only statistically significant(p,0.05) for the ‘life worthwhile’ question. Respondents aged between 40 and 49 consistently scored lower across the SWB measures. There was a statistically significant correlation (p<0.05)between being 40- 49 and a lower score on the ‘life worthwhile’ question. No statistically significant correlation between household size and SWB was found, although those living alone had lower mean scores across the SWB measures, including having lower anxiety. No significant associations were found between work status, years in profession or years in role and SWB measure scores.

Two-way ANOVAs and standard multiple regression

Two-way ANOVAs and standard multiple regression analyses were performed to determine the extent of the combined effect that the demographic and work related variables had on the SWB measures. As would be expected, given the analyses undertaken for each individual variable, no one variable had a significant predictive effect on SWB scores. For the ONS life satisfaction question the model of the six variables (years in post, years in profession, age, gender, work status and number in household) accounted for 3.1% of the variance ($F(6,206) = 1.060$, $p < 0.388$ $R^2 = 0.031$, R^2 Adjusted = 0.002). For the ONS happiness question the model accounted for 0.12% of the variance ($F(6,206) = 0.398$, $p < 0.880$, $R^2 = 0.012$, R^2 Adjusted = -0.018). For the ONS anxiety question the model accounted for 2.3% of the variance ($F(6,205) = 0.766$, $p < 0.597$, $R^2 = 0.023$, R^2 Adjusted = -0.007). For the ONS life worthwhile question the model accounted for 3% of the variance ($F(6,205) = 1.025$, $p < 0.410$, $R^2 = 0.030$, R^2 Adjusted = 0.001). For the Diener SWLS the model accounted for 4.5% of the variance ($F(6,198) = 1.503$, $p < .179$, $R^2 = 0.045$, R^2 Adjusted = 0.015). For the WEMWBS the model accounted for 0.6% of the variance ($F(6,196) = 0.185$, $p < .981$, R2 = .006, R2Adjusted = .026).

DISCUSSION

This study found that MHNs' mean SWB was low across all three SWB measures. There is little normative data on SWB in MHNs or in the wider population of UK nurses with which to compare this study's findings. Given that the results presented here have not been age or gender standardised to match general population samples and that the study did not achieve a high response rate, this finding should be interpreted with caution. However, it signifies a phenomenon that warrants further research with a more defined and generalisable sample.

Subjective wellbeing comparisons

Table 4 compares the results from this survey with the ONS First Annual Wellbeing results (ONS, July 2012) (ONS scores are in parentheses). Survey participants had both lower average scores and lower scores across the distribution from low to high. They were less satisfied with life, less happy, felt life was less worthwhile but were also less anxious than the ONS sample general population. The distribution of scores was different compared to the general population, in that life satisfaction tended to the lower score end in MHNs and towards the medium in the general population. Responses were more evenly spread in MHNs for life satisfaction and happiness. MHNs tended to have more low or very low anxiety than the general population. Their feeling that life was worthwhile followed a similar distribution to that of the general population but still had 10% more respondents with low or very low scores than the ONS sample. The difference between mean scores for the MHN population versus the ONS population were statistically significant (one sample t-test , $p<0,005$) for life satisfaction, happiness and life worthwhile, but not for anxiety.

Survey respondents had a mean SWLS score lower but with a larger standard deviation than in other UK working age adult populations (Maltby & Day, 2004 (23.0, SD 6.8 for men, 23.7, SD 6.7 for women; Hayes & Joseph, 2003 for English adults (n 111, 24.1, SD 6.9)(one sample t-tests p <0.000). The SWLS scale has been used several times to measure SWB in nurses outside the UK, wherein nurses' mean scores have ranged from 20.15 in Turkish nursing students(Akhunlar 2010) to 28.9 in evening shift nurses in Iran(Vanaki & Vagharseyyedin, 2009). In a recent study of US nurses, Shapiro et al(2005) reported SWLS scores for pre and post intervention and control groups as part of their study on the impact of mindfulness based stress reduction on health care professionals(n 38). Scores were 20.80 pre treatment, 24.80 post treatment and 23.83 for the control group.

MHNs' SWB according to the WEMWBS was significantly lower than UK population norms, where the mean score was 50.9 for English adults in 2010 (95% CI of 50.3 to -51.1) (one sample t test p <0.000) (Taggart et al, 2015). The WEMWBS score for this population (47.6) may be further contextualised by scores given in recent studies using the WEMWBS with Pakistani health personnel (48.1, SD 9.4 in Waqas et al, 2015) and UK nursing students (51.1(SD 9.1) for an intervention group and 50.2(SD 8.3) for a control group in Webber et al, 2015).

Demographic factors and SWB

The lack of association between standard demographic and workplace factors and SWB in this study is of note but not unprecedented. Some previous studies of SWB and associated characteristics in nurses have not found associations between gender, age, family set up and work status (Akhunlar, 2010; Ostermann et al, 2010; Sparks et al, 2005; Appel et al, 2013; Faribors et al, 2010; Nemcek, 2007; Nelson et al, 2014), whilst others have

(Maltby & Day, 2004; Gurková et al, 2014; Vanaki & Vagharseyyedin, 2009) . The demographic characteristics of this sample were similar to those of the MHN profession as a whole and to MHN demographics in previous surveys although the poor response rate means that possible response bias and risk of Type II error (Fox et al, 2009; Christley, 2010) must be taken into account. Plausible explanations for the lack of demographic associations with SWB in this population with overall low SWB is that other (non demographic) factors are more strongly correlated with SWB in MHNs, or that being a MHN is a characteristic that in itself influences SWB more strongly than being male, female, of a certain age or work status.

Gender

Women scored more highly than men across the SWB measures, although only the difference between responses on the ONS 'life worthwhile' question was statistically significant ($p < 0.05$). Previous research on SWB in the UK general population has found men to have higher SWB than women on the WEMWBS (Tennant et al, 2007), with women scoring higher on the ONS questions(Office for National Statistics, 2012) and the SWLS (Maltby & Day, 2004; Pavot & Diener, 2008), although previous non UK studies of nurses' SWB have found no gender specific correlations(Ostermann, Bertram and Büssing, 2010; Sparks et al, 2005). A limitation of the present study as with other studies on nurses' SWB, however, is the overrepresentation of women, as per the profession as a whole. Where differences in group sizes can be controlled for within the survey analysis, the different experiences of men and women in the profession is often not accounted for (Hsu et al, 2010).

Age

MHNs aged between 40 and 49 had lower SWB according to all three SWB measures. Nurses aged 20 to 29 scored highest on the SWLS and the WEMWBS. The only significant difference between age groups was for the ONS 'life worthwhile' question. Based on previous general population research it might be expected that SWB would be higher at the lower and higher ends of the age spectrum for the WEMWBS(Tennant et al, 2007), ONS SWBQ scores(Office for National Statistics, 2012) and for the SWLS(Siedlecki et al, 2008). Baby boomer nurses(those born between 1946 and 1965) have been found to have higher subjective wellbeing than their younger colleagues(Brunetto et al, 2012), although other studies have found no association between age and nurses' happiness(Appel et al, 2013; Faribors et al, 2010; Nemcek, 2007; Nelson et al, 2014) and other studies have found increasing age to negatively correlate with life satisfaction(Gurková et al, 2014).

Household size

Household size was not significantly correlated with SWB in the present study, although those living alone had lower mean SWB measure scores overall, including for anxiety. Research on the general adult population of the UK has found a relationship between SWB and household size, which differs between men and women(Chanfreau et al, 2013). According to the 2009-2010 Understanding Society survey of 40,000 UK households using the Short WEMWBS (McManus et al, 2012, women's SWB is not affected by the number of children in a household, whereas men's SWB decreases as the number of children increases. However, living alone is associated with relatively low SWB for men but not for women, with male SWB being at its best when living with one of two people(National Centre for Social Research, 2011; Chanfreau et al 2013). In the Health Survey for England study (National Centre for Social Research, 2011) living alone was shown to adversely affect scores on the 'life satisfaction', 'worthwhile' and 'happiness yesterday' questions of the

ONS, but not the ‘anxious yesterday’ question. Within the research on MHNs’ SWB reviewed in comparison with the present study, household size was not commonly measured and so its impact on nurses’ SWB is not known.

Work status

There was slight but not statistically significant difference between full and part time working and SWB, with part time workers scoring higher on the WEMWBS and the SWLS, as well as the ONS ‘anxiety’ question. For nurses there is some qualitative study evidence that flexible working arrangements, such as part time working, can positively affect self assessed work-life balance(Skinner et al, 2011; Harris et al, 2010).

Years in the nursing profession and years in role.

No significant correlations were found between years in the nursing profession or years in current role and SWB. Increasing years of experience of mental health nursing have been associated with higher emotional competence(Humpel & Caputi, 2001) and lower burnout (Johnson et al, 2011), as well as higher work engagement(Vanaki & Vagharseyyedin, 2009). Johnson et al(2012) also found that being in a current post for over a year and having a long time of service in mental health care tended to associate with lower positive engagement. UK mental health employees five to nine years into their career were most likely to burnt out in Johnson et al’s study, whilst Vanaki and Vagharseyyedin found that nurses with two to ten years of nursing experience were experiencing more stress and less managerial support. This perhaps fits well with general population findings on age, as described above, in that SWB tends to rise as people get older, certainly past middle age.

There must be other characteristics than those measured here that account for the low SWB and the limited impact of demographic and workplace factors. They may be characteristics of MHNs, for example, are they more attuned to describing their SWB due to their familiarity with mental health work? Does the profession attract people who experience relatively low pleasure, satisfaction or sense of life being worthwhile? They may be the circumstance in which MHNs find themselves, for example, the 'emotional labour' of mental health nursing work which may impact on SWB, or the straightened circumstances of the UK health services, with unprecedented demand and a reducing workforce (Royal College of Nursing, 2014; Centre for Workforce Intelligence, 2012).

Limitations of the study

The findings of this study must be viewed in the context of its methodological limitations. The correlational cross sectional design means that causality cannot be determined. The sample size limits claims to generalisability and there has been no way of determining a final response rate, although it may be assumed to be low (given that responses were below 10% using the initial purposive probability sampling approach of sending a link to the questionnaire via email). The use of online methods and emails made it difficult to work out the final response rate, a common challenge in online survey research, however the initial response rates were also on a par with those of similar surveys on this population (Royal College of Nursing Employment Survey, 2013 (response rate of 8.3% MHNs; Royal College of Nursing 'Beyond Breaking Point', 2013, response rate 7.2%). Low responses rates are common in online surveys (Fan & Yan, 2010; Dillman et al, 2010), usually between 10 and 25%(Sauermann & Roach, 2013). This is a limitation of the study.

Nonetheless, the study does offer an initial insight into MHNs' SWB based on a nationally gathered sample with similar demographic characteristics to the population as a whole. To

our knowledge, there have been no studies of MHNs using the WEMWBS or the ONS questions. This is the first presentation of data on this population using these measures, and the results indicate that further research is warranted.

Conclusion

Significantly, this is the first study looking specifically as SWB in UK mental health nurses. Novel findings for this study are that UK mental health nurses had low SWB using three different commonly used SWB measures. The evidence for the influence of demographic and workplace factors on SWB in nurses was mixed and limited, whereas studies in other populations have found gender, age and household size to be significant factors. Whilst the present study did find some differences according to age and gender, these were limited to the 'life worthwhile' ONS question. Given the sampling and access challenges encountered in the course of this study the findings should be considered as exploratory and further research on this population is warranted.

If demographic and workplace factors are not determinants of MHNs' SWB then more research should be undertaken to identify those factors that do impact on it. There is also a need for qualitative research to explore how MHNs manage and maintain their SWB during their working lives and to identify how they and their employers may intervene to address low SWB.

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(iv) Tables

Table 1 Correlations between the ONS SWBQ† questions and the SWLS‡ and WEMWBS§ using Pearson's product-moment correlation coefficient

		SWLS	WEMWBS	life satisfac-tion	happy yes-terday	anxious yesterday	life is worthwhile
SWLS	**Pearson's correlation**	1	.709**	.715**	623**	-.324**	.639**
	N	208	198	207	207	206	206
WEMWBS	**Pearson's correlation**	709**	1	.675**	.656**	-.520**	.657**
	N	198	205	204	204	203	203
life satisfac-tion	**Pearson's correlation**	.715**	.675**	1	.736**	-.364**	.702**
	N	207	204	216	216	215	215
happy yes-terday	**Pearson's correlation**	.623**	.656**	.736**	1	-.504**	.585**
	N	207	204	216	216	215	215
anxious yesterday	**Pearson's correlation**	-.324**	-.520**	-.364**	-.504**	1	-.272**
	N	206	203	215	215	215	214
life worth-while	**Pearson's correlation**	.639**	.657**	.702**	.585**	-.272**	1
	N	206	203	215	215	214	215

** Correlation is significant at the 0.01 level (2-tailed).

† ONS SWBQ (Office for National Statistics Subjective Wellbeing Questions, ONS, 2012)
‡ SWLS (Satisfaction with Life Scale, Diener et al, 1985)
§ WEMWBS (Warwick Edinburgh Mental wellbeing Scale, Tennant et al, 2006)

Table 2: Respondent demographic and work characteristics

Variable		n(225)	%
Gender	Female	159	71%
	Male	65	29%
	missing	1	
Age	21-29	30	13.5%
	30-39	50	22.4%
	40-49	79	35,4%
	50-59	58	26%
	over 60	6	2.7%
	missing	2	
Ethnicity	White	193	85.8%
	Black African	7	3.1%
	all other ethnicities	25	11.1%
Number in household	Living alone	37	16.6%
	Living with 1 other	79	35.4%
	person	86	38.6%
	Living with 2 or 3 oth-	21	9.4%
	ers	2	
	Living with 4 or more		
	other people		
	missing		
years in the profession	<2 years	31	13.9%
	3-5 years	26	11.7%
	6-10 years	38	17.0%
	11-20 years	64	28.7%
	>21 years	64	28.7%
	missing	2	
years in role	<2 years	93	42.1%
	3-5 years	56	25.3%
	6-10 years	38	17.2%
	11-20 years	24	10.9%
	>21 years	10	4.5%
	missing	4	

Table 2: Respondent demographic and work characteristics

Work status	full time	174	79.8%
	part time	41	18.8%
	currently unemployed	3	1.4%
	missing	7	

Table 3: Differences in subjective well being between demographic and vocational groups

		Mean scores (SD[†])					
		ONS[‡] satisfaction	**ONS[‡] happy**	**ONS[‡] anxious**	**ONS[‡] worthwhile**	**SWLS[§]**	**WEMWBS[¶]**
	overall	6.17(2.29)	5.85(2.63)	3.42(2.77)	7.19(2.27)	21.69(7.49)	47.57(8.32)
gender	men	5.74(2.43)	5.44(2.79)	3.16(2.74)	**6.63(2.55)***	20.46(7.63)	46.98(8.74)
	women	6.34(2.22)	6.01(2.56)	3.54(2.78)	**7.42(2.11)***	22.22(7.39)	47.75(8.18)
age	21-29	6.14(1.96)	5.89(2.35)	3.36(2.38)	7.36(1.81)	23.79(6.41)	49.34(8.05)
	30-39	6.37(1.65)	6.10(2.45)	3.55(2.84)	**7.73(1.35)***	22.76(5.99)	47.72(7.71)
	40-49	5.84(2.63)	5.62(2.78)	3.49(2.89)	**6.63(2.76)***	20.23(8.23)	46,27(8.92)
	50 and over	6.42(2.41)	5.90(2.74)	3.29(2.79)	7.38(2.27)	21.83(7.80)	48.13(8.09)
household size	living alone	5.67(2.40)	5.78(2.67)	2.75(2.75)	6.64(2.47)	18.88(7.61)	46.69(8.30)
	living w 1 person	6.53(2.04)	6.16(2.38)	3.53(2.81)	7.46(2.02)	22.53(6.95)	48.88(7.95)
	living w 2 or 3 others	6.05(2.34)	5.49(2.83)	3.63(2.77)	7.22(2.29)	22.33(7.60)	46.89(8.54)
	living w 4 or more others	6.25(2.71)	6.25(2.65)	3.60(2.66)	7.15(2.37)	21.79(7.44)	47.60(8.33)
work status	full time	6.27(2.18)	5.84(2.56)	3.56(2.81)	7.21(2.20)	21.76(7.35)	47.40(8.27)
	part time	5.80(2.83)	5.78(3.08)	3.12(2.65)	7.22(2.31)	22.51(8.09)	47.82(9.12)
years in profession	<2 years qualified	5.82(2.48)	5.71(2.84)	4.04(2.93)	7.29(2.16)	21.79(7.18)	48.11(8.00)
	3-5 years qualified	5.38(2.16)	4.90(2.55)	3.52(2.77)	6.14(2.24)	20.86(7.38)	46.90(8.91)
	6-10 years qualified	6.53(1.76)	6.35(2.80)	2.82(2.67)	7.32(2.10)	21.38(7.42)	46.18(8.16)

Table 3: Differences in subjective well being between demographic and vocational groups

		Mean scores (SD†)					
		ONS‡ satis-faction	**ONS‡ happy**	**ONS‡ anxious**	**ONS‡ worthwhile**	**SWLS§**	**WEMWBS¶**
	11-20 years qualified	6.36(2.13)	6.24(2.30)	3.45(2.75)	7.36(2.34)	22.04(7.47)	47.96(8.34)
	>21 years qualified	6.25(2.63)	5.68(2.75)	3.41(2.78)	7.18(2.39)	22.05(7.66)	47.21(8.78)
years in current role	<2 years	6.12(2.56)	5.98(2.88)	3.36(2.89)	7.33(2.42)	21.88(7.83)	48.21(8.65)
	3-5 years	6.18(1.79)	5.78(2.39)	3.46(2.61)	6.86(2.26)	21.50(6.80)	46.48(7.62)
	6-10 years	6.06(2.35)	5.68(2.77)	3.97(2.91)	7.26(2.17)	22.18(7.66)	45.65(9.16)
	11-20 years	6.53(2.65)	5.58(2.61)	3.53(2.61)	7.16(2.50)	22.63(7.45)	48.63(7.63)
	>21 years qualified	6.88(1.81)	7.63(1.41)	1.25(1.75)	7.13(2.53)	22.88(6.56)	49.63(8.98)

†Standard Deviation, ‡ Office for National Statistics (ONS, 2012), § Satisfaction with Life Scale (Diener et al, 1985), ¶ Warwick Edinburgh Mental Well being Scale (Tennant et al, 2006), * p<0.05

Table 4: Comparison of MHNs'ONS SWBQ† scores with UK general population scores in parentheses (ONS, 2012)

	v low (0-4)	**low (5-6)**	**medium(7-8)**	**high(9-10)**	**average (mean)**
life satisfaction	19.6 (6.6)	28.2 (17.5)	37.5(49.8)	13.4 (26.1)	6.17 (7.4)
happy yesterday	30.1 (10.9)	22.7(18.0)	29.2 (39.3)	17.1 (31.8)	5.85 (7.3)
anxious yesterday	34.9(21.8)	20.5 (18.1)	15.8 (23.5)	28.8(36.6)	3.42 (3.1)
life is worthwhile	12.1 (4.9)	18.615.1)	38.1(48.6)	30.7 (31.4)	7.19 (7.7)

† ONS SWBQ (Office for National Statistics Subjective Wellbeing Questions, ONS, 2012)