

Missed Events and Quality of Life During the General Surgery Career Pathway: Is There Light at The End of the Tunnel?

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Abstract

Background: Burnout and attrition in surgeons and surgical trainees may be due to work-life imbalance.

Objective: The primary aim of our study was to assess the number of important life events missed by individuals spanning the general surgery career pathway and the impact on Work-Related Quality of Life (WRQoL).

Methods: An anonymous survey was distributed from November 2019 through January 2020 at a university-affiliated general surgery residency program.

Results: The response rate was 55.6% (94 actual respondents/169 possible respondents). There was a direct negative correlation of number of missed events with Work-Related Quality of Life (WRQoL). When compared to respondents who missed zero events in the past year, those that missed 11-15 events scored 45 points lower on the full scale WRQoL ($p=0.003$). The WRQoL scores were similar in medical students, residents, and attendings (70 vs. 60 vs. 80; $p=0.183$). General well-being (GWB) was lowest in surgical residents and highest in general surgery attendings (50 vs. 90; $p<0.001$).

Conclusion: The WRQoL was negatively impacted by number of missed events. GWB and number of missed events improved in attending surgeons when compared to residents. Future endeavors to improve work-life balance should focus on improving GWB and reducing number of missed events.

Introduction

There has been a downward trend in the rates of general surgery residency applications. In 2002, 7.6% of senior medical students, in the United States, ranked general surgery as their top choice [1-3]. After implementation of the 80-hour work week regulations, medical students had more positive perceptions of the surgeon's lifestyle. However, this perception did not correlate with increased levels of interest in the field. ⁴ In 2019, the number of US medical school seniors who matched into general surgery was only 4.7% [1-4]. The idea of a "controllable lifestyle" appears to be a major determining factor in medical students' specialty decision [1,5]. Furthermore, medical students view the field

of surgery as masculine, competitive, and a specialty that requires great sacrifice [6].

It is well known that the rate of depression and burnout is higher in medical students, residents, and physicians than their age-matched cohorts [7-10]. Trainees in multiple specialties were identified as having a rate of post-traumatic stress disorder three times higher than the general population. ⁷ Therefore, it is understandable that quality of life and mental health is strongly considered by many current medical students in their future career choice. Moreover, burnout is significantly higher in surgeons [8-11]. One in five general surgery residents voluntarily do not finish their residency and the rate of burnout in surgeons is reported to be upwards of 50% [12-14]. Despite these statistics, more than 70% of those who completed training would still go into their field if given the choice again [13,15]. A career in surgery may be more stressful than other professions, but this does not necessarily correlate with a decreased work-related quality of life (WRQoL) [16]. However, residents report more burnout and a poorer quality of life than attending surgeons [17]. The number one cause of attrition among general surgery residents is an uncontrollable lifestyle. Unfortunately, implementation of work-hour limitations has not led to significantly decreased attrition rates [1,12,14,18].

Previous literature has focused on quality of life measures and burnout rates across various specialties, gender, and levels of training [9,11,19-21]. Specific factors previously associated with burnout in surgeons are gender, having children, specialty, nights on call, lifestyle, and compensation [12,13,15]. Residency training has been shown to have a negative impact on both trainees and spouses [20-23]. However, there are conflicting data regarding the specific associations with burnout due to differences across studies [24]. There is an abundance of literature supporting surgical specialties having a negative effect on quality of life and increased burnout compared with medical specialties [16,17,25,26]. While lifestyle and work-life balance are often cited, there is limited investigation into quantifying the exact cause of this imbalance [5,12-18]. We sought to investigate the impact of missing important life events on quality of life, with the WRQoL scale, among 4th year medical students interviewing for categorical general surgery internship, general surgery residents, and attending general surgeons at a university-affiliated, community academic residency program.

Methods

From November 2019 through January 2020, we conducted a cross-sectional survey study at our institution. All surgical faculty, general surgery residents, and 4th year medical students applying to the program were sent an anonymous survey using REDCap (Research Electronic Data Capture). Survey responses were collected and managed using the REDCap electronic data capture tool. REDCap is a secure, web-based application designed to support data capture for research studies [27].

Survey Instrument

The survey included three main sections: demographic information, missed events data, and the WRQoL scale [28] (Figure 1. and Supplemental Survey Instrument 1-3). The demographic information included age, gender, marital status, family status (children), Post Graduate Year (PGY) level, years in practice, fellowship training, and hours worked per week. The missed events section asked about the number and type of missed events. Respondents were asked to rate the follow statement using a Likert scale (ranging from strongly disagree to strongly agree): "Missing important life events over the last year affected my quality of life." The questions on the survey were developed and reviewed by a panel including a medical student, surgical resident, general surgery program director, and the general surgery research director.

Question Number	WRQoL Factor	WRQoL Question Text
1	JCS	I have a clear set of goals and aims to enable me to do my job.
2	CAW	I feel able to voice opinions and influence changes in my area of work.
3	JCS	I have the opportunity to use my abilities at work.
4	GWB	I feel well at the moment.
5	HWI	My employer provides adequate facilities and flexibility for me to fit work in around my family life.
6	HWI	My current working hours/patterns suit my personal circumstances.
7	SAW	I often feel under pressure at work.
8	JCS	When I have done a good job it is acknowledged by my line manager.
9	GWB	Recently, I have been feeling unhappy and depressed.
10	GWB	I am satisfied with my life.
11	JCS	I am encouraged to develop new skills.
12	CAW	I am involved in decisions that affect me in my own area of work.
13	WCS	My employer provides me with what I need to do my job effectively.
14	HWI	My line manager actively promotes flexible working hours/patterns.
15	GWB	In most ways, my life is close to ideal.
16	WCS	I work in a safe environment.
17	GWB	Generally, things work out well for me.
18	JCS	I am satisfied with the career opportunities available for me here.
19	SAW	I often feel excessive levels of stress at work.
20	JCS	I am satisfied with the training I receive in order to perform my present job.
21	GWB	Recently, I have been feeling reasonably happy all things considered.
22	WCS	The working conditions are satisfactory.
23	CAW	I am involved in decisions that affect members of the public in my own area of work.

Figure 1: 23-Item WRQoL Scale.

The Work-Related Quality of Life (WRQoL) scale is a 23-item peer-reviewed, validated questionnaire that has respondents rate their level of agreeance with a variety of psychosocial statements. The WRQoL scale has undergone test-retest reliability and validation using other well-being and quality of life scales in university, higher education, and health service data sets. The scale provides percentile comparisons using health service and education norms. The results of the survey include an overall full scale WRQoL score and six independent subscales: General Well-Being (GWB), Home-Work Interface (HWI), Job and Career Satisfaction (JCS), Control at Work (CAW), Working Conditions (WCS), and Stress at Work (SAW). The WRQoL was independently scored, using the manual, by two investigators to confirm accurate final scoring of each questionnaire (Supplementary Survey Instrument 4: WRQoL Scale) [28].

Outcomes

The primary outcome was number of important life events missed due to training or work-related obligations during the past year. This was determined using set ranges for number of missed events. The important missed events were defined by type including wedding, holiday, funeral, family or friend birthday, and other event (Supplemental Survey Instrument 1-3). Secondary outcomes were WRQoL overall score and subscales including General Well-Being (GWB), Home-Work Interface (HWI), Job and Career Satisfaction (JCS), Control at Work (CAW), Working Conditions(WCS), and Stress at Work (SAW).

Statistical Analysis

Quantitative data are expressed as the median (minimum, maximum). Nominal data are expressed as a percentage. Comparisons between groups for quantitative variables were performed using the Kruskal-Wallis ANOVA. If significant effects were seen, Dunn’s test of multiple comparisons using rank sums was performed, using the Holm-Sidak modification [29]. Nominal variables were evaluated using the chi-square test or the Fisher’s Exact test, as appropriate. Multiple linear regression was performed, with the score percentiles as the dependent variables in separate equations. The values for GWB, SAW, CAW, HWI, JCS, and WCS were log-transformed prior to the analysis, due to their non-normal distributions. For all equations, the independent variables were number of missed appointments in the past year (reference: none missed) and training status (medical student, resident, or attending; reference: attending). Significance was assessed at p < 0.05. Analyses were performed using Stata v.15.1 (StataCorp, College Station, TX). Institutional Review Board approval was obtained prior to distribution of the anonymous survey.

Table 1: Demographics.

	Medical Students (n=38)	Residents (n=19)	Attendings (n=37)	p-value
Age				<0.001
20-25	10 (26.3)	0 (0)	0 (0)	
26-30	25 (65.8)	14 (73.7)	0 (0)	
31-40	3 (7.9)	5 (26.3)	17 (46.9)	
41-50	0 (0)	0 (0)	9 (24.3)	
51-60	0 (0)	0 (0)	6 (16.2)	
>60	0 (0)	0 (0)	5 (13.5)	
Gender				0.118
Male	17 (44.7)	13 (68.4)	24 (64.9)	
Female	21 (55.23)	6 (31.6)	13 (35.1)	
Marital Status				<0.001
Single	14 (36.8)	3 (15.8)	1 (2.8)	
Married	6 (15.8)	9 (47.4)	34 (94.4)	
In a Relationship	17 (44.7)	7 (36.8)	1 (2.8)	
Divorced	1 (2.6)	0 (0)	0 (0)	
Have Children	3 (7.9)	2 (10.5)	31 (88.6)	<0.001
Hours Worked ^a	60 (40-85)	75 (60-100)	60 (24-90)	<0.001

Categorical variables are expressed as n(%)

Continuous variables are expressed as median (min-max)

^aPairwise comparisons of hours work: medical students vs. residents (p=0.0004), medical students vs. attendings(p=0.4335), and residents vs. attendings (p=0.0005)

Results

Demographics

A total of 94 out of 169 respondents (55.6% response rate) completed the survey. This included 38 medical students, 19 residents and 37 attendings. There were 54 male (57%) and 40 female (43%) respondents. The demographic data are summarized in Table 1. Residents reported the most hours worked per week (median of 75 hours). Of the attending surgeons, 72.2% were fellowship trained, and the most common specialty amongst all faculty respondents was Acute Care Surgery (n=12; 32.4%). Of the residents and medical students, 47.4% and 52.6% planned on pursuing a fellowship. There was similar participation in the survey within each post graduate year (4 PGY1, 4 PGY2, 4 PGY3, 4 PGY4 and 3 PGY5s).

Table 2: Missed Events.

	Medical Students (n=38)	Residents (n=19)	Attendings (n=37)	p-value
Missed Events				0.015
Yes	25 (65.8)	19 (100)	26 (70.3)	
No	13 (34.2)	0 (0)	11 (29.7)	
# Missed Events				0.018
0	13 (34.2)	0 (0)	11 (29.7)	
1-3	7 (18.4)	5 (26.3)	9 (24.3)	
4-6	10 (26.3)	8 (42.1)	12 (32.4)	
7-10	7 (18.4)	6 (31.6)	2 (5.4)	
11-15	1 (2.6)	0 (0)	3 (8.1)	
16-20	0 (0)	0 (0)	0 (0)	
>20	0 (0)	0 (0)	0 (0)	
Type of Events				
Wedding				<0.001
Yes	18 (47.4)	15 (79.0)	9 (24.3)	
No	20 (52.6)	4 (21.1)	28 (75.7)	
Funeral				0.966
Yes	9 (23.7)	4 (21.1)	8 (21.6)	
No	29 (76.3)	15 (79.0)	29 (78.4)	
Holiday				<0.001
Yes	12 (31.6)	17 (89.5)	23 (62.2)	
No	26 (68.4)	2 (10.5)	14 (37.8)	
Family Birthday				0.128
Yes	20 (52.6)	15 (79.0)	20 (54.1)	
No	18 (47.4)	4 (21.1)	17 (46.0)	
Friend Birthday				0.449
Yes	21 (55.3)	12 (63.2)	17 (6.0)	
No	17 (44.7)	7 (36.8)	20 (54.1)	
Other				0.719
Yes	6 (15.8)	2 (10.5)	7 (18.9)	
No	32 (84.2)	17 (89.5)	30 (81.1)	
Affects Quality of Life^b				0.545
Strongly Disagree	2 (5.3)	0 (0)	3 (8.1)	
Disagree	9 (23.7)	5 (26.3)	7 (18.9)	
Neutral	10 (26.3)	5 (26.3)	6 (16.2)	
Agree	15 (39.5)	8 (42.1)	14 (37.8)	
Strongly Agree	2 (5.3)	1 (5.3)	10 (10.6)	

^bStatement on the survey read, "Missing important events during my training affects my quality of life."

Categorical variables are expressed as n(%), continuous variables are expressed as median(min-max)

Missed Events

All surgical residents missed important life events (Table 2). Residents missed more important life events than medical students and attendings (p=0.018). The most common range of missed events reported by residents and attendings during the last year was 4-6 events (42.1% and 32.4% respectively), whereas the most common number of missed events for medical students was zero (34.2%). The frequency and type of missed events are summarized in Table 2. There was not a statistically significant difference in responses to the statement "Missing important events during my training affects my quality of life".

Work-Related Quality of Life (WRQoL) Scale

There was no significant difference in the full scale WRQoL scores between the three groups (Table 3). General Well-Being (GWB) percentile scores in residents were significantly lower when compared to medical students (p=0.001) and attendings (p=0.001). Attending surgeons had the highest median score in three of the six subcategories

Table 3: Work-Related Quality of Life (WRQoL) Questionnaire Results.

	Medical Students (n=38)	Residents (n=19)	Attendings (n=37)	p-value ^c
Full Scale WRQoL	70 (10-99)	60 (10-90)	80 (10-99)	0.189
Subscales of WRQoL				
GWB	85 (10-99)	50 (10-70)	90 (10-99)	<0.001
HWI	40 (10-99)	40 (10-90)	60 (10-99)	0.295
JCS	80 (10-99)	70 (30-99)	80 (10-99)	0.332
CAW	20 (10-99)	60 (10-90)	60 (10-99)	0.056
WCS	80 (10-99)	80 (10-99)	80 (10-99)	0.967
SAW	60 (10-99)	60 (10-99)	80 (10-99)	0.263
WRQoL Question 24^d				0.131
Disagree	1 (2.63)	1 (5.26)	4 (10.81)	
Neutral	7 (18.42)	6 (31.58)	4 (10.81)	
Agree	29 (76.32)	10 (52.63)	23 (62.16)	
Strongly Agree	1 (2.63)	2 (10.53)	6 (16.22)	

General Well-Being (GWB)

Home-Work Interface (HWI)

Job and Career Satisfaction(JCS)

Control at Work (CAW)

Stress at Work (SAW)

Categorical variables are expressed as n(%), continuous variables are expressed as median(min-max)

^cDunn's equality of populations is reported. Pairwise analysis for GWB: medical student vs. resident (p=0.0003), medical student vs. attending (0.4873), and resident vs. attending (0.0003)

^dStatement 24 on questionnaire read, "I am satisfied with the overall quality of my working life"

(GWB, HWI, SAW). Control at Work (CAW) scores in medical students were lower than residents (p=0.052) and attendings (p=0.044). Medical students score in this category was the lowest percentile score (20th percentile) across all three groups and all six WRQoL sub scores. When comparing the results in our study to the WRQoL health service norms [28], residents scored average or below average in all categories except Working Conditions (WCS) and Job and Career Satisfaction (JCS). Statement 24 on the WRQoL questionnaire reads, "I am satisfied with the overall quality of my working life". The majority of all three groups agreed with this statement.

Number of Missed Events and WRQoL

There was a direct negative relationship between the number of missed events and the full-scale WRQoL percentile score (Table 4). Respondents who missed 4-6 events had a reduction in overall WRQoL score by -15.7, meaning they were likely to score 15.7 points lower on the full-scale WRQoL than those who missed zero important events (p=0.047). Those who missed 7-10 events were likely to score 27.6 points lower (p=0.005) and those missing 11-15 events were likely to score 45.4 points lower (p=0.003). There was no difference in the full-scale WRQoL when residents and medical students were compared to attendings. Being a resident was significantly negatively associated with the GWB subscale (p=0.039). Increased number of missed events were negatively associated with the HWI, JCS, and SAW subscales.

Discussion

Lifestyle and family relationships may be impacted by missing important events such as holidays, birthdays, and weddings. Even after the institution of the 80-hour work week, residents were most likely to cite lifestyle and family reasons when leaving training (32% lifestyle concerns and 22% personal/family reasons) [18]. In our study, all surgical residents reported missing important life events due to training over the last year. Residents missed significantly more important life events compared to medical students and attendings. The most common

Table 4: Regression Analysis: Missed Events and Training Level.

Full Scale WRQoL	Coefficient ^e	95% CI	p-value
# Missed Events^f			
1-3	-5.19	-21.87 - 11.50	0.538
4-6	-15.70	-31.15 - (-)0.24	0.047
7-10	-27.64	-46.61 - (-)8.66	0.005
11-15	-45.36	-75.0 - (-)15.71	0.003
Training Level^g			
Medical Student	-2.51	-15.36 - 10.35	0.699
Resident	-7.44	-23.90 - 9.02	0.372
GWB			
# Missed Events^f			
1-3	-0.10	-0.55 - 0.34	0.644
4-6	-0.41	-0.82 - 0.003	0.051
7-10	-0.95	-1.45 - (-)0.44	<0.001
11-15	-1.52	-2.31 - (-)0.73	<0.001
Training Level^g			
Medical Student	0.10	-0.24 - 0.45	0.550
Resident	-0.046	-0.90 - (-)0.025	0.039
HWI			
# Missed Events^f			
1-3	-0.51	-0.98 - (-)0.03	0.037
4-6	-0.65	-1.09 - (-)0.21	0.004
7-10	-0.93	-1.47 - (-)0.400	0.001
11-15	-1.43	-2.27 - (-)0.59	0.001
Training Level^g			
Medical Student	-0.27	-0.63 - 0.098	0.150
Resident	0.001	-0.47 - 0.47	0.997
JCS			
# Missed Events^f			
1-3	6.21	-7.75 - 20.18	0.379
4-6	-3.28	-16.21 - 9.66	0.616
7-10	-5.56	-21.43 - 10.32	0.489
11-15	-24.87	-49.68 - (-)0.072	0.049
Training Level^g			
Medical Student	4.43	-6.32 - 15.19	0.415
Resident	-2.07	-15.85 - 11.70	0.766
CAW			
# Missed Events^f			
1-3	0.26	-0.28 - 0.80	0.344
4-6	0.21	-0.29 - 0.71	0.397
7-10	0.03	-0.58 - 0.65	0.917
11-15	-0.04	-1.00 - 0.92	0.933
Training Level^g			
Medical Student	-0.49	-0.91 - (-)0.079	0.020
Resident	0.083	-0.45 - 0.62	0.756
WCS			
# Missed Events^f			
1-3	5.05	-11.32 - 21.42	0.541
4-6	0.55	-14.61 - 15.71	0.943
7-10	-3.88	-22.49 - 14.7	0.680
11-15	-29.01	-58.09 - 0.067	0.051
Training Level^g			
Medical Student	1.68	-10.92 - 14.29	0.791
Resident	5.76	-10.39 - 21.91	0.480
SAW			
# Missed Events^f			
1-3	-0.16	-0.73 - 0.42	0.594
4-6	-0.30	-0.84 - 0.24	0.270
7-10	-0.84	-1.50 - (-)0.18	0.013

11-15	-1.27	-2.29 - (-)0.24	0.016
Training Level ^g			
Medical Student	0.012	-0.43 - 0.46	0.958
Resident	-0.22	-0.79 - 0.35	0.444
^e Obtained from the regression model			
^f reference variable is no missed events			
^g reference variable is attending			

missed event identified by medical students was friends' birthdays, whereas holidays were the most commonly missed by residents and attendings.

During training, residents often experience significant burnout and may even experience post-traumatic stress disorder related to work-environment, psychological stress, and work-life balance [13,17,20]. Using the WRQoL scale, we demonstrated that there were significantly lower scores in the General Well-Being (GWB) subscale. Residents also scored in the 50th percentile when compared to health professions service norms [28]. However, there was no significant difference in the overall WRQoL scores between the three cohorts. Additionally, all respondents scored in the above average percentiles for Job and Career Satisfaction (JCS) and Working Conditions (WCS). These subscales indicate respondents are content with work and satisfied with working conditions. Similarly, Zubair et al., demonstrated that general surgery residents were satisfied and motivated by their career choice using the subscale score of JCS and WCS [16].

Home-Work Interface (HWI) was lowest in residents and medical students. This is likely due to less control over schedules during those training periods. This could also be impacted by missing important events as HWI is achieved when there is fulfillment with life inside and outside of work [22]. The reduction in HWI percentile but maintenance of Job and Career Satisfaction (JCS) may be related to the focused and driven attitudes of surgical residents and medical students towards success in their career as surgeons. However, work-life imbalance is demonstrated by lower GWB subscale score, which is influenced by work situation, psychological health, and physical health. Furthermore, medical students, residents, and attendings agreed or strongly agreed with the statement "Missing important events during my training affects my quality of life."

While the overall WRQoL scale did not differ across all three levels of training, there was a significant negative relationship to number of important missed events. Respondents who missed more events in the past year were more likely to score lower on the full scale WRQoL percentile. Interestingly, there were several subscales in which number of missed events was associated with lower scores. HWI was negatively impacted by any number of missed events, while JCS was only impacted when there was a higher number of missed events (11-15). There was a significant negative relationship in GWB and SAW as the number of missed events increased. These data demonstrate the association between reduced WRQoL and missing important life events, which is potentially a modifiable risk factor for poor work-life balance during surgical training.

While reduced quality of life is often cited as a reason for surgeon burnout and attrition rates during training [5,12-18], we aimed to quantify a specific factor that could be modified to improve the quality of life at our program. Chen et al. also demonstrated that important missed events during residency, including marriage and childbirth, often changed the experience of the resident [23]. The WRQoL scale is a validated tool used to assess the quality of working life, including several subscale categories. The ability to assess each individual subscale facilitated the identification of lower-than-average percentile scores across all three groups (HWI and GWB). Control at Work (CAW) was also a low scoring area, but only in medical students, as expected. The HWI scores in medical students and residents highlight the imbalanced experience of surgical trainees when participating in

important life events. A reassuring finding of our study is the high WRQoL and subscale scores in surgical attendings. All values were above average except HWI and CAW which fell in the high average percentile. This contradicts the common perception that a surgical career requires the sacrifice of well-being, controllable lifestyle, and work-life balance. Our data demonstrates that overall WRQoL improves as an attending surgeon.

There are limitations to our study. This is a single center survey study at a university-affiliated surgical residency. There is also the potential for recall bias when respondents are asked to report the number of missed events over the last year. Moreover, this study did not ask respondents to rank the importance of events. Future investigation into the impact of missing certain types of events and respondents ranking the importance of each event missed could provide insight into specific programmatic interventions. Additionally, the survey responses may be impacted by recent negative experiences or individuals' perception of their experience. However, the high response rate may indicate the importance of work-life balance to this sample of current and future surgeons.

Finding solutions for work-life imbalance and burnout is a collective approach including program interventions and focused individual interventions [7,21,30]. Following this study, we instituted consideration of individual resident preference for their planned four days off during each rotation with the oversight of the administrative chief resident. Specifically, residents notify the chief resident regarding family and personal birthdays and these days are built into the schedule as days off. Future studies should investigate the impact of interventions on resident well-being and perception of work-life balance. Many other specialties also experience work-life imbalance [19,22,31]. The impact of missing events on quality of life across various specialties and residency programs could validate our findings.

Conclusion

General surgery residents are more likely to miss important life events than surgical attendings and medical student general surgery residency applicants. The number of missed events was negatively associated with Work-Related Quality of Life (WRQoL). The overall WRQoL was similar throughout the general surgery career pathway. However, General Well-Being was significantly higher in attending surgeons.

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Survey 1: Faculty Survey

We are conducting a research study to assess your experience of missing important life events for work related obligations throughout your surgical training. This will include your experience as a medical student, surgical resident, and surgical attending. We will also be assessing quality of life using a validated quality of life scale. Your participation in the study will consist of completing a brief, anonymous questionnaire, which should take approximately 5-10 minutes to complete. All responses will remain anonymous and confidential.

You are under no obligation to participate. If you decide to participate, you may change your mind at any time prior to completing the survey. Be assured, your information will be kept confidential and your responses will not affect your current employment. The results from this study may be used for publication. However, your name will not be used in any reports. Your privacy and confidentiality will be kept to the full extent required by law.

Thank you for your time, your input is valued and appreciated!

Age 20-25
 26-30
 31-40
 41-50
 51-60
 >61

Gender Male
 Female
 Non-Binary
 Other
 Decline to answer

Did you complete a fellowship? Yes
 No

Specialty General Surgery
 Acute Care Surgery
 Trauma Surgery
 Surgical Oncology
 Colorectal Surgery
 Cardiothoracic Surgery
 Breast Surgery
 Pediatric Surgery
 Other

Number of years in practice _____

How many hours do you work per week? _____

Marital Status Single
 Married
 In a relationship
 Divorced
 Other
 Prefer not to answer

Do you have children? Yes
 No
 Prefer not to answer

Have you missed important life events in the last year due to work or work related obligations (weddings, funerals, holidays, birthdays, baby shower, bachelor/bachelorette, other)?

- Yes
 No

Please categorize the missed events. (Select all that apply)

- Weddings
 Funerals
 Holidays
 Birthdays (Family)
 Birthdays (Friends)Other

What other events have you missed?

Please select the total number of important missed events for the last year?

- 1-3
 4-6
 7-10
 11-15
 16-20
 >20

How many important life events do you recall missing as a surgical resident annually?

- none
 1-3
 4-6
 7-10
 11-15
 16-20
 >20

How many important life events do you recall missing as a 4th year medical student annually?

- none
 1-3
 4-6
 7-10
 11-15
 16-20
 >20

Missing important life events over the last year has affected my quality of life.

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

The next section is a Work Related Quality of Life scale (WRQoL).

More information can be found at www.qowl.co.uk

I have a clear set of goals and aims to enable me to do my job

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I feel able to voice opinions and influence changes in my area of work

- Strongly Disagree
 Disagree
 Neutral

I have the opportunity to use my abilities at work

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I feel well at the moment

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My employer provides adequate facilities and flexibility for me to fit work in around my family life

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My current working hours / patterns suit my personal circumstances

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel under pressure at work

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

When I have done a good job it is acknowledged by my line manager

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling unhappy and depressed

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with my life

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am encouraged to develop new skills

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect me in my own area of work

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My employer provides me with what I need to do my job effectively

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My line manager actively promotes flexible working hours / patterns

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

In most ways my life is close to ideal

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I work in a safe environment

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Generally things work out well for me

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the career opportunities available for me here

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel excessive levels of stress at work

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the training I receive in order to perform my present job

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling reasonably happy all things considered

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

The working conditions are satisfactory

Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect members of the public in my own area of work

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I am satisfied with the overall quality of my working life

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Survey 2: 4th Year Medical Student Survey

We are conducting a research study to assess your experience of missing important life events for education related obligations during the 4th year of medical school. This will include your personal experience as a 4th year medical student and your perception of life as a surgical resident and surgical attending. We will also be assessing quality of life using a validated quality of life scale. Your participation in the study will consist of completing a brief, anonymous questionnaire, which should take approximately 5-10 minutes to complete. All responses will remain anonymous and confidential.

You are under no obligation to participate. If you decide to participate, you may change your mind at any time prior to completing the survey. Be assured, your information will be kept confidential and your responses will not affect your future or current employment and/or education. The results from this study may be used for publication. However, your name will not be used in any reports. Your privacy and confidentiality will be kept to the full extent required by law.

Thank you for your time, your input is valued and appreciated!

Age

- 20-25
- 26-30
- 31-40
- 41-50
- 51-60
- >61

Gender

- Male
- Female
- Non-Binary
- Other
- Decline to answer

How many hours do you work per week?

Marital Status

- Single
- Married
- In a relationship
- Divorced
- Other
- Prefer not to answer

Do you have children?

- Yes
- No
- Prefer not to answer

Do you plan on pursuing a fellowship?

- Yes
- No
- Maybe
- Unsure

Have you missed important life events in the last year due to your training (weddings, funerals, holidays, birthdays, baby shower, bachelor/bachelorette, other)?

- Yes
- No

Please categorize the missed events.
(Select all that apply)

- Weddings
- Funerals
- Holidays
- Birthdays (Family)
- Birthdays (Friends)
- Other

What other events have you missed?

Please select the total number of important missed events for the last year?

- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

How many important events would you expect to miss as a surgical resident annually?

- none
- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

How many important life events would you expect to miss as a surgical attending annually?

- none
- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

Missing important life events over the last year has affected my quality of life

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The next section is a Work Related Quality of Life scale (WRQoL).

More information can be found at www.qowl.co.uk

I have a clear set of goals and aims to enable me to do my job

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I feel able to voice opinions and influence changes in my area of work

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I have the opportunity to use my abilities at work

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I feel well at the moment

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

My employer provides adequate facilities and flexibility for me to fit work in around my family life

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My current working hours / patterns suit my personal circumstances

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel under pressure at work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

When I have done a good job it is acknowledged by my line manager

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling unhappy and depressed

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with my life

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am encouraged to develop new skills

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect me in my own area of work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My employer provides me with what I need to do my job effectively

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My line manager actively promotes flexible working hours / patterns

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

In most ways my life is close to ideal

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I work in a safe environment

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Generally things work out well for me

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the career opportunities available for me here

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel excessive levels of stress at work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the training I receive in order to perform my present job

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling reasonably happy all things considered

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

The working conditions are satisfactory

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect members of the public in my own area of work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree
-

I am satisfied with the overall quality of my working life

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Survey 3: Surgical Resident Survey

We are conducting a research study to assess your experience of missing important life events for work related obligations during your surgical training. This will include your experience as a 4th year medical student, surgical resident, and perception of life as a surgical attending. We will also be assessing quality of life using a validated quality of life scale. Your participation in the study will consist of completing a brief, anonymous questionnaire, which should take approximately 5-10 minutes to complete. All responses will remain anonymous and confidential.

You are under no obligation to participate. If you decide to participate, you may change your mind at any time prior to completing the survey. Be assured, your information will be kept confidential and your responses will not affect your current employment. The results from this study may be used for publication. However, your name will not be used in any reports. Your privacy and confidentiality will be kept to the full extent required by law.

Thank you for your time, your input is valued and appreciated!

Age

- 20-25
- 26-30
- 31-40
- 41-50
- 51-60
- >61

Gender

- Male
- Female
- Non-Binary
- Other
- Decline to answer

PGY Level

- 1
- 2
- 3
- 4
- 5
- 6
- Other

How many hours do you work per week?

Marital Status

- Single
- Married
- In a relationship
- Divorced
- Other
- Prefer not to answer

Do you have children?

- Yes
- No
- Prefer not to answer

Do you plan on pursuing a fellowship?

- Yes
- No
- Maybe
- Unsure

Have you missed important life events in the last year due to your training (weddings, funerals, holidays, birthdays, baby shower, bachelor/bachelorette, other)?

- Yes
- No

Please categorize the missed events.
(Select all that apply)

- Weddings
- Funerals
- Holidays
- Birthdays (Family)
- Birthdays (Friends)
- Other

What other events have you missed?

Please select the total number of important missed events for the last year?

- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

How many important events do you recall missing as a 4th year medical student?

- none
- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

How many important life events would you expect to miss as a surgical attending annually?

- none
- 1-3
- 4-6
- 7-10
- 11-15
- 16-20
- >20

Missing important life events over the last year has affected my quality of life.

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

The next section is a Work Related Quality of Life scale (WRQoL).

More information can be found at www.qowl.co.uk

I have a clear set of goals and aims to enable me to do my job

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I feel able to voice opinions and influence changes in my area of work

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I have the opportunity to use my abilities at work

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

I feel well at the moment

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My employer provides adequate facilities and flexibility for me to fit work in around my family life

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My current working hours / patterns suit my personal circumstances

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel under pressure at work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

When I have done a good job it is acknowledged by my line manager

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling unhappy and depressed

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with my life

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am encouraged to develop new skills

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect me in my own area of work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My employer provides me with what I need to do my job effectively

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

My line manager actively promotes flexible working hours / patterns

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

In most ways my life is close to ideal

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I work in a safe environment

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Generally things work out well for me

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the career opportunities available for me here

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I often feel excessive levels of stress at work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the training I receive in order to perform my present job

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

Recently, I have been feeling reasonably happy all things considered

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

The working conditions are satisfactory

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am involved in decisions that affect members of the public in my own area of work

- Strongly Disagree
 Disagree
 Neutral
 Agree
 Strongly Agree

I am satisfied with the overall quality of my working life

- Strongly Disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Survey 4:

Work-Related Quality of Life (WRQoL) Scale

A Measure of Quality of Working Life

FIRST EDITION

Simon Easton & Darren Van Laar
University of Portsmouth, Portsmouth, UK

The Work-Related Quality of Life (WRQoL) scale is a 23-item psychometric scale used to gauge the perceived quality of life of employees as measured through six psychosocial sub-factors. The WRQoL scale is used by individuals, organisations and consultants as well as researchers as an aid to assessing and understanding the quality of working life of working people.

Quality of Working Life (QoWL) aims to capture the essence of an individual's work experience in the broadest sense. The QoWL of an individual is influenced by their direct experience of work and by the direct and indirect factors that affect this experience. From organisational policies to personality, from feelings of general well-being to actual working conditions, an individual's assessment of their Quality of Working Life is affected as much by their job as what he or she brings to the job.

This assessment provides a snapshot of someone's QoWL, and the results should be seen as offering some information which needs to be interpreted within the context of other factors and influences. As such, and as for all psychometric assessments, the results should not be considered in isolation, and undue reliance on the results would be inappropriate. Where there are concerns about someone's work experience, or in relation to the results of this assessment, interpretation and analysis by an appropriate expert consultant should be sought.

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Work-Related Quality of Life (WRQoL) Scale

INSTRUCTIONS

Questionnaire

Please complete the questionnaire, and then use the marking sheet and most relevant personal profile (norm sheet) to interpret your questionnaire results.

Marking Sheet

The WRQoL marking sheet is used to score the individual version of the WRQoL questionnaire. The marking sheet shows how the questionnaire provides values for the 6 WRQoL sub-factors and illustrates how the items contribute to each factor.

Personal Profile (norm) sheets

Once the WRQoL sub factor scores have been derived for an individual, the appropriate Personal Profile sheet can be used to calculate the overall WRQoL score and to determine the percentile sub factor scores compared to a given norm group. The sheets may also be used to produce an individual WRQoL profile.

There are two Profile (norm) sheets – one based on a sample of UK NHS worker, and the other on a larger sample of UK University sector workers. Please use the profile sheet that is most relevant to the occupation of the person or sample being surveyed. If in doubt, please use the sheet with the largest sample (UK HE staff).

These norms are provided for reference, but interpretation of an individual's score should be undertaken with some care and caution, allowing for other personal factors and differences between work groups etc. More information is provided in the User manual for the WRQoL at www.qowl.co.uk.

Personal Record

The personal profile sheet allows interpretation of the WRQoL sub-scales into Higher, Average and Lower ranges when compared to the norm sample data.

The personal record sheet provides a brief description of the WRQoL factors to aid interpretation of the individual profile.

Action Planning

This sheet can be used as the first step towards helping someone use WRQoL questionnaire results to make a difference in the quality of their working life.

The personal record and action planning sheets offer a summary record of the assessment process.


Work-Related Quality of Life (WRQoL) Scale

Questionnaire

This questionnaire is designed to assess your quality of working life. Please do not take too long over each question; we want your first reaction not a long drawn out thought process. Please do not omit any questions. This isn't a test, simply a measure of your attitudes to the factors that influence your experience at work.

Please indicate your answers by filling in the circles like this: , if you make a mistake do this: 

To what extent do you agree with the following? <i>Please fill in the appropriate circle.</i>		Strongly Disagree	Neutral		Strongly Agree
		Disagree	Disagree	Agree	Agree
1.	I have a clear set of goals and aims to enable me to do my job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	I feel able to voice opinions and influence changes in my area of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	I have the opportunity to use my abilities at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	I feel well at the moment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	My employer provides adequate facilities and flexibility for me to fit work in around my family life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	My current working hours / patterns suit my personal circumstances	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	I often feel under pressure at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	When I have done a good job it is acknowledged by my line manager	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	Recently, I have been feeling unhappy and depressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	I am satisfied with my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	I am encouraged to develop new skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	I am involved in decisions that affect <u>me</u> in my own area of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	My employer provides me with what I need to do my job effectively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	My line manager actively promotes flexible working hours / patterns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	In most ways my life is close to ideal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	I work in a safe environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	Generally things work out well for me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	I am satisfied with the career opportunities available for me here	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19.	I often feel excessive levels of stress at work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20.	I am satisfied with the training I receive in order to perform my present job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21.	Recently, I have been feeling reasonably happy all things considered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22.	The working conditions are satisfactory	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23.	I am involved in decisions that affect members of the public in my own area of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24.	I am satisfied with the overall quality of my working life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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Work-Related Quality of Life (WRQoL) Scale

Marking Sheet

- For each question on the WRQoL questionnaire, circle the number in the column headed "Questionnaire responses" below which corresponds to the answer on the questionnaire. Thus, for the example below, the number "2" in the second column corresponding to the position of the ● would be encircled in the table.

		SD	D	N	A	SA
4.	I feel well at the moment	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- Then, for each question, copy the numbers you have circled in the column headed "Questionnaire responses" into the corresponding blank squares in the columns headed **GWB**, **HWI**, etc.
- Next, at the base of each of the columns headed **GWB**, **HWI** etc., calculate the column score in the row **Column total**. **N.B.: all questions need to be answered for the resulting scores to be valid.**

WRQoL Question	Questionnaire responses					GWB	HWI	JCS	CAW	WCS	SAW
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree						
1	1	2	3	4	5						
2	1	2	3	4	5						
3	1	2	3	4	5						
4	1	2	3	4	5						
5	1	2	3	4	5						
6	1	2	3	4	5						
7	5	4	3	2	1						
8	1	2	3	4	5						
9	5	4	3	2	1						
10	1	2	3	4	5						
11	1	2	3	4	5						
12	1	2	3	4	5						
13	1	2	3	4	5						
14	1	2	3	4	5						
15	1	2	3	4	5						
16	1	2	3	4	5						
17	1	2	3	4	5						
18	1	2	3	4	5						
19	5	4	3	2	1						
20	1	2	3	4	5						
21	1	2	3	4	5						
22	1	2	3	4	5						
23	1	2	3	4	5						
24	1	2	3	4	5	q24 is not used to calculate factor scores					
Column Totals											

Next, copy the figures from the **Column total** onto the **WRQoL Scale Personal Profile** sheet.

Work-Related Quality of Life (WRQoL) Scale

Personal Profile

Name..... Date.....

Write the **Column Totals** from the **WRQoL Scale Marking Sheet** in the relevant boxes below. To calculate the overall WRQoL score add up the 6 column totals.

	GWB	HWI	JCS	CAW	WCS	SAW
Column Totals from the WRQoL Marking Sheet						
Full Scale WRQOL Score (total of the six Column Totals)						

Key: **GWB**: General Well-being; **HWI**: Home-Work Interface; **JCS**: Job-Career Satisfaction; **CAW**: Control at Work; **WCS**: Working Conditions; **SAW**: Stress at Work.

For each of the WRQoL factors in the table above, find the equivalent factor column in the table below and circle the corresponding value. You can read off the percentile equivalents in the left hand column of the table below. Higher percentiles indicate a better Quality of Working Life (QoWL). You can create a **WRQoL Profile** by joining your adjacent subscale raw scores. Next, to help you interpret the scores go to the **Work-Related Quality of Life (WRQoL) Scale Personal Record** sheet.

PERCENTILE TABLE <i>UK National Health Service Norms (N = 953)</i>								
PERCENTILES*		GWB	HWI	JCS	CAW	WCS	SAW	Full scale WRQoL
Lower	10	6-18	3-7	6-15	3-8	3-9	2-4	1-66
QoWL	20	19	8-9	17	9			67-72
	30	20		18-19		10		73-74
	40		10	20	10			75-77
Average	50	21		21		11		78-80
QoWL	60		11	22	11		5	81
	70	22		23				82-84
	80	23	12	24	12	12	6	85-86
Higher	90	24	13	25	13	13	7	87-90
QoWL	99	25-30	14-15	26-36	14-15	14-15	8-10	91-100

*

Work-Related Quality of Life (WRQoL) Scale

Personal Profile

Name..... Date.....

Write the **Column Totals** from the **WRQoL Scale Marking Sheet** in the relevant boxes below. To calculate the overall WRQoL score add up the 6 column totals.

	GWB	HWI	JCS	CAW	WCS	SAW
Column Totals from the WRQoL Marking Sheet						
Full Scale WRQOL Score (total of the six Column Totals)						

Key: **GWB**: General Well-being; **HWI**: Home-Work Interface; **JCS**: Job-Career Satisfaction; **CAW**: Control at Work; **WCS**: Working Conditions; **SAW**: Stress at Work.

For each of the WRQoL factors in the table above, find the equivalent factor column in the table below and circle the corresponding value. You can read off the percentile equivalents in the left hand column of the table below. Higher percentiles indicate a better Quality of Working Life (QoWL). You can create a **WRQoL Profile** by joining your adjacent subscale raw scores. Next, to help you interpret the scores go to the **Work-Related Quality of Life (WRQoL) Scale Personal Record** sheet.

PERCENTILE TABLE <i>UK Higher Education Norms (N = 3797)</i>								
PERCENTILES*		GWB	HWI	JCS	CAW	WCS	SAW	Full scale WRQoL
Lower	10	6-13	3-7	6-13	3-7	3-7	2-3	1-56
QoWL	20	14-16	8-9	14-16	8	8-9		57-65
	30	17-18		17-18	9	10	4	66-71
	40	19-20	10	19-20	10		5	72-76
Average	50	21		21		11		77-80
QoWL	60	22-23	11	22	11		6	81-84
	70	24	12	23		12	7	85-88
	80	25	13	24-25	12	13		89-91
Higher	90	26-27	14	26	13	14	8	92-97
QoWL	99	28-30	15	27-36	14-15	15	9-10	98-110

*

Work-Related Quality of Life (WRQoL) Scale

Personal Record

Your name..... Date.....

The Work-Related Quality of Life (WRQoL) Scale is an evidence based measure of Quality of Working Life (QoWL), (Van Laar et al., 2007) based on the following six independent psychosocial subscales.

Circle the box next to each subscale below which matches the range for your score on your Personal Profile.

General Well-Being (GWB)

GWB reflects psychological well-being and general physical health aspects. Your sense of GWB may be more or less independent of your work situation. General well-being both influences, and is influenced by, work. It warrants attention and action where necessary as it is closely linked with your overall Quality of Working Life.

Higher
Average
Lower

Home-Work Interface (HWI)

The degree to which you think the organisation understands and tries to help you with pressures outside of work is measured by this subscale. HWI is related to your work life balance, and is about having a measure of control over when, where and how you work. It is achieved when you feel you have a more fulfilled life inside and outside paid work, to the mutual benefit of you and your work. A poor work-life balance can have negative effects on your well-being.

Higher
Average
Lower

Job and Career Satisfaction (JCS)

This WRQoL subscale reflects the extent to which you are content with your job and prospects at work. JCS is a very important subscale in overall quality of working life. How you score on the JCS subscale relates to whether you feel the workplace provides you with the best things at work - the things that make you feel good, such as: a sense of achievement, high self esteem, fulfilment of potential, etc. The JCS subscale is influenced by clarity of goals and role ambiguity, appraisal, recognition and reward, personal development career benefits and enhancement and training needs.

Higher
Average
Lower

Control at Work WRQoL (CAW)

Lastly, this subscale shows how far you feel you are involved in decisions that affect you at work. Control at Work reflects the level to which you feel you can exercise what you consider to be an appropriate level of control within your work environment. That perception of control might be linked to various aspects of work, including the opportunity to contribute to the process of decision making that affects you. Leading authors in the field suggest that perception of personal control can strongly affect both an individuals' experience of stress and their health.

Higher
Average
Lower

Working Conditions (WCS)

This subscale assesses the extent to which you are satisfied with the conditions in which you work. Your score for the WCS subscale indicates the extent to which you are satisfied with the fundamental resources, working conditions and security necessary to do your job effectively. This includes aspects of the work environment such as noise and temperature, shift patterns and working hours, pay, tools and equipment, safety and security. Dissatisfaction with these aspects can have a significantly adverse effect on your overall WRQoL score.

Higher
Average
Lower

Stress at Work (SAW)

This subscale assesses the extent to which you see work pressures and demands as acceptable and not excessive or „stressful“. The UK Health & Safety Executive (HSE) define stress as: “the adverse reaction people have to excessive pressure or other types of demand placed on them“. Work pressures and demands can be a positive of aspect of our work experience, providing challenge and stimulation, but, where we see them as excessive and beyond our ability to cope, we are likely to feel overloaded and stressed.

Higher
Average
Lower

Now turn the page over and complete the final **Action Planning** section off the procedure

Work-Related Quality of Life (WRQoL) Scale

Action Planning

A large proportion of most peoples' lives will be spent at work. But all too often, we tend to see work as something we just have to put up with, or something we don't expect to enjoy.

Now consider your overall WRQoL score and your scores on the 6 WRQoL subscales.

If one or more of your scores is in the **lower range**, this indicates that, generally, you may be substantially less satisfied with your work life in one or more areas than most people. You probably aren't enjoying work as much as you could, and though some aspects of work may satisfy you, there are issues which warrant attention. You may have to spend some time thinking through the possible reasons for any lower range scores on your WRQoL profile so that you can begin to plan change for the better.

For many people, most of their scores will, of course, be in the **average range**. Where your scores fall into the mid range, it may indicate that your working life overall probably does not provide you with very high levels of satisfaction, but then again you are not wholly dissatisfied either. Consideration of your subscale scores may help you identify areas where you might usefully look to see if there are positive changes you could make. Such changes could result in a higher quality of working life and help you feel good about life in general.

Where you have scores in the **higher range**, you might simply review any areas which are not as satisfactory among the subscale scores and see if there is any action you choose to take. Many scores in the higher range indicates that, generally, your quality of working life is good and satisfying. For you, the key thing is to maintain that good quality of working life – don't take it for granted. It may help to reflect on the subscales that make you feel good about your work.

Mark in the section below the WRQoL areas which warrant some further consideration and or action. Where necessary continue on a separate sheet. In due course you will need to repeat the assessment to see if changes have been effective.

Action Plan

	Lower subscale score?	Possible causes for lower subscale score	Options for action
General Well-Being			
Home-Work Interface			
Job and Career Satisfaction			
Control at Work			
Working Conditions			
Stress at Work			

It may be useful to repeat the assessment process again in the future to monitor progress.

More information can be found at www.qowl.co.uk