

Burnout and Distress among Allied Health Staff in the Peter Munk Cardiac Centre

Barry Rubin MD PhD, Rebecca Goldfarb PhD, Daniel Satele MSc and Leanna Graham, BScPT, MHSc

Background: Burnout has a negative impact on the well being of health care professionals and the treatment they provide. This study documents burnout and distress levels among allied health staff, including pharmacists and physical, respiratory and occupational therapists that practice at a quaternary referral hospital.

Methods: Allied health staff were invited to complete the nine-question Well-Being Index (WBI) survey, which measures fatigue, depression, burnout, anxiety/stress, and mental/physical quality of life. Demographics, work culture items and survey responses were evaluated. Multivariable logistic regression identified independent associations between demographics, workplace characteristics and high WBI scores.

Results: 45/52 (86%) of allied health staff completed the WBI survey, with 64% reporting burnout and emotional problems. Staff who perceived unfair treatment (20/45, 44%) were more likely to report emotional problems (85%, $p=0.03$), worry that work is them hardening them emotionally (75%, $p=0.006$) or feel down, depressed, or hopeless (60%, $p=0.003$). Staff who reported their work was meaningful to them were more likely to be satisfied with the electronic health record ($p=0.046$). A WBI score ≥ 2 or ≥ 5 , indicative of high or severe distress, was endorsed by 56% and 29% of allied health staff, respectively. Being treated fairly in the workplace resulted in an odds ratio for a high WBI score of 0.14 (95% CI 0.029–0.69, $p=0.015$).

Interpretation: The prevalence of burnout, emotional problems and distress is high among allied health staff in the PMCC. Fair treatment in the workplace should lower burnout and distress levels and improve the work experience of allied health staff.

Introduction

Burnout is a work-related syndrome characterized by emotional exhaustion, a sense of reduced personal accomplishment and depersonalization that may manifest as negativity, cynicism, and the inability to express empathy or grief.(1, 2) Healthcare workers that develop burnout experience physical and mental health problems and have increased turnover rates and poor job performance. Burnout adversely affects the quality of care that health care workers provide, and correlates with an increased risk of medical errors, serious safety events, malpractice proceedings, reduced patient satisfaction and worse patient outcomes.(3-8) While many studies have focused on the prevalence and causes of burnout and distress in nurses(4, 9-11) and physicians,(12-14) comparatively fewer studies have addressed these issues among allied health staff, including pharmacists(15, 16) and physical,(17) respiratory(18) and occupational therapists,(19, 20) who are all typically employees of hospitals.

Multiple validated survey instruments, including the Maslach Burnout Index(1, 21) and the Well Being Index (WBI) survey(22, 23) can measure burnout and other dimensions of distress in health care providers. A WBI score ≥ 2 has been used to identify non-physician employees with high levels of overall distress.(22) The WBI survey can identify employees who are doing well (high overall quality of life, high degree of meaning in work, satisfied with work–life balance), and employees whose degree of distress increases the risk of adverse professional consequences.(22)

We used the WBI survey to assess the prevalence of burnout and overall distress among pharmacists and physical, respiratory and occupational therapists at Toronto General Hospital and Toronto Western Hospital that practice in the Peter Munk Cardiac Center (PMCC). The relationship between staff responses to individual WBI survey questions and their gender, years in practice, area of practice, satisfaction with the hospitals electronic health record, perception of the adequacy of staffing levels, being treated fairly in the workplace, work-life integration and meaning in work were evaluated, and the demographic and environmental factors that predicted high employee WBI scores were assessed. Then, we compared responses to the WBI survey endorsed by allied health staff with responses endorsed by nurses and physicians in practice in the PMCC that have completed this survey.

Methods

After placing posters in multiple areas across the PMCC describing the WBI survey (Appendix 1), an independent third party (Canadian Viewpoint) sent e-mail invitations (Appendix 2) to complete the WBI survey to 52 allied health staff, including pharmacists, that practice in the PMCC at Toronto General and Toronto Western Hospitals. Neither UHN or the study authors had access to individual responses to the WBI survey, which were collected by CWS, 3014 Allegro Park LN SW, Rochester, MN 55902 <https://www.mededwebs.com/well-being-index>. The 9 questions in the WBI survey, which assigns a range of scores from -2 to +9 has previously been described.(22, 23) The ability of the WBI survey to measure dimensions of distress,

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3 including fatigue, depression, burnout, anxiety/stress, and mental/physical quality of life has
4 been validated in a sample of 5,392 adult non-physician employees.(22)
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7 Upon completion of the WBI survey questions, allied health staffs received instantaneous
8 feedback via e-mail in the form of a dashboard that quantified each dimension of distress. If a
9 high WBI score indicative of distress was identified, i.e. ≥ 2 (22) the e-mail response to individual
10 study participants included the information required to access to local, regional and provincial
11 resources that provide assistance managing stress and resilience, fatigue, emotional concerns,
12 suicidal thoughts, issues related to relationships and work-life balance, and alcohol or
13 substance abuse.
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16 Statistical analysis. We used standard univariate statistical comparisons using Chi-square or
17 Kruskal-Wallis tests as appropriate to describe this sample of allied health staff in the PMCC.
18 Selected demographics, work culture items and elements of the WBI survey both between and
19 within groups were compared. Multivariable logistic regression was used to identify
20 independent associations between demographic and workplace characteristics and a high WBI
21 survey score, and odds ratios and confidence intervals were calculated for the association of
22 each independent predictor of a high WBI score. We also used univariate and multivariable
23 analysis to compare responses to WBI survey questions endorsed by allied health staff with
24 responses endorsed by nurses and physicians in the PMCC that have completed this survey. All
25 analyses were conducted using SAS Version 9.
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30 Ethics. This study was approved by the University Health Network research ethics board as a
31 quality improvement study.
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34 **Results**

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36 WBI survey response rate and demographics. Of the 52 allied health staff who received a
37 request to complete the WBI survey, which included 37 respiratory, occupation or physical
38 therapists and 17 pharmacists, 45 (87%) responded. We report respondent's gender, years
39 since graduation, years working at Toronto General or Toronto Western Hospital, primary
40 practice location and employment status in Table 1.
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43 Distribution of allied health staff WBI scores. The mean WBI score for all respondents was $2.6 \pm$
44 2.8 (mean \pm SD). Figure 1 shows the proportion of allied health staff endorsing each WBI score.
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47 Response to individual questions in the WBI survey. Thirty three of 52 allied health staff (64%)
48 responded that they felt burned out from their work, 31/52 (60%) noted they were bothered by
49 emotional problems and 17/52 (31%) reported falling asleep while sitting inactive in a public
50 place, while 21/52 (40%) agreed or strongly agreed that their work schedule leaves them
51 enough time for their personal life. Responses to the remaining WBI survey questions appear in
52 Table 2. While univariate analysis did not identify any associations between years since
53 completion of graduate training, years working at Toronto General or Toronto Western Hospital
54 or employment status and any of the individual WBI questions, male allied health staff
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3 appeared to have a lower rate of burnout than female staff (0/3 male, 0% vs 32/41 female,
4 78%, $p = 0.003$).

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7 Next, we evaluated the relationship between the perception allied health staff have of their
8 workplace environment (sufficiency of staffing levels, being treated fairly, and satisfaction with
9 the electronic health record, EHR) and their responses to individual questions in the WBI survey
10 (Table 2). Allied health staff who responded neutral or who somewhat or strongly disagreed
11 that they are treated fairly in the workplace were more likely to be bothered by emotional
12 problems (17/20, 85%, $p = 0.03$), worry that work is them hardening them emotionally (15/20,
13 75%, $p = 0.006$) or feel down, depressed, or hopeless (12/20, 60%, $p = 0.003$).

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17 Allied health staff who agreed or strongly agreed that the work they do is meaningful to them
18 (33/45, 73%) were more likely to be somewhat or very satisfied with the EHR (17/18, 94%) than
19 staff who were neutral or unsatisfied with the EHR (16/26, 62% $p = 0.046$). Allied health staff
20 who agreed or strongly agreed that the work they do is meaningful to them were more likely to
21 disagree (30/36, 83%) than agree (3/8, 38%, $p = 0.012$) that staffing levels in the work setting
22 are sufficient.

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25 Univariate analysis did not identify any associations between staffing levels, satisfaction with
26 the EHR or the perception that their work schedule leaves enough time for personal life and
27 responses to any of the individual WBI survey questions by allied health staff. The number of
28 times allied health staff accessed contact information for local, regional or provincial resources
29 that help manage each element of distress is presented in Figure 2.

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32 Predictors of high WBI scores among allied health staff. Overall, 20/45 (56%) of allied health
33 staff endorsed a WBI score ≥ 2 , and 13/45 (29%) endorsed a WBI score ≥ 5 (Figure 1). Allied
34 health staff were more likely to endorse a WBI score of ≥ 2 if they perceived unfair (17/24, 63%)
35 verses fair treatment in the workplace (9/24, 36%, $p = 0.013$, Table 3). Allied health staff were
36 also more likely to endorse a WBI score of ≥ 2 if they agreed (7/24, 29%) than if they disagreed
37 that staffing levels in the work setting are sufficient (17/24, 71%, $p = 0.04$). We did not identify
38 any relationship between a WBI scores ≥ 2 and the gender of allied health staff or their years
39 since graduation, years working at Toronto General or Toronto Western Hospital, employment
40 status, primary practice location or satisfaction with the EHR.

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42 Multivariate analysis (Table 4) showed that allied health staff who reported being treated fairly
43 in the workplace had an odds ratio for a WBI score ≥ 2 of 0.14 (95% CI 0.029 – 0.69, $p = 0.015$).

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45 Comparison of WBI scores between nurses, physicians and allied health staff in practice in the
46 PMCC. The average WBI score endorsed by allied health staff was 2.6 ± 2.8 ($n=45$), in
47 comparison with 3.6 ± 2.6 ($n=243$) for nurses¹ and 2.4 ± 2.6 ($n=127$) for physicians.² Univariate
48 analysis demonstrated that a high WBI score, i.e. ≥ 2 for allied health or nurses,(23) and ≥ 3 for
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55 ¹ Burnout and Distress among Nurses in the Peter Munk Cardiac Centre. Submitted for publication.

56 ² Burnout and Distress among Physicians in the Peter Munk Cardiac Centre. Submitted for publication.

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3 physicians(22) was more likely to be endorsed by nurses (78%) than by physicians (54%) or
4 allied health staff (56%, $p < 0.0001$, Table 5).
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7 Allied health staff (82%) and nurses (84%) were more likely than physicians (71%) to be neutral
8 or disagree that staffing levels in the work setting are adequate ($p = 0.016$), report burnout
9 [allied health staff (73%), nurses (78%), physicians (65%, $p = 0.04$)], fall asleep in a public place
10 [allied health staff (36%), nurses (38%), physicians (20%, $p = 0.001$)] or note that physical health
11 impaired their ability to work [allied health staff (36%), nurses (45%), physicians (17%, $p <$
12 0.0001 , Table 5).
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15 Nurses were more likely than allied health staff or physicians to report work is hardening them
16 emotionally [nurses (74%), allied health staff (53%), physicians (48%, $p < 0.0001$)], report feeling
17 down, depressed or hopeless [nurses (56%), allied health staff (38%), physicians (29%, $p <$
18 0.0001)] or be bothered by emotional problems [nurses (79%), allied health staff (69%),
19 physicians (53%, $p < 0.0001$)]. Physicians (21%) were less likely to agree that their work
20 schedule leaves enough time for their personal life than allied health staff (47%) or nurses
21 (36%, $p = 0.004$, Table 5).
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25 Multivariable analysis that included data from all responding allied health staff, physicians and
26 nurses in the PMCC identified significant variation in high WBI scores between these groups of
27 health care providers ($p = 0.0003$). Nurses were more likely to endorse a high WBI score than
28 allied health staff (odds ratio 4.2, 95% CI 1.99 – 8.93, $p = 0.0002$). Physicians were also more
29 likely to endorse a high WBI score than allied health staff, but this difference did not reach
30 statistical significance (odds ratio 2.1, 95% CI 0.83 – 5.34, $p = 0.12$, Table 5).
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34 Multivariable analysis also demonstrated that among all responding PMCC staff, the perception
35 of adequate staffing levels and being treated fairly in the workplace made reporting a high WBI
36 score less likely (odds ratio 0.49, 95% CI 0.28 – 0.87, $p = 0.014$ for staffing levels, and odds ratio
37 0.37, 95% CI 0.22 – 0.62, $p = 0.0001$ for fair treatment, Table 6).
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40 Interpretation

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42 Allied health staff, including pharmacists and physical, respiratory and occupational therapists
43 are core members of health care teams. We used the validated 9-item WBI survey, which has
44 been used to measure burnout and distress in multiple groups of health care providers(23-25)
45 and non-physician employees(22) to assess these variables among allied health staff in practice
46 at the PMCC. Sixty-four percent of allied health staff in the PMCC reported burnout, which is
47 similar to the 53% burnout rate reported by health-system pharmacists.(15) Importantly,
48 workplace burnout, as well as organizational climate and job stress are predictors of job
49 retention among pharmacists.(16)
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53 A WBI score ≥ 2 identifies allied health staff with high levels of overall distress, because such
54 scores were associated with a 1.2-fold higher likelihood of poor overall quality of life, 1.2-fold
55 higher likelihood of severe fatigue, 1.3-fold higher likelihood of recent suicidal ideation and 1.3-
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3 fold higher likelihood of burnout in a sample of 5,392 non-physician employees, and equates to
4 a 34% probability of burnout.(22) We interpreted a WBI score ≥ 5 to indicate severe distress
5 among allied health staff, because such scores were associated with a 2.9-fold higher likelihood
6 of poor overall quality of life, 2.3-fold higher likelihood of severe fatigue, 3.2-fold higher
7 likelihood of recent suicidal ideation and 5.7-fold higher likelihood of burnout among
8 employees, and equates to a 69% probability of burnout.(22) While 56% of allied health staff
9 endorsed a WBI score ≥ 2 , and 29% of allied health staff endorsed a WBI score ≥ 5 , findings that
10 document a relatively high prevalence of overall distress, allied health staff had a significantly
11 lower odds of having a high WBI score than their nursing colleagues. The perception of being
12 treated unfairly in the workplace was an independent predictor of a high overall distress scores
13 for allied health staff.
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18 Allied health staff were more likely to find their work to be meaningful if they were satisfied
19 with the EHR. While finding meaning in work may mitigate the relationship between job-related
20 stress and psychological distress,(26-28) we did not identify any correlation between
21 satisfaction with the EHR and the prevalence of burnout or overall distress among allied health
22 staff. The reason that allied health staff were more likely to agree their work was meaningful if
23 they disagreed staffing levels were sufficient is not clear and warrants further study.
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26 This study has multiple limitations. Study participants were restricted to allied health staff that
27 practice in the area of cardiovascular medicine in two quaternary referral hospitals, which could
28 limit the ability to generalize our results. The relatively modest number of respondents could
29 limit study validity, makes type 2 statistical errors more likely, and decreases the potential for
30 the multivariable logistic regression model to yield statistically significant results.
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34 When responses from allied health, nurse and physician staff in the PMCC were considered
35 together, the perception of adequate staffing levels and being treated fairly in the workplace
36 independently predicted lower levels of overall distress. Initiatives that focus on addressing
37 these institutional factors could lower distress levels and burnout among allied health staff as
38 well as physicians and nurses in the PMCC, and could improve their work experience and
39 patient outcomes. The level of burnout and distress identified in this study can be used as a
40 baseline to evaluate the efficacy of interventions that are designed to decrease burnout and
41 distress(14, 29-32) among allied health staff in the PMCC.
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46 Affiliations: Division of Vascular Surgery, Peter Munk Cardiac Centre (Rubin) and Office of
47 Professional Practice & Policy (Graham), Toronto General Hospital, University Health
48 Network; Goldfarb Intelligence Marketing (Goldfarb); Mayo Foundation for Medical Education
49 and Research, Division of Biomedical Statistics and Informatics (Satele).
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52 Contributors: Barry Rubin, Rebecca Goldfarb and Leanna Graham designed the study. Barry
53 Rubin drafted the manuscript. Daniel Satele carried out the statistical analysis. All authors
54 analyzed and interpreted the data, contributed to the study conception, critically revised the
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3 manuscript for important intellectual content, approved the version to be published and agreed
4 to be accountable for all aspects of the work.
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7 Funding: This work was supported by a grant from the Peter Munk Cardiac Centre Innovation
8 Fund.
9

10 Acknowledgements: The authors thanks Liselotte Dyrbye, Professor of Medical Education and
11 Professor of Medicine, Division of Community Internal Medicine, Department of Internal
12 Medicine, Mayo Clinic and Danielle Martin, EVP & Chief Medical Executive, Women's College
13 Hospital for very helpful discussions.
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16 Disclaimer: The funding group had no role in the design, conduct or implementation of the
17 study or manuscript. The authors have no conflict of interest to declare.
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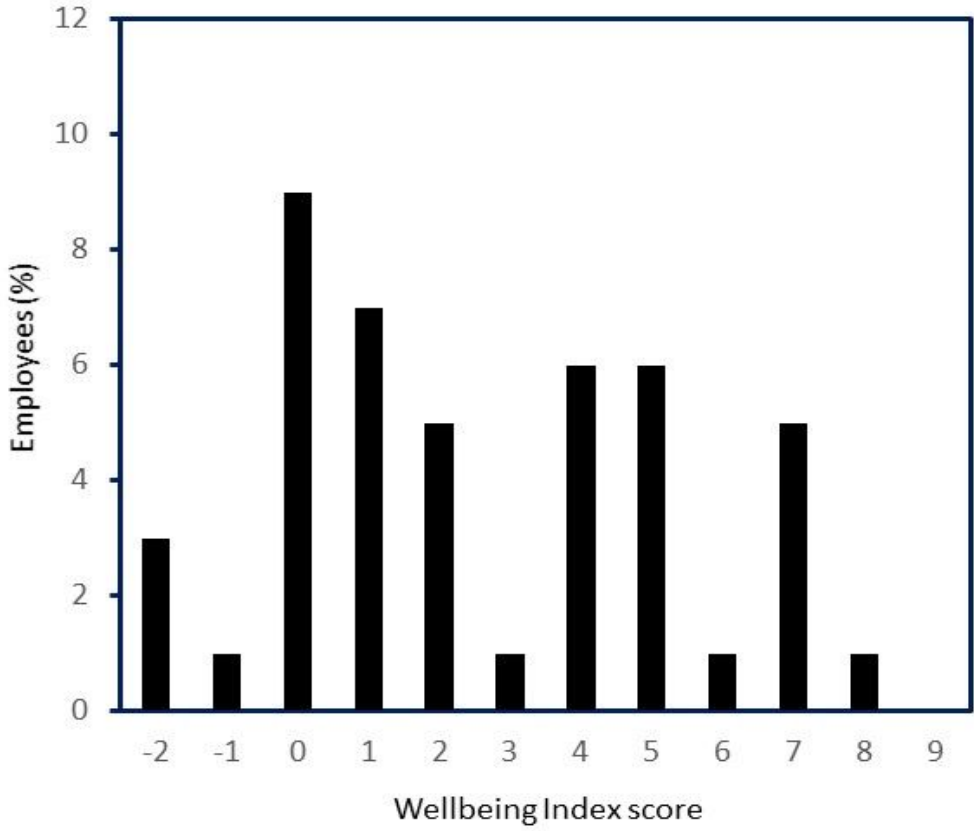


Figure 1. Well-being Index scores among 45 Allied Health staff in the PMCC.

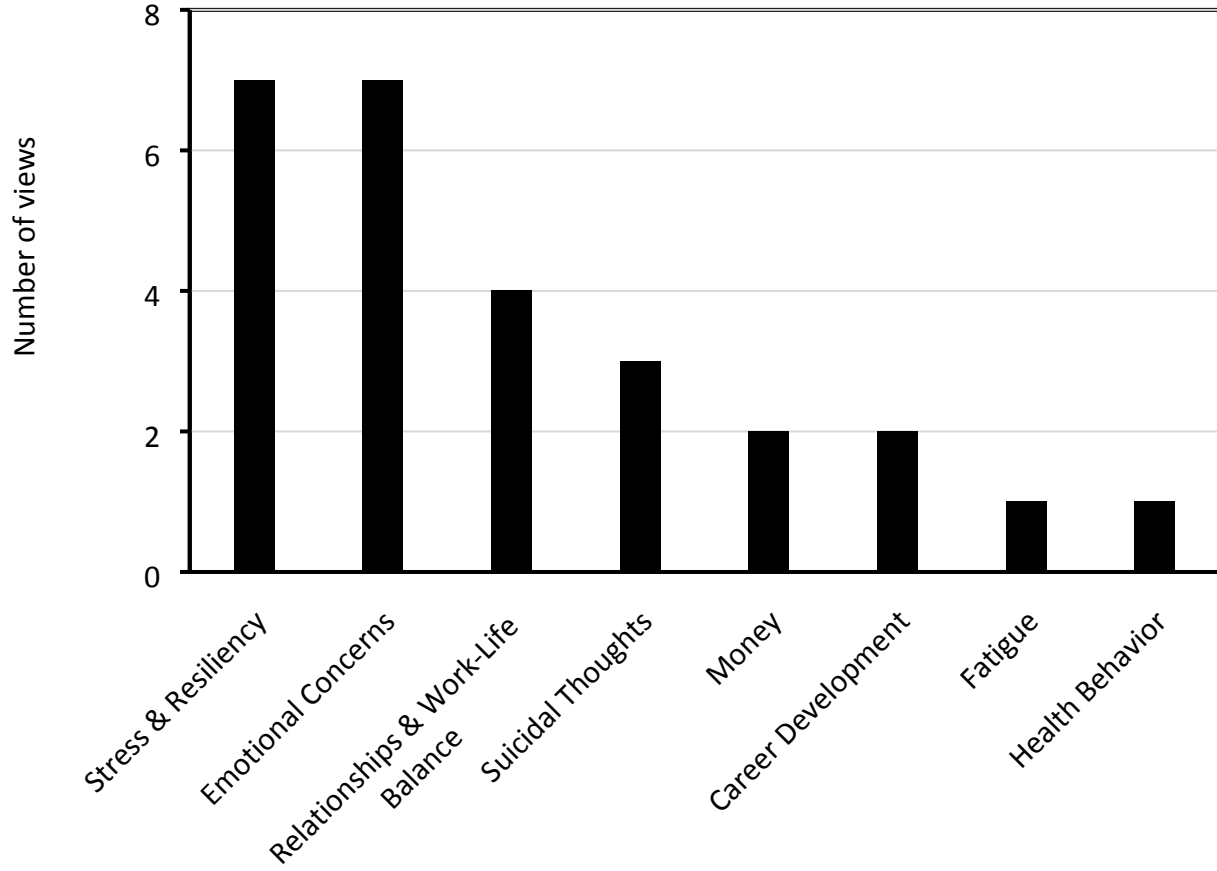


Figure 2. Access to online resources by 45 allied health staff in the PMCC. Number of views, by category.

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3 **Appendix 1.** Poster describing the WBI survey.
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8  **Well-Being Index**
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13 Why?
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- 15  To assess the well-being of clinicians (nurses, allied health,
16 pharmacists, physicians) at PMCC.
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20 What?
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- 22  The Well-Being Index is a web-based tool that evaluates multiple
23 dimensions of your well-being.
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25  You will receive your own individual results. Your responses and
26 your dashboard of results are **completely anonymous and**
27 **confidential.**
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31  PMCC will only receive aggregate anonymous data. This data will
32 help us focus on caring for our caregivers.
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38 When?
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- 40  You will receive an email invitation from Canadian Viewpoint with
41 the subject line “Invitation to use the Well-Being Index”.
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43  The email invitation will have information and instructions that
44 explain how to complete the Well-Being Index.
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48 Thank you for participating in this important survey.
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Appendix 2. E-mail invitation to participate in the Well-Being Index survey.

Email Subject line: Well-Being Index Survey



Your well-being is vital to patients' outcomes. Assess your well-being and compare your results.

We are sending this note as an invitation to participate in our very important survey on allied health staff and pharmacist well-being. We are undertaking this survey because we are committed to supporting the well-being of all our clinicians.

Setting up an account is easy and completing the index takes just a few minutes.

Assess Your Well-Being Online:

<https://www.mywellbeingindex.org/signup>

Invitation Code: **UHN ALLIED HEALTH STAFF**

Download the Well-Being Index Mobile App



What is the Well-Being Index?

The Well-Being Index is a **100 percent anonymous**, web-based tool that evaluates multiple dimensions of your well-being. This tool allows users to compare their scores to clinicians at other hospitals, and to track their own well-being over time. After completing the on-line survey, which takes about 3 minutes, you will immediately receive your **confidential** results in the form of a dashboard. The survey also provides important contact information and resources, should you require further assistance. PMCC will receive aggregate, anonymous data that will help us focus on caring for our caregivers, including developing new ways to improve clinician well-being and decrease clinician burnout.

Confidentiality of Results

It is important to emphasize that your individual responses and your dashboard of results are **completely anonymous and confidential**. It will not be possible for the PMCC, UHN or Canadian Viewpoint, the independent company that is sending you this link to complete the Well-Being

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3 Index survey, to see or obtain this information. UHN Human Resources and the UHN Digital and
4 Privacy Office have vetted and approved this approach to ensure that your results remain private.
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Table 1. Allied Healthstaff demographics

Gender	n (%)	When did you graduate from your field	n (%)	When did you begin working at UHN	n (%)	Employment status	n (%)
Male	3 (6.8%)	< 2	1 (2.2%)	< 2	3 (6.7%)	Full-time permanent	39 (86.7%)
Female	41 (93.2%)	2 - 5	10 (22.2%)	2 - 5	12 (26.7%)	Part-time permanent	4 (8.9%)
Gender Diverse	0 (0.0%)	6 - 10	10 (22.2%)	6 - 10	10 (22.2%)	Casual, temp, other	2 (4.4%)
Missing	1	11 - 15	11 (24.4%)	11 - 15	9 (20.0%)	Missing	0
		> 15	13 (28.9%)	> 15	11 (24.4%)		

Table 2. Allied health response to individual WBI survey questions	Have you felt burned out from your work			Have you worried that work is hardening you emotionally			Have you often felt bothered by feeling down, depressed, or hopeless			Have you fallen asleep while sitting inactive in a public place			Have you felt that things were piling up so high you could not overcome them			Have you been bothered by emotional problems			Has physical health interfered with your ability to do daily work			Work I do is meaningful to me (categorized)				Work schedule leaves enough time for personal life (categorized)				
	Yes (N=33)	No (N=12)	P-value ¹	Yes (N=24)	No (N=21)	P-value	Yes (N=17)	No (N=28)	P-value	Yes (N=16)	No (N=29)	P-value	Yes (N=19)	No (N=26)	P-value	Yes (N=31)	No (N=14)	P-value	Yes (N=16)	No (N=29)	P-value	1-2 (N=1)	3-5 (N=10)	6-7 (N=34)	P-value	1-2 (N=14)	3 (N=10)	4-5 (N=21)	P-value	
Gender, n (%)	0.0034			0.50			0.18			0.22			0.14			0.95			0.20			0.83				0.61				
Male	0 (0.0%)	3 (100.0%)		1 (33.3%)	2 (66.7%)		0 (0.0%)	3 (100.0%)		2 (66.7%)	1 (33.3%)		0 (0.0%)	3 (100.0%)		2 (66.7%)	1 (33.3%)		0 (0.0%)	3 (100.0%)		0 (0.0%)	1 (33.3%)	2 (66.7%)		1 (33.3%)	0 (0.0%)	2 (66.7%)		
Female	32 (78.0%)	9 (22.0%)		22 (53.7%)	19 (46.3%)		16 (39.0%)	25 (61.0%)		13 (31.7%)	28 (68.3%)		18 (43.9%)	23 (56.1%)		28 (68.3%)	13 (31.7%)		15 (36.6%)	26 (63.4%)		1 (2.4%)	8 (19.5%)	32 (78.0%)		12 (29.3%)	10 (24.4%)	19 (46.3%)		
Gender Diverse																														
Missing	1	0		1	0		1	0		1	0		1	0		1	0		1	0		0	1	0		1	0	0		
When did you graduate from your field, n (%)	0.10			0.56			0.88			0.32			0.80			0.42			0.08			0.70				0.22				
<2 years	0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		1 (100.0%)	0 (0.0%)		1 (100.0%)	0 (0.0%)		0 (0.0%)	0 (0.0%)	1 (100.0%)		0 (0.0%)	0 (0.0%)	1 (100.0%)		
2-5 years	6 (60.0%)	4 (40.0%)		4 (40.0%)	6 (60.0%)		4 (40.0%)	6 (60.0%)		5 (50.0%)	5 (50.0%)		4 (40.0%)	6 (60.0%)		9 (90.0%)	1 (10.0%)		2 (20.0%)	8 (80.0%)		0 (0.0%)	2 (20.0%)	8 (80.0%)		1 (10.0%)	2 (20.0%)	7 (70.0%)		
6-10 years	9 (90.0%)	1 (10.0%)		7 (70.0%)	3 (30.0%)		4 (40.0%)	6 (60.0%)		5 (50.0%)	5 (50.0%)		4 (40.0%)	6 (60.0%)		7 (70.0%)	3 (30.0%)		6 (60.0%)	4 (40.0%)		0 (0.0%)	2 (20.0%)	8 (80.0%)		3 (30.0%)	2 (20.0%)	5 (50.0%)		
11-15 years	10 (90.9%)	1 (9.1%)		6 (54.5%)	5 (45.5%)		5 (45.5%)	6 (54.5%)		4 (36.4%)	7 (63.6%)		4 (36.4%)	7 (63.6%)		6 (54.5%)	5 (45.5%)		5 (45.5%)	6 (54.5%)		1 (9.1%)	4 (36.4%)	6 (54.5%)		4 (36.4%)	5 (45.5%)	2 (18.2%)		
16+ years	8 (61.5%)	5 (38.5%)		7 (53.8%)	6 (46.2%)		4 (30.8%)	9 (69.2%)		2 (15.4%)	11 (84.6%)		7 (53.8%)	6 (46.2%)		8 (61.5%)	5 (38.5%)		2 (15.4%)	11 (84.6%)		0 (0.0%)	2 (15.4%)	11 (84.6%)		6 (46.2%)	1 (7.7%)	6 (46.2%)		
When did you begin working at UHN, n (%)	0.36			0.37			0.33			0.12			0.31			0.17			0.62			0.58				0.23				
<2 years	1 (33.3%)	2 (66.7%)		1 (33.3%)	2 (66.7%)		0 (0.0%)	3 (100.0%)		2 (66.7%)	1 (33.3%)		1 (33.3%)	2 (66.7%)		3 (100.0%)	0 (0.0%)		1 (33.3%)	2 (66.7%)		0 (0.0%)	0 (0.0%)	3 (100.0%)		1 (33.3%)	0 (0.0%)	2 (66.7%)		
2-5 years	9 (75.0%)	3 (25.0%)		5 (41.7%)	7 (58.3%)		7 (58.3%)	5 (41.7%)		4 (33.3%)	8 (66.7%)		6 (50.0%)	6 (50.0%)		11 (91.7%)	1 (8.3%)		6 (50.0%)	6 (50.0%)		0 (0.0%)	2 (16.7%)	10 (83.3%)		1 (8.3%)	4 (33.3%)	7 (58.3%)		
6-10 years	8 (80.0%)	2 (20.0%)		8 (80.0%)	2 (20.0%)		4 (40.0%)	6 (60.0%)		6 (60.0%)	4 (40.0%)		2 (20.0%)	8 (80.0%)		6 (60.0%)	4 (40.0%)		4 (40.0%)	6 (60.0%)		0 (0.0%)	3 (30.0%)	7 (70.0%)		4 (40.0%)	1 (10.0%)	5 (50.0%)		
11-15 years	8 (88.9%)	1 (11.1%)		4 (44.4%)	5 (55.6%)		3 (33.3%)	6 (66.7%)		3 (33.3%)	6 (66.7%)		3 (33.3%)	6 (66.7%)		5 (55.6%)	4 (44.4%)		3 (33.3%)	6 (66.7%)		1 (11.1%)	3 (33.3%)	5 (55.6%)		2 (22.2%)	4 (44.4%)	3 (33.3%)		
16+ years	7 (63.6%)	4 (36.4%)		6 (54.5%)	5 (45.5%)		3 (27.3%)	8 (72.7%)		1 (9.1%)	10 (90.9%)		7 (63.6%)	4 (36.4%)		6 (54.5%)	5 (45.5%)		2 (18.2%)	9 (81.8%)		0 (0.0%)	2 (18.2%)	9 (81.8%)		6 (54.5%)	1 (9.1%)	4 (36.4%)		
Employment status at UNH, n (%)	0.056			0.29			0.43			0.19			0.080			0.21			0.83			0.64				0.25				
Full-time permanent	30 (76.9%)	9 (23.1%)		22 (56.4%)	17 (43.6%)		16 (41.0%)	23 (59.0%)		12 (30.8%)	27 (69.2%)		19 (48.7%)	20 (51.3%)		25 (64.1%)	14 (35.9%)		14 (35.9%)	25 (64.1%)		1 (2.6%)	8 (20.5%)	30 (76.9%)		14 (35.9%)	8 (20.5%)	17 (43.6%)		
Part-time permanent	3 (75.0%)	1 (25.0%)		2 (50.0%)	2 (50.0%)		1 (25.0%)	3 (75.0%)		3 (75.0%)	1 (25.0%)		0 (0.0%)	4 (100.0%)		4 (100.0%)	0 (0.0%)		1 (25.0%)	3 (75.0%)		0 (0.0%)	2 (50.0%)	2 (50.0%)		0 (0.0%)	2 (50.0%)	2 (50.0%)		
Casual, temp, other	0 (0.0%)	2 (100.0%)		0 (0.0%)	2 (100.0%)		0 (0.0%)	2 (100.0%)		1 (50.0%)	1 (50.0%)		0 (0.0%)	2 (100.0%)		2 (100.0%)	0 (0.0%)		1 (50.0%)	1 (50.0%)		0 (0.0%)	0 (0.0%)	2 (100.0%)		0 (0.0%)	0 (0.0%)	2 (100.0%)		
Missing	0	0		0	0		0	0		0	0		0	0		0	0		0	0		0	0	0		0	0	0		
Rate satisfaction with EMR, n (%)	0.31			0.20			0.47			0.70			0.85			0.92			0.084			0.13				0.60				
Very unsatisfied	4 (57.1%)	3 (42.9%)		2 (28.6%)	5 (71.4%)		1 (14.3%)	6 (85.7%)		2 (28.6%)	5 (71.4%)		4 (57.1%)	3 (42.9%)		4 (57.1%)	3 (42.9%)		0 (0.0%)	7 (100.0%)		0 (0.0%)	1 (14.3%)	6 (85.7%)		2 (28.6%)	1 (14.3%)	4 (57.1%)		
Somewhat unsatisfied	8 (80.0%)	2 (20.0%)		8 (80.0%)	2 (20.0%)		4 (40.0%)	6 (60.0%)		5 (50.0%)	5 (50.0%)		4 (40.0%)	6 (60.0%)		7 (70.0%)	3 (30.0%)		4 (40.0%)	6 (60.0%)		1 (10.0%)	5 (50.0%)	4 (40.0%)		3 (30.0%)	4 (40.0%)	3 (30.0%)		
Neutral	6 (66.7%)	3 (33.3%)		5 (55.6%)	4 (44.4%)		5 (55.6%)	4 (44.4%)		4 (44.4%)	5 (55.6%)		4 (44.4%)	5 (55.6%)		6 (66.7%)	3 (33.3%)		6 (66.7%)	3 (33.3%)		0 (0.0%)	3 (33.3%)	6 (66.7%)		4 (44.4%)	2 (22.2%)	3 (33.3%)		
Somewhat satisfied	14 (82.4%)	3 (17.6%)		8 (47.1%)	9 (52.9%)		6 (35.3%)	11 (64.7%)		5 (29.4%)	12 (70.6%)		7 (41.2%)	10 (58.8%)		12 (70.6%)	5 (29.4%)		6 (35.3%)	11 (64.7%)		0 (0.0%)	1 (5.9%)	16 (94.1%)		4 (23.5%)	3 (17.6%)	10 (58.8%)		
Very satisfied	0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	1 (100.0%)		1 (100.0%)	0 (0.0%)		0 (0.0%)	1 (100.0%)		0 (0.0%)	0 (0.0%)	1 (100.0%)		1 (100.0%)	0 (0.0%)	0 (0.0%)		
Missing	1	0		1	0		1	0		0	1		0	1		1	0		0	1		0	0	1		0	0	1		
Somewhat / very satisfied with HER (vs. neutral / unsatisfied), n(%)	0.53			0.39			0.73			0.32			0.63			0.63			0.73			0.046				0.51				
Yes	14 (77.8%)	4 (22.2%)		8 (44.4%)	10 (55.6%)		6 (33.3%)	12 (66.7%)		5 (27.8%)	13 (72.2%)		7 (38.9%)	11 (61.1%)		13 (72.2%)	5 (27.8%)		6 (33.3%)	12 (66.7%)		0 (0.0%)	1 (5.6%)	17 (94.4%)		5 (27.8%)	3 (16.7%)	10 (55.6%)		
No	18 (69.2%)	8 (30.8%)		15 (57.7%)	11 (42.3%)		10 (38.5%)	16 (61.5%)		11 (42.3%)	15 (57.7%)		12 (46.2%)	14 (53.8%)		17 (65.4%)	9 (34.6%)		10 (38.5%)	16 (61.5%)		1 (3.8%)	9 (34.6%)	16 (61.5%)		9 (34.6%)	7 (26.9%)	10 (38.5%)		
Missing	1	0		1	0		1	0		0	1		0	1		1	0		0	1		0	0	1		0	0	1		
Staffing levels in this work setting are sufficient, n (%)	0.20			0.063			0.28			0.70			0.13			0.69			0.62			0.10				0.62				
Disagree strongly	9 (81.8%)	2 (18.2%)		8 (72.7%)	3 (27.3%)		6 (54.5%)	5 (45.5%)		4 (36.4%)	7 (63.6%)		7 (63.6%)	4 (36.4%)		9 (81.8%)	2 (18.2%)		5 (45.5%)	6 (54.5%)		1 (9.1%)	1 (9.1%)	9 (81.8%)		4 (36.4%)	2 (18.2%)	5 (45.5%)		

1	Disagree somewhat	15 (71.4%)	6 (28.6%)	9 (42.9%)	12 (57.1%)	5 (23.8%)	16 (76.2%)	7 (33.3%)	14 (66.7%)	5 (23.8%)	16 (76.2%)	13 (61.9%)	8 (38.1%)	7 (33.3%)	14 (66.7%)	0 (0.0%)	4 (19.0%)	17 (81.0%)	7 (33.3%)	4 (19.0%)	10 (47.6%)	
2	Neutral	1 (25.0%)	3 (75.0%)	0 (0.0%)	4 (100.0%)	1 (25.0%)	3 (75.0%)	1 (25.0%)	3 (75.0%)	2 (50.0%)	2 (50.0%)	3 (75.0%)	1 (25.0%)	3 (75.0%)	1 (25.0%)	3 (75.0%)	0 (0.0%)	0 (0.0%)	4 (100.0%)	0 (0.0%)	1 (25.0%)	3 (75.0%)
3	Agree somewhat	6 (85.7%)	1 (14.3%)	5 (71.4%)	2 (28.6%)	3 (42.9%)	4 (57.1%)	3 (42.9%)	4 (57.1%)	4 (57.1%)	3 (42.9%)	4 (57.1%)	3 (42.9%)	2 (28.6%)	5 (71.4%)	0 (0.0%)	4 (57.1%)	3 (42.9%)	2 (28.6%)	3 (42.9%)	2 (28.6%)	
4	Agree strongly	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	
5	Missing	1	0	1	0	1	0	0	1	0	1	1	0	0	1	0	0	1	0	0	1	
7	Somewhat / strongly agree staffing levels in work setting are adequate (vs. neutral / disagree, n(%))	0.30		0.15		0.38		0.38		0.22		0.70		0.94		0.012			0.38			
10	Yes	7 (87.5%)	1 (12.5%)	6 (75.0%)	2 (25.0%)	4 (50.0%)	4 (50.0%)	4 (50.0%)	4 (50.0%)	5 (62.5%)	3 (37.5%)	5 (62.5%)	3 (37.5%)	3 (37.5%)	5 (62.5%)	0 (0.0%)	5 (62.5%)	3 (37.5%)	3 (37.5%)	3 (37.5%)	2 (25.0%)	
11	No	25 (69.4%)	11 (30.6%)	17 (47.2%)	19 (52.8%)	12 (33.3%)	24 (66.7%)	12 (33.3%)	24 (66.7%)	14 (38.9%)	22 (61.1%)	25 (69.4%)	11 (30.6%)	13 (36.1%)	23 (63.9%)	1 (2.8%)	5 (13.9%)	30 (83.3%)	11 (30.6%)	7 (19.4%)	18 (50.0%)	
12	Missing	1	0	1	0	1	0	0	1	0	1	1	0	0	1	0	0	1	0	0	1	
14	I am treated fairly in the workplace, n (%)	0.86		0.044		0.063		0.82		0.69		0.20		0.85		0.27			0.89			
16	Disagree strongly	6 (75.0%)	2 (25.0%)	6 (75.0%)	2 (25.0%)	5 (62.5%)	3 (37.5%)	4 (50.0%)	4 (50.0%)	2 (25.0%)	6 (75.0%)	6 (75.0%)	2 (25.0%)	4 (50.0%)	4 (50.0%)	0 (0.0%)	2 (25.0%)	6 (75.0%)	3 (37.5%)	2 (25.0%)	3 (37.5%)	
17	Disagree somewhat	5 (71.4%)	2 (28.6%)	6 (85.7%)	1 (14.3%)	4 (57.1%)	3 (42.9%)	3 (42.9%)	4 (57.1%)	4 (57.1%)	3 (42.9%)	7 (100.0%)	0 (0.0%)	3 (42.9%)	4 (57.1%)	1 (14.3%)	3 (42.9%)	3 (42.9%)	3 (42.9%)	1 (14.3%)	3 (42.9%)	
18	Neutral	4 (80.0%)	1 (20.0%)	3 (60.0%)	2 (40.0%)	3 (60.0%)	2 (40.0%)	1 (20.0%)	4 (80.0%)	3 (60.0%)	2 (40.0%)	4 (80.0%)	1 (20.0%)	2 (40.0%)	3 (60.0%)	0 (0.0%)	2 (40.0%)	3 (60.0%)	2 (40.0%)	2 (40.0%)	1 (20.0%)	
19	Agree somewhat	11 (64.7%)	6 (35.3%)	7 (41.2%)	10 (58.8%)	3 (17.6%)	14 (82.4%)	6 (35.3%)	11 (64.7%)	7 (41.2%)	10 (58.8%)	9 (52.9%)	8 (47.1%)	5 (29.4%)	12 (70.6%)	0 (0.0%)	2 (11.8%)	15 (88.2%)	5 (29.4%)	3 (17.6%)	9 (52.9%)	
20	Agree strongly	6 (85.7%)	1 (14.3%)	1 (14.3%)	6 (85.7%)	1 (14.3%)	6 (85.7%)	2 (28.6%)	5 (71.4%)	3 (42.9%)	4 (57.1%)	4 (57.1%)	3 (42.9%)	2 (28.6%)	5 (71.4%)	0 (0.0%)	1 (14.3%)	6 (85.7%)	1 (14.3%)	2 (28.6%)	4 (57.1%)	
21	Missing	1	0	1	0	1	0	0	1	0	1	1	0	0	1	0	0	1	0	0	1	
25	Somewhat / strongly agree I am treated fairly (vs. neutral / disagree), n (%)	0.76		0.0059		0.0029		0.65		0.82		0.029		0.28		0.094			0.42			
27	Yes	17 (70.8%)	7 (29.2%)	8 (33.3%)	16 (66.7%)	4 (16.7%)	20 (83.3%)	8 (33.3%)	16 (66.7%)	10 (41.7%)	14 (58.3%)	13 (54.2%)	11 (45.8%)	7 (29.2%)	17 (70.8%)	0 (0.0%)	3 (12.5%)	21 (87.5%)	6 (25.0%)	5 (20.8%)	13 (54.2%)	
28	No	15 (75.0%)	5 (25.0%)	15 (75.0%)	5 (25.0%)	12 (60.0%)	8 (40.0%)	8 (40.0%)	12 (60.0%)	9 (45.0%)	11 (55.0%)	17 (85.0%)	3 (15.0%)	9 (45.0%)	11 (55.0%)	1 (5.0%)	7 (35.0%)	12 (60.0%)	8 (40.0%)	5 (25.0%)	7 (35.0%)	
29	Missing	1	0	1	0	1	0	0	1	0	1	1	0	0	1	0	0	1	0	0	1	

Table 3. Predictors of high WBI scores, allied health staff.

	WBI Score \geq 2		P-value ¹
	Yes (N=25)	No (N=20)	
Gender, n (%)			0.44
Male	1 (33.3%)	2 (66.7%)	
Female	23 (56.1%)	18 (43.9%)	
Gender Diverse			
Missing	1	0	
When did you graduate, n (%)			0.71
< 2 years	0 (0.0%)	1 (100.0%)	
2-5 years	6 (60.0%)	4 (40.0%)	
6-10 years	6 (60.0%)	4 (40.0%)	
11-15 years	7 (63.6%)	4 (36.4%)	
> 15 years	6 (46.2%)	7 (53.8%)	
When did you begin working at UHN, n (%)			0.57
< 2 years	1 (33.3%)	2 (66.7%)	
2-5 years	8 (66.7%)	4 (33.3%)	
6-10 years	7 (70.0%)	3 (30.0%)	
11-15 years	4 (44.4%)	5 (55.6%)	
> 15 years	5 (45.5%)	6 (54.5%)	
Employment status at UNH, n (%)			0.25
Full-time permanent	23 (59.0%)	16 (41.0%)	
Part-time permanent	2 (50.0%)	2 (50.0%)	
Casual, temp, other	0 (0.0%)	2 (100.0%)	
Missing	0	0	

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Rate satisfaction with EMR, n (%)			0.073
Very unsatisfied	2 (28.6%)	5 (71.4%)	
Somewhat unsatisfied	9 (90.0%)	1 (10.0%)	
Neutral	5 (55.6%)	4 (44.4%)	
Somewhat satisfied	8 (47.1%)	9 (52.9%)	
Very satisfied	0 (0.0%)	1 (100.0%)	
Missing	1	0	
Somewhat / very satisfied with EMR (vs. neutral / unsatisfied), n (%)			0.26
Yes	8 (44.4%)	10 (55.6%)	
No	16 (61.5%)	10 (38.5%)	
Missing	1	0	
Staffing levels in this work setting are sufficient, n (%)			0.068
Disagree strongly	8 (72.7%)	3 (27.3%)	
Disagree somewhat	8 (38.1%)	13 (61.9%)	
Neutral	1 (25.0%)	3 (75.0%)	
Agree somewhat	6 (85.7%)	1 (14.3%)	
Agree strongly	1 (100.0%)	0 (0.0%)	
Missing	1	0	
Somewhat / strongly agree staffing levels in work setting are adequate (vs. neutral / disagree), n (%)			0.039
Yes	7 (87.5%)	1 (12.5%)	
No	17 (47.2%)	19 (52.8%)	
Missing	1	0	

I am treated fairly in the workplace, n (%)			0.12
Disagree strongly	5 (62.5%)	3 (37.5%)	
Disagree somewhat	6 (85.7%)	1 (14.3%)	
Neutral	4 (80.0%)	1 (20.0%)	
Agree somewhat	7 (41.2%)	10 (58.8%)	
Agree strongly	2 (28.6%)	5 (71.4%)	
Missing	1	0	
Somewhat / strongly agree I am treated fairly (vs. neutral / disagree, n (%)			0.013
Yes	9 (37.5%)	15 (62.5%)	
No	15 (75.0%)	5 (25.0%)	
Missing	1	0	

¹Chi-Square p-value.

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Table 4. Multivariable model for factors associated with a WBI score ≥ 2 for allied health staff.

Effect (reference)	Odds Ratio	95% Confidence Limits		P-value
Male (vs. female)	3.52	0.19	64.3	0.40
0-15 years since grad (vs. 16+)	2.99	0.46	19.3	0.25
0-5 years at UHN (vs. 6+)	1.65	0.28	9.78	0.58
Non full-time, permanent (vs. full-time, permanent)	0.36	0.03	3.86	0.40
Satisfied with EMR (vs. not)	0.52	0.11	2.42	0.41
Staffing levels are adequate (vs. not)	9.62	0.85	108.5	0.07
Treated fairly (vs. not)	0.14	0.03	0.69	0.02

Confidential

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2 **Table 5. Allied health, physician and nurse responses to the WBI survey.**
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4	5	6	7	8
	Allied Health (N=45)	Physicians (N=127)	Nurses (N=242)	P-value
9	Gender, n (%)			<.0001
10	Male	3 (6.8%)	90 (71.4%)	31 (13.0%)
11	Female	41 (93.2%)	36 (28.6%)	206 (86.6%)
12	Gender Diverse	0 (0.0%)	0 (0.0%)	1 (0.4%)
13	Missing	1	1	4
14	When did you graduate from your field n (%)			<.0001
15	<2 years	1 (2.2%)	0 (0.0%)	14 (5.8%)
16	2-5 years	10 (22.2%)	3 (2.4%)	32 (13.2%)
17	6-10 years	10 (22.2%)	14 (11.0%)	39 (16.1%)
18	11-15 years	11 (24.4%)	19 (15.0%)	34 (14.0%)
19	16+ years	13 (28.9%)	91 (71.7%)	123 (50.8%)
20	When did you begin working at UHN, n (%)			0.22
21	<2 years	3 (6.7%)	18 (14.2%)	25 (10.3%)
22	2-5 years	12 (26.7%)	21 (16.5%)	47 (19.4%)
23	6-10 years	10 (22.2%)	23 (18.1%)	28 (11.6%)
24	11-15 years	9 (20.0%)	24 (18.9%)	49 (20.2%)
25	16+ years	11 (24.4%)	41 (32.3%)	93 (38.4%)
26	Employment status at UNH, n (%)			0.56
27	Full-time permanent	39 (86.7%)	0 (%)	197 (81.4%)
28	Part-time permanent	4 (8.9%)	0 (%)	36 (14.9%)
29	Casual, temp, other	2 (4.4%)	0 (%)	9 (3.7%)
30	Missing	0	127	0

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Rate satisfaction with EMR, n (%) 0.77

Very unsatisfied	7 (15.9%)	21 (17.6%)	35 (15.2%)
Somewhat unsatisfied	10 (22.7%)	22 (18.5%)	53 (23.0%)
Neutral	9 (20.5%)	22 (18.5%)	42 (18.3%)
Somewhat satisfied	17 (38.6%)	44 (37.0%)	75 (32.6%)
Very satisfied	1 (2.3%)	10 (8.4%)	25 (10.9%)
Missing	1	8	12

Somewhat/very satisfied with EHR (vs. neutral/unsatisfied), n(%) 0.87

Yes	18 (40.9%)	54 (45.4%)	100 (43.5%)
No	26 (59.1%)	65 (54.6%)	130 (56.5%)
Missing	1	8	12

Staffing levels in this work setting are sufficient, n (%) <.0001

Disagree strongly	11 (25.0%)	36 (30.3%)	114 (49.6%)
Disagree somewhat	21 (47.7%)	42 (35.3%)	63 (27.4%)
Neutral	4 (9.1%)	7 (5.9%)	17 (7.4%)
Agree somewhat	7 (15.9%)	19 (16.0%)	31 (13.5%)
Agree strongly	1 (2.3%)	15 (12.6%)	5 (2.2%)
Missing	1	8	12

Somewhat / strongly agree staffing levels in work setting are adequate (vs. neutral / disagree, n(%) 0.016

Yes	8 (18.2%)	34 (28.6%)	36 (15.7%)
No	36 (81.8%)	85 (71.4%)	194 (84.3%)
Missing	1	8	12

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6	I am treated fairly in the workplace, n				0.39
7	(%)				
8	Disagree strongly	8 (18.2%)	10 (8.4%)	41 (17.8%)	
9	Disagree somewhat	7 (15.9%)	21 (17.6%)	38 (16.5%)	
10	Neutral	5 (11.4%)	15 (12.6%)	33 (14.3%)	
11	Agree somewhat	17 (38.6%)	43 (36.1%)	78 (33.9%)	
12	Agree strongly	7 (15.9%)	30 (25.2%)	40 (17.4%)	
13	Missing	1	8	12	
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17	Somewhat / strongly agree I am				0.20
18	treated fairly (vs. neutral / disagree)				
19	, n (%)				
20	Yes	24 (54.5%)	73 (61.3%)	118 (51.3%)	
21	No	20 (45.5%)	46 (38.7%)	112 (48.7%)	
22	Missing	1	8	12	
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26	Have you felt burned out from your				0.039
27	work, n (%)				
28	Yes	33 (73.3%)	83 (65.4%)	188 (77.7%)	
29	No	12 (26.7%)	44 (34.6%)	54 (22.3%)	
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33	Have you worried that work is				<.0001
34	hardening you emotionally, n (%)				
35	Yes	24 (53.3%)	61 (48.0%)	179 (74.0%)	
36	No	21 (46.7%)	66 (52.0%)	63 (26.0%)	
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Have you often felt bothered by feeling down, depressed, or hopeless, n (%) <.0001

Yes 17 (37.8%) 37 (29.1%) 135 (55.8%)
No 28 (62.2%) 90 (70.9%) 107 (44.2%)

Have you fallen asleep while sitting inactive in a public place, n (%) 0.001

Yes 16 (35.6%) 25 (19.7%) 93 (38.4%)
No 29 (64.4%) 102 (80.3%) 149 (61.6%)

Have you felt that things were piling up so high you could not overcome them, n (%) 0.63

Yes 19 (42.2%) 64 (50.4%) 115 (47.5%)
No 26 (57.8%) 63 (49.6%) 127 (52.5%)

Have you been bothered by emotional problems, n (%) <.0001

Yes 31 (68.9%) 68 (53.5%) 191 (78.9%)
No 14 (31.1%) 59 (46.5%) 51 (21.1%)

Has physical health interfered with ability to do daily work, n (%) <.0001

Yes 16 (35.6%) 22 (17.3%) 108 (44.6%)
No 29 (64.4%) 105 (82.7%) 134 (55.4%)

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7	Work I do is meaningful to me				0.61
8	(categorized), n (%)				
9	1-2	1 (2.2%)	2 (1.6%)	3 (1.2%)	
10	3-5	10 (22.2%)	26 (20.5%)	67 (27.7%)	
11	6-7	34 (75.6%)	99 (78.0%)	172 (71.1%)	
12					
13					
14	Work schedule leaves enough time for				0.004
15	personal life (categorized), n (%)				
16	1-2	14 (31.1%)	72 (56.7%)	110 (45.5%)	
17	3	10 (22.2%)	29 (22.8%)	45 (18.6%)	
18	4-5	21 (46.7%)	26 (20.5%)	87 (36.0%)	
19					
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21					
22	High WBI Score (≥ 2), n(%)				<.0001
23	Yes	25 (55.6%)	69 (54.3%)	189 (78.1%)	
24	No	20 (44.4%)	58 (45.7%)	53 (21.9%)	
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¹Chi-Square p-value.

Table 6. Multivariable model for factors associated with a high WBI scores for health care providers in the PMCC (≥ 2 for allied health or nurses, ≥ 3 for physicians)

Effect (reference)	Odds Ratio	95% Wald		P-value	Overall P-value
		Confidence Limits			
Male (vs. female)	1.13	0.60	2.14	0.71	0.71
Years since graduation (vs. 16+)					0.25
<2 years	1.86	0.30	11.41	0.50	
2-5 years	3.53	1.07	11.68	0.039	
6-10 years	1.45	0.57	3.68	0.44	
11-15 years	1.95	0.85	4.48	0.11	
Years at UHN (vs. 16+)					0.56
<2 years	1.14	0.34	3.75	0.83	
2-5 years	0.93	0.36	2.40	0.88	
6-10 years	1.69	0.71	4.01	0.24	
11-15 years	0.81	0.39	1.68	0.57	
Responder Group (vs. Allied Health)					0.0003
Nurses	4.21	1.99	8.94	0.0002	
Physicians	2.10	0.82	5.37	0.12	
Satisfied with EMR (vs. not)	0.75	0.46	1.21	0.24	
Staffing levels are adequate (vs. not)	0.49	0.28	0.87	0.014	
Treated fairly (vs. not)	0.37	0.22	0.62	0.0001	