Validation of Mental Fitness Index™ (MFI)

Capacity to support facilitating workplace psychological health and safety

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Howatt HR CONSULTING

INTRODUCTION

Mental health has become a growing concern in Canada over the last 10 years. Employers have grown more concerned over the mental health of their employees and are looking for guidance and support.

After working with numerous Canadian organizations, Howatt HR Consulting is pleased to report validation of the Mental Fitness Index (MFI). In the following pages, we will explore the current state of mental health in Canada and how this has informed the evolution of the MFI, dive into factors we monitor in the MFI, and analyze its reliability and validity. This is version 1.0.

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Key definitions

Out of a growing concern and need, in 2013 the Mental Health Commission of Canada, the Canadian Standards Association (CSA), and the Bureau de Normalisation du Quebec developed the National Standard of Canada for Psychological Health and Safety in the workplace (SCC, 2013). The intent of this Standard is to provide a voluntary set of guidelines to promote psychological health and safety in the workplace. See Table 1 for definitions from the National Standard.

Table 1. Definitions from the National Standard. Source: BNQ/CSA Group/MHCC, 2013, p.4.

Psychological health (synonym: "Mental health")	"a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community"
Psychological safety	"the absence of harm and/or threat of harm to mental well-being that a worker might experience"
Psychologically healthy and safe workplace	"a workplace that promotes workers' psychological well-being and actively works to prevent harm to worker psychological health including in negligent, reckless, or intentional ways"

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Canadian statistics

- Studies suggest that more than 6.7 million Canadians are living with a mental health problem, including 21.4% of the Canadian workforce (MHCC, 2013a).
- Approximately one in five employees is experiencing a mental health concern (MHCC 2013a).
- It is estimated that mental illness costs the Canadian economy $51 billion per year in healthcare, social services, and income support (Lim et al., 2008).

- In 2010, mental health problems were estimated to cost Canadian employers $6 billion per year in lost productivity (both presenteeism and absenteeism; MHCC, 2010).
- Mental health problems have considerable individual and economic consequences. Worldwide, mental and behavioural disorders account for 7.4% of disability-adjusted life years (Murray et al., 2012).
- Mental health problems are associated with professional and personal losses, including lower income, career delays, interpersonal and family stress, and stigma and social exclusion (MHCC, 2013a).

Note: These stats were before COVID-19. CBOC and MHCC found that since the start of the pandemic 84% of Canadians reported an increased level of concern across 15 mental health factors. The true impact of this pandemic on the Canadian workforce will not be fully understood for several years. It can be expected the longer the pandemic goes on, the greater the negative impact it can have on employees' mental health.

The National Standard for psychological health and safety in the workplace

The Standard was designed to be a decision-making tool to help organizations reduce mental harm and promote mental health. It's a psychological health and safety management system (PHSMS) that suggests a Plan – Do – Check – Act (PDCA) model to ensure continuous improvement. It provides guidance around the value of conducting risk assessment (i.e., 13 PHS factors) and psychological health and safety management system (PHSMS) audits.

The Standard provides guidance for employers who are increasingly concerned about mental harm and mental health in today's workplace on how to facilitate a psychologically safe workplace. There is evidence that organizations that invest in the psychological health and safety of their employees benefit in numerous ways.

Numerous studies have documented the extent to which workplace initiatives can improve and prevent mental health problems in employees (see Dimoff & Kelloway, 2013, for review).

The Standard highlights five key elements for creating psychologically safe and healthy workplaces:

- ✓ Commitment;
- ✓ Leadership and participation;
- ✓ Planning, implementation, evaluation, and corrective action;
- ✓ Management review.

Mental health directly impacts recruitment and retention of skilled employees (Wang et al., 2010) as well as absenteeism, presenteeism, and healthcare expenditures (e.g., Collins et al., 2005; Spielberger et al., 2002; Dunnagan et al., 2001).

Implementing policies to improve psychological safety in the workplace can impact productivity, operational success, job satisfaction, team functioning, and conflict and disability claims (SCC, 2013).

Similar to the expectation that workplaces take responsibility for the provision of a physically safe work environment, protection of mental health in the workplace is increasingly seen as a "corporate responsibility with legal implications" (Kunyk et al., 2016, p. 41; Shain, 2009).

Adoption of the National Standard

The Standard is seen as having the potential to have a positive impact that it is consistent with organizational and personal values, and it provides a useful framework and guidance to improve psychological health and safety (Kalef et al., 2016; Kunyk et al., 2016).

Studies suggest that both employers and employees see psychological health and safety as an important aspect of the workplace. However, many organizations are unaware of the Standard and even fewer have implemented all or even parts of it (Sheikh et al., 2018).

Numerous barriers have been identified that impede implementation of the Standard in workplaces, including failure to prioritize psychological health and safety, lack of resources to implement changes, and lacking the means to assess and evaluate changes (Sheikh et al., 2018; MHCC, 2017).

Organizations can improve their productivity and reduce costs by investing in the mental health of their employees by creating psychologically safer workplaces. For employers who invest in mental health, the ROI after year one was found to be $1.62 for every $1 invested (Deloitte Insights, 2019).

Although many organizations increasingly invest in their employees, they often do so without an informed measurement tool for making evidence-based decisions on the kinds of programs and policies that may help reduce mental harm and mental health issues in the workplace.

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Design of the Mental Fitness Index (MFI)

The need for one tool for employers to examine the link between employee experience in the workplace, current behaviours, and perceived participation in programs related to productivity, health profiles, harmful behaviours and psychological and occupational health and safety risk resulted in the creation of the MFI.

The design of the MFI comes from applied and academic research as well as direct experience working with organizations through Howatt HR. This paper demonstrates how this tool has been theoretically driven and empirically validated. When completed by employees, the MFI assesses key factors that show the interactions between employee and employer behaviours, employee perceptions, and employee outcomes (See Figure 1).

The MFI uses behavioural-based scales and metrics that can facilitate evidence-based implementation of employee experience strategies. It provides data to make strategic, evidence-based decisions for organizations to invest in their employees and to create targeted programs designed to meet the needs of their employees.

MFI data on utilization of current programs provides evidence-based experience employers can use to reduce mental harm and promote mental health by evaluating employees' experiences through a psychological health and safety lens.

The MFI can be used repeatedly to evaluate the effectiveness of new programs on desired outcomes (e.g., presenteeism, PHS risk) identified in the initial MFI assessment data.

Data collected through the MFI can be integrated with other organizational data such as historical productivity rates, benefits information, turnover, and absenteeism to make informed, strategic decisions.

The MFI framework

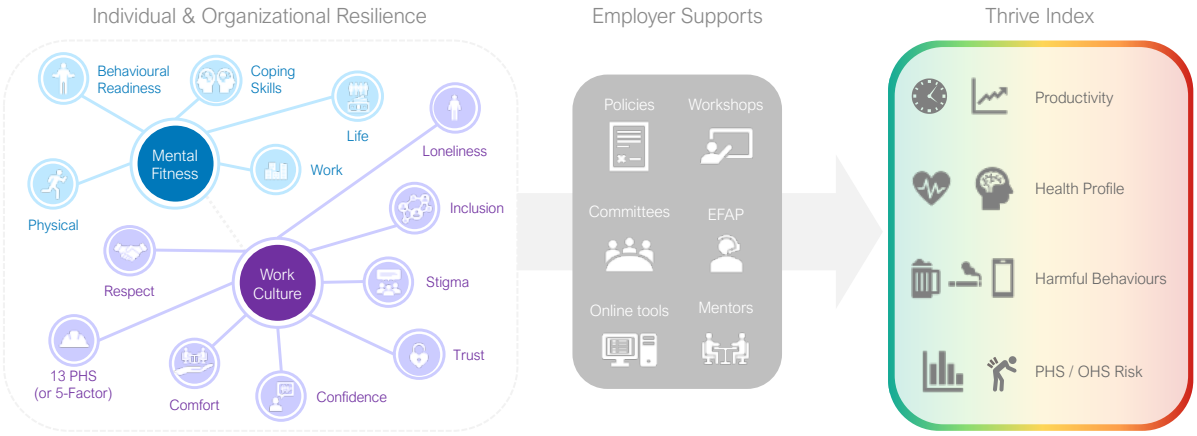

Figure 1: MFI Framework for assessing employees' mental fitness

The MFI captures behavioural readiness as well as four key pillars that have been found to impact employee health, safety, and resilience: coping skills, physical, work, life. The overall MFI score provides a comprehensive view of employees' overall well-being and psychological safety.

The MFI also captures employees' experiences around the 13 PHS factors highlighted by the Standard that impact psychological safety (see Table 3). Items from the Howatt HR version of the 13 PHS factors have been refined into a short form and combined into MFI's PHS Factor Five (see Table 4).

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The Psychological Health and Safety (PHS) 13 Factors

Table 3: Psychological Health and Safety (PHS) 13 Factors.

Factor	Description*
Psychological Support (Factor 1)	a mix of norms, values, beliefs, meanings, and expectations that group members hold in common and that they use as behavioural and problem-solving cues
Organizational Culture (Factor 2)	comprises all supportive social interactions available at work, either with co-workers or supervisors
Clear Leadership and Expectations (Factor 3)	when leadership is effective and provides sufficient support that helps workers know what they need to do, explain how their work contributes to the organization, and discusses the nature and expected outcomes of impending changes
Civility and Respect (Factor 4)	when workers are respectful and considerate with one another, as well as with customers, clients, and the public
Psychological Competencies and Requirements (Factor 5)	documented and assessed in conjunction with the physical demands of the job
Growth and Development (Factor 6)	when workers receive encouragement and support in the development of interpersonal, emotional, and job skills
Recognition and Reward (Factor 7)	when there are appropriate acknowledgement and appreciation of workers' efforts in a fair and timely manner
Involvement and Influence (Factor 8)	when workers are included in discussions about how work is done and how decisions are made
Workload Management (Factor 9)	when assigned tasks and responsibilities can be accomplished with the time available
Engagement (Factor 10)	when workers enjoy and feel connected to their work and where they feel motivated to do their job well
Balance (Factor 11)	when there is acceptance of the need for a sense of harmony among the demands of work, family, and personal life
Psychological Protection (Factor 12)	when workers' psychological safety is ensured
Protection of Physical Safety (Factor 13)	when a worker's psychological, as well as physical safety, is protected from hazards and risks related to their physical environment

Source: Standards Council of Canada (2013); Kunyk et al., 2016 (p. 42)

Howatt HR's PHS Factor Five and additional profiles

Table 4: MFI's PHS Factor Five

5 Factors	Original 13 factors
Management and leadership	Factor 3: Clear Leadership and Expectations Factor 7: Recognition and Reward Factor 11: Balance
Employee experience	Factor 8: Involvement and Influence Factor 9: Workload Management Factor 10: Engagement
Culture	Factor 1: Psychological Support Factor 2: Culture Factor 4: Civility and Respect
Strategic HR	Factor 5: Psychological Competencies and Requirements Factor 6: Growth and Development
Safety	Factor 12: Psychological Protection Factor 13: Protection of Physical Safety

The MFI provides additional analytics in the four key pillars to better understand key issues in these areas described in Table 5.

Table 5: Additional profiles

Profile	Description
Productivity	Absenteeism, discretionary effort, presenteeism
Health Profile	Chronic condition (e.g., chronic pain), mental health issue (e.g., depression), comorbidity (e.g., anxiety and digestive issues)
Harmful Behaviour Risk	Substance use (e.g., alcohol, tobacco, cannabis, opioids); harmful risk profile behaviours (e.g., TV consumption, social media use, video game use, gambling)
Trauma Experience	Traumatic experiences (e.g., major work stressors, exposure to trauma, loss of a loved one, bullying, harassment)
PHS/OHS Risk	Incivility, bullying, physical accident/incident, harassment, violence
Work and Human Factors	Work factors (e.g., perception of being valued by employer, job satisfaction); psychosocial hazards (e.g., stress, loneliness, conflict, and fatigue)

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Using the Mental Fitness Index to support evidence-based decision making

The MFI was developed to provide a tool for employers to obtain their baseline and to monitor the impact of PHSMS and respectful workplace and mental health initiatives.

The MFI is an empirically-based tool that provides organizations an understanding of the health and safety needs of their employees so they can make smart investments. It also provides a way to evaluate whether initiatives are having their desired effect. This leads to greater accountability for both employees and employers and underscores the importance of not just investing in employees but doing so in systematic, targeted ways that can be evaluated for their effectiveness.

The MFI collects the following kinds of data: employees' health behaviours and lifestyle choices, chronic disease, employees' experience, leadership behaviours, trust, psychosocial risk factors, employees' mental fitness, employees' perception of current programs (e.g., EFAP) utilization and impact, and employee productivity.

Employee wellness programs are most effective when the employer and employees invest in their health. By understanding where their employees lie on the MFI pillars and PHS factors, organizations can engage in better strategic planning to support their employees and create a psychologically healthy workplace. The MFI provides a clear understanding of key behaviours an organization and an individual can focus on to provide the best opportunity for creating a thriving workforce (i.e., productive, healthy, safe).

The psychological health and safety management system (PHSMS) framework highlights five key elements for creating psychologically safe and healthy workplaces: commitment; leadership and participation; planning, implementation, evaluation; corrective action; and management review. The MFI facilitates creation of such a framework by using the Plan – Do – Check – Act (PDCA) model (see Figure 9). The MFI can be used to make evidence-based decisions consistent with the PHSMS.

The MFI assessment process and results

The MFI assessment process consists of employees completing an online set of standardized and validated questions. This data is then compiled into both individualized results for employees and aggregated formats for employers. The MFI provides each employee with individualized results and feedback on the four pillars and overall index score.

The MFI also provides aggregated data for organizations across all their employees on the MFI total score (see Figure 3), the MFI pillars (see Figure 4), 5 PHS factors (see Figure 5), and the additional profiles (see Figures 6-8). Note: the workforce is put into one of five categories, from charged to empty (see Figure 3). This provides an opportunity to compare employees' workplace experience to their MFI score.

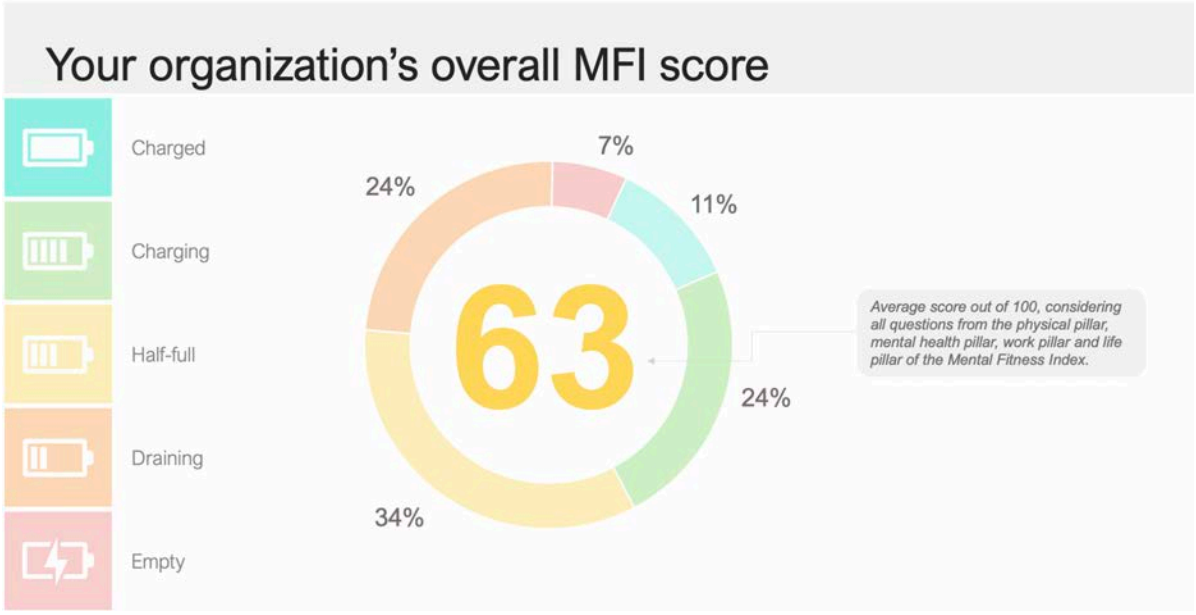


Figure 3: Sample aggregated MFI data showing "charge" of employees for the overall organization

Sample MFI reports

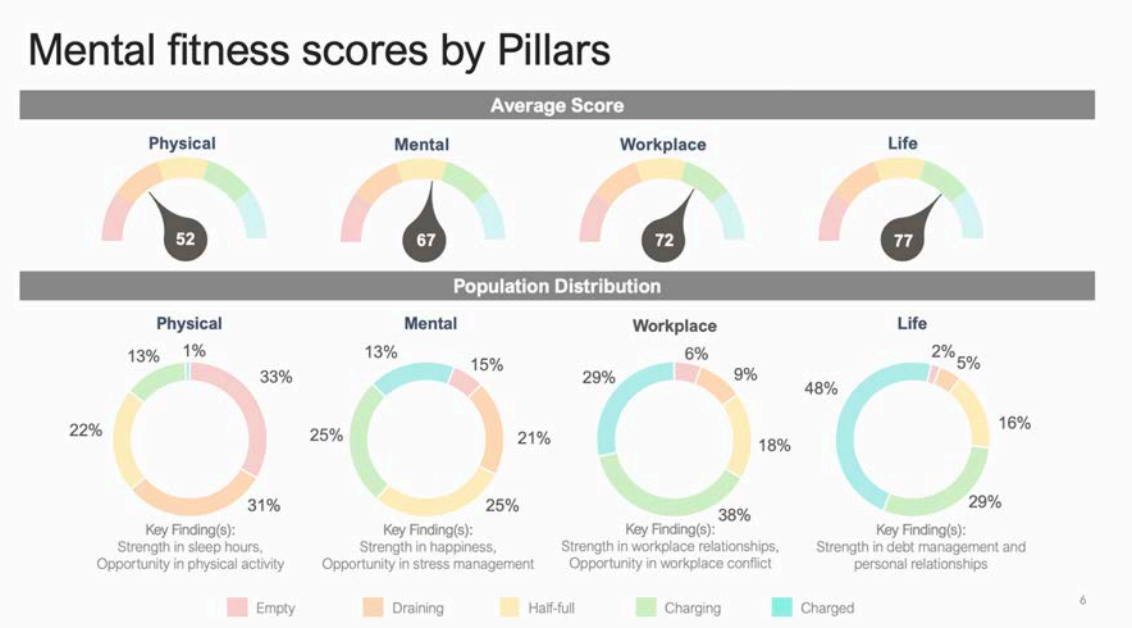


Figure 3: Sample aggregated data for each pillar of the MFI

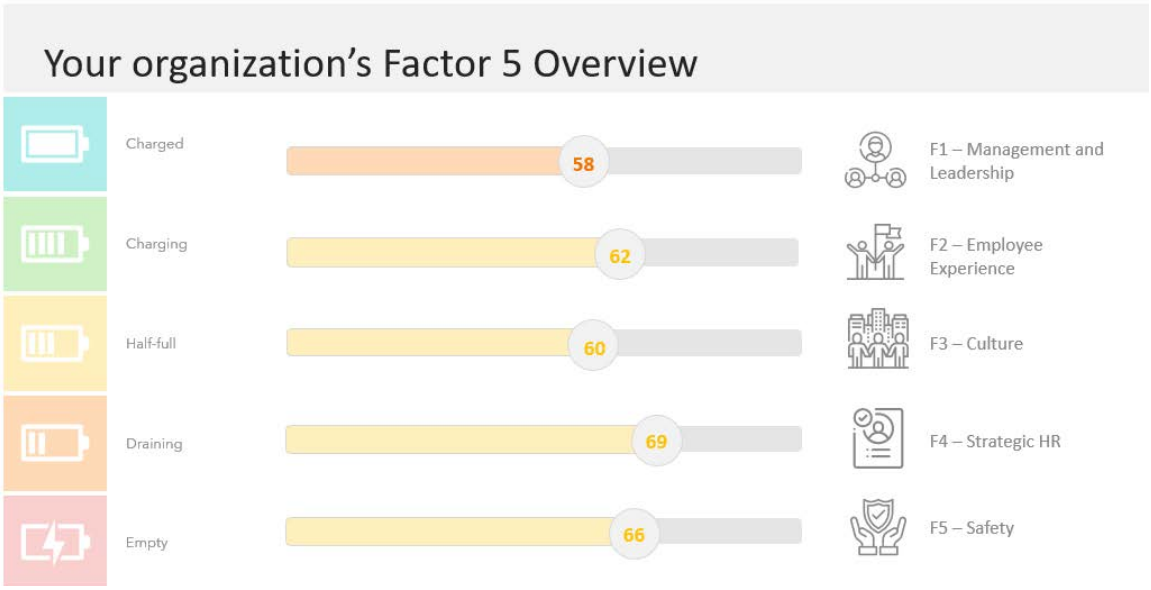


Figure 4: Sample aggregated data for PHS 5 Factors

Sample MFI reports (cont'd)

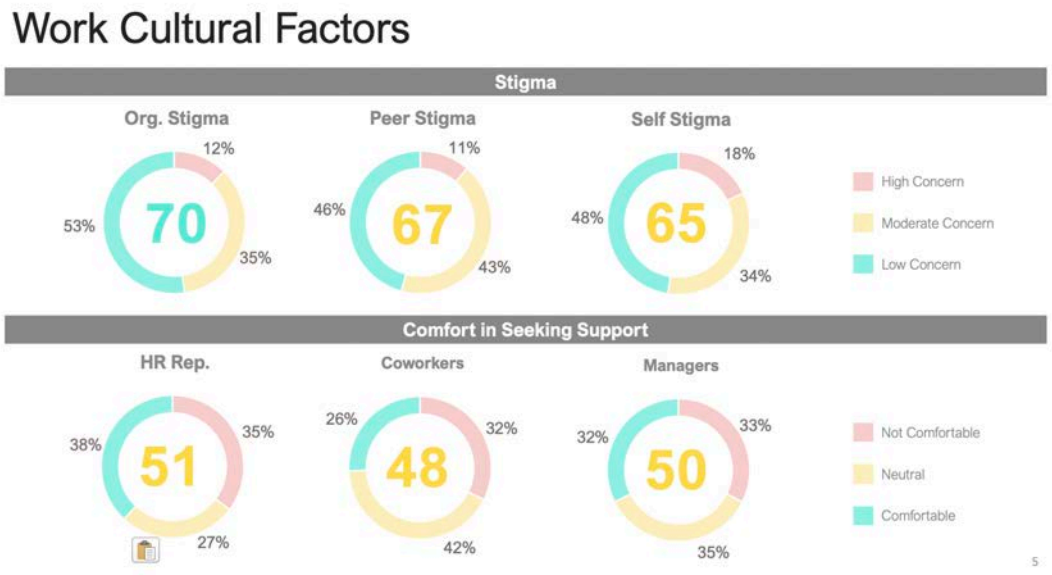


Figure 6: Sample aggregated data for culture profile

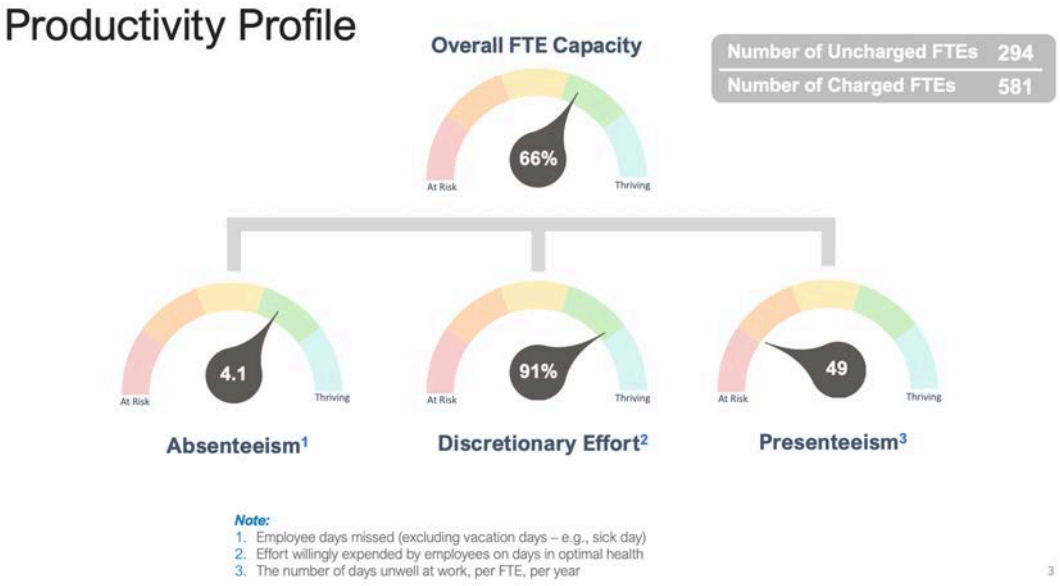


Figure 7: Sample aggregated data productivity profile

Sample MFI reports (cont'd)

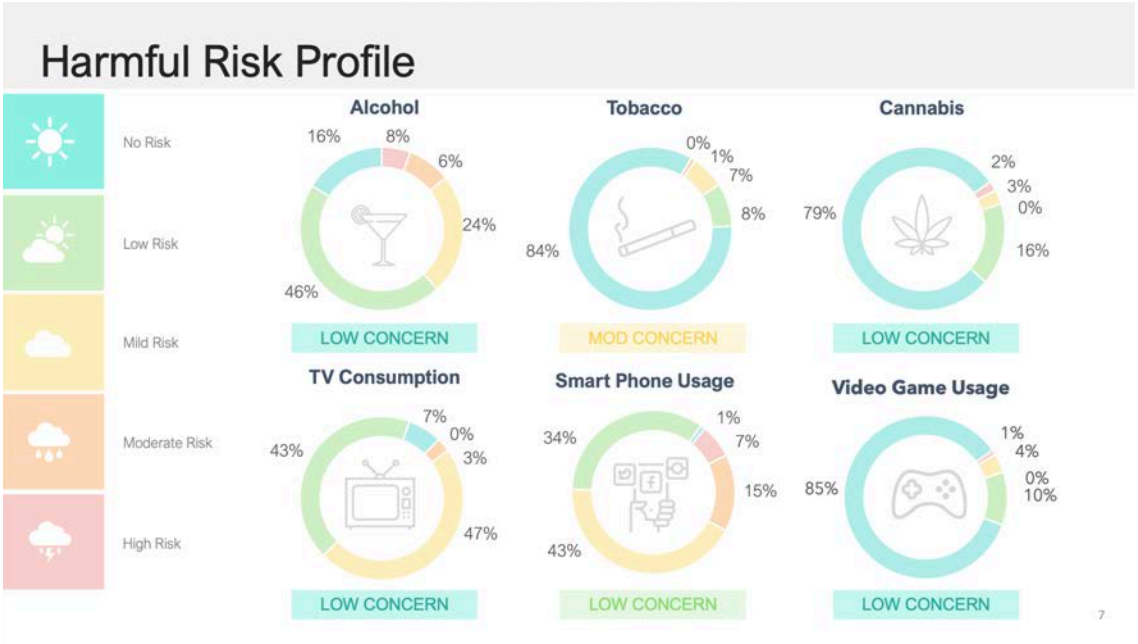


Figure 8: Sample aggregated data on harmful risk profile

Overview of the scale development

For a scale to be useful it must be both reliable and valid. Reliability refers to the degree a scale consistently measures the construct of interest. Validity refers to the degree a scale measures the construct it is intended to measure. Scales are typically tested over numerous years and studies to demonstrate reliability and validity. Here we present initial data, which shows strong support for the reliability and validity of the MFI.

To conduct this analysis, Howatt HR selected three organizations that completed the current version (version 1.0) of the MFI. For quality control, Howatt HR will repeat the below analytics step each year. Because we expect the MFI will continue to evolve and to ensure the validity and reliability of the tool, it's necessary to repeat this process annually.

Reliability of mental fitness pillars

Internal consistency refers to the extent that items of the scale "hold together" or are similar enough to each other that they are consistently measuring the construct of interest. Cronbach alpha is a statistic that measures the internal consistency of a scale. Established criteria are used to determine whether a measure has sufficient internal consistency. According to established norms for Cronbach alpha, values higher than 0.6 suggest acceptable reliability and values over .8 suggest very high reliability. For the MFI pillars, the physical and life pillars represent behavioural indicators. That is, unlike the other scales described here, they are not multiple items designed to assess the same construct. Rather, they represent the frequency of various behaviours (e.g., "How often do you engage in intense activity?"). As such, they are not expected to demonstrate internal consistency and are not included in the Cronbach alpha tables below. Tables 7 and 8 show that the alpha reliabilities for the various scales in the MFI met established criteria for acceptable reliability and in many cases suggested high reliability.

Table 7: Cronbach alphas for each of the pillars and overall MFI index score

Organization	Sample Size	Mental Health	Work Life	Total MFI
X	453	.81	.73	.81
Y	768	.80	.70	.80
Z	160	.76	.89	.86
All	1381	.79	-	-

Reliability of mental fitness pillars and 13 PHS factors

Table 7: Cronbach alphas for each of the pillars and overall MFI index score

Organization	Sample Size	Mental Health	Work Life	Total MFI
X	453	.81	.73	.81
Y	768	.80	.70	.80
Z	160	.76	.89	.86
All	1381	.79	-	-

Table 8: Cronbach alphas for Howatt HR PHS 13 factors version (Howatt, B. & Jones, G., 2018)

Factor	Cronbach alpha
Psychological Support (Factor 1)	.89
Culture (Factor 2)	.84
Clear Leadership and Expectations (Factor 3)	.86
Civility and Respect (Factor 4)	.86
Psychological Competencies and Requirements (Factor 5)	.77
Growth and Development (Factor 6)	.89
Recognition and Reward (Factor 7)	.82
Involvement and Influence (Factor 8)	.86
Workload Management (Factor 9)	.76
Engagement (Factor 10)	.82
Balance (Factor 11)	.90
Psychological Protection (Factor 12)	.88
Protection of Physical Safety (Factor 13)	.90

Reliability of Howatt HR's PHS Factor Five

The MFI PHS Five Factor structure is an adaptation of the Howatt HR version of the 13 PHS factors. MFI's Factor Five was explored using principal component analysis with Varimax rotation. The number of factors was determined by examining eigen values (e.g., Kaiser-Guttman criterion of eigenvalues > 1.00) as well as scree plots consistent with recommendations (Floyd & Widaman, 1995; Sellbom & Tellegen, 2019).

Variance accounted for by each factor and factor loadings for the short form as well as Cronbach alphas for both the long form and the short form are presented in Table 9a-e. These results show that based on the variance accounted for, the factor loadings and the Cronbach alphas PHS Five Factor version may be more manageable to use while retaining important aspects of the 13 PHS factors.

Table 9a: PHS Five Factors: Factor 1 Management and leadership

Variance accounted for	Items	Factor loadings	Cronbach alpha	Variance accounted for	Items	Factor loadings	Cronbach alpha
48.6%	PF0301	.747	.92	52.33%	PF0303	.824	.76
	PF0302	.723			PF0304	.747	
	PF0303	.740			PF0702	.768	
	PF0304	.622			PF0703	.480	
	PF0305	.700			PF1103	.749	
	PF0701	.721					
	PF0702	.746					
	PF0703	.402					
	PF0704	.603					
	PF0705	.760					
	PF1101	.733					
	PF1102	.533					
	PF1103	.803					
	PF1104	.759					
	PF1105	.746					

Reliability of Howatt HR's PHS Factor Five (cont'd)

Table 9b: PHS Five Factors: Factor 2 Employee experience

Variance accounted for	Items	Factor loadings	Cronbach alpha	Variance accounted for	Items	Factor loadings	Cronbach alpha
44.63%	PF0801	.737	.91	52.33%	PF0801	.762	.76
	PF0802	.700			PF0802	.769	
	PF0803	.748			PF0905	.601	
	PF0804	.753			PF1001	.728	
	PF0805	.726			PF1005	.702	
	PF0901	.583					
	PF0902	.724					
	PF0903	.492					
	PF0904	.617					
	PF0905	.571					
	PF1001	.684					
	PF1002	.728					
	PF1003	.692					
	PF1004	.589					
	PF1005	.610					

Reliability of Howatt HR's PHS Factor Five (cont'd)

Table 9c: PHS Five Factors: Factor 3 Culture

Variance accounted for	Items	Factor loadings	Cronbach alpha	Variance accounted for	Items	Factor loadings	Cronbach alpha
54.77%	PF0101	.680	.94	57.48%	PF0102	.744	.81
	PF0102	.727			PF0201	.808	
	PF0103	.724			PF0204	.672	
	PF0104	.790			PF0205	.809	
	PF0105	.789			PF0403	.749	
	PF0201	.784					
	PF0202	.844					
	PF0203	.651					
	PF0204	.575					
	PF0205	.772					
	PF0401	.705					
	PF0402	.761					
	PF0403	.720					
	PF0404	.786					
	PF0405	.751					

Reliability of Howatt HR's PHS Factor Five (cont'd)

Table 9d: PHS Five Factors: Factor 4 Strategic HR

Variance accounted for	Items	Factor loadings	Cronbach alpha	Variance accounted for	Items	Factor loadings	Cronbach alpha
49.20%	PF0501	.578	.88	52.41%	PF0501	.6473	.77
	PF0502	.677			PF0502	.7689	
	PF0503	.616			PF0504	.5992	
	PF0504	.575			PF0602	.8044	
	PF0505	.536			PF0605	.7773	
	PF0601	.769					
	PF0602	.822					
	PF0603	.801					
	PF0604	.797					
	PF0605	.765					

Reliability of Howatt HR's PHS Factor Five (cont'd)

Table 9e: PHS Five Factors: Factor 5 Safety

Variance accounted for	Items	Factor loadings	Cronbach alpha	Variance accounted for	Items	Factor loadings	Cronbach alpha
57.22%	PF1201	.734	.91	63.92%	PF1202	.716	.85
	PF1202	.776			PF1204	.721	
	PF1203	.699			PF1303	.818	
	PF1204	.764			PF1304	.869	
	PF1205	.709			PF1305	.859	
	PF1301	.771					
	PF1302	.796					
	PF1303	.750					
	PF1304	.768					
	PF1305	.792					

Reliability of Howatt HR's PHS Factor Five (cont'd)

An additional step was taken to examine MFI PHS Factor Five, that being running a confirmatory factor analysis using structured equation modelling (SEM) and comparing the MFI PHS Factor Five results to the Garden Minds (GM@W) 13 PHS Factors and Copenhagen Psychosocial Questionnaire (COPSOQ) research conducted by Smith, P. (2020) (See table 10 MFI PHS Factor Five comparison). The SEM was found to perform at comparable levels to two of the most popular tools used in Canada to assess psychosocial risk. This suggests the MFI has the psychometric properties to effectively assess psychosocial risk factors in the workplace.

Table 9e: PHS Five Factors: Factor 5 Safety

	GM@W	COPSOQ	PHS 5 factors	Rule of thumb
Absolute Fit: Chi-square statistic	9153 (1937 df) p < .001	5022 (607 df), p < .001	4102.15 (df 1992) p < .001	p > .05
Standardized Root Mean Residual	.049*	.051*	.069*	< .08
Incremental Fit: Comparative Fit Index	.841	.941	.822	.95+
Non-Normed Fit Index (tucker-lewis index)	.807	.933	.814	.95+
Parsimony: RMSEA (upper limit)	.064 (.066)*	.046 (.047)*	.64 (0.066)*	< .05 (upper bound < .08)

*These met the rule of thumb.

Validity of the MFI

Face validity refers to the extent that a scale appears to measure the construct of interest, meaning the items appear to experts and to individuals using the scale to be related to the construct of interest.

To ensure high face validity, scale construction followed established guidelines by using subject matter experts as well as review of relevant literature. Specifically, the items of the MFI were created to reflect the construct of interest based on expert opinion and existing research. Items were then pilot tested with employees and refined over multiple iterations to ensure high face validity.

Construct validity refers to the extent to which the measure assesses the construct of interest. Confirmatory factor analysis (CFA) was used to examine the construct validity of the MFI pillars, the 13 PHS factors, and the Five factor PHS.

Specifically, CFA was used to test whether the items from the MFI are a good "fit" with the proposed 13 and 5 factors structures. Consistent with recommendations (Floyd & Widaman, 1995; Sellbom & Tellegen, 2019), structural equation modeling (SEM) was used to examine the fit of the proposed models. CFA using SEM has several advantages, including that items can be cross-loaded on different factors, which is more likely to represent "real life" (Floyd & Widaman, 1995; Sellbom & Tellegen, 2019).

The fit of the proposed models was evaluated with well-established fit indices and norms. Specifically, we examined the comparative fit index (CFI), the Tucker-Lewis fit index (TFI), Standardized Root Mean Residual (SRMR) and the root-mean-square error of approximation (RMSEA). CFI, TFI, and SRMR values above .95 suggest good fit and values between .90 and .95 suggest acceptable fit (Kline, 2005; Hu & Bentler, 1999; Yu, 2002). The RMSEA is an indicator of the level of misfit per degree of freedom, with values of .08 or below being acceptable and values of .05 or less indicating good fit (Kline, 2005; Hu & Bentler, 1999; Yu, 2002). Results shown in Table 11 suggest that the Howatt HR PHS 13 factors and PHS 5 factors models are fit.

Predictive capability of the MFI

Table 11: Results of CFA using SEM

	MFI 4 pillars	Howatt HR PHS 13 factors	PHS 5 factors
SRMR	.095	.066*	.069*
CFI	.730	.837	.822
TFI	.708	.825	.814
RMSEA (upper limit)	.087 (.089)	.062 (.064)*	0.64 (.066)*

*Indicates acceptable or good fit based on established norms for fit indices

Criterion validity refers to the extent to which a scale is related to a meaningful outcome. For example, scales that are high in criterion validity can predict performance or behaviour of interest (past, present, or future). Predictivity validity refers to the ability of a scale to accurately predict outcomes in the future. An example of this would be if SAT scores in high school accurately predict performance in college or university. Concurrent validity refers to the ability of a scale to accurately predict outcomes collected at the same time or in the past.

Analysis shows that the MFI predicts important and relevant outcomes for organizations. On the next page is data showing the number of days missed, discretionary effort, and days unwell at different levels of the MFI total index score. As can be seen in Table 12a, the MFI total index score accurately distinguishes between individuals based on the number of days missed, discretionary effort, and days unwell. Results in Tables 12a and 12b show that, relative to individuals who are “charged,” individuals who are “empty,” based on their MFI profile, dramatically report higher rates of stigma and discomfort, miss almost twice as many days of work, have lower discretionary effort at work, and spend more than 12 times more days unwell. Table 12b shows that “charged” employees reported better work culture and less stigma. Charged employees also reported experiencing less civility but more compared to employees with “empty” charge. These relationships show a dose-consistent relationship with the MFI charge score.

Predictive capability of the MFI (cont'd)

Table 12a: MFI profile relationship with days missed, discretionary effort, and days unwell

MFI Profile	MFI Score	Days Missed (#)	Discretionary Effort (%)	Days Unwell (#)	Avg Program Impact
Charged n = 108	83	2.5	95%	11	MOD
Charging n = 394	74	3.3	93%	20	MOD
Half-full n = 557	65	3.9	91%	36	MOD
Draining n = 390	55	4.7	89%	68	MOD
Empty n = 189	43	5.7	87%	129	MOD
Total *(n = 1638)*	64	4.1	91%	49	MOD

Table 12b: MFI profile relationship with work culture, stigma, and incivility scores

MFI Profile	MFI Score	Work Culture Score	Overall Stigma Score	% Experienced Incivility	% Reported Incivility
Charged n = 108	83	74	88	28%	63%
Charging n = 394	74	63	74	37%	54%
Half-full n = 557	65	53	62	50%	48%
Draining n = 390	55	42	50	61%	38%
Empty n = 189	43	29	32	74%	26%
Total *(n = 1638)*	64	51	60	51%	43%

Predictive capability of the MFI (cont'd)

Figures 10a and 10b show the differential patterns between "charged" employees and employees who rated themselves as "empty" across other MFI profiles such as PHS Five Factor "safety" factor, mental health issues, and experience of bullying. These results highlight the validity of the MFI as it predicts relevant and important information for organizations.

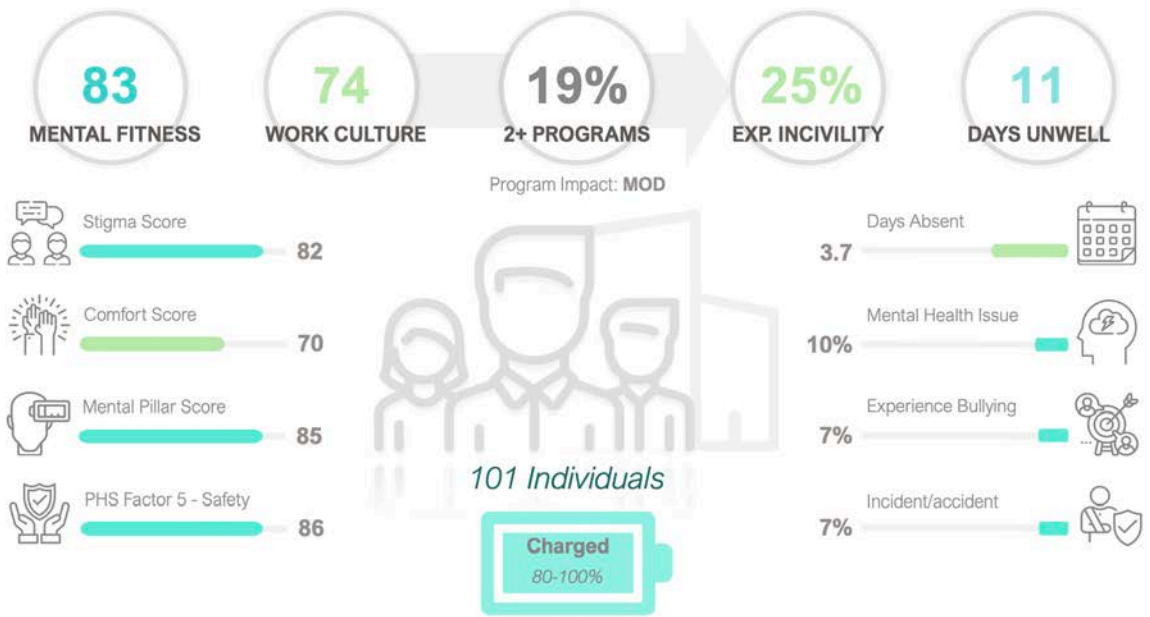


Table 10a: MFI profile of "charged" employees

Predictive capability of the MFI (cont'd)

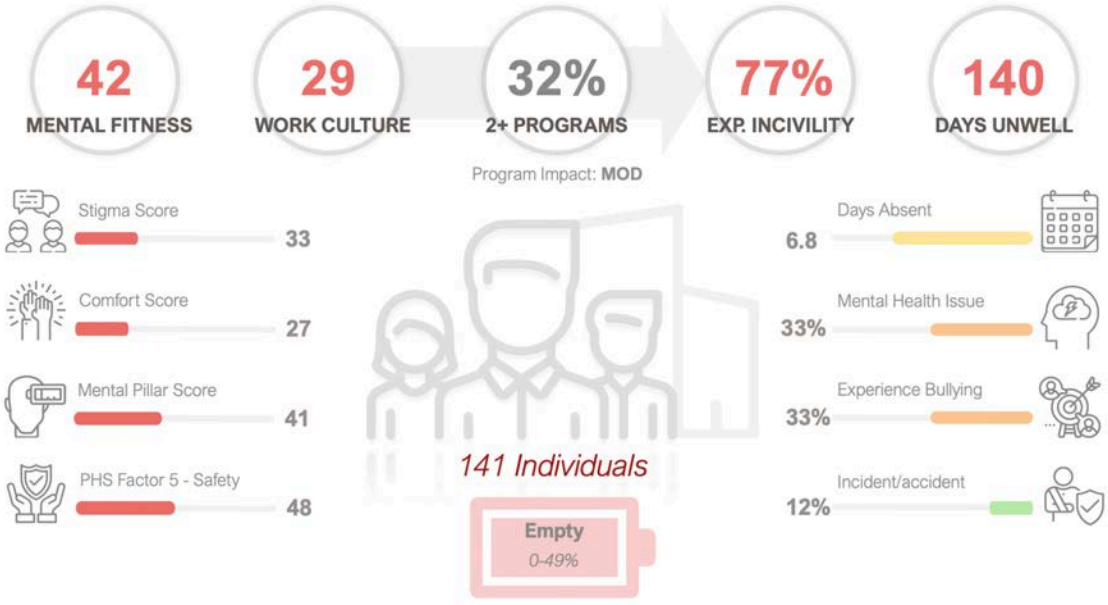


Table 10b: MFI profile of employees rated as "empty"

These effects are replicated across multiple organizations that include a wide range of employees, including office workers, administrators, professionals, and trade employees (e.g., Table 13). This suggests that the MFI reliably predicts important workplace outcomes across organizations and types of employees.

Predictive capability of the MFI (cont'd)

Table 13: MFI profile relationship with days missed, discretionary effort, and days unwell

MFI Profile	MFI Score	Days Missed (#)	Discretionary Effort (%)	Days Unwell (#)	CODN
Charged n = 108	83	2.5	95%	11	$5,555
Charging n = 394	74	3.3	93%	20	$8,229
Half-full n = 557	65	3.9	91%	36	$11,094
Draining n = 390	55	4.7	89%	68	$13,834
Empty n = 189	43	5.7	87%	129	$18,357
Total *(n = 1638)*	64	4.1	91%	49	$11,530

This means that for a 100-life workplace, this number would be $1,153,000.

When such data is extrapolated to an entire company, the costs of employees who are "empty" can be quantified (see Table 13). The MFI can then be used to make strategic decisions on the cost and return on investment for wellness programs for employees.

Program evaluation

The MFI can be used to evaluate an organization's programs and policies. Version 1.0 explores program and policy usage and impact, and we are currently undergoing in-depth analysis to explore whether programs are working.

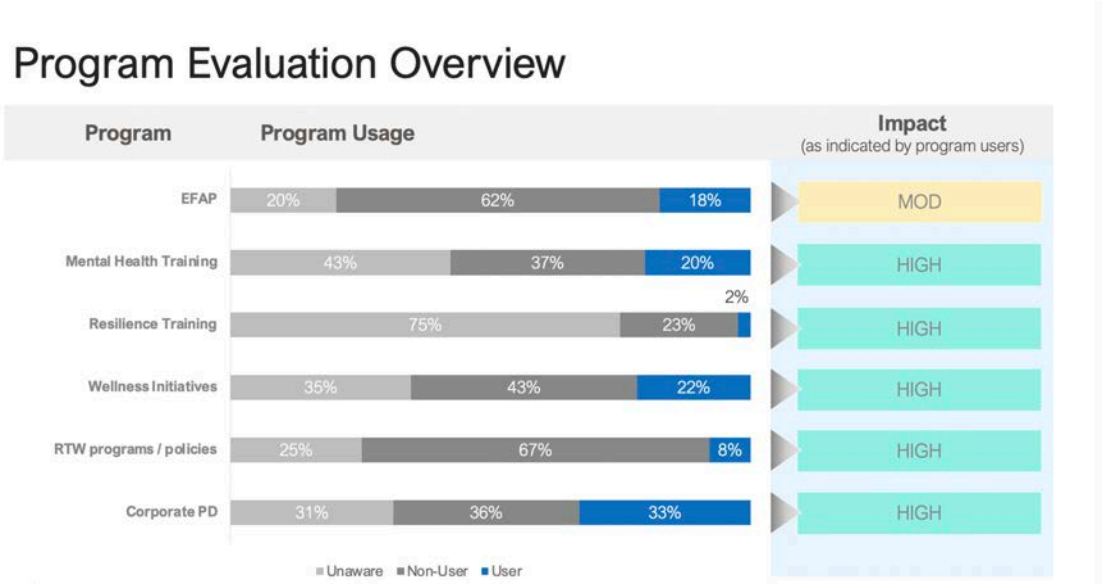


Figure 11: Sample program participation and impact

Summary of scale development

Overall, reliability and validity data show that the MFI has reliable internal and factor structure. It also predicts valuable outcomes for an organization such as absenteeism that can be used to make evidence-based, strategic decisions about improving psychological health and safety in the workplace.

It is now well established that investing in the health, safety, and resiliency of employees by creating psychologically healthy and safe workplaces can improve productivity and the "bottom line" for organizations. Few organizations have the tools to accurately assess the mental fitness of their employees or the psychological safety of their workplaces in order to strategically invest in employee experience strategies using evidence-based decision-making.

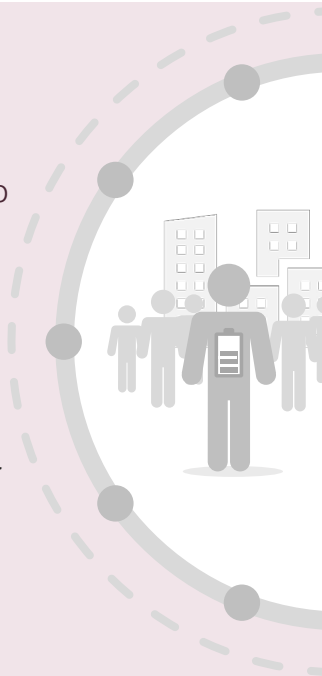
The MFI is an empirically-based tool that provides organizations a method to make effective and strategic investments in their employees in order to create psychologically healthy workplaces, to improve employee experience, and to contribute to healthy, thriving, and resilient workforces.

How can I find out more?

Demo our free Mental Fitness Index (MFI) assessment by contacting us through our online contact form here. We now offer various tiers of the MFI to adapt to each organization's needs:

• MFI Lite • MFI Benchmarking • MFI Integration

Howatt HR is a human resources consulting firm that works with companies to transform the workplace experience so every employee walks into work with purpose. The firm does this through strategic benchmarking, training for all levels of the organization, and in-depth workplace research.



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Jesse Adams

As a part of his current role as Chief Learning Officer of Howatt HR Consulting, Jesse continues to use his in-depth knowledge of strategic HR, workplace health and wellness, and predictive modeling to support organizations in implementing evidence-based solutions for tangible impacts on key business metrics.

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