Development and utility of the Guarding Minds at Work Employee Survey

Guarding Minds at Work (GMW) was developed by researchers at Simon Fraser University with charitable funding from Canada Life's Workplace Strategies for Mental Health). It is hosted and maintained by the Canadian Centre for Occupational Health and Safety (CCOHS), who provide guidance and support.

GMW includes a set of tools which allow employers to evaluate their efforts to mitigate psychosocial risks, protect workers' psychological safety and promote their psychological health. It is freely available in French and English. The main tool is the GMW Employee Survey. This asks employees to rate their level of agreement (Strongly Disagree to Strongly Agree) with items reflecting thirteen factors which impact worker psychological health and safety. In addition, there are items related to areas of particular concern such as perceived discrimination, harassment/bullying and maltreatment due to a mental illness. For each factor, higher scores indicate better protection from psychosocial risks. Workers respond based on their experiential knowledge of this organization. It should be emphasized that this is *not* a measure of employees' psychological function nor of organizational stressors. It reflects employees' perceptions of their organization's risk mitigation efforts across the thirteen factors and the critical areas. Results are graphically presented to show strengths and concerns in comparison with Canadian norms.

Creation of the GMW Psychosocial Factors and associated items was based on practice guidelines for survey development and implementation. This included review of the relevant literature, existing

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tools and legal and legislative norms. In addition, consultation was conducted with representatives from labour, research, governmental and corporate sectors to ensure content was appropriate and relevant for all work environments.

The critical goal of this survey was to provide employers and workers with a tool enabling them to: evaluate the degree of psychological protection provided to workers by employer policies and practices; base this evaluation on the unique perspective and lived experience of employees; focus the evaluation on risk mitigation strategies commonly used by Canadian employers and which are relevant to the goal of protecting workers psychological health and safety; identify strengths or gaps In the array of risk mitigation strategies deployed by an employer; suggest organizational actions most relevant to enhancing the psychological health and safety of employees; allow a specific organization to compare its profile of risk mitigation to profiles of other organizations in the same sector; enable organizations to track performance over time (e.g., repeating the survey at specified intervals).

The reference norms for the GMW Employee Survey are fundamental to its relevance and utility. These are based on the administration of the survey to a stratified sample of working Canadians by Ipsos Reid (now Ipsos). Participants in this normative project were recruited using the Ipsos Reid I-Say Online Panel. Quota sampling and weighting were employed to balance demographics and ensure that the sample's composition reflected the employed Canadian population according to Census data. Following provision of informed consent, the participants completed the following measures using an online survey. Three datasets were gathered, in 2009 (N=6,894), 2012 (N=4,307) and 2016 (N=5,010). The first study included 12 Factors plus several measures of self-reported psychological distress or reduced function while the second study included 13 Factors. In 2020, the number of items was increased, and comparison data was gathered from a sample of over five hundred working Canadians.

Since its launch in 2009, the GMW Employee Survey has been used by thousands of organizations–public and private, for profit and non-profit – to evaluate the protection of psychological safety in their workplaces. Most of these organizations have been Canadian. However, there has been considerable international interest including translation of the survey into other languages. The survey was reviewed in 2012, 2016 and 2020 and revised where required to enhance its utility and address emerging research and theory. For example, in 2012, the survey was expanded to include a new factor, ‘Protection of Physical Safety’ and associated items to address the impact of the physical environment on worker psychological health and safety.

The 13 Factor GMW framework was incorporated into the *National Standard of Canada for Psychological Health and Safety in the Workplace* (the Standard) in 2013.

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A recent publication[1] suggested that the 13 Factors are not statistically independent, arguing that this is a flaw of the GMW measurement model. This finding emerged from a confirmatory factor analysis of a sample of nine hundred GMW survey respondents gathered in 2020. Statistical procedures, such as Factor Analysis, are used by researchers to describe variability in a complex interdependent set of variables and, if possible, to reduce this to a smaller set of independent dimensions, referred to as "factors."[2] While this is important in the development and validation of explanatory models, it may not lend itself to real world application. The results of this study were interpreted as a criticism of this survey's discriminant validity and relevance to assessing an organizations performance in the area of psychological health and safety. It is worth noting that this study did not address other statistical properties such as internal reliability or concurrent validity.

However, this criticism reflects a fundamental misunderstanding of the nature and intent of the 13 Factors described in GMW and the Standard. When they were developed there was no expectation that the Factors would be statistically distinct: rather, they were viewed as categories of psychosocial risk mitigation that impact the psychological well-being and safety of workers. It was assumed that they would overlap to some degree and influence one another, given the reality that risks and risk mitigation efforts by organizations are often intertwined, sharing leadership, dissemination tactics, implementation resources, immediate and longer-term goals, etc. The perception of managers' ability to identify psychologically distressed workers will likely be associated with perception of workers' awareness of their own psychological distress. An organization perceived as strong in organizational culture promoting trust is also likely to be perceived as strong in general level of civility and respect. An organization evaluated as strong in recognition and reward is also likely to be rated as strong in employee involvement and influence. And so forth, *ad tedium*. Separating these may be of interest to academic researchers seeking to portray the fundamental structures of psychological health and safety in organizations but is inappropriate and of little utility for an organization in the real world seeking to better protect the psychological health and safety of its employees. The needs of researchers and organizations are very different, which is manifest in the fact that many research findings do not lead to practical, 'real world' applications. This is reflected in the Standard, which makes no claim that the identified factors are statistically independent but rather describe common workplace dimensions that can addressed by employers to positively impact worker psychological health and safety, as well as organizational effectiveness and productivity.

[1] Smith, P.M., Oudyk, J. Assessing the psychometric properties of the Guarding Minds at Work questionnaire recommended in the Canadian Standard for Psychological Health and Safety in the Workplace. Qual Quant (2021). https://link.springer.com/article/10.1007%2Fs11135-021-01269-6

[2] The word "factor" is used here to denote a statistical construct—but the word factor has a broader meaning in the English language: a fact or situation that influences the result of something (Cambridge Dictionary). The term 'factor' in GMW is used with this broad meaning.

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To further illustrate this point, the authors conducted a Factor Analysis of the 2009 GMW Employee Survey dataset (N=6,894) [3] resulting in the identification of four underlying dimensions, with the first dimension, *Work Environment*, accounting for most of the variance. While this is intriguing from a research perspective, it is of little applied value.

In order to determine the worth of any tool, such as the GMW Employee Survey, in relation to its objectives, it is worth considering several key criteria:

Actionability

Do the survey results indicate the appropriate actions to take to improve the organization's performance, to become a more psychologically safe and healthy organization? GMW clearly does this because it measures specific organizational risks as rated by employees– therefore, when one of the factors is low the associated items suggest actions are relevant to enhancing it. Furthermore, complementary GMW tools provide clear guidance on what an employer can do, and how to evaluate the outcome.

Acceptability

Are actions, such as implementing a survey, that an organization takes to protect psychological health and safety acceptable to key stakeholders – management, HR, unions, etc.? In this regard it is important to note **that** the GMW Employee Survey does not measure worker mental health or distress variables, an approach which may be seen as 'blaming the victim.' Additionally, survey content is based on a strength-based approach, such that the items and reported results describe strengths, rather than deficits. Finally, no personal information is gathered, and results are reported in aggregate. These characteristics increase the likelihood of support and participation by all stakeholders.

Feasibility

Is the tool easy and practical for an organization to implement? The GMW Employee Survey was created and trialed based on iterative input and feedback from multiple work groups from a range of sectors, structures and sizes. It is offered in French or English at no cost, can be segmented by the user and is accompanied by clear guidance and technical support.

Effectiveness

Does the tool do what it is intended to do? The overall objective of GMW is to assist organizations to improve their workplace psychological health and safety. The fact that Canadian and international users have implemented the Survey, sometimes repeatedly, certainly suggests that they find it to be useful. It is also worth noting that the majority of organizations participating in a three-year Standard implementation study successfully used the tool[4] . Does the Survey improve worker psychological health and safety? This is beyond the scope of the tool however the fact that employers implement the survey demonstrates a commitment to addressing the issue and creates an expectation amongst employees they will do so.

[3] Gilbert, M., Bilsker, D., MacLellan, A. Kelloway, E. K. : Guarding Minds at Work: description, reliability, and validity. Unpublished Manuscript. (2016)

[4] Gilbert, M & Bilsker, D.Case Study Research Report. Mental Health Commission of Canada. (2018) https://mentalhealthcommission.ca/case-study-research-project/

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Comprehensiveness

Does the tool cover the critical aspects of the domain to be assessed? GMW was constructed to include most of the organizational features and behaviours relevant to enhancing psychological health and safety and mitigating associated risks in any Canadian organization. Are there specific factors relevant to particular sectors or organizations? Yes, of course. Workers such as First Responders clearly have unique work experiences and stressors. Will new factors or dimensions be identified? Yes, one would expect so. Ongoing changes in the type and nature of work, such as IT, as well as shifting job expectations by different demographic groups, such as younger employees, will lead to the identification of new facets of the work experience. Tools such as GMW will need to be updated to meet thes demands.

This is not to suggest, however, that the statistical properties of the GMW Employee Survey, such as reliability and validity, are not important. Analyses of the Ipsos reference samples have been conducted. Internal reliability of the psychosocial factors (Cronbach's alpha) was calculated from the 2009 study for factors 1 to 12 while data from the 2012 study was used to calculate internal reliability for Factor 13. This analysis revealed a high level of internal reliability, ranging from .771 to .892, suggesting that all survey items consistently measure the intended Factor.

The relationship between the psychosocial Factors and reported distress and functioning is also important to evaluation of the concurrent validity of the Employee Survey. Obtained correlations between the Factors and indices of psychological distress (the PHQ-2 (a measure of depression) and the GAD-2 (a measure of anxiety) as well as an index of presenteeism (Stanford Presenteeism Scale) are shown in the table below. It can be seen that correlations between the Factors and indices of psychological distress or presenteeism are moderate in size and statistically significant. All correlations reach the $p<.000$ level of significance. [5]

The primary objective in the creation of GMW is to provide a tool that is accessible, clear and useful for all Canadian employees and employers. Given the interest in, and application of, GMW over the last thirty years, this goal has been accomplished. GMW is one of many resources that are being offered to employers. Unfortunately, many of these lack the rigour and utility of GMW and are created for commercial or promotional purposes.

Future versions of GMW will need to incorporate new knowledge and understanding about the relationship between the complex world of work and worker psychological health and safety, particularly post pandemic. It is expected that the best principles of applied research and development will continue to be utilized in any revisions in order to assist with the ongoing task of creating quality instruments that are effective in improving workplace psychological health and safety. Until then, GMW remains the tool of choice.

[5] The Physical Safety factor was not evaluated as it was only included in the second study, where measures of psychological distress were not administered.

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Psychosocial factor	Pearson's r PHQ 2	Pearson's r GAD 2	Pearson's r SPS 6
1. Psych support	-.297	-.259	-.245
2. Org Culture	-.287	-.259	-.209
3. Clear Leadership	-.307	-.264	-.202
4. Civility & Respect	-.280	-.265	-.183
5. Psych job Fit	-.276	-.237	-.186
6. Growth & Dev	-.291	-.231	-.213
7. Recognition & Reward	-.311	-.262	-.245
8. Involvement & Influence	-.310	-.270	-.224
9. Workload Management	-.313	-.302	-.274
10. Engagement	-.301	-.196	-.333
11. Balance	-.359	-.329	-.237
12. Psych Protection	-.332	-.298	-.266