

An environmental scan summary:

Tools for measuring burnout and resilience among aged care staff

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Key Points

- A three-pronged search strategy was undertaken in November 2022 to identify tools used to measure burnout and resilience amongst aged care workers in Australia and beyond.
- The search identified only three tools that were used to measure workforce burnout in Australian aged care settings. A further three were identified that have been used among healthcare workers in general and not only aged care workers in Australian settings, and six that measure burnout among service worker populations (including aged care) beyond Australia.
- All tools were found to have good validity and reliability properties.
- An online burnout tool was also identified but used only as a self-check tool as it has not been tested for validity and reliability.
- The most commonly used tool is the Maslach Burnout Inventory (MBI), however, it is not a free tool.
- There was only one resilience tool identified, that is the Brief Resilience Scale, used among Australian aged care workers.
- There are existing tools to choose from with good validity and reliability that organisations and individuals can use to assess burnout and/or resilience levels, depending on the subscales or domains of interest (i.e., exhaustion, depersonalisation etc.).

Background

The aim of this environmental scan was to undertake a limited desktop review to identify existing tools used to measure burnout and resilience among the aged care workforce with a particular focus on those that have been used in an Australian population. Burnout is a syndrome that results from chronic stress at work and usually occurs amongst individuals who work with, and provide service to, other people. [1, 2] Resilience is the ability to bounce back or recover from stress or difficult situations. [3] Burnout and resilience were found to be related amongst a group of nurses. Those who experience burnout were those with moderate resilience levels only. [4] Therefore tools to measure these two concepts were explored in this preliminary scan completed by the Knowledge and Implementation Hub team in November 2022.

Methods

The environmental scan followed a structured method for identifying tools that measured burnout and resilience among aged care staff in Australia. This included a defined search strategy and eligibility checking against inclusion criteria. These processes are explained in further detail below.

Search strategy

The scan adopted a three-pronged approach in identifying relevant tools.

Google Advanced searches

Structured Google Advanced searches for tools used to measure burnout and resilience amongst aged care workers in Australia were undertaken from the 10-17 of November 2022. These searches applied the Chrome browser in incognito mode to avoid previous search history impacting results.

The search was structured as follows:

- The search terms tools or measures AND aged care were entered in the advanced Google search box combined with burnout or resilience.
- Australia was selected from the Region drop-down menu. However, as there are results that yielded non-Australian references as well, we expanded the search to non-Australian settings as they may provide information on other available tools of potential use in future Australian projects on burnout amongst aged care workers.



For each search run in Google Advanced, we aimed to retrieve and review the first 50 relevant resources.

Scanning key organisation websites

A list of key organisations and grey literature relevant to the topic of aged care workforce was compiled for more targeted searching. Organisations were identified during the scan process or were already known to the researcher group. They included:

- Australian Government Department of Health and Aged Care: <https://www.health.gov.au>
- COTA: <https://www.cota.org.au>
- Australian Association of Gerontology: Grey Literature Library: <https://www.aag.asn.au/Web/AAG-Resources/AAG-Grey-Literature-Library.aspx>
- Australian Ageing Agenda: <https://www.australianageingagenda.com.au>
- Aged Care Quality and Safety Commission: <https://www.agedcarequality.gov.au>
- Aged Care Workforce Industry Council: <https://acwic.com.au>

Google Scholar and focused PubMed searches

Since the tools to measure burnout are often reported in journal articles as part of research studies, a limited but focused search of the literature was undertaken in Google Scholar and PubMed.

The search was structured as follows:

- The search terms tools or measures AND burnout or resilience AND aged care, were entered in Google Scholar.
- The detailed PubMed search is available in Appendix 1 of this document.

Eligibility criteria

Tools were considered for inclusion if they:

- were available online or could be ordered online (e.g., kit)
- provided information about the source or developer of the tool and psychometric testing (validity and reliability)
- were previously used in an aged care setting or with healthcare workers.

Data extraction

The following information about each tool was entered in a spreadsheet

- tool name
- citation to the tool's development/validation study
- subscales or domains
- number of items and scoring process
- brief description of the tool's psychometric properties (validity and reliability)
- administration (i.e., who administers the tool and in what format)
- how to access to the complete tool.

Results

We found four tools that have been used to measure burnout amongst aged care staff in Australia. [1, 2, 5-11] One was developed, and pilot tested in Australia [8, 9] whilst the remaining three were developed in other countries but used in Australian settings. [1, 2, 5-7, 10, 11] Three tools were found that measured burnout among healthcare workers in general in Australia (not only aged care staff). [12-18] An additional six tools were included that measured burnout amongst service workers, including aged care staff amongst others, in other countries, as they may be relevant to use in future projects. [19-27] We also found an online burnout self-test, which is a quick and easy test for anyone wanting to check if they may be suffering from burnout. [28] We found only one tool that was used to measure resilience among Australian aged care workers. [3, 5]

Most of the tools were used to assess staff burnout relating to work concerns, especially those who work extended hours in providing care to others such as care workers, nurses and physicians. [1, 5-11, 14, 16, 24, 26] The most common domains or subscales evaluated in the tools are exhaustion, particularly mental or cognitive, emotional and physical exhaustion. [1, 6, 12, 14, 17, 22-24] Depersonalisation, which is the unfeeling and impersonal response towards recipients of one's care or service, [1, 26], disengagement, which refers to feelings of not being interested with work, [6] and distancing oneself from work were the foci of other tools. [17,22]. Depressive reaction, helplessness, inner void, inability to unwind and psychological and psychosomatic complaints are the other subscales considered in some of the tools. [17, 22]

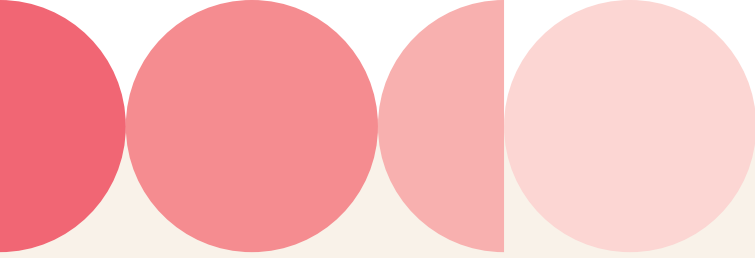
Details of all the tools including the specific subscales they evaluate, psychometric properties, number of items and scoring system, and how they are administered are available below in specific categories.

Tools that have been used to measure burnout among Australian aged care workers

All four tools in this category have been used amongst Australian aged care workers. [1, 6, 8, 11] Two of them underwent at least one form of validity and reliability testing. [8, 11]

Maslach Burnout Inventory (MBI)

Maslach Burnout Inventory (MBI) tool is the most used measure of burnout among aged care workers, particularly those in residential settings in Australia. [1, 2, 5] The MBI was developed to assess occupational burnout and includes subscales on emotional exhaustion, depersonalisation and personal achievement. The MBI was found to have good validity and reliability properties. It has 16-22 items depending on which version is used and is scored using a 0-6 Likert scale (0 – never, 6 – everyday), relating to the frequency of experiencing the questions listed in tool. Higher scores reflect higher burnout risk. The MBI can be administered by anyone collecting the data for an organisation or can be self-administered. It takes approximately 10 minutes to complete.



There are several versions that have been developed specific to different groups of population who may need to be assessed for burnout. These include the MBI – Human Services Survey (MBI-HSS), MBI-HSS (MP) for medical personnel, MBI (ES) for educators, MBI- GS for general use and MBI-GS (S) for students. Among aged care workers, the MBI-GS and MBI – Human Services Survey (MBI-HSS) were the ones identified to be more appropriate to use. [2]

Licensed copies of the MBI tools can be purchased via the Mind Garden website. [2]

Oldenburg Burnout Inventory (OLBI)

The Oldenburg Burnout Inventory (OLBI) is another tool that has been used to measure burnout among aged care workers in Australian residential settings. [5-7] It includes subscales on exhaustion and disengagement but not necessarily occupation specific. The OLBI was found to have good validity and reliability properties. It has 16 items and is scored using a 1-4 Likert scale (1 - strongly agree, 4 - strongly disagree). Some questions need to be reverse coded before calculating the total score. Higher scores indicate higher levels of burnout. The OLBI can be administered by anyone collecting the data for an organisation or can be self-administered.

The OLBI tool can be used free of charge and accessed via the Good Medicine website. [7]

A pilot tool to assess the perception of nursing staff about stress and burnout in Australian aged care settings

A pilot tool was developed to assess the perception of nursing staff in Australian aged care settings about stress and burnout. [8, 9] The tool was found to have an overall good validity and internal consistency for the stress or burnout subscales which include work environment, burnout, control, job satisfaction, psychosocial stressors and symptoms and personality/behaviour. It has 52 items and items are scored using a Likert Scale which varies in number depending on the item question. Higher scores indicate higher levels of stress and burnout considered as separate concepts. The tool was sent as questionnaire for respondents to complete.

This pilot tool was part of a PhD project and can be accessed in the full PhD thesis dissertation. [9]

Adapted COVI-Prim Survey

The adapted COVI-Prim Survey was based on the COVI-Prim Survey. The original COVI-Prim Survey was developed to investigate the role played by general practitioners (GPs) in the early phase of the COVID-19 pandemic, their challenges, concerns, and the strategies they have developed to cope with the pandemic. The original version has a total of 58 items that covered eight demographic items, 48 closed items and two items requiring GPs to provide exact numbers. [10] The adapted COVI-Prim Survey for use with the Australian residential aged care workforce (not only GPs) has a total of 60 items that include a question about suffering from burnout. [11] The questions are answerable by 'yes', 'no' or 'not applicable' and some are

open-ended questions. It was pre-tested for intelligibility of content and design by four Australian healthcare professionals and researchers. The adapted survey tool was sent as questionnaire for respondents to complete.

The survey tool can be used free of charge and accessed in this full paper. [11]

Tools that have been used to measure burnout among Australian healthcare workers

The tools in this category have been used amongst Australian healthcare workers in general, which included not only care workers but other healthcare providers.

Burnout Measure (BM)

The Burnout Measure (BM) was developed to measure burnout in terms of exhaustion amongst diverse groups of occupations including health providers. [12, 13] It was found to be a valid and reliable research instrument with high internal consistency and level of stability. It has 21 items scored on a seven-point scale, ranging from never to always and focused on individual's physical, emotional, and mental exhaustion. The higher the score, the higher level of exhaustion and burnout is experienced.

The BM tool can be used free of charge and accessed in the full paper. [13]

Copenhagen Burnout Inventory (CBI)

The Copenhagen Burnout Inventory (CBI) tool is a measure of burnout inspired by the Burnout Measure (BM) and the Maslach Burnout Inventory (MBI), where the core considerations are about fatigue and exhaustion. [14, 16] The tool was found to have high validity and internal reliability. It has three subscales that include personal burnout, work-related burnout, and client-related burnout. It has 19 items and scored using a five-point Likert scale focused on the frequency (never to always) and the degree or magnitude (very low to very high degree) of experiencing the questions in the tool. The higher the scores reflect higher burnout levels.

The CBI tool can be used free of charge and accessed in Det Nationale Forskningscenter website. [15]

Hamburg Burnout Inventory (HBI)

The Hamburg Burnout Inventory (HBI) is a measure of burnout that aimed to address the shortfalls of the Maslach Burnout Inventory (MBI) and Burnout Measure (BM). [16-18] The tool was found to have adequate validity and reliability. It includes subscales on emotional exhaustion, distance, personal accomplishment, depressive reaction, helplessness, inner void, tedium, inability to unwind, overtaxing oneself and aggressive reaction. The tool has 40 items and no information about scoring is available.

Copies of the HBI tool can be purchased via the Burnout Institute of North Germany website. [18]

Tools that have been used to measure burnout among in service worker populations (including aged care) beyond Australia

The tools in this category have been used amongst different groups of service providers in non-Australian settings but may potentially be relevant to use.

Maslach Burnout Toolkit for Medical Personnel

The Maslach Burnout Toolkit for Medical Personnel is a combination of the Maslach Burnout Inventory (MBI) and the Areas of Worklife Survey (AWS). The toolkit measures both the extent and likely cause of burnout. [19]

Licensed copies of the MBI tools can be purchased via the Mind Garden website. [19]

Areas of Worklife Survey (AWS)

The Areas of Worklife Survey (AWS) evaluates the workers' perceptions of workplace attributes that may determine if they experience work engagement or burnout. [20, 21] The AWS is a short companion questionnaire to the MBI, with good reliability and validity across diverse occupational settings. It includes subscales on workload, control, reward, community, fairness, and values. The AWS has 29 items scored on a five-point Likert-scale, ranging from strongly disagree to strongly agree. The higher the score, the higher the degree of perceived alignment between the working conditions and the respondent's preferences.

Licensed copies of the AWS tools can be purchased via the Mind Garden website. [21]

Burnout Assessment Tool (BAT)

The Burnout Assessment Tool (BAT) was developed as a measure of burnout appropriate for both individual and group assessment. [22] The BAT includes subscales on core dimensions of burnout (BAT-C; exhaustion, mental distance, cognitive impairment, emotional impairment) and secondary dimensions (BAT-S; psychological complaints, psychosomatic complaints). The tool was found to have good validity and moderate to high reliability. It has 33 items scored on a five-point Likert scale, from never to always. Higher scores reflect higher levels of burnout.

Copies of the BAT can be used free of charge and available in the full paper. [22]

Burnout Measure – Short version

The Burnout Measure Short (BMS) version was developed for ease of use among practitioners and researchers measuring burnout. [23] It was based on the original version of the BM and includes concepts of the experience of burnout on person's level of physical, emotional and mental exhaustion. It was found to be a valid and reliable measure of burnout. It has 10 items and scored on a seven-point frequency scale, ranging from never to always. Higher scores reflect higher levels of burnout.

Copies of the BMS can be used free of charge and available in the full paper. [23]

Shirom Melamed Burnout Measure (SMBM)

The Shirom Melamed Burnout Measure (SMBM) is a measure of burnout in relation to exhaustion of the individuals' energetic coping resources. [22, 24, 25] The SMBM has subscales on physical fatigue (a feeling of tiredness and low energy), cognitive weariness (a feeling of reduced mental agility), and emotional exhaustion (a lack of energy to display empathy to others). The tool was found to have good validity and reliability. It has 14 items scored using a seven-point Likert scale, ranging from almost never to almost always. Higher scores indicate higher levels of burnout.

The SMBM tool can be used free of charge and accessed in this paper. [24]

Utrecht Burn-Out Scale (UBOS)

The Utrecht Burn-Out Scale (UBOS) is the Dutch version of the Maslach Burnout Inventory – General Survey (MBI-GS). [22, 26, 27] It has subscales of exhaustion, cynicism and professional efficacy and was found to have high reliability. The UBOS-A has 15 items scored on a seven-point Likert scale, ranging from never to daily. The higher the score, the higher the burnout levels.

Refer to the MBI for items in the UBOS tool. Licensed copies of the MBI tools can be purchased via the Mind Garden website. [2]

Online Burnout Self-Test

Burnout Self-Test

The Burnout Self-Test is an online test to check if one is experiencing burnout. The test has not been tested for validity and reliability and therefore not to be used as a diagnostic measure of burnout. The test has 15 items scored on a five-point Likert scale, ranging from not at all to very often. Higher scores indicate burnout.

The Burnout Self-Test is available from Mind Tools free of charge. [28]

Tools that have been used to measure resilience among Australian aged care workers

Brief Resilience Scale (BRS)

The Brief Resilience Scale (BRS) is a measure of the ability to bounce back or recover after a stressful situation. [3, 29] The BRS was found to be a reliable measure of resilience. It has six items scored on a five-point Likert scale, ranging from strongly disagree to strongly agree. Higher scores indicate higher resilience.

Copies of the BRS can be used free of charge and available in the What Works Wellbeing website. [29]

Conclusion

There are existing tools with good validity and reliability that organisations and individuals can use to assess if burnout levels are increasing in the aged care workforce that is challenged by increasing demands. Of note, choice of tools will depend not only on the validity and reliability of the tools but also on the burnout components or subscales of interest. This is important so that strategies to prevent and address burnout can be prioritised, tailored, and implemented as early as possible, particularly in the workplace setting.

We note that only a few tools to measure burnout and resilience in the aged care workforce populations have been used with Australian populations. This is due to limited research and projects that investigated burnout levels of the Australian aged care workforce.

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synthesis[ti] OR metasynthesis[ti] OR meta analysis[ti] OR metaanalysis[ti] OR (Cochrane Database Syst Rev[ta] AND review[pt]) OR systematic review[pt]) AND English[la]

Appendix 1

The following PubMed search was used to specifically search for tools in systematic reviews:

(Burnout, Professional[majr] OR Compassion fatigue[majr] OR Occupational stress[majr] OR burnout[ti] OR burn out[ti] OR compassion fatigue[tiab] OR emotional exhaustion[tiab] OR depersonali*[tiab] OR occupational stress[tiab] OR professional stress[tiab] OR Resilience, Psychological[majr] OR resilien*[ti] OR ((staff[ti] OR worker*[ti] OR workforce[ti] OR employee*[ti] OR nurse*[ti] OR aide*[ti]) AND (Self care[majr] OR self care[ti])) AND (screening[ti] OR tool*[ti] OR inventor*[ti] OR scale*[ti] OR questionnaire*[ti] OR checklist*[ti] OR measur*[ti])) AND (systematic review[ti] OR systematic literature review[ti] OR systematic scoping review[ti] OR systematic narrative review[ti] OR systematic qualitative review[ti] OR systematic evidence review[ti] OR systematic quantitative review[ti] OR systematic meta review[ti] OR systematic critical review[ti] OR systematic mixed studies review[ti] OR systematic mapping review[ti] OR systematic cochrane review[ti] OR systematic search and review[ti] OR systematic integrative review[ti] OR rapid review[ti] OR evidence synthesis[ti] OR meta

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