INPLASY

CHARACTERISTICS AND VALIDATION OF WORK ENGAGEMENT MEASUREMENT TOOLS: A SCOPING REVIEW PROTOCOL

INPLASY2024120048

doi: 10.37766/inplasy2024.12.0048

Received: 12 December 2024

Published: 12 December 2024

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ADMINISTRATIVE INFORMATION

Support - RCSI for PhD studies.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024120048

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 December 2024 and was last updated on 12 December 2024.

INTRODUCTION

eview question / Objective There are several validated tools which measure employee engagement or related constructs such as; employee burnout- Maslach Burnout Inventory (Maslach & Leiter, 1997), Utrecht Work Engagement Scale (Schaufeli, et al., 2002) and the Job Engagement Scale (Rich, 2010) among others. Following an initial literature review of the benefits and pitfalls of each measurement tool it became apparent that there are several options, each tool presents a unique perspective with some overlap occurring. Maslach Burnout Inventory (MBI) and Utrecht Work Engagement Scale (UWES) both determine work engagement and burnout as opposing ends of a continuum (Cole et al, 2011), although Schaufeli subsequently identified burnout and engagement as distinct constructs (Schaufeli & Bakker, 2004). The UWES utilises phrases similar to the MBI with an opposing positive phrasing to Maslach's tool (Cole et al, 2011; Byrne et al, 2016). Despite its popularity and extensive use, the validity of the UWES has also been questioned in more recent times as there is significant overlap between the outcomes of it and the MBI ((Cole, et al., 2011) (Byrne, et al., 2016) which therefore raises the issue of construct proliferation if burnout and engagement cannot be distinguished from a theoretical perspective. The JES is based on the work of Kahn (1990), a seminal author in the area of work engagement (Rich, 2010). It distinguishes work engagement as an independent construct from burnout and the JES focuses on physical, cognitive and emotional energies that employees invest in their role (Houle et al, 2016). The goal of the JES is to 'measure the three dimensions of engagement in such a way that the commonality of those dimensions would adequately reflect job engagement' (Rich, 2010).

In order to provide a comprehensive review of work engagement measurement tools and to identify the validated tool most relevant to investigating the impact of a meaningful recognition programme for nurses and midwives on workforce issues, this scoping review aims to identify and present the available information on tools used to measure work engagement in employees, presence of validation and how these tools have been validated.

This scoping review intends to address the following questions:

- i. What work engagement [concept] measurement tools are available to measure work engagement in employees [population]?
- ii. What concepts and/or domains do the tools identified in question address?
- iii. Have the tools been validated and how?

Background Nursing and midwifery are uniquely privileged professions which are afforded access to many of life's most profoundly personal moments, witnessing and experiencing a wide breadth and depth of emotions. 'Nursing is an inherently human experience: it is done for humans, by humans, and as humans' (Kearns & Mahon, 2021). Despite this, nursing and midwifery worldwide continue to experience workforce issues, compounded by restricted healthcare budgets, a mismatch in demand and supply of nurses (WHO, 2020) reduced access to in-patient beds and a requirement to develop services with less resources. As professions, nursing and midwifery have always been roles with a significant burden of physical and psychological demands resulting in high stress levels and employee attrition rates (Ryan, 2022). These issues have been catapulted into crisis levels since the Covid-19 pandemic (Sweeney & Wiseman, 2023)the professions continue their fight to overcome the lingering effects of this global crisis. The concept of work engagement (WE) is of significant interest to employers for many reasons, not least because it has implications for staff retention and organisational outcomes. As a concept, it has generated some confusion as its meaning has such parallels with concepts such as 'job satisfaction, organisational commitment and job involvement' (Cole et al 2011. Pg 1) with some positing work engagement as the opposite end of a scale to employee burnout (Maslach and Leiter, 1997; Schaufeli et al, 2002; Cole et al, 2011).

Rationale This writer is undertaking a research study investigating the impact of a meaningful recognition programme for nurses and midwives

on workforce issues, including hope and work engagement. As a starting point this writer wishes to explore the available, appropriately validated tools for the measurement of work engagement in order to provide a strong evidence base for the identification of the tool most suited to the study. Scoping review is the chosen review methodology for this topic as its' format facilitates the descriptive recording, mapping and explanation of a body of evidence on a particular topic (Peters, et al., 2022; Khalil, et al., 2016) allowing the writer to gather the available literature on work engagement tools and map it to examine the domains and concepts addressed in each tool as well as the validation of each tool. Scoping reviews are often used to make clarifications around definitions and conceptual boundaries of a topic (Khalil, et al., 2016) and are a useful exercise for informing new research (Pollock, et al., 2021). While scoping reviews have had criticism in the past regarding terminology, reporting conduct, rigour, transparency and trustworthiness, these issues have been addressed by more recent reviews of the methodological framework by (Levac, et al., 2010) and JBI (Peters, et al., 2020). Along with the development of the PRISMA-ScR checklist and explanation by Tricco et al (2016) scoping review's standing in research has been significantly strengthened (Levac, et al., 2010). Using scoping review methodology supports the creation of an evidence based, rigorous review with a strong framework and quidance to examine Work Engagement measurement tools. This will in turn support the use of the most suitable validated tool for investigating the impact of a meaningful recognition programme for nurses and midwives on workforce issues.

There are currently no existing scoping reviews related to work engagement measurement tools registered on Inplasy (last search 25/11/24).

METHODS

Strategy of data synthesis A literature search using subject headings identified using a PCC framework (outlined below) will be conducted. Identifying key terms and possible synonyms for search purposes will maximise search reach. Subject headings search will be conducted for each database. Truncation will facilitate finding related words and terms within the literature, these searches will then be combined using Boolean phrases 'AND' and 'OR'. Inverted commas around terms will refine the search results to meet the review requirements. RCSI online library will be used to access CINAHL, Medline, Psych info and Business Source Premier databases. Individual database searches will be conducted using subject

headings and then these searches will be combined. Library expertise will be engaged to ensure a thorough search process. Reference lists of relevant papers will be screened. Since the aim of this review is to identify tools rather than studies an initial screen for articles or studies that either used or discussed a WE measurement tool will be screened and then the original reference for the tool identified from the article (that is the reference outlining the tool, its development, testing, theoretical underpinning etc.). Search terms utilised included:

Population/participation:Employees OR Employee Workforce OR Personnel OR staff OR workers OR manpower

Concept: "work engagement measurement tool" or "work engagement measurement tools" or "job engagement measurement tools" or "yob engagement measurement tools" or "work engagement measurement" or "work engagement measurements" or "work engagement instrument" or "work engagement instrument" or "work engagement scale" or "job engagement scales" or "job engagement scales" or "job engagement scales" or "work engagement scales" or "work engagement questionnaire" or "work engagement questionnaire" or "work engagement questionnaires" or "job engagement questionnaires" Context: Employment setting, work organisation, job, employment role.

Eligibility criteria Included Studies

Kahn's seminal writing on work engagement was published in 1990 therefore papers from 1980 to present will be reviewed to ensure all relevant works related to the measurement of work engagement are captured. Studies using or discussing tools that solely examine work engagement tools or where work engagement is the main item examined in the tool will be included. All types of work organisations will be included. Self-reporting tools targeting adults will be included. The term work engagement tool will be used throughout this protocol but the terms 'instrument', 'scale', 'questionnaire' and 'assessment' were also explored in the literature. Excluded Studies

Studies examining unvalidated measurement tools will not be included. This is to ensure that the relevant validated work engagement measurement tool is identified for use in future studies. Tools only presented in abstract or conference papers will be excluded.

Source of evidence screening and selectionUsing Covidence software two researchers (DMK and XX) will independently and blindly screen the titles and abstracts of the identified records to

evaluate eligibility. The full text of papers identified as potentially relevant will be reviewed by DMK. Any papers where there is disagreement or uncertainty will be referred to a third reviewer (XX) and discussed. A PRISMA-ScR flow diagram will be generated to demonstrate search results and maintain transparency in the process of screening and selecting relevant studies.

Data management Key data will be collated by DMK using a data extraction table (Peters, et al., 2020). This will include data including name of measurement tool (MT), a brief description, study authors, year of publication, aims of the MT, theoretical underpinning of MT, type of MT, characteristics of work engagement captured in MT and validity and reliability assessment outcomes, number of items, scoring system, time estimated to complete the form and work setting used in. Information regarding the study design and methodology will also be included in the data extraction table (See draft data extraction table in Appendix 1). Using an iterative approach studies will then be described and assessed, identified themes analysed linked and distribution of themes across the literature outlined. Discussion will outline the distinguishing features of each measurement tool and support the identification of the appropriate tool for use in the research study to follow 'Investigating the impact of a meaningful recognition programme for nurses and midwives on workforce issues, including hope and work engagement.' Implications for work engagement research will also be discussed.

Reporting results / Analysis of the evidence Key data will be collated by DMK using a data extraction table (Peters, et al., 2020). This will include data including name of measurement tool (MT), a brief description, study authors, year of publication, aims of the MT, theoretical underpinning of MT, type of MT, characteristics of work engagement captured in MT and validity and reliability assessment outcomes, number of items, scoring system, time estimated to complete the form and work setting used in. Information regarding the study design and methodology will also be included in the data extraction table (See draft data extraction table in Appendix 1). Using an iterative approach studies will then be described and assessed, identified themes analysed linked and distribution of themes across the literature outlined. Discussion will outline the distinguishing features of each measurement tool and support the identification of the appropriate tool for use in the research study to follow 'Investigating the impact of a meaningful recognition programme for nurses and midwives on workforce issues, including hope and work engagement.' Implications for work engagement research will also be discussed.

Presentation of the results Review findings will be presented using a data extraction table according to the aims of the measurement tool (MT) theoretical underpinning and characteristics examined in the MT. Types of MT (e.g. self-reporting survey), amounts of items and length of time required for completion of MT. Validity and reliability outcomes. Study design and methodology. In line with the iterative approach afforded by scoping review, any further relevant data identified will also be presented in the data extraction table. Descriptive analysis will follow, addressing the data extracted. A table plotting the characteristics addressed in the various MT's may also be presented if deemed relevant to the review.

Language restriction There will be no language restriction placed on this search, a translation service may be employed where required.

Country(ies) involved Ireland.

Other relevant information Working definitions: Work engagement (WE) a positive attitude of employees towards their role, demonstrated through 'express(ing) themselves physically, cognitively and emotionally during role performances' (Kahn, 1990) '...a positive, fulfilling, affective-motivational state of work-related well-being that can be seen as the antipode of job burnout. Engaged employees have high levels of energy, are enthusiastic about their work, and they are often fully immersed in their job so that time flies.' (Bakker et al, 2008).

Keywords work engagement; employee engagement; job engagement.

Dissemination plans The aim is for this scoping review to be peer reviewed, submitted for publication and presented at conferences. It, along with another scoping review examining 'Hope measurement tools, characteristics and validity' will inform a larger research project 'Investigating the impact of a meaningful recognition programme for nurses and midwives on workforce issues, including hope and work engagement.'

Contributions of each author

Author 1 - DENISE MCKERNAN - Author 1 drafted the manuscript.

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Author 2 - White, M - Author 2 reviewed the manuscript.

Author 3 - Dunne, P - Author 3 provided methodological guidance.

Author 4 - Timmins, F - Author 4 provided

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