Whole person assessment for family medicine: a systematic review

Hayley Robyn Thomas, Megan Best, David Chua, David King, Johanna Lynch

ABSTRACT

Objectives To identify and evaluate clinical approaches to whole person assessment (WPA) that are translatable to family medicine regarding feasibility, quality and alignment with theoretical models of whole person care (WPC).

Design Systematic literature review.

Data sources MEDLINE, Cinahl, Psychnfo and ATLA Religion databases were searched through 9 March 2020, with additional handsearches.

Eligibility criteria English language clinical assessments of multiple domains; which involve patient-clinician interaction and are translatable to general practice (GP); from the fields of medicine, allied health, nursing, mental health and pastoral care. Tools designed for single diseases or symptoms, for outcome rather than clinical assessment or with outdated classification systems were excluded.

Data extraction and synthesis We appraised the quality of included papers using Johanna Briggs’ Institute Checklists and Terwee’s criteria for validation studies. Clinical assessments’ alignment with theoretical WPC, feasibility for adaptation to GP and quality were examined. We analysed extracted data using framework synthesis.

Results Searches retrieved 7535 non-duplicate items. Fifty-nine were included after screening, describing 42 WPA methods and representing multiple disciplines, purposes and formats. All included assessments aligned partially with models of WPC, but most did not adequately encompass all aspects of WPC. Robustness varied significantly and was often inadequately described. We judged none of the identified assessments to be ideal as a multipurpose WPA in GP. Some could be used for specific purposes, such as elicitation of patient perspectives or complexity assessment.

Conclusions While no WPAs were found that were sufficient for broad implementation in GP, some approaches may be suitable with adaptation and evaluation. Strengths of existing approaches could inform WPA development in future.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ To our knowledge, this is the first study to systematically search for a whole person assessment suitable for general practice.

⇒ Our previous research clearly defined a model of whole person care, which we used to underpin this review.

⇒ The review uses an extensive search strategy and inclusion of literature from a variety of disciplines, by an interdisciplinary generalist research team.

⇒ The review was limited to English language literature and it is possible that some relevant studies may have been missed due to the breadth of the topic and exclusion of assessments designed for specific patient groups.

⇒ Limited descriptive information in many papers made specific understanding of what they assessed difficult.

INTRODUCTION

Whole person care (WPC) is foundational to general practice (GP), or family practice, and recognised best practice (note that ‘GP’ (UK term) is also used to include ‘family practice’/‘family medicine’ (US term) throughout this paper).1 WPC is a way of describing generalist clinical practice that integrates biology and biography within relationship.2 There is an urgent need for coherent approaches to assessment of the whole person as clinicians across disciplines seek to manage complex and often fragmented, undifferentiated or unexplained presentations of psychosocial distress and multimorbidity.3-10

International research has called for approaches that look beyond symptoms to the whole person.11 Generalism has been defined by consensus as the expertise of whole person medicine, and a craft that integrates broad scope, relational process, healing orientation, and integrative wisdom.2 12 WPC is a theoretically robust approach that integrates the science of how the body is impacted by life experience.13-15 General Practitioners describe a theoretical basis for WPC as a multidimensional approach that considers multiple aspects (or whole person domains) of the person and their context and synthesises these to develop a whole person approach (see figures 1 and 2).13 15 WPC has length (multiple consultations over time), breadth (not excluding any groups or conditions) and depth (delving beyond the presenting complaint to explore underlying issues and


1General Practice Clinical Unit, Faculty of Medicine, The University of Queensland, Brisbane, Queensland, Australia
2Institute for Ethics and Society, The University of Notre Dame Australia, Sydney, New South Wales, Australia

Correspondence to Dr Hayley Robyn Thomas; h.thomas@uq.edu.au

Received 24 June 2022
Accepted 23 March 2023

© Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ To our knowledge, this is the first study to systematically search for a whole person assessment suitable for general practice.

⇒ Our previous research clearly defined a model of whole person care, which we used to underpin this review.

⇒ The review uses an extensive search strategy and inclusion of literature from a variety of disciplines, by an interdisciplinary generalist research team.

⇒ The review was limited to English language literature and it is possible that some relevant studies may have been missed due to the breadth of the topic and exclusion of assessments designed for specific patient groups.

⇒ Limited descriptive information in many papers made specific understanding of what they assessed difficult.
preparative health). Relationship is its essential foundation. It includes both empirical and experiential knowledge, and is often delivered within a healthcare team. WPC overlaps with biopsychosocial (BPS) care, while addressing criticisms of the BPS approach through its stronger emphasis on synthesis between domains and on the clinical relationship. WPC also overlaps with patient-centred care, which additionally emphasises the specific process of joint decision-making; and with the perspectives approach to psychiatry that suggests attention to disease, dimensions, behaviour, and life story.

WPC addresses deficiencies in the reductionist biomedical and biotechnical paradigm that has historically characterised modern medicine, providing a critical framework to address some of medicine’s most pressing problems. The biomedical paradigm is effective in treating well-defined diseases but does not account for the complexities of the person in context, or recognise the critical interactions between physical, psychological and other domains of health. Emerging fields such as psychoneuroimmunology are revealing fundamental interrelationships between these domains. This is particularly relevant when considering patients with complex presentations that do not fit neatly into the biomedical paradigm. Reliance on single disease-specific guidelines can result in polypharmacy and harmful medication interactions when applied to patients with multiple chronic conditions. Similarly, failure to appreciate the interaction of psychosocial and broader contextual factors with physical symptomatology in patients experiencing medically unexplained symptoms can result in expensive overinvestigation and multiple specialist consultations, to no avail. Doctors often find these patients challenging to treat, which can result in both doctor and patient frustration. A more nuanced approach is required to

---

Figure 1  A model of whole person care (WPC). WPC is multidimensional in its scope, synthesises diverse information and incorporates length (repeated consultations over time), breadth (multidimensionality) and depth (delves beyond the presenting complaint to explore underlying issues and preventive care). It is founded on the GP–patient relationship and may involve a healthcare team. GP, general practitioner.

Figure 2  Whole person domains. Previous research has suggested that domains of the person in WPC can be conceptualised as including meaning and spirit, self, inner experience, body, relationships, social climate and environment. WPC, whole person care.
meets these patients’ needs, and to promote health as ‘a
state of complete physical, mental and social well-being,
and not merely the absence of disease or infirmity.’

The WPC paradigm addresses this need.

Some have argued that General Practitioners’ commit-
tment to WPC is more rhetorical than practical. The
practice of WPC is based on sophisticated generalist
clinical skills that prioritise breadth of scope, relational
process and integrative approaches to both experiential
and empirical evidence. General Practitioners iden-
tify that better translation of whole person approaches
from theory into practical assessment is needed.

Examination of the characteristics and strengths of iden-
tified assessments will also provide a basis to develop such
approaches.

METHODS

Study registration

We registered the systematic review protocol on the
International Prospective Register of Systematic Reviews
(registration number CRD42020164417). Through
discussion among the research team, we refined inclu-
sion/exclusion criteria to better reflect a generic WPA
tool during literature screening.

Inclusion criteria

Original research published in English from the fields
of medicine, allied health, nursing, mental health and
pastoral care that described clinical approaches or
tools used to perform WPA and were relevant to GP
were included. To be considered a WPA, approaches
were required to assess biological/physical, emotional/
psychological and at least one other aspect of the person
or their context, and to involve direct patient–clinician
interaction.

Exclusion criteria

We excluded literature that was non-English, described
non-English assessment tools, focused on cross-cultural
or single disease validation of tools, used outdated clas-
sification systems, was designed for outcome rather
than clinical assessment or was from fields not listed
above. We excluded tools unsuitable for adaptation to
GP due to length (more than 1 hour to complete in a
single session or as determined by reviewer judgement),
limited applicability (designed for single disease/diag-
nosis/symptom), unsuitability for an outpatient setting,
osti for multidisciplinary team (MDT) involvement or requirement for special training beyond
the scope of GP. We excluded patient self-filling scales,
except when these were part of a broader approach
involving patient–clinician interaction. Where multiple
WPAs were developed from a single theoretical nursing
framework, only the original WPA or one specifically
developed for GP was included. Where an updated
version of an included book chapter or tool was identi-
fied during the time of full text retrieval/data extraction, the updated version was included rather than the original.

Search strategy

HRT searched MEDLINE, CINAHL, PsycINFO and ATLA
Religion databases to 9 March 2020. We developed the
search strategy iteratively, then performed a preplanned
search. The final strategy searched for synonyms for
‘whole person’ nearby synonyms for ‘assessment/tool’
and for health-related quality of life assessments that
included both physical and emotional/psychological
factors. The search strategies are shown in online supple-
mental appendix 1. Following reviewer feedback similar
searches were rerun to include the terms ‘whole health’
and ‘whole person health’ in February 2023, and articles
suggested by reviewers were also screened (however, only
results published on or before the original search date
were eligible for inclusion). We handsearched reference
lists of included studies. For studies that described a rele-
vant WPA but did not include the assessment itself, we
searched the reference list and/or contacted the authors
requesting a copy of the assessment. We searched the
Scopus database for studies that cited included literature
and provided validation or evaluation data for the WPAs.
All citations were uploaded into Endnote V.X9 and duplic-
ates removed.

Study selection

HRT and DC independently screened over 50% of titles/
abstracts and achieved consensus through discussion.
Remaining title/abstract screening was divided between
HRT and DC, who assessed full texts where necessary and
discussed studies considered borderline for inclusion.
Disagreements were resolved through discussion and
consensus with the research team.

Quality appraisal

We assessed quality of included literature using Johanna
Briggs Institutes’ checklists. There was no Johanna
Briggs Institute checklist available for validation studies,
so Terwee’s criteria were used for these. Two reviewers
(HRT and either JL, DK, MB or DC) independently
appraised quality for an initial 20% of studies, achieved
consensus and divided the remaining studies between
them. No studies were excluded based on quality.

Data extraction

Fields of data extracted from included studies are shown
in table 1. We extracted information describing each
included study and assessment, along with information to evaluate each assessment’s alignment with theoretical models of WPC (ie, broad scope/multidimensionality, relational process, approach to information synthesis, team-based care), theoretical robustness and practicality for GP. Data were extracted independently by two authors (HRT and DC, MB, JL or DK) and consensus achieved for approximately 20% of studies, and by HRT for remaining studies. Extracted data are available on reasonable request to the authors.

Data synthesis
We performed framework synthesis using NVivo Pro V.12 for data management. Extracted data were tabulated and the content of assessments was grouped into broad domains (biological, psychological, social, spiritual and administrative) following coding. We compared WPA data and evaluated WPAs’ alignment with theoretical models of WPC, 12 13 15 16 20 35 36 appropriateness/feasibility for adaptation to GP, outcome data and robustness, and achieved consensus through discussion.

Characteristics of included WPA approaches/tools
A description of the 42 included approaches/tools and their strengths and weaknesses is provided in online supplemental appendix 2. The majority of WPAs originated from the field of mental health, with others from nursing, primary care, general medicine, palliative care, geriatrics and allied health. Some were from multiple fields.

The assessments were developed for various purposes, the most common being to guide holistic patient assessment by identifying key assessment domains and their relevant content. Others were designed to guide psychiatric formulation, needs assessment, case complexity assessment, clinical reasoning or medical documentation, or to elicit patient perspectives to inform the consultation. Accordingly, the assessments took various forms, including lists of questions/domains to assess, tools numerically scoring multiple assessment domains, interview guides coupled with visual tools to facilitate patient engagement, patient questionnaires which informed patient–clinician discussion, visual clinical reasoning tools, clinical guidelines or merely suggested approaches and care pathways. Some directly linked assessment to care planning.

RESULTS
Study selection and characteristics
Searches retrieved 7535 non-duplicate studies; 59 were included after screening (figure 3) and these described 42 tools/approaches for WPA. Included literature comprised 44 journal articles, 13 books/book chapters, 1 clinical training module, 1 patient brochure and 1 government research report. Most literature was text/opinion; others included quantitative (analytical cross-sectional, case-control, cluster RCT), mixed-methods, qualitative or validation studies and clinical guidelines. Most was from the USA or UK, with one assessment from each of Germany, 41 Canada, 12 Norway 43 44 and Switzerland. 45

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Fields of data extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study details</td>
<td>Author, year, literature type, study type, date, intended context (discipline)</td>
</tr>
<tr>
<td>WPA details</td>
<td>Assessment name, purpose, description</td>
</tr>
<tr>
<td>Theoretical alignment with WPC:</td>
<td></td>
</tr>
<tr>
<td>Broad scope/multidimensionality</td>
<td>Domains assessed</td>
</tr>
<tr>
<td>Synthesised</td>
<td>Approach to synthesising domains</td>
</tr>
<tr>
<td>Relational process</td>
<td>Relational context, relational continuity (length)</td>
</tr>
<tr>
<td>Team-based care</td>
<td>Assessed under practicality for GP below</td>
</tr>
<tr>
<td>Theoretical robustness</td>
<td>Theoretical basis, process of development, validation, evaluation (outcomes of use)</td>
</tr>
<tr>
<td>Practicality for GP</td>
<td>Acceptability, feasibility (eg, time to complete, training required, multidisciplinary involvement, evaluation data)</td>
</tr>
</tbody>
</table>

GP, general practice; WPA, whole person assessment.

Open access
influence on the patient’s problem,45 73 psychiatric formulation guides47 77 or numerical case complexity scores.41

Depth of relational context of the assessment was often not described. While all included assessments required patient–clinician interaction, many did not describe the context of patient–clinician relationship and it was often unclear whether there was an expectation of pre-existing or ongoing therapeutic relationship. While length (multiple consultations over time) is a feature of WPC in GP, few WPAs were longitudinal.42 45 46 49 54 60 64 65 67 72 78 83–86 Most tools developed for primary care, however, assumed both pre-existing and ongoing patient–clinician relationship.43 44 52 55 Where the nature of relationship was described, prominent themes included patient/provider collaboration45 56–58 64 66 73 77 79 80 87 88; specific communication skills46 76 77 79; and the process of assessment as an opportunity to express empathy48 56 59 89 and to strengthen relationship.43 44 46 49 51 54–59 66 71–73 76 77 79 83 84 86 87 Depth of assessment was difficult to assess, perhaps because this is more a function of time and quality of relationship than a characteristic of the WPA itself.

A team-based approach was included in some tools, though as stated above, WPAs where MDT assessment was essential were excluded for practical reasons.

**Theoretical robustness of assessment**

The theoretical robustness of identified WPAs, reflected by their theoretical basis, process of development, validation and evaluation of outcomes, varied and was often difficult to assess due to limited information.

In many cases, the assessment’s theoretical basis was assumed, rather than described. Where described, the most common bases included a BPS framework,41 43 45 47 52 53 55 61 71 87–90 person-centred care50–52 56–58 66 and various systems models.49 59 63 68 70 85 Some approaches focused on being ‘scientific’,55 while others explicitly aimed to combine the art and science of medicine.56–58 66 Assessments’ development was variably described. Several were developed from authors’ experience and/or literature,48 49 50 64 66 69 73 77 79 80 87 88 and some were adaptations of other tools.41 44 46 49 52–54 61 63 66 72 77 80 89 94 Some involved stakeholder input in development; most of these consulted experts,41 44 45 52–54 61 62 65 66 71–73 76 77 79 83 84 89 93 94 with only two describing patient input.43 44 62 Few assessments were validated. Of the 18 tools amenable to validation, data were available for 7.41 43 44 52–54 61 62 65 66 71–73 76 77 79 83 84 89 93 94 The tool with the most robust validation data was the 36-item short form survey (SF-36), however, the method proposed by Wetzler (combining the SF-36 with health status graph assessment) was not validated.83 86 The Patient Perspective Survey (PPS) was quite robust, with content and construct validity, but variable internal consistency.43 44 83 86 Most assessments had not been evaluated. Acceptability, where reported, was generally high among
clinicians and patients. However, this was often based on informal feedback,\textsuperscript{41 42 62 78–80 89 93 94} with a minority of studies including focus groups, interviews, written or survey responses.\textsuperscript{53 54 60 64 78–80 89 92 98} Where reported, most WPAs increased comprehensiveness of assessment (especially regarding non-biomedical factors, with one study reporting a shift from biomedical to psychosocial referral patterns),\textsuperscript{43 44 52 53 60 64 92} though one assessment reported an ongoing biomedical focus.\textsuperscript{53} and another noted that no new information was elicited in long-standing relationships.\textsuperscript{13 44} While some assessments reported improvements in therapeutic relationship\textsuperscript{52} and treatment satisfaction,\textsuperscript{52} others reported no change in these measures\textsuperscript{52 53 60 64}; authors hypothesising that this was due to a ceiling effect. Several studies reported improved outcomes, including quality of life,\textsuperscript{60 64 78} self-efficacy/empowerment,\textsuperscript{52 60 64 78} psychopathological symptoms,\textsuperscript{52 60 64} social outcomes,\textsuperscript{60 64} weight loss\textsuperscript{88} and self-assessed unmet BPS needs,\textsuperscript{60 64 78} while two reported no change in mental well-being.\textsuperscript{53 60 64} One reported reduced healthcare costs.\textsuperscript{60 64}

**Feasibility for GP**

Limited information about feasibility was available for many WPAs. The authors judged all included WPAs to be a reasonable length for GP implementation, however, few specified times for completion. Where stated, the time requirement varied from less than to over an hour (across multiple consultations).\textsuperscript{41 43 44 48 50 62 83} Several tools were flexible in content and length depending on patient needs.\textsuperscript{43–45 49 54 55 61 65 71 73 76 77 79 80 87 92 96–98}

Training requirements were often unspecified. Where stated, some assessments required no formal training\textsuperscript{42} while others varied between hours and days.\textsuperscript{41 46 52 54 60 64 65 80 85 86 93 94} All assessments could be completed by a single provider, however, MDT involvement was preferable for some.\textsuperscript{45 49 56–59 61 65–67 74 75 77 80 91} This may be an advantage or disadvantage depending on the health system context.

**Preferred WPAs for GP**

We did not identify any validated and evaluated assessment that addressed the diverse reasons for performing a WPA and was suitable for direct implementation in GP. However, some identified WPAs may be suitable for specific GP purposes.

To elicit patient perspectives and facilitate care planning (particularly for complex patients), the **health status graph assessment**, **Personalised Health Planning** and the **PPS** were considered most suitable, each with different advantages.\textsuperscript{43 44 81 83 86 88} These assessments are designed for the primary care context, broad, flexible and assume longitudinal care. They each involve the patient completing a survey (SF-36 for health status graph assessment), Personal Health Inventory (for Personalised Health Planning) or PPS), which is used to inform the content of the consultation. However, they provide limited guidance for information synthesis. The health status graph assessment and the PPS have the advantages of requiring minimal training and the availability of some validation data; development of the PPS also involved both clinician and patient input.\textsuperscript{53} 44 However, they are somewhat limited in scope (eg, neither addresses spiritual or religious aspects), and there is a cost to use the SF-36 for the health status graph assessment. Personalised Health Planning has the advantage of breadth (includes spiritual aspects) and some promising evaluation data.\textsuperscript{88 95} There are also studies evaluating use of Personalised Health Planning as one component of broader models of care (not included in this review, as not specifically focused on evaluation of the assessment component).\textsuperscript{96 100}

Other reasonable options for eliciting patient perspectives and stimulating discussion included the **Pizzi Health and Wellness Assessment** and approaches designed for mental health (**DIALOG/DIALOG+ tool, Life Map**).\textsuperscript{60 63 64 68 72 78}

To assess patient complexity to inform care planning, the **Minnesota Complexity Assessment Method (MCAM)** was considered most suitable.\textsuperscript{61} The MCAM has a clear theoretical basis (BPS), is designed for primary care, assumes ongoing clinician–patient relationship, is flexible and has a clear link between assessment and action planning. However, it is specific to complexity assessment, diagnostic assessment and clinical reasoning are a separate process. In addition, it is unvalidated (though the related Minnesota-Edinburgh Complexity Assessment Method (MECAM) has validation data);\textsuperscript{55} it does not address spiritual/religious aspects, and MDT involvement is ideal for full assessment. The MCAM is similar to the MECAM\textsuperscript{53} and Patient-Centred Assessment Method,\textsuperscript{52} however, these are designed to be conducted by nurses, whereas the MCAM is designed for a General Practitioner/nurse team and includes assessment of diagnostic challenge.

Some assessments included visual tools to synthesise whole person information, conceptualise how different domains may affect the patient’s problem and inform clinical reasoning. These included **Matthew’s Model of Clinical Reasoning**\textsuperscript{75} (designed for occupational therapy assessments) and the **Rehabilitation Problem-Solving form**.\textsuperscript{45} While these are not directly translatable to the GP context, they could be useful following adaptation.

**DISCUSSION**

This study sought to look for any tool available in the literature that was theoretically robust, broad and multidimensional in scope, relational in process, had an effective approach to information synthesis, and was feasible for GP implementation. Studies identified in this systematic review varied from this ideal. We identified multiple WPAs from diverse disciplines, with several purposes and formats. However, we did not identify any single theoretically robust approach that encompassed the diverse reasons for performing a WPA, was well validated and evaluated, and was suitable for direct implementation in GP. Nonetheless, from the WPAs identified, some were considered most suitable for specific purposes such as...
elicitation of patient perspectives, complexity assessment and facilitated clinical reasoning.

WPC is considered fundamental to GP^1^ and our results demonstrate that the concept is also of interest to multiple other fields. Despite this, there are substantial theoretical and practical gaps in existing WPAs. All assessments included in this review had a degree of alignment with WPC frameworks.\textsuperscript{121315} however, most did not fully encompass this concept. Due to our inclusion criteria, all WPAs included some breadth, or multidimensionality, of assessment. However, there was no consistent language used to describe included aspects of the person. For example, experiences which some assessments labelled psychological were considered by others as biological or spiritual. This makes understanding and comparing WPAs challenging. In addition, the depth in which each domain was assessed varied markedly between WPAs. Regarding information synthesis, very few tools gave a specific method to synthesise information into a whole person conceptualisation of the patient's problem; none of these were designed for the GP context. While all assessments involved patient–clinician interaction, most gave limited information about the relational context of assessment, which is the basis for WPC. Included assessments originating from primary care were generally more robust in this relational respect.

In addition, the theoretical robustness of many WPAs was often insufficient. While some assessments detailed their theoretical basis, many did not. Only two assessments described patient involvement in development,\textsuperscript{4162} departing from best practice.\textsuperscript{101} Finally, practical implementation information (eg, time to complete, resources, training requirement), validation and evaluation data for assessments was often unpublished. The reason for limited evaluation and validation is unclear; many tools were developed by clinicians and this may reflect lack of academic interest or expertise. Together, this suggests that there is need for further work to promote WPA and care.

This study provides a foundation for such work. We have identified several assessments that could be further adapted and evaluated for implementation for specific purposes in GP, as discussed above. We also identified strengths of individual WPAs, which could be incorporated into existing assessments, or combined to design a novel WPA for GP. These include: (1) Prioritising active patient involvement and aiming to use assessment to strengthen the therapeutic relationship, \textsuperscript{43444649–5154–59666971–7376777983848687} which are key aspects of patient-centred care,\textsuperscript{2122}; (2) Breadth of assessment, including all domains of the person (see figure 2); (3) Assessment of patient strengths as well as difficulties,\textsuperscript{43–4555–586062–64666871–8088} reflecting strengths-based approaches previously shown to improve outcomes;\textsuperscript{102}; (4) Flexibility, through providing a broad framework from which the clinician selects relevant aspects to accommodate varying patient needs and time constraints,\textsuperscript{43–45495461656771737677798087929697}; (5) A longitudinal perspective, through guiding initial assessment while acknowledging that full detail can emerge over time to align with long-term GP care;\textsuperscript{424345495460646769–7277788184–868890}; (6) Facilitated information synthesis and clinical reasoning,\textsuperscript{45737796–98103} and (7) A direct link between assessment and care planning.\textsuperscript{45–5456–666870717378808588} Assessments should also have a clear theoretical basis, such as that described previously.\textsuperscript{1315} be developed with patient and clinician input, and be appropriately validated/evaluated. One approach incorporating these strengths may include a clinician framework outlining suggested domains and questions to guide WPA (supporting multidimensionality/breadth); a corresponding patient survey (supporting the relational process); and a visual tool to assist whole-person clinical reasoning and care planning (supporting information synthesis), with changes assessed over time.

It is essential that this process of assessment remains relational, rather than becoming mechanical and systematised. While there is evidence that frameworks improve assessment of otherwise often neglected aspects of the person,\textsuperscript{323392} there is also a risk that such processes can be ineffective or harmful if their predetermined structure results in missed cues, insensitive questioning styles and controlling interactions.\textsuperscript{104} This emphasises the need for a flexible and adaptable framework that is founded on the therapeutic relationship.

While many WPA approaches exist, no unifying approach was identified. Most of the identified assessments were developed by independent clinicians. This supports their local relevance, but also results in heterogeneity and may impede evaluation. This situation may reflect a previous failure of academic GP to give sufficient attention to whole person practice. One barrier to such attention may include lack of a shared language and unifying philosophical framework between the traditionally distinct disciplines of biomedicine and social science, which are both relevant to this discussion; this has been addressed in recent work.\textsuperscript{105} Academic work may provide an underlying framework to inform medical education, and from which clinicians could adapt locally relevant approaches to WPA.

Strengths of this study are its extensive search strategy and inclusion of literature from a range of disciplines to capture a breadth of assessments considered to be ‘whole person’. Specific criteria were developed to assess the usefulness of identified assessments from a GP perspective. The research team comprised experienced generalists from several disciplines (GP, palliative care/ethics, primary care research), providing breadth of insight. Reliability was strengthened by the involvement of multiple team members in data extraction, quality appraisal and data analysis.

Limitations include that some relevant studies may have been missed due to the breadth of the topic. Reference lists of included studies were searched to help address this. Further relevant studies may have been published since the
original search date (March 2020); it was not feasible to update the search prior to publication due to its breadth and size. It is interesting that the vast majority of included WPAs originated from the USA or UK. It is difficult to know whether this reflects a particular interest in the topic in these locations, publication bias or limitations of the review (eg, English language limitation). Inclusion of physical, emotional and at least one other domain, together with patient–clinician interaction, is an imprecise way to identify WPAs, however, was used in initial screening due to the need for clear inclusion criteria. More nuanced assessment of included studies was performed during data analysis and described above. The language used to describe domains in the papers was taken as stated; limited descriptive information in many papers made more specific understanding of these terms difficult. Similar aspects of assessments may, therefore, have been grouped under different domains in our findings. Excluding assessments designed for specific patient groups (eg, disease specific assessments, narrowly focused discipline specific assessments, classification tools) may have missed some assessments that could have contributed to the discussion; however, this was considered necessary to identify approaches most likely to be clinically useful in GP. Notably, no included assessments detailed Indigenous perspectives. A view of the whole is embedded in an Indigenous way of viewing the world and it would be valuable to explore these in future research, to add depth to this review’s findings. 106–107

In summary, this research highlights a substantial need for ongoing work to translate the theoretical basis of WPC into a clinical WPA approach in GP. It provides a firm basis to do so, detailing the strengths and deficiencies of existing approaches to inform future development of a robust and flexible clinical WPA for GP. Such an approach is urgently needed to address the practical and ethical shortcomings of fragmented, reductionistic approaches to care and will assist in transforming primary healthcare and meeting the needs of patients with conditions such as multimorbidity and medically unexplained symptoms, supporting General Practitioners to provide optimal WPC. 27–28

**Acknowledgements** The authors gratefully acknowledge Lars Eriksson (Librarian, The University of Queensland) for his assistance with developing search strategies.

**Contributors** HRT contributed to funding acquisition, study conceptualisation and design, literature search and screening, quality appraisal, data extraction and analysis and writing the final report and is the guarantor for the article. MB contributed to study conceptualisation and design, literature screening, quality appraisal, data extraction and analysis, supervision and reviewing the final report. DC contributed to literature search and screening, quality appraisal, data extraction and analysis and reviewing the final report. DK contributed to literature screening, quality appraisal, data extraction and analysis and reviewing the final report. DC contributed to study conceptualisation and design, literature screening, quality appraisal, data extraction and analysis, supervision and reviewing the final report. The corresponding author attests that all listed authors meet authorship criteria and that no others meeting the criteria have been omitted.

**Funding** This study was supported by a University of Queensland Early Career Researcher Grant (UQECR2058513).

**Disclaimer** The funder had no influence on study conduct or reporting.

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were not involved in the design, conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication** Not applicable.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Data availability statement** Data are available on reasonable request.

**Supplemental material** This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

**ORCID iD** Hayley Robyn Thomas http://orcid.org/0000-0001-8801-894X

**REFERENCES**


13. Lynch J. Sense of safety: a whole person approach to distress in primary care. The University of Queensland, 2019


39 Terwee CB, Bot SDM, de Boer MR, et al. Quality criteria were proposed for measurement properties of health status questionnaires. *J Clin Epidemiol* 2007;60:34–42.
10


