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## KEYWORDS

life-limiting illness, terminal illness, end-of-life care, palliative intervention, ADL and iADL, cancer, quality of life, interprofessional team, symptom management, assistive devices

## HOW TO CITE

van Biljon HM, Engelbrecht M, van der Walt J, Soeker, SM. Occupational therapy in adult palliative care. A rapid review. *South African Journal of Occupational Therapy*. Vol 54 No 3. December 2024. DOI:  
<https://doi.org/10.17159/2310-3833/2024/vol54no3a9>

## ARTICLE HISTORY

Submitted: October 2023  
Reviewed 1st round: May 2024  
Reviewed 2nd round: June 2024  
Final revision: July 2024  
Accepted: July 2024

## EDITOR

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## DATA AVAILABILITY

Upon reasonable request, from corresponding author

## FUNDING

Authors were remunerated by The Occupational Therapy Association of South Africa (OTASA) who requested the review

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ISSN On-Line 2310-3833  
ISSN Print 0038-2337

# Occupational therapy in adult palliative care. A rapid review

## ABSTRACT

**Introduction:** The Occupational Therapy Association of South Africa commissioned a task team to gather evidence that would inform the upcoming National Health Insurance policies on the role and practice of occupational therapists. This rapid review aimed to identify level 1 and 2 peer-reviewed published evidence that describes occupational therapists' practice and intervention in adult palliative care.

**Method:** Systematic reviews and randomised control trials were searched for through the Stellenbosch University library. CINAHL (EBSCO), MEDLINE (EBSCO), the Cochrane Library (Wiley) and OTSeeker databases were used and hand searching of references in selected articles was done. Rayyan.ai was used for the screening and selection of articles. The CASP appraisal tool was used for quality assessment of the selected articles. Data was captured in Excel and Word and analysed and synthesised in Excel and Taguette.

**Results:** 15 articles were identified for data extraction in this rapid review. The CASP quality appraisal showed a good rating. Occupational therapists working in palliative care were reported to address: Functionality, activity participation and quality of life, symptom management related to disease and the treatment thereof, environmental modification and adaption, assistive devices and equipment, education and caregiver support and education, lifestyle adaptation, return to work or higher education/training.

**Conclusion:** South Africa has a unique palliative burden of care due to diseases that shorten life expectancy. Due to the unique and varied beliefs held by South Africans about illness and end of life, evidence from high income countries needs to be supplemented with local knowledge to frame the role and intervention of occupational therapists in palliative care. Evidence to support and define the role of occupational therapists claims this needs to be a matter of priority.

## Implications for practice

- Contextually relevant palliative care intervention needs to be included in the undergraduate curriculum for occupational therapists and once they go to community service, they need to be supported in this.
- Development and upskilling of occupational therapy clinicians in contextually relevant palliative practice at all levels of care need to be an available and accessible continuous professional development (CPD) activity.
- Occupational therapy clinicians working on the frontlines of palliative care need to be encouraged and supported to collect and present evidence for their practices in formats and at forums where it can be used to shape policies that affect palliative adult care locally and globally.

## INTRODUCTION

Palliative care, as defined by the World Health Organisation (WHO), is an approach aimed at enhancing the quality of life for individuals with life-limiting diseases and their families. This definition encompasses early identification, assessment, and intervention to address the physical, psychosocial, and spiritual needs of those in palliative care<sup>1</sup>. Palliative care is the broad term for services offered

to persons who have a life-limiting illness or disease by interprofessional service providers. It spans the time from point of diagnosis or identification of a life-limiting condition, to end-of-life (the last weeks or months of life) and terminal or dying (the last days to hours of life) care. There are several models and frameworks used to guide research and practice in palliative care<sup>2</sup>. One such model that is widely used in occupational therapy, is the International Classification of Functioning, Disability and Health (ICF) framework which extends to palliative care, where it allows the identification of intervention affecting activity and participation<sup>3</sup>.

The World Federation of Occupational Therapy (WFOT) notes that occupational therapists are globally recognised as valuable members of interprofessional care teams who focus on palliative intervention. The WFOT position statement<sup>4</sup> in this regard, states that occupational therapists recognise that participation in occupation is transformational and that persons who are terminally ill have the right to well-being and quality of life through engaging in meaningful occupations. They address the decline in functioning and can make a valuable impact in the lives of persons (and their families) from the point of diagnosis with a life-limiting condition right through to facing end-of-life realities. This position is supported by an Occupational Therapy Australia position paper<sup>5</sup> on occupational therapy in palliative care, and two publications on the role of occupational therapy in end-of-life care published in the American Journal of Occupational Therapy<sup>6, 7</sup>. Hammell et al.<sup>8</sup>; expand on this by stating that occupational therapists working in palliative care aim to enable a person with a life-limiting illness to participate in meaningful activities for as long as possible. The two interrelated foci of this occupational engagement are a balance between *focusing on life and preparing for death*.

The Constitution of the Republic of South Africa, No. 108 of 1996, upholds the fundamental rights to life and human dignity for all who live in South Africa<sup>9</sup>. Actioning this right within palliative care, a National Steering Committee on Palliative Care 2017 – 2022, was formed. Dr Dhlomo, the chair of the committee, presented the National Policy Framework and Strategy for Palliative Care with the hope that its implementation will allow “*patients to live as actively as possible with good quality of life as long as possible, despite the diagnosis of life-limiting or life-threatening illness*”<sup>10,4</sup>. In the introduction of this framework, Motsoaledi<sup>10</sup> underscores the crucial role of integrating palliative care as an integral part of the broader healthcare service continuum, particularly when addressing the significant health challenges faced by South Africans, such as the quadruple burden of diseases (HIV/AIDS, TB, maternal and child mortality, high levels of violence and injuries and non-communicable diseases). The National Palliative Steering Committee has estimated that approximately 50% of all individuals who died in South Africa could benefit from palliative care services<sup>10</sup>.

Palliative care is not confined to healthcare facilities but is delivered across all levels of the healthcare system and beyond. It encompasses an interprofessional approach aimed at providing care and support to individuals with life-threatening illnesses and their families. Its goal is to enhance the quality of life and uphold the dignity, starting from the moment of diagnosis and continuing throughout the entire journey until the end of life<sup>10</sup>. Interprofessional palliative teams include doctors, nurses, dieticians, pharmacists, occupational therapists, physiotherapists, chaplains, psychologists, social workers and family members. Occupational therapy is a person-centred health profession concerned with promoting health and well-being through occupation, enabling people to participate in the activities they value<sup>11</sup>. Occupational therapists achieve this outcome by working with people and communities to enhance their ability to engage in such occupations, or by modifying the occupation, or the environment, to better support their occupational engagement<sup>12</sup>. Intending to inform National Health policies the Occupational Therapy Association of South Africa (OTASA) commissioned a task team to

provide evidence of occupational therapist's role in palliative care. This was to be done in the form of a rapid review.

The rapid review methodology was selected to produce timely evidence for decision-making purposes and to address urgent and emergent health issues and questions deemed to be of high priority. Garrity et al.<sup>13</sup> define a rapid review as a form of knowledge synthesis that accelerates the process of conducting a review by streamlining specific methods to produce evidence for stakeholders in a resource-efficient manner. This review considered Randomised Control trials (RCTs) and systematic reviews (Level 1 and 2 evidence<sup>14</sup>) published in peer-reviewed journals related to occupational therapy intervention in adult palliative care. Burns et al.<sup>15</sup> described these levels of evidence to be in the form of systematic reviews and randomised control trials (RCT). An adult in this current review is considered to be 18 years and older. The authors' postulation is that in general, under 18-year-old persons' occupational needs and activities, and by implication occupational therapy intervention, differ from those of adults and the same applies to persons who are retired or not vocationally active anymore. In South Africa adults 60 years and older qualify for the governmental older persons grant<sup>16</sup>. This was taken into consideration in this review.

The aim for this rapid review was to conduct a review of interventions that occupational therapists provided in adult palliative care reported as evidence in level 1 and 2 peer reviewed journal articles.

## METHOD

The OTASA rapid review task team consisted of four occupational therapists (the authors) who met online regularly. They used the South African Department of Health method guide and template for rapid reviews<sup>17</sup> and the Cochran Rapid Reviews method guide<sup>13</sup>. The first author, assisted by the other authors during all phases of the review, was the principal researcher for the adult palliative rapid review. This rapid review was conducted from May to August 2023.

### Search strategy

#### Step1: Topic and review refinement

The review question was: *What is occupational therapy's role and intervention in palliative care with adults?* Eligibility criteria for inclusion of articles were defined according to the population, intervention, context and outcome (PICO) elements.

**Population:** Adult human beings, 18+ years, no upper cut-off age was specified, all gender-, and cultural groups, with life-limiting illnesses.

**Intervention:** Any form of occupational therapy as per the World Federation of Occupational Therapy definition.

**Context:** All settings where palliative care is offered.

**Outcomes:** Occupational therapy intervention in palliative care of terminal adults, from the point of diagnosis to end of life.

Only evidence of **population groups** 18 years and older with no upper cut-off age and/or with no prescribed proportion of age groups were considered. Articles that focused specifically on paediatric palliative care or specifically on older adults or geriatric end-of-life care were excluded. The reasoning behind this is that in occupational therapy, paediatric and geriatric interventions are recognised and well-published fields of practice<sup>18, 19</sup> and have age-specific interventions that differ from the occupational realities of the population group identified for this review. However, if an article reported - younger than 18-year-olds and older adults - as part of a larger and general research population, such articles were included.

All forms of occupational therapy **intervention** were considered. Considering palliative care from the point of diagnosis to end-of-life suggests various **contexts** for intervention. From acute specialised hospital settings to hospice long-term care and even private homes.

**The outcome** of interest was occupational therapy intervention that involved the acknowledgement of the inevitability of death, loss of

function, and the aim to be as active as possible for as long as possible.

#### Step 2: Strategy and search

Evidence considered for this review was systematic reviews and randomised control trials that were written in English, published in peer-reviewed journals between January 2013 and June 2023 for which full texts were available to the OTASA rapid review task team. The date range was decided on by the OTASA rapid review team through an iterative decision-making process. The review team had access to Stellenbosch University Library where the following databases were searched: CINAHL (EBSCO), MEDLINE (EBSCO), the Cochrane Library (Wiley) and OTSeeker. In addition, the first author did a hand search of the references of articles that

#### RESULTS

were selected after screening, including articles that were not found in the original search.

#### Step 3: Study Screening and Selection

Rayyan<sup>20</sup> software was used to screen articles and generate a PRISMA flow diagram (Figure 1, adjacent). Two of the authors did the screening using the software's blinded setting. Conflicts were resolved by discussion and consensus. Figure 1 (adjacent) shows the results of this screening and selection.

#### Step 4: Quality appraisal and data extraction

The first author created quantitative and qualitative data extraction templates in Excel and Word. The Critical Appraisal Skills Programme (CASP)<sup>21, 22</sup>, which offers the healthcare professional with various checklists to check the quality of articles, was used. The CASP Systematic Review<sup>21</sup> and the CASP RCT<sup>22</sup> checklists were used for this study. The quality rating indicated in Table II (adjacent) was devised by allocating scores to the three answer options: Yes = 2, Can't tell = 1, and No = 0. The higher the rating percentage the greater the quality of the research. Comments noted during the appraisal were considered in the discussion section of this article.

#### Step 5: Evidence Synthesis

Quantitative data were analysed in Excel predominantly with frequencies/percentages. The qualitative data were analysed using Taguette<sup>23</sup>, a free open-source data analysis tool for qualitative research. The authors met online on a regular basis, at least once every two months, and discussed the results of the analysis. The final synthesis of the results was done by the first author.

#### Step 6: Reporting and dissemination of results

The results of the rapid review were presented in the form of a report to the OTASA Council and submitted to the South African Journal of Occupational Therapy for peer review and publication. The PRISMA 2020 diagram<sup>24</sup>, Figure 1 (adjacent), shows the results

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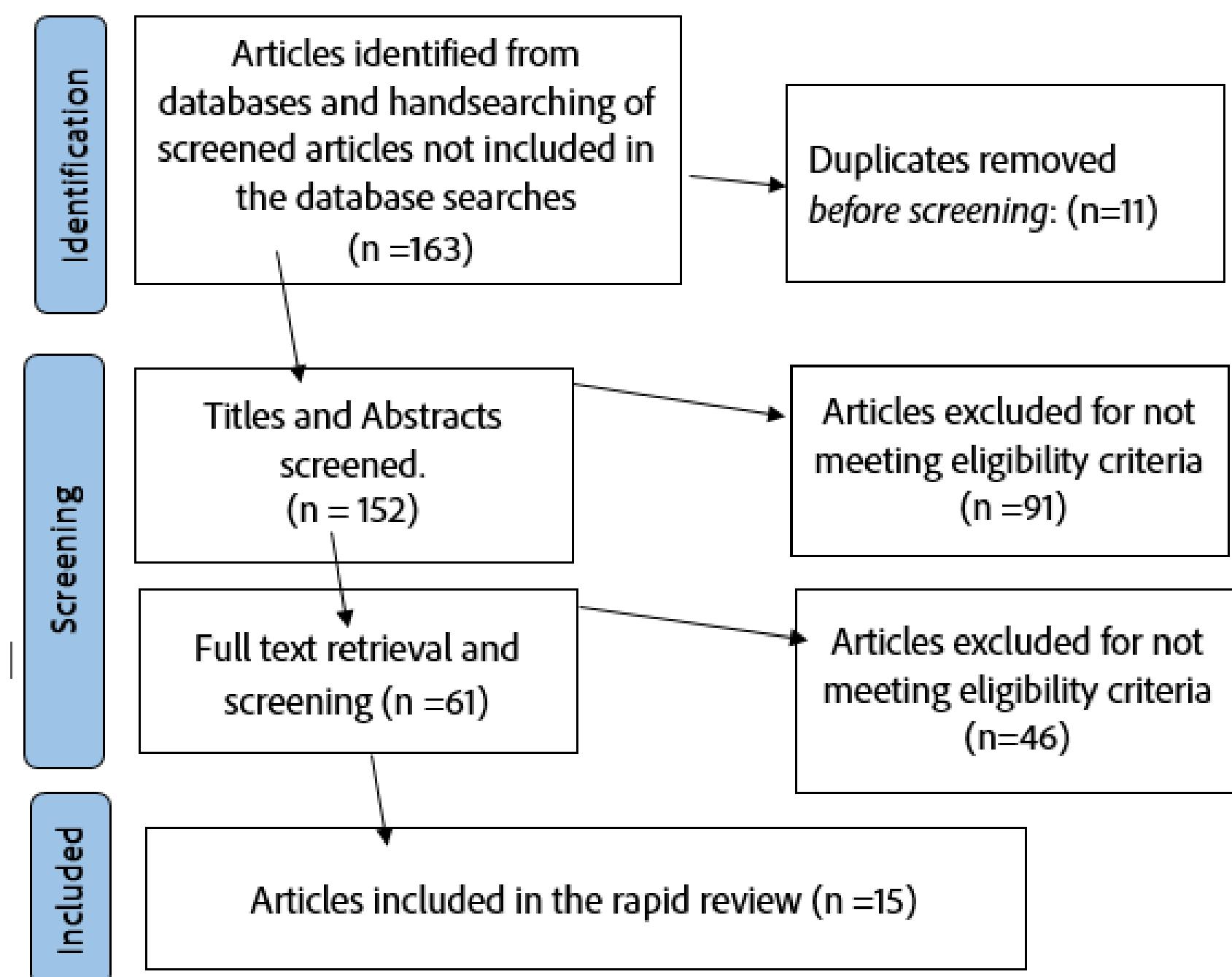


Figure 1. PRISMA2020 shows the results of the searching, screening and selection of articles.

Table I (below) lists the 15 included articles, in alphabetical order of first author's surname. There were six randomised control trials (RCTs) and nine systematic reviews. All RCTs were done in the European Union: four were conducted in Denmark, one in Turkey

and one from a Netherlands-Spain collaboration. The six systematic reviews were predominantly executed by USA authors, with one from Australia, one from Denmark and one from Korea. There were no articles from Africa.

**Table I. Articles used for this rapid review and the country of origin.**

| #  | Citation   | Country               |
|----|--|-----------------------|
| 1  | Arbesman M, Sheard K. Systematic review of the effectiveness of occupational therapy-related interventions for people with amyotrophic lateral sclerosis. <i>AJOT Am J Occup Ther</i> [Internet]. 2014 May 3;68(1):20+. Available from: <a href="https://link.gale.com/apps/doc/A357472207/AONE?u=27uos&amp;sid=bookmark-AONE&amp;xid=cbb38d8d">https://link.gale.com/apps/doc/A357472207/AONE?u=27uos&amp;sid=bookmark-AONE&amp;xid=cbb38d8d</a> <sup>25</sup>  | USA                   |
| 2  | Hansen A, Pedersen CB, Jarden JO, Beier D, Minet LR, Søgaard K. Effectiveness of physical therapy-and occupational therapy-based rehabilitation in people who have glioma and are undergoing active anticancer treatment: single-blind, randomized controlled trial. <i>Phys Ther</i> . 2020;100(3):564–74. <a href="https://doi.org/10.1093/ptj/pzz180">https://doi.org/10.1093/ptj/pzz180</a> <sup>26</sup>  | Denmark               |
| 3  | Hunter, E. G., Gibson, R. W., Arbesman, M., & D'Amico, M. (2017). Centennial Topics—Systematic review of occupational therapy and adult cancer rehabilitation: Part 1. Impact of physical activity and symptom management interventions. <i>American Journal of Occupational Therapy</i> , 71, 7102100030. <a href="https://doi.org/10.5014/ajot.2017.023564">https://doi.org/10.5014/ajot.2017.023564</a> <sup>27</sup>   | USA                   |
| 4  | Hunter E. G., Gibson R. W., Arbesman M., & D'Amico M. (2017) Systematic review of occupational therapy and adult cancer rehabilitation: Part 2 Impact of multidisciplinary rehabilitation and psychosocial, sexuality, and return-to-work interventions. <i>American Journal of Occupational Therapy</i> , 71, 7102100040. <a href="https://doi.org/10.5014/ajot.2017.023572">https://doi.org/10.5014/ajot.2017.023572</a> <sup>28</sup>   | USA                   |
| 5  | Huri M, Huri E, Kayihan H, Altuntas O. Effects of occupational therapy on quality of life of patients with metastatic prostate cancer: a randomized controlled study. <i>Saudi Med J</i> . 2015;36(8):954. <a href="https://doi.org/10.15537%2Fsmj.2015.8.11461">https://doi.org/10.15537%2Fsmj.2015.8.11461</a> <sup>29</sup>   | Turkey                |
| 6  | Hwang N-K, Jung Y-J, Park J-S. Information and communications technology-based telehealth approach for occupational therapy interventions for cancer survivors: a systematic review. In: <i>Healthcare</i> . MDPI; 2020. Vol8 No4. <a href="https://doi.org/10.3390/healthcare8040355">https://doi.org/10.3390/healthcare8040355</a> <sup>30</sup>   | Korea                 |
| 7  | Lozano-Lozano M, Galiano-Castillo N, Gonzalez-Santos A, Ortiz-Comino L, Sampedro-Pilegaard M, Martín-Martín L, et al. Effect of mHealth plus occupational therapy on cognitive function, mood and physical function in people after cancer: Secondary analysis of a randomized controlled trial. <i>Ann Phys Rehabil Med</i> . 2023 Mar;66(2). <a href="https://doi.org/10.1016/j.rehab.2022.101681">https://doi.org/10.1016/j.rehab.2022.101681</a> <sup>31</sup>   | Netherlands and Spain |
| 8  | Nottelmann L, Groenvold M, Vejlgaard TB, Petersen MA, Jensen LH. Early, integrated palliative rehabilitation improves quality of life of patients with newly diagnosed advanced cancer: The Pal-Rehab randomized controlled trial. <i>Palliat Med</i> . 2021;35(7):1344–55. <a href="https://doi.org/10.1177/02692163211015574">https://doi.org/10.1177/02692163211015574</a> <sup>32</sup>  | Denmark               |
| 9  | Piil K, Juhler M, Jakobsen J, Jarden M. Controlled rehabilitative and supportive care intervention trials in patients with high-grade gliomas and their caregivers: a systematic review. <i>BMJ Support Palliat Care</i> . 2016;6(1):27–34. <a href="https://doi.org/10.1136/bmjspcare-2013-000593">https://doi.org/10.1136/bmjspcare-2013-000593</a> <sup>33</sup>  | Denmark               |
| 10 | Pilegaard MS, la Cour K, Gregersen Oestergaard L, Johnsen AT, Lindahl-Jacobsen L, Højris I, et al. The "Cancer Home-Life Intervention": a randomised controlled trial evaluating the efficacy of an occupational therapy-based intervention in people with advanced cancer. <i>Palliat Med</i> [Internet]. 2018;32(4):744-756. Available from: <a href="https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01571787/full">https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01571787/full</a> <sup>34</sup> | Denmark               |
| 11 | Pilegaard MS, la Cour K, Baldursdóttir F, Morgan D, Oestergaard LG, Brandt Å. Assistive devices among people living at home with advanced cancer: Use, non-use and who have unmet needs for assistive devices? <i>Eur J Cancer Care (Engl)</i> . 2022 Jul;31(4):e13572. <sup>35</sup>  | Denmark               |
| 12 | Sleight A, Gerber LH, Marshall TF, Livinski A, Alfano CM, Harrington S, et al. Systematic review of functional outcomes in cancer rehabilitation. <i>Arch Phys Med Rehabil</i> . 2022;103(9):1807–26. <a href="https://doi.org/10.1016/j.apmr.2022.01.142">https://doi.org/10.1016/j.apmr.2022.01.142</a> <sup>36</sup>  | USA                   |
| 13 | Sposato L. Occupational Therapy Interventions for Adults at the End of Life: A Systematic Review of Dignity Therapy. <i>Occup Ther Ment Heal</i> [Internet]. 2016 Oct;32(4):370–91. Available from: <a href="https://search.ebscohost.com/login.aspx?direct=true&amp;db=cin20&amp;AN=120213555&amp;site=ehost-live&amp;scope=site">https://search.ebscohost.com/login.aspx?direct=true&amp;db=cin20&amp;AN=120213555&amp;site=ehost-live&amp;scope=site</a> <sup>37</sup>  | USA                   |
| 14 | Stout NL, Santa Mina D, Lyons KD, Robb K, Silver JK. A systematic review of rehabilitation and exercise recommendations in oncology guidelines. <i>CA Cancer J Clin</i> . 2021;71(2):149–75. <a href="https://doi.org/10.3322/caac.21639">https://doi.org/10.3322/caac.21639</a> <sup>38</sup>   | USA                   |
| 15 | Taylor S, Keesing S, Wallis A, Russell B, Smith A, Grant R. Occupational therapy intervention for cancer patients following hospital discharge: How and when should we intervene? A systematic review. <i>Aust Occup Ther J</i> . 2021;68(6):546–62. <a href="https://doi.org/10.1111/1440-1630.12750">https://doi.org/10.1111/1440-1630.12750</a> <sup>39</sup>   | Australia             |

#### Quality appraisal

Two of the CASP (Critical Appraisal Skills Programme) checklists were used to assess the quality of articles identified for this rapid review: Randomised Controlled Trial Standard checklist<sup>22</sup> and Systematic Review checklist<sup>21</sup>. Article rating: A score of > 4 indicates

high quality, a score of 3-4 shows moderate quality, and a score of < 3 represents low quality (Berger and Alperson, 2009) was expressed in percentage and shown in Table II (page 5). The 'sample size' of each article depicts the number of participants in an RCT and the number of articles included in a systematic review.

**Table II. Type of evidence, sample size and CASP rating of included articles.**

| Article                            | Type of evidence  | Sample size | CASP rating |
|------------------------------------|-------------------|-------------|-------------|
| Arbesman et al. <sup>25</sup>      | Systematic review | 14          | 65%         |
| Hansen et al. <sup>26</sup>        | RCT               | 64          | 80%         |
| Hunter et al. <sup>27</sup>        | Systematic review | 86          | 90%         |
| Hunter et al. <sup>28</sup>        | Systematic review | 52          | 90%         |
| Huri et al. <sup>29</sup>          | RCT               | 55          | 78%         |
| Hwang et al. <sup>30</sup>         | Systematic review | 15          | 80%         |
| Lozano-Lozano et al. <sup>31</sup> | RCT               | 78          | 88%         |
| Nottelmann et al. <sup>32</sup>    | RCT               | 288         | 76%         |
| Piil et al. <sup>33</sup>          | Systematic review | 9           | 76%         |
| Pilegaard et al. <sup>34</sup>     | RCT               | 242         | 70%         |
| Pilegaard et al. <sup>35</sup>     | RCT               | 237         | 78%         |
| Sleight et al. <sup>36</sup>       | Systematic review | 362         | 76%         |
| Sposato et al. <sup>37</sup>       | Systematic review | 10          | 73%         |
| Stout et al. <sup>38</sup>         | Systematic review | 21          | 66%         |
| Taylor et al. <sup>39</sup>        | Systematic review | 9           | 70%         |

The palliative condition addressed in 14 out of the 15 articles was cancer and one was a motor neuron disease (amyotrophic lateral sclerosis or ALS). The settings which the occupational therapy intervention took place were not reported by all the articles. Settings that were reported ranged from inpatient and outpatient hospital care<sup>26,36,39</sup>, hospice and palliative care<sup>36,37,39,25</sup>, private homes/domiciliary and community settings<sup>25,29,31,32,34,35,36,39</sup>, education and work settings<sup>27</sup>, and sheltered living<sup>34</sup>. Seven of the articles referred to the value in palliative care of working in interprofessional teams<sup>25,27,28,31,32,33,39</sup>. Arbesman and Sheard<sup>25</sup> reported evidence that people with ALS who were involved in interprofessional programmes had 30% longer survival, more appropriate assistive devices and higher quality of life in social functioning and mental health than those in general care. Interprofessional teams were noted to include physicians, nurses, occupational therapists, physiotherapists, speech and hearing therapists, dieticians/nutritionists, psychologists, social workers and chaplains<sup>25,32</sup>. Referring specifically to ALS, Arbesman et al.<sup>25</sup> report that occupational therapy is part of the palliative care team through all phases of the disease, including immediately before death.

#### Occupational therapy interventions reported in the selected articles

Interventions that occupational therapists were involved in were grouped into five themes: 1) Functionality, activity participation and quality of life, 2) Symptom management related to disease and the treatment thereof, 3) Environmental modification and adaptation, assistive devices and equipment, 4) Education and caregiver support, and 5) Lifestyle adaptation, return to work or higher education/training. These are reported below in order of frequency as they were mentioned in the articles.

##### *Functionality, activity participation and quality of life*

All the articles referred to occupational therapists' involvement with functionality, activity participation and quality of life and this was the most frequently reported role and intervention. In many cases, specific actions within these concepts were not expanded on. The general impression was that occupational therapists aimed at keeping persons with life-threatening illnesses as functional as possible doing activities of importance to them for as long as possible. Sposato et al.<sup>37</sup> cite Hammill et al.<sup>8</sup> whose systematic review concurs that individuals at the end of life should remain engaged in occupations of value to them, to maintain a sense of competence and mastery over self and their environment. This approach also prevents disuse syndrome<sup>38</sup> and helps with the management of pain, fatigue and depression<sup>30</sup>. Huri et al.<sup>29</sup> reported that occupational therapy with breast cancer patients focus specifically on the quality of life through management of pain, fatigue, nausea, metastatic patients intervention, stress-reducing and management programmes, the value of engagement in meaningful activities, lymphedema, vocational rehabilitation,

creative and therapeutic use of activity, cognitive therapy, and changing lifestyle with cognitive behavioural therapy.

Several articles noted that the occupational therapists addressed the activity participation needs<sup>25,26,27,28,30,32,39</sup> of adults faced with life-limiting illness, listing the following: activities of daily living (ADL) and instrumental activities of daily living (iADL), work, leisure, hobbies, community mobility, social participation, and rest and sleep. Sleight et al.<sup>36</sup> identified functional areas as fundamental to cancer rehabilitation and the occupational therapists were involved in the following: quality of life, activities of daily living, functional mobility, fatigue, cognition, and return to work. Hunter et al.'s<sup>27,28</sup> reviews concluded that occupational therapy practitioners are well suited to investigate occupational performance, occupation-based strategies, quality of life, and participation status to support client-centred interventions before, during, and after treatment of cancer.

*Symptom management related to disease and the treatment thereof*  
 Fatigue, loss of energy, disrupted sleeping and rest are common problems reported by persons with cancer<sup>40</sup> and ALS. An RCT<sup>26</sup> found that occupational therapists address fatigue in people with ALS. A systematic review of telehealth interventions<sup>30</sup> and an RCT of the BENECA mHealth app<sup>31</sup>, which monitors energy balance, reported that these occupational therapy interventions positively addressed fatigue, reduced sleep disturbances and insomnia<sup>39</sup>. Stout et al.<sup>38</sup> and Nottelmann et al.<sup>32</sup> reported occupational therapists address fatigue, energy conservation, sleep and rest through assessment, education and instruction. Other articles similarly report occupational therapists involved in fatigue and energy conservation at home, work, and community environments with practical intervention by recommending rest breaks<sup>25</sup>, lifestyle behaviour changes<sup>30</sup>, assistive devices and adaptations<sup>41,27,37</sup>.

Huri et al.<sup>29</sup> report the use of cognitive behavioural therapy-based occupational therapy (OT-CBSM) with male cancer patients. Occupational therapy telehealth psychosocial interventions that included cognitive behavioural therapy and problem-solving were reported<sup>30</sup>: the BENECA mHealth application, the Occupational Therapy Practice Framework and the Cognitive Orientation to Daily Occupational Performance (CO-OP). Cognitive functional training<sup>31</sup> were also reported as interventions with cancer patients. Cognitive training, cognitive behavioural therapy, home-based problem-solving sessions and a generic referral to cognitive therapies were other reported occupational therapy interventions<sup>27,28,33,36,38</sup>.

Pain symptom management is an important aspect of end-of-life care<sup>37</sup>. Hunter et al.<sup>27,28</sup> reported pain management to be the most common occupational therapy focused on symptom intervention reported in their two systematic reviews. Two of the RCTs noted the occupational therapy intervention they studied effectively reduced pain<sup>31,29</sup>. The management of pain in cancer palliative care was often linked to fatigue interventions<sup>30,31,39</sup>.

Hunter et al.<sup>28</sup> reported strategies that occupational therapists used to address mental health and stress with cancer patients and listed a variety of psychosocial interventions, interventions focused on reducing anxiety and depression, spiritual well-being interventions and stress management groups. An RCT showed occupational therapy using a telehealth approach improved patients' confidence, and self-efficacy and reduced their depression, anxiety, and distress levels<sup>30</sup>. A systematic review on dignity therapy<sup>37</sup> concluded that therapeutic approaches to help regulate troubling emotions commonly seen at the end of life (i.e., anxiety, depression, helplessness, etc.) should be part of palliative occupational therapy.

Three of the articles reported occupational therapy intervention focused on lymphedema management<sup>27,38,39</sup>. Hunter et al.<sup>27</sup> found that occupational therapy practitioners can feel confident in suggesting physical activity to clients with lymphedema. Stout et al.<sup>38</sup> reported the use of compression garments, progressive

resistance training under supervision, manual lymphatic drainage and range of motion exercises and activity participation.

#### *Environmental modification and adaption, assistive devices and equipment*

Assistive devices facilitate the performance of everyday activities and the conservation of energy. An occupational therapist often recommends assistive devices to enable activity participation and improve the quality of life for their clients<sup>37,38,39</sup>. An RCT of the Cancer Home-Life Intervention<sup>34</sup> investigated the efficacy of this occupational therapy-based intervention and the assistive devices used by persons with advanced cancer who still live at home<sup>35</sup>. This study highlighted the prevalence of assistive devices used and the importance of skilled occupational therapy assessment of assistive devices and continued provision for people with advanced cancer.

Arbesman et al.<sup>25</sup> found occupational therapy practitioners can play a vital role in helping the client find positions of comfort in bed or a wheelchair. Practitioners provided splinting to address hand contractures, grab rails, raised toilet seats, and shower seats. They also assisted other team members to enable participation in meaningful activities (e.g., visiting friends, carrying out ADLs and IADLs, and using equipment to control the environment). This study<sup>25</sup> showed that persons with ALS most valued assistive devices and equipment, increased safety and independence for bathing and toileting, and increased dignity and independence. Occupational therapy practitioners were uniquely qualified to help people with cancer choose the correct equipment and make environmental modifications with consideration of the disease progression<sup>25,38</sup>.

#### *Education and caregiver support*

Arbesman et al.<sup>25</sup> indicated triggers for initiating individual or family discussions about end-of-life issues. These triggers were: a request by the family when a person enters hospice care. Occupational therapists educated family and hospice workers on positioning and client needs. Telehealth was used by occupational therapists for aftercare intervention, education and guidance, supervision and support of patients, family and caregivers<sup>30</sup>. Pill et al.<sup>33</sup> also found that telephonic follow-up was a useful strategy and that patients, their families and caregivers' need for psychosocial support was met by applying different psychosocial approaches. As part of a interprofessional team occupational therapists took part in early intervention education sessions<sup>32</sup>, education for goalsetting and activity scheduling<sup>39</sup>, and provided caregiver training<sup>37</sup>. There are activities of end-of-life that can be incorporated as part of the intervention that occupational therapy may consider.

#### *Lifestyle adaptation, return to work or higher education/training*

Five studies reported occupational therapists involved in assisting persons with cancer to return to work and vocational rehabilitation<sup>27,28,29,30,36</sup>. Occupational therapists assisted clients in applying ergonomics and energy-saving techniques at home and work, allowing them longer and pain-free participation in activities at home, workplace and community<sup>25,37</sup>. These included task adaptations such as sitting versus standing, taking regular rest breaks, and using adaptive tools and assistive devices<sup>25,37</sup>.

#### **Ethical considerations**

Ethical clearance was not required for this review as no primary data collection was done. The quality and bias of selected articles were tested to ensure quality results to inform the question of this review.

## **DISCUSSION**

The World Health Organization (WHO) advocates for the enhancement of palliative care as an integral part of comprehensive healthcare<sup>42</sup>. This global commitment acknowledges that palliative care is an ethical responsibility of health systems and insists on the urgent need to include palliation across the continuum of care, especially at the primary healthcare level. The South African Policy,

Framework and Strategy on Palliative Care 2017 – 2022<sup>10</sup>, acknowledged this and called for appropriate and accessible care that will be responsive to the needs of patients with a life-threatening illness and their families or caregivers. The policy also mentions occupational therapy as part of the package of care for a patient in palliative care. Globally, there are position papers<sup>54</sup>, books<sup>43</sup> and seminal articles that position occupational therapy within palliative care providing holistic, client-centred approaches with constant reassessment of the needs of the individual, their families and carers. Occupational therapy interventions aim to enhance independence, as individual as well as within collectives or communities, in various aspects of daily life. This encompasses a range of strategies, such as providing assistive devices and facilitating retraining, evaluation and adjusting seating and bed requirements, as well as prescribing wheelchairs and pressure-relieving methods. Further, occupational therapists address cognitive and perceptual dysfunctions, employ splinting techniques to prevent deformities and alleviate pain, conduct home visits and assessments, and assist individuals in managing their lifestyles, including hobbies and leisure activities. They offer valuable advice and education, teach relaxation techniques, and help manage issues like fatigue and breathlessness through energy conservation methods. Additionally, occupational therapists provide support and education to caregivers, assist individuals in their psychological adjustment to their loss of function, and collaborate on setting realistic goals for their retraining endeavours. Effective occupational therapy in palliative care reduces anxiety, promotes self-efficacy and dignity, and once loss of independence does occur the correct way to adjust to and handle this.

In their review, Hunter et al.<sup>27</sup> found that occupational therapy practitioners working with survivors of cancer of all types, stages, and points on the survivorship continuum have a body of evidence to support current and future practice. Taylor et al.'s<sup>39</sup> systematic review identified that occupational therapy provides intervention for three major ICF domains; Rehabilitation (Activity and Participation), Symptom management (Body Structures and Function) and Environmental modifications. Representation in all major ICF domains is positive. Adult palliative intervention from the occupational therapist, within a interprofessional programme or team was reported in nine articles<sup>25,26,27,28,32,33,35,36,38</sup>. Arbesman et al.<sup>25</sup> indicate that occupational therapists within an interprofessional team brought a unique client-centred and occupation-based perspective to the interprofessional team. The interprofessional approach showed the potential to meet the variety of needs in palliative care<sup>33</sup>.

The South African National Policy Framework and Strategy on Palliative Care (NPFSPC)<sup>10</sup> foresees that most South Africans will receive palliative care within their communities, placing palliative care within the primary healthcare domain. At the primary care level, community-based resources and a palliative care approach are essential to support the needs of people with chronic diseases. To achieve this, it is necessary to have empowered people and communities, a PHC workforce trained in the basic approach of palliative care and the availability of medicines and health policies that integrate this, focusing on the patient and the family as well as the referral of the patient when required<sup>42</sup>. All of this leads to the consideration of the limitations of this rapid review.

#### **Limitations of the study**

None of the articles' address or consider persons living with HIV and Aids. HIV being one of the leading causes of death in South Africa<sup>44</sup> it is disconcerting that there is no occupational therapy evidence supporting the role of the occupational therapists in HIV/AIDS in this context.

Except for Turkey, which has an upper-middle-income economy, all the evidence in this rapid review was from high-income countries. There were no systematic reviews or RCT articles on adult

palliative care from Africa, or Low- and Middle-Income Countries (LMIC) such as South Africa. In the book *Occupational Therapy: An African Perspective*, Matovu<sup>45,255</sup> concludes her chapter on occupational therapy in palliative care in an African setting stating that in Africa, with its unique and varied cultural and religious beliefs around illness, death and dying occupational therapists cannot 'extrapolate western biomedical approach' to palliative care.

### Future research and other recommendations

Motsoaledi<sup>10</sup> notes that in Africa, the burden of palliative care is focused on dealing with death arising from HIV. The absence of level 1 and 2 evidence on the occupational therapist's role within this context needs to be addressed as a priority. Occupational therapy training and education in contextually relevant palliative care is essential. This should be at the undergraduate and post-graduate levels as well as continuous professional development activities for clinical occupational therapists. Responsibility for the support, mentoring and equipping of community service occupational therapists and therapists responsible for taking palliative occupational therapy services to populations with the greatest health needs<sup>46</sup> should be seen as a collective South African occupational therapy responsibility.

### CONCLUSION

In South Africa, the palliative care burden is predominantly carried by family and communities and occupational therapists are actively engaged in primary healthcare and community environments, making them well-suited to meet the requirements of individuals who need palliative care and their families or communities. The aim of this review was to gather global level 1 and 2 evidence published in peer reviewed journals of interventions that occupational therapists provided in adult palliative care. The results showed that occupational therapy practices transcend the healthcare sector and extend the role of the profession to schools and education facilities, the labour market, the life insurance industry, religious institutions, hospices, family homes and community settings. Occupational therapy practitioners worked with various types of life-limiting illnesses and at different stages of palliative care and that they provided intervention for Rehabilitation (Activity and Participation), Symptom management (Body Structures and Function) and Environmental modifications ICF domains. They were active in within interprofessional programs and teams bringing a client-centred and occupation-based perspective to the team.

None of the articles reported evidence from Africa. Due to South Africans' varied and unique beliefs concerning end-of-life, first-world evidence cannot be used to frame the role and intervention of occupational therapists within adult palliative care. South African policymakers, and future research need to prioritise the generation of contextually relevant and high-level research evidence to support and define the role of occupational therapists in Africa. In addition to evidence, the skilling, training and support for occupational therapists offering palliative intervention need to be recognised by South African occupational therapists representing professional bodies, healthcare policymakers and training institutions.

### Acknowledgements

Stellenbosch University (SU), the SU library and SU occupational therapy departments who assisted, encouraged and enabled the access to evidence.

### Conflicts of Interest and other declarations.

The authors declare they received remuneration from the Occupational Therapy Association of South Africa (OTASA) for this review. They declare that this did not affect their decision making in the review and results were not skewed to provide the outcome OTASA wanted to have. They have no bias to declare.

The Large Language Model (LLM), ChatGPT, was used to assist with the language editing and paraphrasing of the final article.

### Author contribution

All authors planned and participated in review. They all took part in the writing and revising after two reviews of the article. Shaheed M. Soeker initiated and supervised the review. Hester van Biljon spearheaded the review, drafted, saw to completion and submitted the article.

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