Palliative Care for the Elderly – Developing a curriculum for Nursing and Medical Students.

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Abstract

Background
Delivering palliative care to elderly, dying patients is a present and future challenge.
Multimorbidity, dementia and frailty complicate care and the number of elderly patients is increasing in many western countries. Teaching palliative care of the elderly to students as well as an interprofessional team approach can help to enable future health care providers to face this challenge.
We therefore researched and created a curriculum focussing on the palliative care needs of the elderly for undergraduate and nursing care students.
The aim of this paper is to raise awareness for the need for such a curriculum and to support curriculum developers in identifying relevant learning goals.

Methods
In order to identify relevant learning goals and objectives for the curriculum, we proceeded in three subsequent stages.
We researched international literature for existing undergraduate palliative care curricula focussing on the palliative care situation of elderly patients, we researched international literature for palliative care needs of the elderly and we merged the results and presented them to a group of geriatrics and palliative care experts. Experts were asked to add issues they feel might not have been presented adequately yet.

Results
Relevant learning goals were identified and results from literature research are categorized in four fields: Geriatrics, Palliative Care, Communication & Patient Will
and Organisation & Social Networks and were approved by the experts. The curriculum developed is based on and divided in the four fields mentioned.

**Conclusions**

Four fields were identified that can help to classify learning goals. They have been grouped systematically as mentioned and learning objectives as well as methods were added to the presentation. However the information provided to help develop curricula on palliative care of the elderly can not serve to substitute for basic curricula on palliative care and geriatrics. When implemented, learning goals have to be modified according to yet existing curricula on palliative care and geriatrics at the institution in question.

**Background**

i) introduction

Palliative Care for the elderly is a present and future challenge to health care systems around the globe as the proportion of people aged 60 years and older is growing faster than any other age group in many countries [1-3].

As a medical faculty, we came to the conclusion, that this topic has to be part of the palliative care education at our institution, as of now, the palliative care curriculum mainly focuses on cancer patients.

We therefore took effort in creating an interprofessional curriculum (IC) focussing on the palliative care needs of elderly patients addressing 3rd year nursing and medical students.
This article aims at (1) displaying the need for interprofessional curricula focussing on the palliative care needs of elderly patients and (2) to identify relevant learning goals and objectives.

To achieve these aims we used a standard approach to curriculum development [4]. It includes six steps: General needs assessment, characterization of learners, goals & objectives, educational strategies, implementation and evaluation & feedback.

**ii) general assessment**

Traditionally, elderly people have been defined as those aged 65 and older, but the origin of this definition is unknown. An analyses performed in Japan using empirical, clinical and pathological data suggests that the term should rather apply to those 75 years and older [5].

Delivering high quality palliative care to elderly patients is complicated by different factors. Multimorbidity in general as well as dementia, frailty and other forms of functional impairment complicate palliative care for elderly persons [6-8]. Clinical difficulties are additionally escalated by demographic change in many mentioned earlier. Furthermore, insufficient treatment of pain among the elderly is a problem that is just recently being tackled [9-10].

The interprofessional team approach is considered particularly important when facing this challenge [3, 11-12]. What is more, conflicts between professions can be a hindrance to adequate delivery of care [13].

National governments, for instance the German, [14] and international institutions, like the WHO [15] acknowledge the increasing need for interprofessional education (IPE) and urge providers of education to implement curricula that serve to prepare health care professionals for the task.
iii) characterize learners

As problems related to an ageing society will increase, students of all health care professions should be familiar with the issue before entering their professional field. Ideally IPE is delivered at an early stage to learners in the health care sector to increase professional role understanding and promote future teamwork [16-17].

The IC presented in this paper focused on medical as well as nursing students. In our study we focussed our population on 4th year medical students as they already accomplished the compulsory courses on palliative care and geriatrics which the IC was based on at our university. Nursing Care students chosen did not undergo a comparable palliative care curriculum – we therefore decided to include 3rd (last) year students to achieve the best possible homogeneity within the interprofessional intervention group.

Methods

i) introduction

In order to identify relevant learning goals and objectives, we proceeded in 3 subsequent stages.

Stage one: we searched international literature for existing undergraduate palliative care curricula focussing on the end of life situation/palliative care in the elderly patient. Questions being addressed to the studies found were:

- “Which goals are included in the curriculum?”
- “How have goals been researched?”
- “Which learning objectives are provided?”
“Which educational strategies are used?”

Stage two: we researched international literature for palliative care needs of the elderly. Questions being addressed to the studies found were:

- “Which study designs were used?”
- “What are the special needs of a dying elderly person?”

Our searches were limited literature searches in nature as grey literature, hand search and expert linking was not performed.

Stage three: results were presented to a group of geriatrics and palliative care experts. Based on expert opinion additional aspects were integrated. Eventually learning goals were translated into a curriculum on palliative care for the elderly.

**ii) Stage one, literature search: undergraduate Curriculums**

Researching undergraduate curricula on palliative care of the elderly, we searched the following sources:

- Medline, Medline In-Process & Other Non-Indexed Citations, Embase, EBM Reviews: Cochrane DSR, ACP Journal Club, Dare, CCTR, CMR, HTA and NHSEED via OVID
- AMED, ETHMED, Heclinet, gms, Springer Publisher Database and Thieme Publisher Database via Dimdi

The search strategy involved 3 fields:

“Education”, “Palliative Care” and “elderly person”
Sample search strategy for OVID:


All types of scientific publications found did undergo abstract screening.

Inclusion criteria:

- Describes undergraduate curriculum
- Curriculum goals are included
- Describes learning objectives
- Describes teaching strategy

Exclusion criteria:

- Curriculum description not included
- Postgraduate curriculum

**iii) Stage two, literature search: palliative care needs of the elderly**

Researching the palliative care needs of the elderly, we searched the following sources:

- Medline, Medline In-Process & Other Non-Indexed Citations, Embase, EBM Reviews: Cochrane DSR, ACP Journal Club, Dare, CCTR, CMR, HTA and NHSEED via OVID
The search strategy involved 3 fields:

“Palliative Care”, “elderly person” and “needs”.

Sample search strategy:

Palliative Care (Palliative Care [Mesh] OR End of life Care OR terminally ill)
AND Elderly person (geriatrics [Mesh] OR elderly OR old) AND Needs (needs)

As initial screening produced a systematic literature review [18] on the palliative care needs of elderly persons, we therefore excluded works published in 2003 and earlier.

All types of scientific publications found did undergo abstract screening.

Inclusion criteria:

- related to end of life issues of the elderly
- published after 2004

Exclusion criteria:

- Published before 2004
- No information on the needs of elderly people at the end of life included

### iii) Stage three: Expert interviews

Results from literature reviews described in this section are presented to four experts on geriatrics and palliative care for critical appraisal. Experts are asked to add issues they feel might not have been presented adequately yet.
The expert team consists of one expert on dementia (MScN), two experts on geriatrics (MScN, PhD, Professor) and one expert on palliative care (PhD).

Results

i) Introduction
The following section will summarize the results of all three research stages ii)-iii)
They can be categorized in four fields: Geriatrics, Palliative Care, Communication & Patient Will and Organisation & Social Networks
Under iiiii) a synthesis of the results found will be shown in the form of a model curriculum plan. This curriculum was used at the University of Witten/Herdecke, Germany in winter term 2008.

ii) Stage One: results from limited search undergraduate curriculum
The search was performed first in February 2008 and last updated in July 2009 and produced 202 results.
Data extraction was performed by two independent researchers simultaneously and thereupon adjusted.

Figure 1: Flow-diagram literature search curricula
The goals used can be categorized in four fields: (1) Geriatrics, (2) Palliative Care, (3) Communication & Patient will and (4) Organisation & Social networks. Two of the articles included did indicate that theme research for the presented curricula was based on expert advice only [19-20]. One article did not comment on a search strategy for learning goals [21]. No learning objectives were presented in any of the articles.

The educational strategies used include: Power point presentation, case studies, reference articles, role-play and reflection as well as discussion rounds.

**Geriatrics**
- Geriatric assessment [19].
- Importance of interdisciplinary team approach [19].

**Palliative Care**
- Symptom management [19-21].
- Systematic pain management [19-20].
- Palliative Assessment [19].
- Professional self care [19].

**Communication and patient will**

- Communication with patients and relatives [21].
- Grief [21].
- Ethical aspects [21].
- Breaking Bad News [19-20].
- Advance directives [20].

**Organisation and social networks**

- Administration of care [21]

**iii) Stage two: results from SLR needs of the elderly**

The search was first performed in March 2008 and last updated in August 2009 and produced 267 results.

Data extraction was performed by two independent researchers simultaneously and thereupon adjusted.

**Figure 2: Flow-diagram literature search needs**
The results included five expert articles, two qualitative interview studies, two literature reviews as well as one prospective questionnaire study and can be categorized in four fields: (1) Geriatrics, (2) Palliative Care, (3) Communication & Patient Will and (4) Organisation & Social Networks:

**Geriatrics:**

- Holistic approach is important [12].
- Even though a potential life limiting disease is present, common symptoms of old age like bladder control difficulties or impaired vision can cumulatively have a considerable negative effect on quality of life [22].
- Geriatric assessment and knowledge of common problems like falls, delir, fragility, incontinence and especially dementia [6, 23].
- Multimorbidity as a challenge for prognosis, e.g. leading to inefficient timing of hospice admission [7, 23].

**Palliative Care**
Personal, psychological and existential issues have to be addressed [12, 18, 24].

Cultural influence on personal, psychological and existential issues has to be considered [12].

Efficient pain control is crucial [18, 25].

Liberty from pain is necessary for personal, existential and spiritual issues to be addressed [25].

Patients aged 70 and above need support in dealing with existential and spiritual issues despite their age [22].

While treating symptoms, the fragile equilibrium of an elderly person’s physiology has to be kept in mind at all times [7-8, 23].

Communication and patient will

Effective communication between caretakers and patient leads towards improved health outcomes and quality of care [6, 8, 18].

In dementia, it is crucial to plan and implement a plan of care while the patient is still able to do so. The family should be involved at an early stage [6].

Communication with the patient’s family is a necessary part of care work [26].

The interprofessional team approach is important [12, 26].

Organisation and social networks

Unlike patients in their mid-life segment, elderly people often have a weak social network. This leads to a lack of close persons who can be addressed with personal, existential and spiritual issues, also less support in organisational issues e.g. through family members is accessible [8].
A key worker can help improve the organisation of care [18]

Patients have to be educated and aided by caretakers to develop and implement a thorough plan of care. Advance directives should be made [6-8].

Elderly patients do wish to have more contact with their caretakers but often do not ask for it for fear of being a burden [22, 24].

iii) Stage three: results from expert advice

The experts approved of the results presented and commented on the following:

1. Dementia:
   - Perform pain assessment with visual instruments.
   - Relevance of key worker is high.
   - Challenging behaviour can be interpreted as attempt to communication.
   - The use of hospices for patients suffering from dementia is questionable.

2. Breaking Bad News:
   - When breaking bad news to an elderly person, the diagnosis is in many cases less relevant to the patient than the course of suffering to be expected.
   - Pitfalls like impaired hearing or understanding of complex contexts have to be kept in mind.

3. General:
   - Negative aspects on institutionalization may occur (loss of individuality and freedom).
Unnecessary interventions and waiting periods may consume precious time at the end of life.

iii) curriculum at University Witten/Herdecke

The Curriculum was taught on two consecutive days with a total delivery time of 12 hours. The Participants consisted of ten medical students and ten nursing students.

Teachers included one expert on palliative care, one expert on geriatrics and one expert on communication science.

The categorization used during research for learning goals was also used for this section. It is important to note, that the learning objectives used in our curriculum have been adopted to complement the yet existing curricula on palliative care, geriatrics and communication skills. The modifications on such a curriculum, when implemented elsewhere, are up to the individual curriculum planner. Contributing factors will be discussed in the next chapter.

Table 1 Curriculum part 1: Geriatrics

Table 2 Curriculum part 2: Palliative Care

Table 3 Curriculum part 3: Communication and Patient Will

Table 4 Curriculum part 4: Organisation and Social Networks
Discussion:

There are several limitations to our methodology. First of all we have to take into account a publication bias as the literature searches conducted have been limited due to lack of resources. Grey literature search, hand search and expert linking were not performed. Additionally there might be existing curricula that have not been reported in an article.

A curriculum similar to the one described should be part of medical education. However it cannot supplement for basic curricula on palliative care (and geriatrics) which should always be implemented first if they don’t yet exist. For instance it would not make sense to learn about the specifics of breaking bad news to an elderly person, if general approaches to breaking bad news have not been taught yet.

Also as previous knowledge between professional groups and the intensity of a yet existing palliative care and geriatrics curriculum may differ, the topics found to be of value by this study will have to be modified case by case.

We want to encourage other curriculum developers to get engaged in similar endeavours and hope to safe them time and resources while putting their “Identification of possible learning goals and objectives”, Kern’s third step, on a sound basis.

Kerns book on curriculum development is recommended; eventually steps 5 and 6, implementation and evaluation, have to be recognised.

Implementation involves organisation and identification of resources (such as personnel, time, facilities and costs) as well as possible pitfalls, especially when interprofessional projects and therefore different departments are involved.

Evaluation of the curriculum is vital, as it helps to improve quality of teaching and choice of learning goals. Student’s reaction to the seminar may be evaluated by
standard feedback forms. The Feedback performed following our seminar showed that all participants would recommend the seminar to others and the learning goals featured were found to be of high relevance to them. On the other hand it was criticised that a delivery time of 12 hours is not sufficient as several students felt the speed of information presentation was too high and too much information was given per day. This suggests that the seminar was better performed on a more longitudinal basis concerning information presentation.

Evaluation, meaning the comparison of an object of interest to an explicit or implicit standard of acceptability using tests and/or exams, is encouraged.

Conclusions:

Taking care of dying, elderly patients, ideally using an interprofessional team approach is a challenge in itself, a challenge that will grow in extent due to population development as shown in the background section. Thus healthcare professionals need to be up for the task. Taking part in a curriculum like the one described in this paper might help them to do so.

We therefore encourage curriculum developers to work on an individual curriculum on palliative care of the elderly, adjusted to their institution, using support by Kern’s “Six-Step-Approach” and the information given in this paper.

List of abbreviations

IC: Interprofessional Curriculum
IPE: Interprofesional Education
Competing interests

None declared

Authors' contributions

JMJ was responsible for conception and content of the paper, MB made substantial contributions to acquisition of data, CS has been involved in drafting the manuscript and revising it critically, MWS revised it critically and gave final approval of the version to be published.

Acknowledgements

We would like to thank the experts involved, Dr. Zegelin, MScN, Prof. Welz-Barth, Dr. Dr. Kojer and Arndt Rüsing, MScN for their contribution to this work.

References

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18. What are the palliative care needs of older people and how might they be met? [http://www.euro.who.int/Document/E83747.pdf]

**Figures**
Figure 1: Flow-diagram literature search curricula

Records identified through database searching *(n = 202)*

Records screened *(n = 202)*

Records excluded *(n = 196)*

Full-text articles assessed for eligibility *(n = 6)*

Full-text articles excluded *(n = 3)*, as they described postgraduate curricula *(n = 2)* or did not specify learning goals *(n = 1)*

Studies included in qualitative synthesis *(n = 3)*

Figure 2: Flow-diagram literature search needs
Records identified through database searching (n = 267)

Records screened (n = 267) —> Records excluded (n = 239)

Full-text articles assessed for eligibility (n = 28) —> Full-text articles excluded (n = 18), as they were published before 2004

Studies included in qualitative synthesis (n = 10)

Tables

<table>
<thead>
<tr>
<th>Learning Goal (recommended reading)</th>
<th>Learning Objective</th>
<th>Educational Strategy</th>
<th>Learning Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multimorbidity [6-7, 23]</td>
<td>-Student knows about the challenge of prognosis in the elderly</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td></td>
<td>-Student knows about negative effects of hospitalisation</td>
<td>Case-based learning</td>
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<tr>
<td>Geriatric Assessment [6, 23]</td>
<td>-Student knows about the challenge of symptom control</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
</tr>
</tbody>
</table>
in the elderly

- student is familiar with standard tools of geriatric assessment, especially visual pain assessment tools

<table>
<thead>
<tr>
<th>Burden of old age [22]</th>
<th>- Student knows and accepts the impairment in life quality caused by seemingly “trifle” diseases</th>
<th>Teacher-based instruction</th>
<th>Cognitive</th>
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<td></td>
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<td>Role Play</td>
<td>Affective</td>
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Table 2 Curriculum part 2: Palliative Care

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<thead>
<tr>
<th>Learning Goal (recommended reading)</th>
<th>Learning Objective</th>
<th>Educational Strategy</th>
<th>Learning Domain</th>
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<tbody>
<tr>
<td>Holistic Care [12, 18, 22, 24]</td>
<td>- Student knows about and accepts the importance of personal, psychological, existential and spiritual issues at the end of life</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td>- Student knows about and accepts the fact, that the issues stated above vary widely due to cultural influence</td>
<td>Discussion</td>
<td>Affective</td>
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<td>- Student knows about and accepts the fact that elderly people have a need to discuss the issues stated above, despite their old age</td>
<td>Case-based learning</td>
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### Pain control

[18, 25]

- Student knows and accepts the point that efficient pain control is crucial to successful palliative care

- Student knows and accepts the point that freedom of pain is important for personal, psychological, existential and spiritual issues at the end of life to be addressed

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<tr>
<th>Learning Goal</th>
<th>Learning Objective</th>
<th>Educational Strategy</th>
<th>Learning Domain</th>
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<tbody>
<tr>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
</tr>
<tr>
<td>Discussion</td>
<td>Discussion</td>
<td>Case-based learning</td>
<td>Affective</td>
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</table>

### Burden of old age

2 [7-8, 23]

- Student knows that while treating symptoms in the elderly, the fragile equilibrium of an elderly person's physiology has to be considered and protected at all cost

<table>
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<th>Learning Goal</th>
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<th>Educational Strategy</th>
<th>Learning Domain</th>
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<tr>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<tr>
<td>Discussion</td>
<td>Discussion</td>
<td>Case-based learning</td>
<td>Affective</td>
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### Table 3 Curriculum part 3: Communication and Patient Will

#### Relevance of communication

[6, 8, 18]

- Student knows that effective communication between caretakers and patient as well as relatives leads towards improved health outcomes and quality of care

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<th>Learning Goal</th>
<th>Learning Objective</th>
<th>Educational Strategy</th>
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<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td>Discussion</td>
<td>Discussion</td>
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<td>Affective</td>
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#### Interprofessional team approach

[12, 26]

- Student knows about and accepts relevance of the interdisciplinary

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<th>Learning Goal</th>
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<tr>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td>Discussion</td>
<td>Discussion</td>
<td>Discussion</td>
<td>Affective</td>
</tr>
<tr>
<td><strong>Advance directives</strong> [6]</td>
<td>-Student knows about and accepts the importance of advance directives, especially in patients with dementia.</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td></td>
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<td>Discussion</td>
<td>Affective</td>
</tr>
<tr>
<td><strong>Breaking Bad News</strong> (Expert advice)</td>
<td>-Student knows about the specific pitfalls when breaking bad news to an elderly person.</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td></td>
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<td>Case-based learning</td>
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**Table 4 Curriculum part 4: Organisation and Social Networks**

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<thead>
<tr>
<th><strong>Learning Goal</strong> (recommended reading)</th>
<th><strong>Learning Objective</strong></th>
<th><strong>Educational Strategy</strong></th>
<th><strong>Learning Domain</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social networks</strong> [8]</td>
<td>-Student knows about and accepts the effect on an elderly person’s life caused by a loss of social networks.</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td></td>
<td></td>
<td>Discussion</td>
<td>Affective</td>
</tr>
<tr>
<td><strong>Plan of care</strong> [6-8, 18]</td>
<td>-Student understands and accepts the relevance of developing a plan of care and making advance directives</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
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<td>-Student knows that a key worker can help achieve this</td>
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<td></td>
<td></td>
<td>Discussion</td>
<td>Affective</td>
</tr>
<tr>
<td><strong>Need for care</strong> [22, 24]</td>
<td>-Student knows and accepts that elderly patients do wish to have more contact with their</td>
<td>Teacher-based instruction</td>
<td>Cognitive</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discussion</td>
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caretakers but often do not ask for it for fear of being a burden
Records identified through database searching (n = 202)

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Studies included in qualitative synthesis (n = 3)
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Studies included in qualitative synthesis (n = 10)