PREPARED BY:
Michael Bentley, Rohan Kerr and Margaret Ginger

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The Wicking Dementia Research and Education Centre at the University of Tasmania for their work on the development of the online resource.

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Level 3, RACT House, 179 Murray Street, Hobart Tasmania 7000
P +61 (03) 6215 5000
F +61 (03) 6234 1666
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<td>Dementia Knowledge Assessment Scale</td>
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<td>General Practice Training Tasmania</td>
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<td>IMG</td>
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<td>KICA</td>
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<td>MoCA</td>
<td>Montreal Cognitive Assessment</td>
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<tr>
<td>OTD</td>
<td>Overseas Trained Doctor</td>
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<td>PN</td>
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<td>RACGP</td>
<td>Royal Australian College of General Practitioners</td>
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<td>RTO</td>
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GENERAL PRACTICE TRAINING TASMANIA (GPTT) has developed a Dementia Care Training and Education Program (DCTEP), which aims to deliver tailored, quality training and education in dementia care to primary health care professionals from diverse backgrounds working in general practice. DCTEP includes an interactive, online educational resource (Recognising, Diagnosing and Managing Dementia in General Practice).

The DCTEP project offers an opportunity to assess the contribution of online training and education to changing clinical behaviours in dementia care in general practice. Practice Nurses (PNs) and Overseas Trained Doctors (OTDs) were the two funded target groups for this project, which also has a specific emphasis on Aboriginal and Torres Strait Islander patients with dementia. The online educational resource includes aspects relevant for overseas trained doctors working in primary care settings and practice nurses working with people with dementia.

KEY MESSAGES

- The evaluation of this project has demonstrated some early changes in clinical behaviour of primary health care professionals resulting from improved awareness, knowledge and confidence in dementia care in general practice.
- Dementia awareness, diagnosis and management benefits from a team based approach within a primary care setting.
- The online educational resource (Recognising, Diagnosing and Managing Dementia in General Practice) provides educational opportunities for primary health care professionals working in rural and remote areas, which often have the least resources to support dementia care.
- The findings from this project indicate that the online resource can be applied to other general practice settings across Australia.
- Further resources have been added to the program to help primary health care professionals improve their awareness, knowledge, confidence and skills in the recognition and management of Aboriginal and Torres Strait Islander patients with dementia in general practice.
THE PROJECT HAS MET (OR MOSTLY MET) THE CRITERIA FOR IMPROVING AWARENESS, INCREASING KNOWLEDGE, INCREASING CONFIDENCE, AND IMPROVING SKILLS IN THE IDENTIFICATION, DIAGNOSIS AND MANAGEMENT OF PATIENTS WITH DEMENTIA IN GENERAL PRACTICE.
WHY THIS PROJECT?

Improving the awareness, management and care of people with dementia in primary care is a current challenge. GPs are well placed to assess, diagnose and manage patients with dementia in the primary care setting. However, further training and education, which encompasses the diverse backgrounds of primary health care professionals working in general practice, is needed on knowledge of and attitudes to dementia.

Few studies have measured ‘before and after’ changes in knowledge, confidence and attitudes of primary health care professionals to the assessment and management of people with dementia as a result of an educational intervention.

General Practice Training Tasmania (GPTT) has developed a Dementia Care Training and Education Program (DCTEP), which aims to deliver tailored, quality training and education in dementia care to health professionals working in general practice. DCTEP includes an interactive, online educational resource (Recognising, Diagnosing and Managing Dementia in General Practice). The DCTEP project offers an opportunity to assess the contribution of online training and education to changing clinical behaviours in dementia care in general practice. PNs and OTDs were the two funded target groups for this project, which also has a specific emphasis on Aboriginal and Torres Strait Islander patients with dementia.

RECOMMENDATIONS

- Primary health care professionals who have previously completed general dementia education can use the online resource to extend their understanding to the general practice setting in particular.
- Promoting the value of applying a systematic framework to identify and manage patients with primary health care colleagues and co-workers could increase awareness of, and participation in, dementia assessment by other primary health care professionals within general practices.
- Taking into account local culture is important when assessing Aboriginal and Torres Strait Islander patients for dementia and the resource needs regional tailoring to include seeking advice and support from local Indigenous health services and/or contacting Dementia Australia regarding management of Aboriginal and Torres Strait Islander patients with dementia in diverse general practice settings.

KEY FINDINGS

We identified no literature on training and education for dementia in primary care that was specific to PNs and OTDs.

GPTT developed an interactive, online teaching resource (Recognising, Diagnosing and Managing Dementia in General Practice) in collaboration with the Wicking Dementia Research & Education Centre at the University of Tasmania. The resource builds upon GPTT’s face to face workshop already developed for GP Registrars and includes aspects relevant for OTDs working in general practice and PNs working with people with dementia.

The evaluation employed mixed methods to describe and understand the impact of the DCTEP project on knowledge, confidence and attitudes, and behavioural intentions of PNs and OTDs in dementia care in Tasmanian general practices.

Thirty-three participants (15 OTDs and 18 PNs) consented to the project. Twenty-seven participants (82%) completed the online modules.
There was a significant increase in participants’ knowledge about dementia, as measured by the Dementia Knowledge Assessment Scale (DKAS), after completing the modules. The DKAS score increased by 10% for OTDs and increased by 28% for PNs (Figure 1).

There was a significant increase in participants’ confidence and attitudes about dementia, as measured by the GP Attitudes and Confidence Scale – Dementia (GPACS-D), after completing the modules. The GPACS-D score increased by 18% for OTDs and increased by 16% for PNs (Figure 2).

Participants’ scores from the CPD reaction questionnaire indicated that participants have strong intentions to apply (or plan to apply) a systematic framework to identify and manage patients with dementia. Participants believe applying a systematic framework to identify and manage patients with dementia is useful, beneficial, acceptable and the ethical thing to do. Furthermore, participants believe that they have the capabilities to apply a systematic framework to identify and manage patients with dementia with confidence and ease.

In the post-module interviews, many participants reported that they had investigated new patients for dementia (or old patients not previously known to have dementia) since completing the modules. The post-module interviews confirmed the increases in the scores from the knowledge, and confidence and attitudes questionnaires, and the results of the behavioural intentions questionnaire.

PNs reported improved awareness and knowledge about dementia and an increase in confidence to work with patients with dementia. PNs also reported improved skills in using a systematic approach to working with patients with dementia, and the importance of working as a team.

OTDs reported a greater awareness and better understanding of dementia, an increase in confidence in assessment and diagnosis. OTDs also reported an increase in confidence in communication about dementia to patients, families and carers.

In summary, the project has met (or mostly met) the criteria for improving awareness, increasing knowledge, increasing confidence, and improving skills in the identification, diagnosis and management of patients with dementia in general practice. These criteria were somewhat met for Aboriginal and Torres Strait Islander patients. The findings from this project have demonstrated some early changes in clinical behaviour of primary health care professionals resulting from improved awareness, knowledge and confidence in dementia care in general practice.

**Figure 1: DKAS pre- and post-modules**

**Figure 2: GPACS-D pre- and post-modules**
ABOUT GPTT

General Practice Training Tasmania (GPTT) provides innovative, best practice training to the highest national standards to develop outstanding GPs. GPTT is the Regional Training Organisation (RTO) in Tasmania for Australian General Practice training, and adheres to the training standards set by the Royal Australian College of General Practitioners (RACGP), and the Australian College of Rural and Remote Medicine (ACRRM).

GPTT’s mission is to provide quality training to sustain and strengthen general practice and primary health care. Known for its high quality, well-organised program – GPTT provides unique educational experiences throughout the beautiful state of Tasmania.

WHY THIS PROJECT?

Improving the awareness, management and care of people with dementia in primary care is a current challenge [1, 2]. GPs are well placed to assess, diagnose and manage patients with dementia in the primary care setting [3]. However, further training and education, which encompasses the diverse backgrounds of primary health care professionals working in general practice, is needed on knowledge of and attitudes to dementia [4–6].

Few studies have measured ‘before and after’ changes in knowledge, confidence and attitudes of primary health care professionals in relation to the diagnosis and management of dementia as a result of an educational intervention.

General Practice Training Tasmania’s (GPTT’s) Dementia Care Training and Education Program (DCTEP) aims to deliver tailored, quality training and education in dementia care to primary health care professionals working in general practice. The DCTEP project offers an opportunity to assess the contribution of online training and education to changing clinical behaviours in dementia care in general practice.
RESEARCH TEAM

The project team comprised the following members from General Practice Training Tasmania:

- Dr Rohan Kerr, Senior Medical Educator/Director of Education (to December 2017)
- Dr Margaret Ginger, Senior Medical Educator
- Dr Michael Bentley, Research Officer
- Mr Jacob Karagoz, Project Officer (inception to April 2017)
- Ms Steph Atkinson, Project Officer (from April 2017 to January 2018)
- Mr Tim Sumpton, Information & Communication Technology Officer

The research team were supported by a Steering Committee comprising:

- Ms Allyson Warrington, Chief Executive Officer, GPTT
- Professor Dimity Pond, Professor of General Practice and Head of the Discipline of General Practice, The University of Newcastle
- Ms Hazel Bucher, Nurse Practitioner (Psychogeriatrics), Hazel Bucher NP Consultancy
- Mr Kym Stack, Managing Partner, Obvious Choice

AIMS

The aim of the DCTEP project was to develop and provide training and education on awareness, diagnosis, management and care of dementia in general practice (including a specific emphasis on Aboriginal and Torres Strait Islander peoples) for Practice Nurses (PNs) and Overseas Trained Doctors (OTDs) working in Tasmanian general practices.

EVALUATION CRITERIA

The criteria for evaluation of the DCTEP project are grouped under awareness, knowledge, confidence and skills.

Awareness

- Create a greater appreciation of family involvement in the care of patients with dementia.
- Adopt awareness of best practice for diagnostic workup of patients with suspected dementia.

Knowledge

- Increase knowledge and utilisation of the relevant support services applicable to patients/family/carers as they relate to the diagnosis of dementia (e.g., specialists, community nurses, social services, alternative care arrangements).
- Provide an evidence-based approach to common presenting conditions for people with dementia.
- Increase knowledge of palliative care and palliative care approaches and awareness specific regional resources.

Confidence

- Improve participant’s confidence in the identification, diagnosis and management of patients with dementia in general practice and in particular, Aboriginal and Torres Strait Islander patients.
- Increase PNs’ confidence when working with patients with dementia and their carers.

Skills

- Improve participant’s skills in the identification, diagnosis and management of patients with dementia in general practice and in particular, Aboriginal and Torres Strait Islander patients.
- Increase ability to provide management care strategies including the implementation of appropriate recall and reminder systems for ongoing care.
- Increase ability to assess the carer’s knowledge and role in providing support for the person with dementia.
- Increase ability to deliver information and support to the carer regarding the need for respite and/or institutional care as appropriate.

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1 Practice Nurses are nurses registered with the Australian Health Practitioners Regulation Agency by the Nursing and Midwifery Board of Australia.
2 OTDs are medical practitioners whose medical qualifications are from a medical school outside of Australia or New Zealand and who are practising medicine in Australia. In the context of this project, OTDs are medical practitioners working in general practice. An OTD is sometimes referred to as an International Medical Graduate (IMG).
3 PNs and OTDs were the two funded groups for this project in order to develop a program with widespread applicability across general practice.
IMPLICATIONS FOR PRACTICE

The evaluation of this project has demonstrated some early changes in primary health care professionals’ clinical behaviour resulting from improved awareness, knowledge and confidence in dementia care in general practice. As the resource is delivered online it could be utilised widely across general practice.

There are several benefits that the online educational resource provides for dementia care in general practice.

GPs and other medical practitioners working in general practice could benefit from the knowledge and confidence to take on the responsibility for diagnosis and management of many patients with dementia in their practice. This is important in rural and remote communities when there can be long waiting times for appointments with public specialists. Timely diagnosis provides more certainty and assistance to families and carers, particularly in the early stages of dementia [7]. GPs and other medical practitioners can also benefit from being able to confidently reassure worried patients presenting with memory concerns when they do not have dementia [8].

PNs could benefit from being able to better recognise dementia symptoms and to provide support in the management of patients, particularly in rural and remote communities.

The online resource models best practice for speaking with patients, family members and carers about dementia in an Australian general practice setting. Families can benefit from the earlier diagnosis of dementia, assisting them to plan with, and provide support for, a family member with dementia and to put in place options needed for future care. Knowledge of community resources (including Aboriginal and Torres Strait Islander health resources) could assist primary health care professionals to better support family members and carers.

Team-based models of primary care offer promise for managing patients with complex and chronic conditions (such as dementia) [9, 10]. Adherence to dementia guidelines has been shown to improve when GPs and PNs in the same practice undertake education together with organisational support [11].
**APPROACH**

**LITERATURE REVIEW**

A rapid review [12] provided background information on training and education programs in dementia care that could inform the needs analysis and development of the Dementia Care Training and Education Program. The search strategy used PubMed and Google Scholar with supplementary searches of reference lists and citations.

We identified no literature on training and education for dementia in primary care that was specific to OTDs/IMGs and PNs.

While there is considerable literature on the awareness, assessment, diagnosis, and management of dementia in primary care, e.g., [2, 13, 14], there is still a need for further training and education on dementia knowledge and attitudes, e.g., [1, 4, 15, 16]. Interventions that have been tested include the EVIDEM-ED trial in the UK [17], Clinical Dementia Guidelines in Denmark [18], and the Dementia Training Program (DTP) in The Netherlands [19, 20]. The DTP focused on GP-PN dyads with some success in increasing the number of cognitive assessments and dementia diagnoses performed in primary care, and improving adherence to diagnostic guidelines.

Evaluation of educational interventions is mixed. Tian et al [21] found that few studies evaluate four levels of change (satisfaction, knowledge/attitudes, practice, and patient health status). An earlier review found that passive approaches ‘are generally ineffective and unlikely to result in behaviour change’ [22]. Active approaches without organisational support do not lead to improvements in detection of dementia [11].

Several authors argue for a theory-driven approach using the theory of reasoned action and/or the theory of planned behaviour [23, 24]. A review on Shared Decision Making [25] and a study using Video Vignettes with Australian GPs [26] have used this approach. Pond et al [3] are currently trialling the effectiveness of a peer education intervention on GP diagnostic assessment and management of dementia in Australian general practice, which includes measures of quality of life and depression as well as practice level changes.

The literature on OTDs (IMGs) focuses mainly on the education, training and support needs. Some authors [27] argue that OTDs do not necessarily have special needs but are an integral part of the workforce. However, concerns such as language and communication, cultural issues, understanding the Australian health care system, clinical knowledge and its application, consulting styles and registrar support have been identified [28-30]. The Gippsland Inspiring Professional Standards among International Experts (GIPSIE) project has had some success in improving clinical knowledge and skills in OTDs [31].

Several papers argue that PNs are in a good position to assess, identify and manage dementia [6, 32, 33]. Indeed, ‘nurses should be able to recognize the possibility of dementia and support those undergoing referral or assessment. Their confidence in doing so should be enhanced by continued professional development’ [6]. Education and training is still needed to raise awareness about the assessment and management of patients with dementia in primary care [5, 34]. Team-based models of primary care offer promise for managing patients with complex and chronic conditions [9, 10]. A person-centred educational intervention in the UK has had some success in involving all members of a primary care team in the management of patients with dementia [35].

In summary, although there is no literature identified in this review on training and education programs in dementia care for OTDs and PNs working in primary care settings, there are some promising approaches from related literature. Ideally, the DCTEP project should be evaluated across four levels of change: knowledge, attitudes, practice, and patient health status [21].
The dementia education intervention for primary care which fosters person-centred attitudes [35] has assessed level 2 (knowledge/attitudes) and recommends further research to see if this translates into improved practice (level 3). The Dementia Training Program (DTP) in The Netherlands paired GPs and PNs to provide training to ‘improve professional performance in dementia diagnostics and disease management and GPs’ and nurses’ attitudes and knowledge regarding dementia’ [20]. This addresses level 2 (knowledge/attitudes) and level 3 (practice). Pond et al.’s protocol [3] – for a peer education intervention on GP diagnostic assessment and management of dementia in Australian general practice – includes level 4 (patient health status) measures of quality of life and depression, as well as level 3 practice changes.

NEEDS ANALYSIS

A needs analysis was conducted prior to the development of the educational intervention. A survey of OTDs on dementia knowledge, confidence, attitudes and experience was administered in February 2016 using SurveyMonkey®. Seventeen OTDs responded to the survey. 71% of respondents had not done a formal dementia education course or workshop. However, 65% of respondents had provided professional health care for people with dementia. 71% of respondents rated their current knowledge of dementia (on a scale from 1 (being no knowledge) to 5 (a high level knowledge) as 3. The responses to the Dementia Knowledge Assessment Scale (DKAS) resulted in a median score of 39 (out of a maximum score of 544), with a range from 30 to 51. The lowest individual statement scores related to communication with people experiencing dementia. The responses to the Confidence and Attitudes survey resulted in mixed responses to statements about confidence in clinical abilities, although most respondents (65%) felt confident in their ability to diagnose dementia. There were mixed responses to statements about fears and frustrations in dealing with dementia, although most respondents (71%) disagreed or strongly disagreed that the term ‘dementia’ should be avoided when discussing a diagnosis with a carer/family member as it is likely to cause emotional distress. However, there was strong agreement on attitudes about support for quality of life and care, and on attitudes to communication about dementia progression. PNs were not included in this survey as we used the recent Training Needs Analysis for General Practice Nurses, which was conducted by Alzheimer’s Australia in association with Australian Primary Health Care Nurses [36].

EDUCATIONAL INTERVENTION

An interactive, online educational resource was developed in collaboration with the Wicking Dementia Research & Education Centre at the University of Tasmania. The resource builds upon GPTT’s face-to-face workshop already developed for GP Registrars and includes aspects relevant for OTDs working in general practice and PNs working with people with dementia.

The interactive online resource – Recognising, Diagnosing and Managing Dementia in General Practice has four component modules:

1. Recognising Dementia in General Practice
2. Diagnosing Dementia in General Practice
3. How Does Dementia Progress?
4. Managing Dementia in General Practice

The DKAS was subsequently refined to a score out of 50 for the online resource.
These modules cover the following content:

1. **Recognising Dementia in General Practice**
   - Dementia as a significant 21st century health issue.
   - Types of dementia commonly seen in general practice.
   - Importance of a timely diagnosis of dementia in general practice.
   - Medical and social impact of dementia on the individual, family and broader community.

2. **Diagnosing Dementia in General Practice**
   - Distinguish early warning signs of dementia from other medical presentations.
   - A framework for making a diagnosis of dementia in general practice.
   - Inclusion and exclusion criteria for dementia diagnosis.
   - Questions for a patient and a collaborative source in order to make a dementia diagnosis.
   - Validated screening tools to help make a dementia diagnosis.
   - Baseline investigations to exclude differential diagnoses of dementia.
   - Giving a diagnosis of dementia to a patient and/or family member.

3. **How Does Dementia Progress?**
   - Presentation of dementia in its 3 stages.
   - The 5 domains of dementia and how they impact on the individual at each stage.

4. **Managing Dementia in General Practice**
   - Modifiable risk factors that influence dementia.
   - The stages and domains as a structure for managing dementia.
   - The impact of dementia on the carer.

The modules have a ‘conversational’ format, with discussions between general practitioners, nurses, carers and people living with dementia. The discussions focus on challenges and outcomes in general practice. Other dementia clinicians and experts also join the conversation to emphasise key information and share current practice and research information.

The modules provide clear, practical tools and strategies which practitioners can apply to the development of their own systematic framework for identification, diagnosis and management of patients with dementia within their practice. Appendix 1 details further information about the modules.
EVALUATION

PNs and OTDs were the two funded target groups for this project. The evaluation employed mixed methods to describe and understand the impact of the DCTEP project on knowledge, confidence and attitudes, and behavioural intentions of PNs and OTDs in dementia care in Tasmanian general practices. The aim of the evaluation was not only to determine whether the educational intervention worked but also to understand ‘how it worked, why it worked and what (else) happened’ [37].

RECRUITMENT

The Tasmanian health directory (www.tashealthdirectory.com.au/directory/) was used to locate general practices in Tasmania. Practice Principals and Practice Managers were asked to pass the invitation on to relevant PNs (i.e., those who have some experience working with people with dementia). Potential OTDs were identified from GPTT’s Overseas Trained Doctor National Education and Training cohort and through the public register of the Australian Health Practitioner Regulation Agency (www.ahpra.gov.au/). OTDs whose date of first registration in Australia was between 2002 and 2017 were invited to participate in the study via a joint email/posted letter. All invited participants received a Participant Information Sheet and the Participant Consent Form.

PRE-MODULE

Participants took part in a semi-structured interview to discuss their experience of working with people with dementia. Appendix 2 lists the pre-module interview schedule.

DURING THE MODULES

Participants completed three hours of content over a period of four weeks. Built in to the modules were two questionnaires; the Dementia Knowledge Assessment Scale (DKAS) [38], and the Confidence and Attitudes Towards Dementia measure (GPACS-D) [39]. The DKAS and GPACS-D questionnaires were completed at the start and end of the modules.

POST-MODULE

Shortly after finishing the modules, participants were asked to complete a CPD reaction questionnaire to assess their behavioural intentions [40]. This questionnaire evaluates five constructs associated with changes in clinical behaviour (Figure 3), namely: Beliefs about Consequences; Social Influence; Moral Norm; Beliefs about Capabilities; and Intention. Appendix 3 contains the CPD reaction questionnaire.

5 Continuing Professional Development
Participants took part in a second semi-structured interview to discuss their experience of working with people with dementia in the light of the online modules. Post-module interviews were scheduled at least one month from the completion of the modules to allow time for participants to consolidate their learning back in their practice. Appendix 2 contains the post-module interview schedule.

The data collection for the evaluation occurred over a nine-month period in 2017, as depicted in Figure 4. Participants were given 4–6 weeks to complete the modules and were interviewed approximately 1–2 months following completion.

**Figure 3:** Integrated model for explaining health professionals’ clinical behaviour [41]

**Figure 4:** Evaluation timeline
FINDINGS

PARTICIPANTS

One hundred and sixty-one general practices in Tasmania were identified. Practice Principals (n=161) were contacted by post. Practice Managers (n=161) were contacted by email and post. One hundred and sixty-two OTDs were invited to participate. OTDs (excluding registrars) were contacted by post (n=137). OTDs (registrars only) were contacted by post and email (n=25).

Thirty-three participants (15 OTDs and 18 PNs) consented to the project. Twenty-seven participants (82%) completed the online modules (two PNs withdrew from the project; four PNs did not complete the module). Twenty participants (12 OTDs and 8 PNs) completed all components of the evaluation. Figure 5 depicts the recruitment, consent and participation results.

OVERSEAS TRAINED DOCTORS

- 162 OTDs invited; 15 consented
- Countries: Burma, Fiji, India, Nigeria, Pakistan, Philippines, Russian Federation, Sri Lanka, UK, USA
- Region: North West n=6; North n=5; South n=4
- 13 completed DKAS/GPACS-D questionnaires
- 13 pre- and post-module interviews
- 12 OTDs completed all evaluation components

PRACTICE NURSES

- 161 practices informed; 18 PNs consented
- 2 PNs withdrew from the project
- 4 PNs did not complete the module
- Region: North West n=4; North n=2; South n=6
- 9 completed DKAS/GPACS-D questionnaires
- 11 pre- and post-module interviews
- 8 PNs completed all evaluation components

Figure 5: Recruitment, consent and participation

The demographic details for the participants who completed the pre- and post-module DKAS/GPACS-D questionnaires are summarised in Table 1.

TABLE 1: Demographic summary of participants

<table>
<thead>
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<th>OCCUPATION</th>
<th>GENDER</th>
<th>AGE IN YEARS (MEDIAN/RANGE)</th>
</tr>
</thead>
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<tr>
<td>Medical practitioner (n=10), GP Registrar (n=3)</td>
<td>Female (n=7), Male (n=6)</td>
<td>40 (31–67)</td>
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<tr>
<td>Total medical=13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN (n=6), EN (n=2), NP (n=1)</td>
<td>Female (n=9)</td>
<td>45 (31–62)</td>
</tr>
<tr>
<td>Total nursing=9</td>
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The median age of the OTDs in this project was 3 years less than the median age of Australian GPs. The median age of PNs in this project was the same as the median age of Australian nurses.
KNOWLEDGE

The baseline scores for the DKAS (out of 50) were 39.7 for OTDs and 34.1 for PNs. There was a significant increase in knowledge about dementia after completing the modules (Table 2 and Figure 6). The DKAS score increased by 10% to 43.7 for OTDs and increased by 28% to 43.6 for PNs.

TABLE 2: DKAS results

<table>
<thead>
<tr>
<th>Role</th>
<th>Pre mean</th>
<th>s.d.</th>
<th>Post mean</th>
<th>s.d.</th>
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<tbody>
<tr>
<td>OTD (n=13)</td>
<td>39.7</td>
<td>4.9</td>
<td>43.7</td>
<td>3.9</td>
</tr>
<tr>
<td>PN (n=9)</td>
<td>34.1</td>
<td>7.0</td>
<td>43.6</td>
<td>6.5</td>
</tr>
</tbody>
</table>

Figure 6: DKAS pre- and post-modules

CONFIDENCE AND ATTITUDES

The baseline scores for the GPACS-D (out of 15) were 11.1 for OTDs and 11.2 for PNs. There was a significant increase in the level of confidence and attitudes about dementia after completing the modules (Table 3 and Figure 7). The GPACS-D score increased by 18% to 13.1 for OTDs and increased by 16% to 13.0 for PNs.

TABLE 3: GPACS-D results

<table>
<thead>
<tr>
<th>Role</th>
<th>Pre mean</th>
<th>s.d.</th>
<th>Post mean</th>
<th>s.d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTD (n=11)</td>
<td>11.1</td>
<td>1.8</td>
<td>13.1</td>
<td>1.0</td>
</tr>
<tr>
<td>PN (n=6)</td>
<td>11.2</td>
<td>1.2</td>
<td>13.0</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Figure 7: GPACS-D pre- and post-modules

1 In 2011, the median age of Australian GPs was 43 years (ABS, 4102.0 - Australian Social Trends, April 2013: Doctors and Nurses)
2 In 2011, the median age of nurses was 45 years (ABS, 4102.0 – Australian Social Trends, April 2013: Doctors and Nurses)
BEHAVIOURAL INTENTIONS

Twenty-five participants completed the 12-item CPD reaction questionnaire (OTDs=14, PNs=11). The 12 items were scored to determine five constructs associated with changes in clinical behaviour, namely: Beliefs about Consequences, Social Influence, Moral Norm, Beliefs about Capabilities, and Intention. Each construct has a range from 1 (min.) to 7 (max). The results are listed in Table 4.

**TABLE 4: CPD reaction questionnaire scores (scale from 1 to 7)**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Median</th>
<th>25 percentile</th>
<th>75 percentile</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs about Consequences</td>
<td>7.0</td>
<td>6.0</td>
<td>7.0</td>
<td>2.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Social Influence</td>
<td>5.2</td>
<td>4.3</td>
<td>5.9</td>
<td>1.8</td>
<td>7.0</td>
</tr>
<tr>
<td>Moral Norm</td>
<td>7.0</td>
<td>6.0</td>
<td>7.0</td>
<td>1.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Beliefs about Capabilities</td>
<td>5.7</td>
<td>5.3</td>
<td>6.0</td>
<td>2.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Intention</td>
<td>6.0</td>
<td>6.0</td>
<td>7.0</td>
<td>3.5</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Figure 8: Depicts these scores in a box plot.
OTDs scored slightly higher than PNs in all constructs except ‘Social Influence’ (Table 5).

### TABLE 5: CPD reaction questionnaire scores by group (scale from 1 to 7)

<table>
<thead>
<tr>
<th>CONSTRUCT</th>
<th>OTD</th>
<th>PN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs about Consequences</td>
<td>7.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Social Influence</td>
<td>5.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Moral Norm</td>
<td>7.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Beliefs about Capabilities</td>
<td>5.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Intention</td>
<td>6.5</td>
<td>6.0</td>
</tr>
</tbody>
</table>

The scores from the CPD reaction questionnaire indicate the following.

**Participants:**

- Have very strong beliefs about the consequences of applying a systematic framework to identify and manage patients with dementia (i.e., it is **useful** and **beneficial**);
- Tended to agree that the social influence of colleagues, co-workers and other people important to them in their profession is important#;
- Have very strong beliefs about the moral norm of applying a systematic framework to identify and manage patients with dementia (i.e., it is **acceptable** and the **ethical** thing to do);
- Believe that they have the capabilities to apply a systematic framework to identify and manage patients with dementia (i.e., the **confidence**, **ease** and **ability** to do so); and
- Have strong intentions to apply (or plan to apply) a systematic framework to identify and manage patients with dementia.

# approximately 30% of participants were either neutral or tended to disagree with statements in the social influence construct (in particular, their assessment of the percentage of their colleagues who apply a systematic framework to identify and manage patients with dementia).
These findings are depicted in Figure 9.

**INFLUENCES ON INTENTION**
- Beliefs about consequences (7.0)
- Social influence (5.2)
- Moral norm (7.0)

**ANTECEDENTS OF BEHAVIOUR**
- Intention (6.0)
- Beliefs about capabilities (5.7)

**CLINICAL BEHAVIOUR**

*Figure 9: Behavioural intentions of DCTEP participants*

**INTERVIEW FINDINGS**

Twenty-four participants (11 PNs and 13 OTDs) were interviewed before and after completing the modules.

**Overseas Trained Doctors**

In the pre-module interviews, OTDs reported varied experiences in their countries that presented some challenges in adjusting to working with patients with dementia in the Australian primary health care system. Some OTDs had worked in public systems, others in primarily private systems. Some OTDs reported that their primary care system was not as strong as general practice in Australia. Some OTDs also reported that in their countries there was less social support and more reliance on families to look after people with dementia. The experience of seeing people with dementia was less in countries where there is a lower life expectancy.

The experience of OTDs in Australia with patients with dementia was mixed, some having more experience others. Nursing home exposure was seen as important by some OTDs. Participants would become aware or alerted that patients might have dementia through family concerns (e.g., memory, behaviour, confusion), ‘red flags’ (e.g., missing appointments), or via routine assessments (e.g., 75+ health assessments, driving assessments).

Usually, patients would be given a cognitive assessment (e.g., MMSE, MoCA, GPCOG). Possible other causes would be investigated and, commonly, patients would be referred to specialists for further investigation and diagnosis. Local dementia services, if available, would be used. Participants generally followed up the patients at 3–6 monthly intervals.

**Practice Nurses**

The PNs in this project had varied experience with patients with dementia. Some participants were very experienced nurses (e.g., nurse practitioners); others were PNs in small and large practices with an interest in dementia, but relatively little exposure to patients with dementia. PNs’ roles varied with practice set up. Home visits through care coordination programs was seen as important.

PNs would become aware or alerted that patients might have dementia through family concerns (e.g., memory, behaviour, confusion), being able to observe changes/decline over time in regular patients, or via administering cognitive function, e.g., MMSE, GPCOG, RUDAS as part of routine 75+ health assessments. Participants reported that patients would be referred to specialists for further investigation and diagnosis but noted there were long waiting times in the north and north-west of the state. PNs would involve family members/carers if not already involved and check to see if patients had been referred to My Aged Care for ACAT assessment, and would use call back systems for future appointments.

8 MMSE (Mini-Mental State Examination), MoCA (Montreal Cognitive Assessment), GPCOG (General Practitioner Assessment of Cognition)
9 RUDAS (Rowland Universal Dementia Assessment Scale)
10 ACAT (Aged Care Assessment Team)
In the post-module interviews, ten OTDs reported that they had investigated new patients for dementia since finishing the modules. One OTD had seen old patients not previously known to have dementia. Two OTDs reflected on how they would use their experience of the modules in the identification, diagnosis and management of dementia in their practice. Five PNs reported that they had assessed new patients for dementia since finishing the modules. Two PNs had seen old patients known to have dementia. Four PNs reflected on how they would use their experience of the modules in the identification and management of dementia in their practice.

The post-module interviews confirmed the increases in the scores from the knowledge, confidence and attitudes questionnaires, and the results of the behavioural intentions questionnaire.

PNs reported improved awareness and knowledge, which is important to working in a team:

I found [the modules] really educational and [they] made the awareness a lot clearer.

It’s just reinforced more knowledge. Often you just forget what you’ve learnt and then when a situation presents itself you can think back as to what you do in that situation, so this is just a reminder and just to be aware of it and look out for it and how you would support this person in getting further assistance or speaking with the doctor about it or with the family and being a support.

I’m more of an asset to the team, [now] that I’ve got this information. Other people in the practice can come to me and ask me things that they might not be aware of because they haven’t done extra education or training.

OTDs reported a greater awareness and better understanding of dementia:

...having more of an awareness to ask questions of how people are coping at home.

It’s improved my understanding of the inclusion criteria with regards to ... making the diagnosis ... of gradual onset of poor memory, worsening of memory problems, failure of function and all that, so with the modules it made it a little bit clearer for me what you need to look out for to aid in diagnosis as opposed to some other conditions like depression and the rest as they present the same picture, but are different entities of themselves and not dementia.

Even though in the textbooks or in the information online information is available, because of this training I am more aware of to treat the patient as a whole along with psychosocial aspects in the background. Social factor management described in the modules is extremely important as well [as] clinical treatment.

I liked the way it was divided into stages. I mean obviously as a GP you’re very aware of those stages, but I hadn’t thought of dividing it into stages and thinking of the differences at each stage.

PNs reported an increase in confidence:

...in my own practice, it makes me a bit more confident in being able to be a bit more proactive.

I feel a bit more confident in doing a mini-mental assessment, and the reasons why we do certain tests, and things to exclude other reasons for memory loss or things like that.

OTDs reported an increase in confidence in assessment and diagnosis:

I’m more confident now because I didn’t know that whatever I was doing, because back in my country this is how we were doing it, so in this clinical context I was a bit shaky, what is the guidelines over here? So just to go through the modules to know a bit more of the guidelines, and it has given me a bit of confidence.

What I found very helpful was knowing that you can confidently assess a patient in general practice for dementia and actually start treatment in general practice, and looking at the patient holistically.

I will be more confident to make a diagnosis of dementia ... dependent on my assessment and to do treatment as soon as possible and also kind of make use of other resources available for me.

One of the things I realised is that a GP can diagnose dementia. We don’t need a specialist as long as I’ve done everything – going through the investigations, CT scans, plus collateral information from the patient’s relatives or whoever is involved with the patient. I think I can confidently diagnose dementia and go through the process but I suspect the enduring guardianship is one thing that I’ve learned so much about as well.
OTDs also reported an increase in confidence in communication about dementia:

I am more confident about breaking the news as well as talking directly about the dementia.

Before I did the modules, I never had the confidence to tell the patient that dementia is a terminal illness. But, it was very difficult for me to talk to the patient – that this is a terminal illness, it will progress, these things will happen. ... But after the modules I think I was more confident about telling the patient about these things and helping the family go through step by step what they can do now.

I feel more confident to approach how to communicate, how to break bad news, and education in terms of dementia – how it progresses, what to expect, what to do at different stages.

PNs reported improved skills in using a systematic approach to working with people with dementia:

I definitely think now I have an understanding of how you need to have some sort of system in place that you have ongoing support and contact with a person.

So if I can identify something at that point, I certainly am confident now that I can do that and do what I need to do following my ... protocol so I can give the doctor all the information [they need] when they first see them.

There was limited awareness of dementia in Aboriginal and Torres Strait Islander people in the participants’ pre-module interviews. Some participants had closer connections with Aboriginal health services and were seeing Aboriginal patients. One participant specifically mentioned the lower life expectancy of the Aboriginal and Torres Strait Islander population and another participant noted that 45–49 year health assessments are available for Aboriginal and Torres Strait Islander people.

As a result of completing the modules, participants identified several factors that need to be taken into account when assessing Aboriginal and Torres Strait Islander people for dementia.

Most participants’ practices have an identification question for new patients. However, most participants have not assessed/investigated an Aboriginal and Torres Strait Islander patient for dementia. Several participants commented that they are aware of the earlier onset of dementia (particularly vascular dementia) in the Aboriginal and Torres Strait Islander population. Alternative screening tools – RUDAS, KICA11 – for cognitive assessment were noted by some participants.

While some participants stated that everyone should be treated equally others highlighted the need for cultural awareness and sensitivity. The importance of links with Aboriginal Health Workers and links to community resources were mentioned.

11 KICA (Kimberley Indigenous Cognitive Assessment)
GENERAL FEEDBACK

The online resource and its component modules were highly rated by the participants in the project. As Table 6 shows, the majority of participants rated the overall resource and its component modules as excellent.

TABLE 4: CPD reaction questionnaire scores (scale from 1 to 7)

<table>
<thead>
<tr>
<th>RATING</th>
<th>POOR</th>
<th>FAIR</th>
<th>GOOD</th>
<th>VERY GOOD</th>
<th>EXCELLENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>7%</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>15%</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>11</td>
<td>41%</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>15%</td>
<td>9</td>
</tr>
<tr>
<td>Overall</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>8%</td>
<td>7</td>
</tr>
</tbody>
</table>

The most useful things participants learned during the modules fall into two categories:

1) patients and their carers:
   a. PNs: communicating with people with dementia, including the diagnosis of dementia, and involving the family/carers – carer perspectives
   b. OTDs: involving the family/carers (carer perspectives) and providing support to them, and planning ahead with the patient and family, e.g., Enduring Guardianship, Will, Power of Attorney and plans on how to manage finances

2) dementia itself:
   a. PNs: understanding the stages of dementia, and the signs, symptoms and behavioural changes
   b. OTDs: a framework for diagnosis, understanding the stages of dementia including symptom progression, management of dementia, and the place for medications

This feedback was confirmed in the post-module interviews:

[The modules have] given me a more in-depth knowledge of how to actually recognise dementia, how to investigate, how to go about it. The enduring guardianship, power of attorney, all that sort of thing. (OTD)

[The modules] really hammered home the effect that dementia has on care in particular so it was nice to see and hear the stories from real relatives. (OTD)

I found [the modules] really educational and made the awareness a lot clearer... what to look for, and how to manage patients and how to put a plan in place. (PN)

I really enjoyed the interviews with the carers. They were very good and showed a lovely insight into the effects that [dementia] can have on the immediate family and extended family. (PN)
DISCUSSION

The contribution of an educational intervention to changes in clinical behaviour can be assessed by theory-based evaluation [42]. In this project, social cognitive theories were used to develop a framework for planned and interpersonal behaviour [40, 41]. The argument is that increasing participants’ awareness and knowledge of, and confidence and skills in, dementia care will plausibly lead to intention to change clinical behaviour.

The project has met the criteria for awareness. It has created a greater appreciation of family involvement in the care of patients with dementia and raised awareness of a best practice approach to diagnostic workup of patients with suspected dementia.

For knowledge, the criterion for increased knowledge and utilisation of the relevant support services applicable to patients/family/carers as they relate to the diagnosis of dementia (i.e. specialists, community nurses, social services, alternative care arrangements when appropriate) was somewhat met as the modules gave general rather than regionally-specific information. The modules do provide an evidence-based approach to common presenting conditions for people with dementia.

In relation to confidence, the project has increased OTDs’ skills in the identification, diagnosis and management of patients with dementia in general practice (somewhat met for Aboriginal and Torres Strait Islander patients). The criterion of increasing confidence of PNs when working with patients with dementia and their carers was mostly met.

Improving participants’ skills in the identification, diagnosis and management of patients with dementia in general practice was mostly met (somewhat met for Aboriginal and Torres Strait Islander patients). The ability to provide management care strategies including the implementation of appropriate recall and reminder systems for the ongoing care was somewhat met as the modules gave general rather than practice-specific information. Some of these strategies were reported as being in place in the pre-module interviews. The criterion to increase participants’ ability to assess the carer’s knowledge and role in providing support for the person with dementia was mostly met. The criterion to increase ability to deliver information and support to the carer regarding the need for respite and/or institutional care as appropriate was mostly met.

Having the intention to apply a systematic framework to identify and manage patients with dementia is likely to lead to changes in clinical behaviour. Participants believe such a framework is useful, beneficial, acceptable and the ethical thing to do. As the social influence of colleagues and co-workers is important, promoting the value of applying a systematic framework to identify and manage patients with dementia could increase awareness of, and participation in, dementia assessment by other primary health care professionals within general practices [11].

STRENGTHS AND LIMITATIONS OF THE PROJECT

This project is specific to the Tasmanian context. However, the findings indicate that the online resource could be applied to other general practice settings across Australia. Importantly, the resource provides educational opportunities for primary health care professionals working in rural and remote areas, which often have the least resources to support dementia care. Additionally, this online resource provides an opportunity for people who have previously completed general dementia education to extend their understanding to the general practice setting in particular.

Response to the project was positive particularly for participation in interview studies where large numbers are not needed [43]. A constraint on participation in this project was the time commitment required at different points over the evaluation period. The retention rate (82% completed the modules, 73% completed pre- and post-module interviews) was comparable with other studies [44]. However, there was a difference in participation between OTDs and PNs. 80% of OTDs completed all components of the evaluation compared with 44% of PNs. There are several possible reasons for this difference: 1) geographical location (the majority of OTDs were from the north and north-west of the state where training opportunities are limited); 2) self-selection may have increased motivation to complete participation (OTDs received a direct invitation whereas PNs were recruited via their practice); and 3) time constraints (informal feedback from some PNs who did not complete the modules indicated they would have liked more time).
The project did not have the time or the resources to measure results such as patient outcomes (e.g., as a consequence of a timely diagnosis). However, as Tian et al note, ‘evaluation at this level is challenging because learners encounter a variety of uncontrollable variables after leaving continuing education programs’ [21, p. 17].

Furthermore, large changes in behavioural intentions often translate to smaller changes in clinical behaviour [45]. The perceived influence of other professionals is significant to shared decision making behaviours in health professionals [25]. In our project, this was measured in the CPD Reaction questionnaire as ‘social influence’. Participants tended to agree that the social influence of colleagues, co-workers and other people important to them in their profession is important.

It is clear from the evaluation of the project that further information is needed on dementia in Aboriginal and Torres Strait Islander populations and that the regional context needs to be considered.

Dementia in the Aboriginal and Torres Strait Islander population can occur earlier than in the non-Aboriginal and Torres Strait Islander population and while the extent of dementia among the Aboriginal and Torres Strait Islander population is not fully known multiple studies have revealed higher rates of dementia in Aboriginal and Torres Strait Islander populations compared with the general Australian population [46].

14 www.healthinfonet.ecu.edu.au/key-resources/bibliography?lid=24764
16 www.healthinfonet.ecu.edu.au/chronic-conditions/dementia/resources/health-promotion-resources
Aboriginal and Torres Strait Islander people with dementia

Australian Aboriginal and/or Torres Strait Islander culture varies greatly between populations, states and towns. Taking into account local culture is important when managing people with dementia. Accessing advice and support from local Indigenous health services and/or contacting Dementia Australia may aid diagnosis and management of a patient from an Aboriginal or Torres Strait Islander background. Additional resources that might be useful include:

Cultural assessment\textsuperscript{12}: The Cultural assessment for Aboriginal and Torres Strait Islander people is a unique document designed to record important cultural and life information, and build rapport between health professionals and the Aboriginal and Torres Strait Islander person with dementia and their family. NOTE: DTA strongly advises users to attend a local Aboriginal and/or Torres Strait Islander Cultural Awareness course before using these documents.

Kimberley Indigenous Cognitive Assessment (KICA)\textsuperscript{13}: KICA was developed in response to the need for a cognitive screening tool for older Indigenous Australians (45 years plus) living in rural and remote areas and should ‘be promoted to mainstream health professionals and Aboriginal and Torres Strait Islander health workers through Aboriginal Community Controlled Health Organisations to support access to timely diagnosis’ [41]. A Modified Kimberley Indigenous Cognitive Assessment (mKICA) Pilot for urban areas was conducted in 2012\textsuperscript{14}.

Behavioural and Psychological Symptoms of Dementia

Some OTDs working in general practice who have undertaken this program have given feedback that they would have liked more information around management of patients with challenging behavioural and psychological symptoms of dementia. This was not the intended focus of the program but as a result of this feedback we are including the following links to resources that might be useful:

BPSD Guide: Managing Behavioural and Psychological Symptoms of Dementia

APPENDIX 1: LEARNING OBJECTIVES AND ASSESSMENT OF THE MODULES

The interactive online resource – Recognising, Diagnosing and Managing Dementia in General Practice has four component modules:

MODULE 1: Recognising Dementia in General Practice

At the end of this module you should be able to:
1. Argue that dementia is a significant 21st century health issue
2. Distinguish types of dementia commonly seen in general practice
3. Prioritise the importance of a timely diagnosis of dementia in general practice
4. Identify the medical and social impact of dementia on the individual, family and broader community

MODULE QUESTIONS:

1. Discuss why dementia is considered both a medical and social condition.
   Example answer: Dementia describes a collection of symptoms that are caused by disorders affecting the brain. It is not just one specific disease. It is a progressive disease that will ultimately cause degeneration of all areas of the brain and will ultimately lead to death due to loss of function. Dementia affects short-term memory, thinking, behaviour and the ability to perform everyday tasks. Brain function is affected enough to interfere with the person’s normal social or working life.
   It is considered both a medical and social condition as it has far-reaching implications – for the health system, the individual with dementia and those caring for them.
   Social impacts on the individual may include a change in work hours or loss of employment, loss of relationships including time with friends and families and social activities, or a change in living arrangements in order to provide or receive care.
   Furthermore, the high burden of ‘carer stress’ potentially affects the physical, psychological and financial well-being of many individuals caring for a person with dementia.

2. Explain to a family member why dementia is a progressive condition.
   Example answer: Dementia is a global and progressive degenerative disease of the brain. There is no current cure for dementia. As the disease advances, it affects all areas of the brain that are necessary for life. While dementia initially may affect an individual’s ability to recognise people, communicate or perform everyday functions, it will eventually affect their ability to walk and move about independently, control their bladder and bowel, and even swallow food and fluids. Dementia is considered a terminal illness.

3. What are your main barriers to making a timely diagnosis of dementia?
   Example answer: There are no right or wrong answers to this question, however, your response may include:
   • Time
   • Lack of knowledge
   • Fear of making the wrong diagnosis
   • Not sure of how to manage the disease
   • No cure and no real treatment to offer a patient
   • Unsure of how to navigate the aged care system
   • Stigma for the patient
   • Social situation – patient may live alone safely and there may be minimal collateral history

4. Which is the most common form of dementia in Australia?
   a) Alzheimer’s Disease
   b) Vascular Dementia
   c) Lewy Body Dementia
   d) Fronto-temporal Dementia
   Answer: a
   Incorrect answer feedback: Alzheimer’s disease is the most common form of dementia, affecting up to 70% of all people with dementia. Vascular dementia is the second most common cause of dementia after Alzheimer’s disease. Dementias can also be mixed pathologies and in general practice we often see a mixed Alzheimer’s and vascular dementia type.
MODULE 2: Diagnosing Dementia in General Practice

At the end of this module you should be able to:

1. Differentiate early warning signs of dementia from other medical presentations
2. Apply a framework for making a diagnosis of dementia in general practice
3. Apply inclusion and exclusion criteria for dementia diagnosis
4. Plan questions for a patient and a collaborative source in order to make a dementia diagnosis
5. Utilise validated screening tools to help make a dementia diagnosis
6. Select baseline investigations to exclude differential diagnoses of dementia
7. Demonstrate giving a diagnosis of dementia to a patient and/or family member

MODULE QUESTIONS:

1. Alzheimer’s disease is the most common type of dementia in Australia. List four early warning signs. Think back to both the carer’s interviews and the issues Sophie raised in the first doctor-patient scenario.

Example answer: Your answer may include any of the following:

- Trouble recalling conversations
- Repetitive questioning
- Social withdrawal
- Forgetting appointments
- Confusion in social settings
- Loss of weight/forgetting to eat
- Not as well-groomed as usual
- Personality changes

2. List at least 5 causes of cognitive decline in the elderly.

Example answer: Your answer may have included any of the following:

- Drugs
- Delirium
- Dementia
- Depression
- Nutritional deficiencies (e.g. Vitamin B 12)
- Endocrine dysfunction (e.g. thyroid/hypercalcaemia)
- Pain
- Cerebral tumour
- Renal/cardiac failure

3. List five key investigations you may order when investigating dementia.

Example answer: Your answer may include any of the following:

- CT Brain or MRI
- Full Blood Count (FBC)
- Thyroid Function Test (TFT)
- Liver Function Test (LFTs)
- Urea Electrolytes Creatinine (UEC)
- Vitamin B 12
- Calcium
- Iron studies
- Fasting Blood Sugar Levels/Lipids
- Urine Microscopy Culture and Sensitivity (m/c/s)
- Syphilis serology and HIV may be warranted and should not be forgotten

4. What considerations are important for both recognizing and diagnosing dementia in general practice? How might this be different if your patient was of Aboriginal or Torres Strait Islander background?

Example answer: Some of the overall issues that need to be considered are the value placed on family, community and environmental connectedness, the acceptance of dementia as a diagnostic label and the acceptance of the available resources.

It is important to be aware that dementia in Aboriginal people can occur earlier than in non-Aboriginal people.

While the full extent of dementia among the Aboriginal and Torres Strait Islander population is not fully known, it is estimated that around 1 in 8 Aboriginal and Torres Strait Islander people over the age of 45 have dementia (in the Kimberley region) compared with 1 in 40 for the total Australian population.

If we look at people over 60 years of age with dementia, the prevalence is still 3–4 times greater in the Aboriginal and Torres Strait Islander population than the non-Aboriginal and Torres Strait Islander population. This prevalence occurs in both rural/remote and urban settings.

You might consider using the Kimberley Indigenous Cognitive Assessment Tool (KICA) as your screening tool. This has been developed to take into account language and cultural diversity of Aboriginal and Torres Strait Islander people living in rural and remote communities across northern Australia and a modified version is also currently being trialled in urban and rural Indigenous populations.
New South Wales. The RUDAS is another cognitive assessment tool that is designed to minimize the effects of cultural learning and language diversity on baseline cognitive performance.

Considering different causes of dementia may also be important in your patient. The main causes of dementia in the Aboriginal and Torres Strait Islander population are similar to that of the non– Aboriginal and Torres Strait Islander population, that is Alzheimer’s and Vascular (or mixed) dementia are the most likely causes. However dementia related to trauma may be more prevalent.

Accessing some advice/support from your local Indigenous health service and or contacting Alzheimer’s Australia would be a way to guide you in the area of both diagnosis and management of a patient from an Aboriginal or Torres Strait Islander background.

Most of the information related to Aboriginal and Torres Strait Islander people comes from the Kimberley Indigenous Cognitive Assessment study (KICA-WA based) and the Koori Growing Old Well study (KGOW-NSW based). Practitioners should be aware of the potential for differing experiences and presentations within Aboriginal and Torres Strait Islander communities around Australia. Tasmanian Aboriginal Health Centre contacts are provided below. Other support may also be provided within communities, including involvement by an Aboriginal Health Worker.

---

5. Patients with dementia must demonstrate short-term memory loss plus impairment of at least one other functional area. Which of the following functional impairments might indicate dementia?

a) Agnosia (difficulty naming objects)
b) Apraxia (difficulty performing tasks)
c) Aphasia (language difficulties)
d) Executive dysfunction (difficulty with planning)
e) Any or all of the above

Correct answer: e

Incorrect answer feedback: All of these answers are correct. The diagnostic criteria for dementia includes memory impairment and at least one other area of cognitive decline which can include aphasia, agnosia, apraxia and/or executive functioning.

---

6. How would you break the news to a family member that their loved one had a new diagnosis of dementia?

Example answer: By following a system that you use for delivering bad news. Some of the things you might consider include:

- Allow time and minimise interruptions
- Involve the individual with dementia and the main carer(s), being mindful to keep the discussion as patient centric as possible
- Assess their levels of understanding
- Explain what dementia is and how it will impact on your patient- utilising stages and domains can be helpful
- Discuss what your role is as the GP and offer various supports available to the individual and the carer i.e. Alzheimer’s Australia/Carers Australia
- You may choose to involve your practice nurse as an additional support for the patient and their carer/s
- Raise the need to establish enduring power of attorney/advanced care directives/wills early on in the course of the illness while patient still has capacity
- Allow time for questions
- Organise follow up

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7. What are the key findings in the history, examination and investigation that can help distinguish vascular dementia from Alzheimer’s dementia?

Example answer: History: There may be a history of more stepwise progression of symptoms in vascular dementia. We may see more sudden changes with relatively stable periods in between these changes as opposed to a more persistently gradual decline that we see in Alzheimer’s dementia. These sudden changes may reflect vascular events. There may also be a history of significant cardio/cerebrovascular risks or events such as previous strokes or trans-ischaemic attacks.

Examination: On examination you may detect the presence of a palmar drift/plantar reflex (Babinski reflex) /and or the presence of upper or lower limb brisk reflexes.

Investigations: Presence of ischaemic changes on CT Brain/ MRI.

Keep in mind that we often see a mixed pattern of Alzheimer’s and dementia.
8. To distinguish a delirium from a dementia, one would take into account
a) Rate of onset of symptoms
b) Presence of another medical condition
c) Symptoms subsiding when underlying cause treated
d) Any or all above
Correct Answer: d
Incorrect answer feedback: A delirium is an acute event as opposed to dementia that must have a more gradual onset. Remember that a delirium may unmask a dementia in an elderly person with dementia as they have a low cognitive reserve. Other medical conditions that may impact on cognition need to be excluded before a diagnosis is made, for example a UTI may trigger a delirium or thyroid dysfunction may slow mentation.
If a patient is confused because they are delirious secondary to another illness, once that is treated, they should go back to their prior baseline.

9. When making a dementia diagnosis clinicians will play closest attention to a person’s:
   a) History
   b) Speech pattern
   c) Interests
   d) Walking style
Correct Answer: a
Incorrect answer feedback: The correct answer is a. When making a dementia diagnosis clinicians will play closest attention to a person’s history. A dementia diagnosis is based on roughly 80% history, 10% investigation and 10% examination. Keep in the mind the importance of a collaborative history from another person who knows the patient well.

MODULE QUESTIONS:
1. The needs that appear with each stage of dementia are limited to that particular stage only.
   a) True
   b) False
Correct answer: b
Incorrect answer feedback: The correct answer is b) false. The needs that appear with each stage of dementia are not limited to that particular stage only. Stages are a guide for the trajectory of dementia. The progress of the disease is unique for each individual and can vary somewhat with the different types of dementia. While there is no black and white cut off between the stages, you will see a transition point where someone has clearly gone from stage 1 – stage 2 – stage 3.

2. At what stages of Alzheimer’s Dementia is the patient likely to show a deterioration of a) mobility, b) insight, c) cognition, d) behaviours?
Example answer: Stage 3 tends to see a physical decline and significant loss of mobility/continence/ability to swallow. Insight deteriorates in stage 1 and beyond. This can be impaired early on in the illness so we often see lack of insight in all stages. Impaired cognition is often the first sign that something is going on so it is seen in stage 1 and we will see an ongoing decline alongside that of function throughout the course of the illness. Challenging behaviours can be evident across all stages of dementia but tend to be more predominant in Stage 2 and then tend to resolve towards the end of the illness due to physical incapacity.

3. At which stages of dementia are the following the main goals of care?
   • Comfort
   • Independence
   • Safety
Example answer: The stage at which comfort is the main goal of care is stage 3, the stage at which independence is the main goal of care is stage 1 and the stage at which safety is the main goal of care is stage 2.

MODULE 3: How Does Dementia Progress?
At the end of this module you should be able to:
1. Classify the presentation of dementia in its 3 stages
2. Describe the 5 domains of dementia and how they impact on the individual at each stage
MODULE 4: Managing Dementia in General Practice

At the end of this module you should be able to:

1. Discuss modifiable risk factors that influence dementia
2. Use the stages and domains as a structure for managing dementia
3. Explain the impact of dementia on the carer

MODULE QUESTIONS:

Consider the following: John aged 81 has just been diagnosed with dementia. He has hypertension, DMT2, some mild BPH and has had a TIA in the past. He lives with Mary who is 76, and relatively fit and healthy. John has started asking the same questions repeatedly, he tells Mary the same stories over and over again and has stopped playing bowls. Mary has recently taken over the finances as John was getting confused.

1. What key factors would you look at to try to modify the progression of his dementia? List four factors.

Example answer:
Your answer may include the following:
- Encourage a healthy lifestyle focussing on areas such as diet/exercise/social engagement
- Optimise his cardiovascular risk factors and glycaemic control
- Review any of his medications that may be impacting on his cognition and think about deprescribing
- Educating both John and Mary about dementia using the stages/domains of the illness may allow for better management both now and throughout the course of the illness

2. John has always been the primary driver although Mary is more than happy to drive. What would you discuss with them about John driving now and in the future?

Example answer: Let’s start by saying there is no one answer to this, as it is not always clear-cut.
- It is important to raise with both John and Mary that John will not be able to keep driving as his dementia will progress.
- If he is safe in his driving currently- start making plans for how they will transition to John not driving/explore options such as Mary taking over driving/half price taxis/community cars etc.
- Ensure that if he is driving, he is in peak condition – i.e. no poor sleep/no-intercurrent illness, drive in the daytime only; avoid busy times on the roads.
- Reassess driving frequently
- Aim for cessation in a timely manner and this may be a negotiated process. Specialist advice may be helpful to preserve your doctor/patient relationship
- If you have any concerns refer to fitness for driving manual or discuss with your RTA/MDA for advice

Alzheimer’s Australia have an excellent video on Driving and Dementia. www.fightdementia.org.au/about-dementia/health-professionals/clinical-resources/clinical-tools-and-resources

3. Why is it considered important for people with dementia to have discussions with the family members early on in the course of the illness?

Example answer:
This is important for the following reasons:
- People with dementia may lose capacity to communicate their wishes
- Family members may have difficulty making care decisions later on
- Strategies can be put in place to maximize quality of life throughout the dementia journey
- Quality of life has been shown to be better with a more timely diagnosis
APPENDIX 2:
INTERVIEW SCHEDULES

PRE-MODULE INTERVIEW SCHEDULE

In preparation for the pre-module interview, we ask that you review the records of a recent patient (or patients) you have seen with dementia, and consider the following questions.

1. How did you become aware, or what alerted you that the patient(s) might have dementia?
2. What did you do with this patient(s)?
3. How did you make or plan to make a diagnosis?
4. How did you follow up the patient(s)?

Interviewer prompts for Practice Nurses

• Please describe how you are involved with patients with dementia in your Practice?
• Do you meet with the GPs to discuss management of people with dementia?
• Do you meet with the GPs to discuss management of people with chronic disease?
• Do all the Practice Nurses within your Practice have the same role with regard to Dementia?
• How do you recognise dementia?
• Do you screen for dementia. How do you screen and what tools do you use? What do you do with the screening result?
• Do you access resources for people with dementia? What are they?
• Do you make referrals for people with dementia? Who to?

Interviewer prompts for Overseas Trained Doctors

• What challenges do you have being aware of, diagnosing and managing dementia?
• What role do the Practice Nurses within your Practice have with regard to dementia? Do the Practice Nurses have the same role?
• Do you know if your Practice Nurses screen for dementia and what they do with the result?
• Do you know what resources the Practice Nurses access for people with dementia?
• Do you know if the Practice Nurses make referrals for people with dementia?
• Do you meet with the Practice Nurses to discuss management of people with dementia?
• Do you meet with the Practice Nurses to discuss management of people with chronic disease?

Interviewer prompts about Aboriginal and Torres Strait Islander People

• Have you seen many Aboriginal and Torres Strait Islander people with dementia or cognitive impairment? What were their ages and genders?
• What tools did you use to assess cognitive function?
• What are barriers for doctors/ patients and families/ carers to diagnosis, awareness and management of dementia?
• What advice do you give/ are you aware of for risk reduction?
• What type of community assistance was available?
• Who coordinates this community assistance?
• What were the responses and attitudes of the patient/ family/ carer to the diagnosis of dementia?
• What awareness does the patient/ family/ carer have about dementia?
• Is there a specific facility that has been accessed for residential care? Are you aware of such facilities operating in other states?
POST-MODULE INTERVIEW SCHEDULE

Schedule framework:
1. New patients (looking forward/back)
2. Old patients (not seen since completing the modules, also looking forward/back)
3. Old patients (seen since completing the module)

In preparation for the post-module interview, we ask that you again review the records of a recent patient (or patients) you have seen with dementia, and consider how the online modules you recently completed has influenced:
1. How you became aware or what alerted you that the patient(s) might have dementia?
2. What you did with the patient(s)?
3. How you made or planned to make a diagnosis?
4. How you followed up the patient(s)?

If you have not seen a new patient with dementia since completing the modules, consider how the online modules you recently completed might influence your responses to the patient(s) you discussed in the pre-module interview.
For example,
1. How else might have you become aware, or what else would have alerted you that the patient(s) might have dementia?
2. What would you now do with this patient(s)?
3. How would you now plan to make a diagnosis?
4. How would you now follow up the patient(s)?

Opening Questions:
• What was your experience of the modules?
• How did you find doing the modules as an online delivery method?

Additional Prompts:
1. Looking back, what might you have done differently in the way you identify, diagnose and manage a patient with dementia?
2. Now that you’ve undertaken the modules, has your management of dementia changed in anyway and how? In future, how might your approach be different?
3. If someone came in who identified as an Aboriginal and/or Torres Strait Islander person, how would your approach be different to how it might have been previously?
4. How might your interactions with patients be different now that you’ve undertaken the module?
5. How do you see yourself in your practice setting now that you have undertaken the module?
APPENDIX 3: CPD REACTION QUESTIONNAIRE

Please answer each of the following questions by indicating the number that best describes your opinion about the behaviour indicated. Some of the questions may appear to be similar, but they do address somewhat different aspects of the behaviour stated.

1. I intend to apply a systematic framework to diagnose and manage dementia.
   - Strongly disagree: 1 2 3 4 5 6 7

2. To the best of my knowledge, the percentage of my colleagues who apply a systematic framework to diagnose and manage dementia.
   - 0–20% 21–40% 41–60% 61–80% 81–100%

3. I am confident that I could apply a systematic framework to diagnose and manage dementia is I wanted to.
   - Strongly disagree: 1 2 3 4 5 6 7

4. Applying a systematic framework to diagnose and manage dementia is the ethical thing to do.
   - Strongly disagree: 1 2 3 4 5 6 7

5. For me, applying a systematic framework to diagnose and manage dementia would be:
   - Extremely difficult: 1 2 3 4 5 6 7

6. Now think about a co-worker whom you respect as a professional. In your opinion, does he/she apply a systematic framework to diagnose and manage dementia?
   - Never: 1 2 3 4 5 6 7

7. I plan to apply a systematic framework to diagnose and manage dementia.
   - Strongly disagree: 1 2 3 4 5 6 7

8. Overall, I think that for me applying a systematic framework to diagnose and manage dementia would be:
   - Useless: 1 2 3 4 5 6 7

9. Most people who are important to me in my profession apply a systematic framework to diagnose and manage dementia.
   - Strongly disagree: 1 2 3 4 5 6 7

10. It is acceptable to apply a systematic framework to diagnose and manage dementia.
    - Strongly disagree: 1 2 3 4 5 6 7

11. I have the ability to apply a systematic framework to diagnose and manage dementia.
    - Strongly disagree: 1 2 3 4 5 6 7

12. Overall, I think that for me applying a systematic framework to diagnose and manage dementia would be:
    - Harmful: 1 2 3 4 5 6 7
REFERENCES


