Forgetfulness and older adults: concept analysis

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Abstract
Title. Forgetfulness and older adults: concept analysis.
Aim. This paper is a report of an analysis of the concept of forgetfulness as it applies to older adults.
Background. Perceived increases in forgetfulness cause much distress for older adults due to the stigma associated with memory loss and dementia. The difference between forgetfulness in a healthy ageing state and memory loss associated with cognitive impairment requires clarification for nurses involved in screening and caring for older adults.
Data sources. Literature for this concept analysis was obtained by searches of CINAHL, EMBASE and Internurse covering the years 1962–2009, as well as gerontology textbooks.
Review methods. The evolutionary method of Rodgers was the framework for the concept analysis.
Results. As we age there is a slight increase in occasions of forgetfulness (particularly remembering to do things in the near future) that can be offset by limiting distractions and enhancing focus. This is contrasted with forgetfulness patterns, also more likely as we age, that are indicative of disease processes. Older adults’ awareness of their own forgetfulness has the potential to cause fear, embarrassment, anger and/or low self-esteem.
Conclusion. It is important to avoid labelling or dismissal of concerns related to forgetfulness in older adults. Further research, with an emphasis on the choice of assessment tool, is recommended to investigate the benefits of nurse-led population screening for memory deficits in older adults. Nurses require training in assessment of memory and access to adequate referral pathways if abnormal results are uncovered.

Keywords: concept analysis, forgetfulness, memory, nursing, older adults, Rodgers, screening

Introduction
Forgetfulness has many expressions and even more causes. It can occur when we are in our prime years, as evidenced by multiple studies on anti-microbial compliance in college students and holiday travellers (Laver et al. 2001, Labig et al. 2005, Aronson 2006). However, older adults’ fears of a dementia diagnosis associated with forgetfulness can be
particularly anxiety provoking and can significantly diminish a sense of well-being (Mol et al. 2007). Gallo and Wittink (2006) refer to the memory questions section in any cognitive assessment as specifically engendering the most anxiety for older adults.

Nearly every country in the world is experiencing a growth in older adult population. The global older adult population will be 1.2 billion in 2025 and 2 billion in 2050, according to the World Health Organization (2008). Advancing age has been linked not only to increases in normal forgetfulness, but also to a relative increased risk for cognitive impairment (Lister & Barnes 2009). Gaining understanding of the mechanisms involved in normal forgetting can clarify the term forgetfulness and distinguish it from memory loss in cognitive impairment, as well as that caused by other pathologies.

**Background**

While some decline in memory is widely considered acceptable with ageing, this is contrasted with a relative increased risk for dementia often witnessed as forgetfulness patterns (Bowie & Takriti 2004). The overlap between normal and pathological memory loss presents a dilemma in terms of determining at which point forgetfulness suggests a need for investigation. Although loss of memory is often a prime expression of dementia, forgetfulness and cognitive impairment are not synonymous terms. Memory is only one domain characterizing cognitive function. Other domains are orientation, attention, language, visuo-spatial ability and psychomotor speed. Tools to measure memory impairment objectively are plentiful and usually include a subset of questions related to overall cognitive function; examples are the Mini-Mental State Exam (MMSE) (Folstein et al. 1975), Hodkinson’s 10-item Abbreviated Mental Test (Hodkinson 1972, Saraquesta et al. 2001), the Seven-minute Neurocognitive Screening Battery (Solomon et al. 1998, Ellis 2004, Sood et al. 2004) and the 6 Item Cognitive Impairment Test (6CIT) (Brooke & Bullock 1999). The specific cognitive domain of memory alone has been screened for using telephone interviews with the Memory Impairment Screen for Telephone tool and the Telephone Interview for Cognitive Status (TICS) tools (Jävenpää et al. 2002, Chodosh et al. 2007). However, simply ruling out memory loss associated with cognitive impairment does not address other pathological causes of forgetfulness in older adults (Bäckman et al. 2004). Nurses need to be cautious when labelling clients as memory-impaired in the absence of an identified cause (Reid & Dassen 2000).

Analysis of the concept of forgetfulness allows nurses to examine past and current research on this topic, clearly differentiating benign increases in forgetfulness from those witnessed in various pathological states. Observation of forgetfulness in older adults is important in all nursing areas, including community, primary, continuing and acute care settings. The value that a clarification of this concept holds for nurses is in aiding recognition of symptoms, objective identification of abnormal memory patterns and advocacy for a successful ageing process among older adults.

McKenna and Curliffe (2005) contend that the purpose for undertaking a concept analysis lies first in the recognition of a phenomenon, and second in the understanding of its relevance to the nursing discipline. The Wilsonian process for concept analysis used by Walker and Avant (2005) has the aim of producing ‘a precise operational definition that by its very nature increases the validity of the construct’ (p.64). However, various authors have questioned the worth of nurses devoting academic rigour to producing static definitions (Duncan et al. 2007, Weaver & Mitcham 2008). Rodgers (2000) espouses an evolutionary view of concept analysis, and prefers to begin without preconceived definitions; instead, she recommends searching for meaning of the concept only through a rigorous literature review. Because recent advances in understanding the neurobiological mechanisms of memory show great promise in the approach to assessment of older adults (Garcia-Molina et al. 2006, Lister & Barnes 2009), in this paper I use the Rodgers (2000) method of evolutionary inquiry, which is particularly suited to analysis of a concept that has evolved over time.

**Data sources**

The literature review for this concept analysis involved a search of the CINAHL, EMBASE and Internurse databases. The initial keyword used was ‘forgetfulness’. For purposes of thoroughness, Rodgers (2000) suggests that surrogate terms are also searched for; in this analysis the surrogate terms ‘memory loss’, ‘dementia’, ‘memory test’ and ‘age-acquired memory impairment’ were chosen. All papers examined were in English and ranged in publication dates from 1962 to 2009. Although multiple disciplines were included in the search (i.e. nursing, medicine, occupational therapy and psychology), educational references were omitted. In addition, any reference related to healthcare staff forgetting to perform procedures, remove operating theatre instruments or inform their patients was also excluded. Several books on gerontological assessment and dementia screening were also examined to offer understanding of the concerns of older adults being tested following complaints of forgetfulness.
The final data from the literature review consisted of 42 journal papers and two textbooks.

Results

Analysis of the references produced two varied and distinct themes. The first distinction represented forgetfulness as applicable to healthy ageing subjects lacking in any pathology (i.e. normal forgetfulness). The second was the expression of forgetfulness when pathology existed. Following Rodgers’ approach, the attributes, antecedents and consequences of forgetfulness in older adults are shown in Figure 1.

Attributes

Rodgers (2000) refers to attributes as the ‘real’ definition of any concept. She contrasts this with the dictionary definition, which can limit understanding of the full meaning in context of a concept. Therefore, the construct ‘What does forgetfulness look like?’ was used to determine attributes from the references. The very process of remembering and forgetting form a continuum and do not cause forgetfulness, but rather constitute forgetfulness; thus, an understanding of remembering is essential in defining forgetfulness.

Retrieval induced forgetting

To understand fully why people forget in normal circumstances, we must first understand the process of remembering. Anderson and Bell (2001) examined the retrieval of factual information and demonstrated that the very process of memory retrieval was the impetus for forgetting, specifically when related or similar facts interfered with the targeted facts the person was attempting to retrieve. This proposal of memory selection has been further supported by Groome and Grant (2005) and Westerberg et al. (2007) and is now referred to in the scientific literature as Retrieval-Induced Forgetting (RIF). Anderson (2003) argues that ‘forgetting is not a passive side effect of storing new memories, but results from inhibitory control mechanisms recruited to override pre-potent responses’ (p.416) (i.e. responses with higher priority). Basically, you are able to remember what you wore to work yesterday, but if asked to recall what you wore on any given day a month ago, retrieval of the entire month’s wardrobe choices would interfere with the necessary selection process. You still hold that memory, but retrieval would have required a special significance to have been placed on it all month long. Hence we all have a propensity to forget in the normal process of memory selection. As nurses, we witness this non-pathological forgetting in relation to patients’ forgetfulness of prescribed treatment regimes (Ersek 1999, Van der Wal et al. 2007, Santos Jesus et al. 2008). When a newly-prescribed medicine, therapy or diet has not reached significance with patients, or if higher priority information is competing with it, the patient is more likely to forget. But what, if any, increased amount of forgetfulness should we anticipate in older adult patients?

Prospective and working memory

As we age, slight increases in episodic prospective memory loss (e.g. occasionally forgetting to keep an appointment) become more prevalent (Bäckman et al. 2004, Guimond et al. 2006). Kliegel and Jäger (2006) examined prospective and working memory among four age-groupings (n = 127), separating older adults by 10-year groupings from age 60 to 91 years; the data derived were then compared to those from a group of younger people ranging from age 22 to 31 years. The results of Kliegel and Jäger’s research revealed a statistically significant decline in prospective memory among the older age groups, with a steady decrease noted between groups as age increased. Interestingly, these researchers found that through limiting demands on working memory and

![Figure 1](image-url)  
*Figure 1* Theoretical model of forgetfulness in older adults.
allowing participants to rehearse or focus, prospective memory performance actually improved.

Processing time and delayed recall
In a 6-year longitudinal study with 557 older people, Mol et al. (2007) found that awareness of forgetfulness was predictive of slower processing time and delayed recall of information, but had no correlation to development of cognitive impairment. Commissaris et al. (1996) conducted a survey with 537 older adults in the Netherlands to determine prevalence of forgetfulness. They found that 90% of respondents were concerned about their own forgetfulness, but that only 25% brought this concern to their general practitioner (GP). In the same study, 430 older adults gave their own reasons for perceived forgetfulness in order of most common (see Table 1); the majority cited situations that would place increased demands on their working memory and/or limit their ability to focus.

Antecedents
McKenna and Cutliffe (2005) define antecedents as prompts to a concept that must exist to make the concept happen. Put simply, antecedents are the causes or the ‘why’ of the phenomenon. Antecedents for forgetfulness specific to older adults include neuro-biological changes in ageing, stroke, diagnosed memory impairment, delirium and depression (with or without known dementia), vitamin B deficiency and thyroid dysfunction.

<table>
<thead>
<tr>
<th>Table 1 Older adults’ stated reasons for experiencing forgetfulness (based on Commissaris et al. 1996)</th>
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<tr>
<td>Doing too many things at once</td>
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<tr>
<td>Needing more time to do things</td>
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<td>Poor concentration</td>
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<td>Not paying enough attention</td>
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<td>A busy environment</td>
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<td>Stress or tension</td>
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<td>Hearing or vision problems</td>
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<td>Medication side-effect</td>
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<td>Chronic forgetfulness</td>
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<td>Alcohol use</td>
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<td>Brain trauma history</td>
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<td>Known dementia</td>
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<td>Cardiac condition</td>
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<td>Hypertension</td>
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<td>Depression</td>
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<td>Thyroid problems</td>
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<td>Diabetes</td>
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<td>Narcosis</td>
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Neuro-biological findings
Recent neurobiological advances as a result of enhanced imaging have uncovered mechanisms in the brain involved in memory loss associated with ageing. The hippocampus (located in the medial temporal lobe of the brain) is responsible for learning and memory (Lister & Barnes 2009). Lister and Barnes (2009) studied the literature on changes in the hippocampus, confirming that structural and functional deficits occurred in normal ageing. Through positron emission tomography (PET) imaging, Mormino et al. (2008) confirmed that deposits of beta-amyloid plaques (commonly observed in the brain cortex of patients with Alzheimer disease) correlated with atrophy in the hippocampus, but could also be seen in people without dementia. The findings of Mormino et al. suggest that even small deposits of beta-amyloid may represent an early stage of Alzheimer disease, but that atrophy in the hippocampus must reach a threshold before pathological impairment of memory occurs.

Stroke and cerebral small vessel disease
Garcia-Molina et al. (2006) found memory impairment to be the most commonly-affected cognitive domain on neuropsychological testing in people who had suffered anoxic brain injury (i.e. stroke). However, in a longitudinal study (n = 832) in which stroke was an exclusion criterion, Prins et al. (2005) found no association between memory loss and structural magnetic image resonance (MRI) changes seen in cerebral small vessel disease (specifically white matter hyperintensities resulting from chronic hypertension, diabetes, smoking and/or ageing of the vasculature). This study did, however, show an association with small vessel disease (very common in older adults), slowed processing time and impaired executive functioning (responsible for both planning and abstract thinking).

Memory loss because of cognitive impairment
The cross-over point from acceptable, age-related forgetfulness to a diagnosis of memory impairment has evolved over the last five decades. This delineation was first presented by Kral (1962) and was referred to as benign or malignant forgetfulness. Sclan and Kanowski (2001) looked specifically at Alzheimer dementia and classified the symptoms into seven categories. The first two categories were labelled ‘Normal or No Impairment’ and ‘Normal Aging’. In the category ‘Normal Aging’, there were complaints of subjective forgetfulness for both recent and past events, but objective testing revealed no memory deficits. Because the clinical manifestations of memory impairment associated with dementia can be ‘insidious and gradual’, McLean Heitkemper et al. (2004) refer to memory loss in mild cognitive impairment as a state
between healthy aging and dementia (p.1584). Mild cognitive impairment is diagnosed in the absence of dementia by the following criteria:

- Objective confirmation of one or more aspects of cognitive decline
- Self or informant reporting of memory loss
- Preserved (or minimally decreased) ability to perform daily activities (Luppa et al. 2008).

However, the lack of internationally-standardized diagnostic criteria for mild cognitive impairment has led to confusion among primary care providers, with the potential for under-recognition (Chertkow et al. 2008, Stephan et al. 2008). Routree et al. (2007) found a 4-year conversion rate from mild cognitive impairment to a diagnosis of dementia of 56%, or 14% annually (n = 106), when memory loss was a feature. Recent advances in chemotherapeutics and memory training aimed at halting progressive memory loss have led to much greater emphasis on early detection through routine screening (Rosser & Fox 2000, Ouldred 2004).

Of particular concern are those in whom standardized testing is inappropriate due to intellectual disability. Whitehouse et al. (2000) studied carer perceptions of dementia in intellectually disabled people and concluded that forgetfulness was the most noted symptom. Deb et al. (2007) point out that brain changes seen on autopsy reveal that almost all people with Down Syndrome show signs of Alzheimer disease after the age of 40, yet only 9% are diagnosed with dementia. No specific testing exists to measure forgetfulness when cognitive ability at baseline is below normal.

**Delirium and depression (with or without known dementia)**

The presenting symptom of forgetfulness in both delirium and depression can often be mistaken for memory loss associated with dementia (McLean Heitkemper et al. 2004). Henry (2002) cautions that nurses must learn to differentiate the distinct signs of delirium, dementia and depression; all three conditions share a degree of expected forgetfulness, but delirium can be caused by life-threatening illness and depression carries the risk of suicide. Gallo and Wittink (2006) state that people who are aware of their own forgetfulness are more often suffering from depression and/or anxiety. Further analysis of the literature reveals that even when forgetfulness has led to a diagnosis of memory impairment, there are reasons to re-assess any changes to this baseline. In clients with a known diagnosis of dementia (particularly in a long-term care facility) symptoms of infection and medication side-effects may be overlooked, possibly because the only form of expressing discomfort is exhibited by increases in forgetfulness (Swann 2006).

**Vitamin B deficiency and thyroid dysfunction**

Bäckman et al. (2004) highlight the importance of testing for vitamin B12 and folic acid deficiencies and thyroid stimulating hormone (TSH) levels in all confused older adults. These correctable conditions have the potential to affect recall of words and objects as well as to indicate overall decline in episodic memory.

**Outliers**

According to Rodgers (2000), it is inappropriate to ignore data that do not fit with the overall theme of a concept analysis (in this case forgetfulness in older adults) but continue to arise in the literature; these items may be seen as outliers. Therefore, it is important to note that when the search was not limited to older adults, conditions in which forgetfulness was a predominant feature were found. Some causes of forgetfulness not restricted to older adults (but affecting them nonetheless) are postconcussion symptoms (Chan 2001), menopause (Woods et al. 2007), chronic hepatitis C infection (Lang et al. 2006) and HIV-AIDS progression (Coreless et al. 2000). One very informative paper was written by Hess and Insel (2007) on the topic of forgetfulness as experienced by people with cancer. Their concept analysis on that topic revealed not only the difficulty of separating the psychological impact of the diagnosis from the side-effects of chemotherapeutic agents as causes of forgetfulness, but also the deficiencies of standard measurement tools in assessing cognitive changes. Regardless of the person’s age, complaints of forgetfulness patterns demand attention and should never be summarily dismissed.

**Consequences**

Consequences are the outcome of the concept, depicting what results when the concept occurs. The impact of forgetfulness on older adults varies according to their personal perceptions or awareness of the situation. For the purposes of this analysis, references were separated into perceptions of social impact and coping mechanisms.

**Perceptions of social impact**

Emotional responses to forgetfulness in the references were fear, embarrassment, anger and low self-esteem (Imhof et al. 2006, Öhman et al. 2008). Cromwell and Phillips (1995) describe with great honesty the resentments and social exclusion that occur when the label of forgetful is applied in later life; aspects of shared experiences not being remembered or missed obligations (e.g. forgetting to purchase theatre tickets) can have grave consequences for the social relationships of older adults with forgetfulness. These events can be viewed as demonstrating lack of concern for others and can
be very distressing to older adults who are experiencing the forgetting. A definite stigma, which is not encountered in youth, exists in relation to forgetfulness in later life.

Coping mechanisms
The coping mechanisms cited in the references were adherence to routine, writing lists and humour (Keady & Nolan 1995, Imhof et al. 2006, Ohman et al. 2008). Forgetfulness in healthy aging populations brings about different coping strategies from memory loss associated with disease. In healthy ageing groups, both routine and reminders are cited as coping mechanisms. Imhof et al. (2006) reported that one older man felt frustrated because, after several attempts to write a list before going to the grocery store, he would always forget to take the list. He eventually decided to write his list on the paper grocery sack and managed to take his list because taking the paper sack had always been his routine in shopping.

Chronic forgetfulness is not surprisingly a factor in developing coping mechanisms, particularly among family members of older adults. Humour is the most frequent adaptation cited and is used by family members to normalize or down-play forgetfulness (Bethea et al. 2000). Beard and Fox (2008) defy the traditionally ‘biomedical and psychological models of pathology’ associated with a diagnosis of Alzheimer-type dementia (p.1510). In their qualitative study of 40 older participants attending an Alzheimer support group, they found that trends in coping mechanisms emerged. There appeared to be a transition period from recognition of forgetfulness as normal to that linked with a diagnosis. Rather than creating a negative for the participants, however, the diagnosis often served the function of ‘making forgetfulness familiar’ (Beard & Fox 2008, p. 1518). Through social interaction with other ‘forgetters’ at the support group, participants began to accept that there was a reason for their memory loss and linked this to some degree of comfort in knowing. While Beard and Fox (2008) questioned the practice of withholding a diagnosis of dementia, Campbell et al. (2008) found that disclosure of this diagnosis actually led to poorer self-reported health in general.

Related concept
The term ‘selective memory’ is a related term for this analysis. Among the references there was a small sample of research on behavioural change and memory related to alcohol health promotion campaigns (Kiviniemi & Rothman 2006), and retrospective attachment of stress identifiers to headache sufferers’ symptoms (Wittrock & Foracker 2001). These two sets of authors attempt to link participants’ desire to remember specific events with forgetting the reality of the situation, based on personal bias. More simply put, this concept involves remembering only what is acceptable to the person and forgetting anything unacceptable.

Definition
Forgetfulness has been discussed in this paper generally, as well as in relation to causative underlying factors. In analysing the attributes specifically applicable to older adults, the following definition was identified.

As people age, there is a slightly increased incidence of episodic prospective memory loss, slower processing time and delayed recall. This type of forgetfulness has been shown to increase steadily with advancing years, but can be offset somewhat by limiting the demands on working memory and allowing older adults to rehearse or focus an item of recall. Although some increase in non-pathological forgetfulness is considered normal, nurses should be observant for forgetfulness patterns (as opposed to isolated episodes) that may require screening for cerebro-vascular disease, dementia, depression, delirium, vitamin B deficiency and/or thyroid dysfunction.

Model cases
Knafl and Deatrick (2000) refer to the model case using Rodgers evolutionary framework as furthering the definition of the concept. For the present analysis, two model cases have been chosen from real practice and represent forgetfulness in a healthy ageing scenario and one in which pathology is involved. The cases are not meant to contrast with each other, a technique used in the Walker and Avant method of conceptualizing model cases (Avant 2000). Rather, they are intended to demonstrate the complex nature of forgetfulness in older adults and offer depictions of real life examples in which nurses play a central role in developing person-centred outcomes.

Forgetfulness with no deficits on testing
Mrs. A is a 76-year-old woman. She has lived alone since the death of her husband 20 years ago. She maintains a routine that includes an exercise class once a week, attending church every Sunday and occasional visits to friends’ homes. She always manages her own finances. She is moderately hearing-impaired and wears a hearing aid in each ear.

Mrs. A decided to take a holiday to visit her son overseas. Following the 6-hour airplane flight, she told her son that she found the journey exhausting and would like to sleep right away. The next day, both mother and son
ventured out to a museum. Mrs. A experienced anger and frustration when unable to count the change needed for the bus and the museum admission; she asked her son to help her with the calculations. Once settled in the noisy museum café, she decided to write a postcard to her sister. She suddenly appeared tearful and told her son that she felt embarrassed to admit that she could not remember the correct address.

Once back home, Mrs. A visited her health centre. She recounted the forgetfulness she had experienced on her trip to the practice nurse, and expressed how anxious she was that this might be the beginning of dementia. The nurse arranged for Mrs. A to see the GP later in the week. When the appointment came, Mrs. A reported that she had worried about the visit all week. The GP assessed Mrs. A and completed a brief cognitive assessment, including questions testing both short- and long-term memory. He reported the results to her as perfectly ‘normal’. The nurse reassured Mrs. A. that people of all ages can experience some lapses in memory under stressful conditions. Although problems other than cognitive impairment were not ruled out, a baseline assessment of the subjective complaint was obtained.

**Forgetfulness with deficits on testing**

Mr. B, a retired factory worker aged 72 years, lived alone but was very close to his partner of 3 years, who lived 2 miles away. The pair had met through mutual friends and enjoyed living separately as they both valued their independence. The partner noticed a sudden change in Mr. B over the winter and this made her feel alarmed. Over a 2-month period Mr. B began to forget where he was going when driving, and even began forgetting the day of the week. He seemed withdrawn and expressed a wish that he could ‘just die’. She urged him to see the doctor but he refused.

Mr. B’s partner asked the community nurse to assess him and confided in her that she was frightened that he might take his own life. The nurse assessed Mr. B and arranged for the gerontological liaison nurse to visit later in the week. When the liaison nurse arrived, Mr. B and his partner appeared very anxious, expressing concerns about where and when he would receive testing. The liaison nurse asked Mr. B if she could test his memory and mood with a few short questions, and he agreed. His Geriatric Depression Scale (GDS) and Mini Mental State Exam (MMSE) results revealed that he was significantly depressed and that his short-term and procedural memory were severely impaired. Based on her assessment, the liaison nurse arranged for Mr. B to see a gerontologist, with an appointment made for 2 days later.

At the same visit, blood samples were obtained to assess vitamin B and thyroid levels. The partner agreed to monitor Mr. B until he could be seen. Following the gerontologist’s examination, the nurse and doctor agreed that an urgent brain scan was necessary, and Mr. B had the test that day. The CT revealed a large brain mass that was diagnosed by a neurosurgeon several days later as inoperable. Mr. B was admitted to a hospice and died peacefully within 2 months of the diagnosis.

**Discussion**

In this paper, I have attempted to clarify the concept of forgetfulness in older adults through identification of the term’s attributes, antecedents and consequences over time. Limitations of this analysis include the small volume of literature written by nursing scholars on the topic; of the 44 sources reviewed, only nine were derived from nursing literature. In addition, the neurobiological findings related to forgetfulness in ageing are so recent that replication has not been possible at this time. Thus, a comprehensive review of the literature on all causes of forgetfulness is intentionally limited in relation to nursing.

**Theoretical framework**

If nursing is to benefit from concept analysis, then identification of where that concept lies within a theoretical framework is needed; this will allow for operationalization of the concept’s definition as it applies to the nursing field (Paley 1996). Therefore, the concept of forgetfulness in the older adult evokes the question, ‘What role do nurses have in applying the knowledge derived from this analysis?’

Meredith Flood’s mid-range theory of successful aging (Flood 2005) has potential utility for nurses working in all settings in relation to this concept. Her theory states that ‘functional performance mechanisms encompass the ways that a person responds to the cumulative physiological and functional changes’ occurring as part of the ageing process (p.38). The ability to transcend challenges encountered on three levels of living (i.e. functional performance mechanisms, intrapsychic factors and spirituality) through various adaptation processes unique to each individual leads to successful ageing. Flood states that the nurse’s role in facilitating these transitions can occur at any point in the coping process as the three levels are related to each other. Specific to forgetfulness in older adults, this theory lends itself to interventions such as minimizing distractions to enhance comprehension in health promotion attempts, assessing clients for impairment and coordination of
follow-on care if needed, and reassurance when appropriate. Flood’s model is very parsimonious in that nurses can tailor interventions based on client-centred concerns as well as professionally-assessed need without multiple steps, thus acknowledging and addressing subjective concerns while objectively assessing for deficits. Therefore, Flood’s theory offers a framework to develop nursing interventions related to forgetfulness in both the healthy ageing state and when pathology exists. Research in applying this model would assist the profession in developing best practice methods related to successful ageing with this as well as other age-related changes.

### What is already known about this topic
- Advancing age is associated with an increase in the prevalence of dementia.
- Although loss of memory and forgetfulness are often prime expressions of dementia, forgetfulness and dementia are not synonymous terms.

### What this paper adds
- The main attributes of forgetfulness in healthy ageing are increased incidence of isolated prospective memory loss, slower processing time and delayed recall that can be offset by decreasing distractions and enhancing focus.
- Forgetfulness caused by pathology may be difficult to differentiate from normal forgetting in older adults.

### Implications for practice and/or policy
- Further research, with an emphasis on the choice of assessment tool, is recommended to investigate the benefits of nurse-led population screening for memory deficits in older adults.
- Nurses require training in assessment of memory and access to adequate referral pathways if abnormal results are uncovered.

### Implications for nursing
Various strategies have been developed to assist nurses in care planning when forgetfulness is identified as a problem in older adults. Cromwell and Phillips (1995) have developed seven protective interventions (see Table 2) for nurses to use in client interactions.

### Conclusion
Nurses working with older adults have a substantial role to play in recognizing and assessing forgetfulness. In addition to subjective complaints of forgetfulness, they may encounter memory problems affecting medication and/or therapy compliance and in appointment adherence. Effective strategies and interventions focusing on client interaction coupled with early disease detection can have a positive impact on individual, family and community health.

### Acknowledgements
I wish to acknowledge Dr. Osman Mukhtar, Physician in Geriatric Medicine, for his review of the accuracy of the medical aspects of this paper, particularly in relation to stroke and brain changes.

### Table 2 Seven protective strategies for nurses and older people experiencing forgetfulness (based on Cromwell & Phillips 1995)

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<th>Strategy</th>
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<tr>
<td>Avoid labelling</td>
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<td>Protect the forgetful older adult from public disclosure of forgetfulness</td>
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<tr>
<td>Normalize forgetting</td>
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<tr>
<td>Enable the older adult to meet personal commitments and obligations</td>
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<td>Focus on strengths and successes not failures</td>
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<tr>
<td>Reconstruct the social context for the older adult</td>
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<td>Identify and assist the older adult with social re-entry if forgetting</td>
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Efforts to include protective strategies that promote successful ageing in practice require a great deal of reflection from nurses and other members of the healthcare team. In-service training, with use of group work to explore scenarios and personal misconceptions, can be used to promote staff insight and empathy.

Routine assessment of memory and other cognitive domains by all nurses working with older adults may have an impact on early detection of abnormal memory states through opportunistic case finding. Research in the area of appropriate assessment tools needed for nurse-led screening should occur at local level (i.e. reflecting culturally specific needs) prior to adoption of policy. If nurses are undertaking this, all worrying results must lead to further referral of patients for definitive testing and possible intervention. Links between nurses and existing gerontological services will produce the best benefits. Investigation should also take place at a broader level to identify gaps in referral pathways.
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