

This publication is made freely available under ______ open access.

AUTHOR(S):	
TITLE:	
YEAR:	
Publisher citation:	
OpenAIR citation:	t statement:
Publisher copyrigh	version of an article originally published by
in	
(ISSN; e	ISSN).
OpenAIR takedowi	i statement:
Section 6 of the "I students/library/lib consider withdraw any other reason s	Repository policy for OpenAIR @ RGU" (available from <u>http://www.rgu.ac.uk/staff-and-current-</u> prary-policies/repository-policies) provides guidance on the criteria under which RGU will ing material from OpenAIR. If you believe that this item is subject to any of these criteria, or for hould not be held on OpenAIR, then please contact <u>openair-help@rgu.ac.uk</u> with the details of ature of your complaint.
This publication is d	istributed under a CC license.

SUSTAINING PEOPLE WITH DEMENTIA OR MILD COGNITIVE IMPAIRMENT IN EMPLOYMENT: A SYSTEMATIC REVIEW OF QUALITATIVE EVIDENCE

ABSTRACT

Introduction The World Health Organisation (2012) estimate that 10% of the 35.6 million people worldwide with dementia are aged under 65 years. In an ageing workforce this has implications for employers, employees, statutory and 3rd sector services. A limited body of research has been conducted into this emerging global issue.

Methods This systematic review, employing the methodology of the Joanna Briggs Institute, aimed to identify and synthesize the best available qualitative evidence regarding the needs, experiences and perspectives of people with early onset dementia or mild cognitive impairment who were either in employment or wished to gain employment.

Results Of 69 studies identified, 8 met the inclusion criteria. Four themes emerged: disease progression and recognition; the emotional impact of change; the employer's management of the worker; changes to the worker role.

Conclusion There are health benefits to the individual with dementia or mild cognitive impairment of continuing to engage in meaningful occupation. Retirement policy changes have resulted in an ageing workforce with concurrent risk factors for dementia. A lack of understanding of reasonable adjustments (Disability Act 2010) and sheltered employment opportunities was evident. This systematic review supports the involvement of occupational therapists working with this client group in vocational rehabilitation.

BACKGROUND AND INTRODUCTION

This systematic review is focused on the qualitative evidence regarding people with dementia or mild cognitive impairment (MCI) who are employed, wish to gain employment or be sustained in employment. The impact of people with dementia or MCI continuing to engage in productive remunerative employment is an emerging public health issue (FitzGerald et al 2013). Engagement in employment by younger people with dementia has attracted little attention from the research community worldwide. While epidemiological projections vary, it is thought that dementia will increasingly affect low and middle income countries. (World Health Organisation (WHO) 2012) and it is anticipated that 115 million people will be affected worldwide by the year 2050. In the UK the prevalence of dementia is predicted to double in the next 40 years (Alzheimer's Society 2014) and more than triple worldwide in the next 50 years (WHO 2012). Dementia is a progressive condition that affects the brain and it may have any of a number of underlying pathologies, the most common being Alzheimer's disease (WHO 2012). MCI is associated with an increased risk of developing Alzheimer's disease and other forms of dementia.

There are drivers that may impact on the number of people with dementia or MCI who are employed or seeking employment. Firstly, earlier diagnosis of dementia due to the discovery of markers associated with the development of the syndrome mean that more people of working age will be identified.

Secondly, working life is being extended in many countries and aging is associated with the development of dementia (Fundaro & Casale 2012). The older the working population, the greater the number of people with dementia or MCI there will be in the work place. In 2013 there were approximately 3000 people of working age with dementia in Scotland (Alzheimer Scotland 2015).

Thirdly, throughout the world the incidence of type 2 diabetes is increasing. It is projected that due to an aging and increasingly obese population this figure will rise in coming decades (Danaei et al 2011) There is an association between type 2 diabetes and Alzheimer's disease and other common forms of dementia, in particular, vascular dementia (Danaei et al 2011). People with type 2 diabetes are at least twice as likely to develop Alzheimer's disease as the general population (Ohara et al 2011).

Finally, governmental policies worldwide encourage people with disabilities to remain in employment wherever possible. There is agreement that employment is good for people economically and has physical and mental well-being benefits (Roach & Drummond 2014). As Robertson, Evans and Horsnell (2013) have suggested, younger people with dementia may withdraw from engagement in activities of daily living, their community and from engagement in employment as a consequence of the cognitive manifestations of the disease.

A recent systematic review by Then et al (2014) suggested that psychologically complex and challenging work may have a preventive effect, reducing the impact and/or delaying the cognitive and functional decline associated with dementia. This view is supported by Seidler et al (2004 p.962) who summarized that Alzheimer's disease is "negatively associated with diversity of activities and intensity of intellectual activities and positively associated with psychosocial inactivity and unproductive working". Given these predictions, it is critical that an understanding is developed of factors that determine the ability of an individual with dementia or MCI to succeed in employment. Some research has demonstrated qualitative evidence of successful programs for younger people with dementia in either supported or open employment (Robertson, Evans and Horsnell 2013). While it is evident from the existing research that little has been published with regard to maintaining employment for people with dementia, current literature considering other mental health conditions impacting on cognition have demonstrated the value to patients and clients of continuing engagement in productive, occupations (Arbesman & Logsdon 2011, Gibson et al 2011, Wimpenny et al 2014)

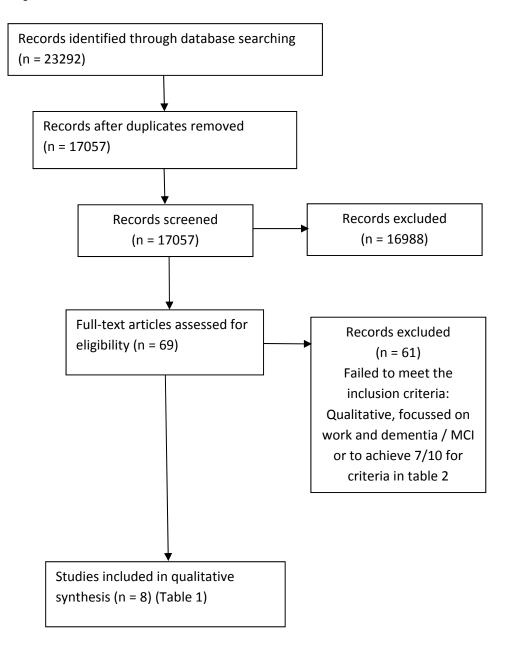
METHODOLOGY

A Joanna Briggs Institute (JBI) (2015) methodology was employed to conduct a systematic search for qualitative research literature published in the period January 2001 to January 2015. The comprehensive search strategy is available on request from the authors. The systematic review aimed to identify and synthesize the best available qualitative evidence regarding the needs, experiences and perspectives of people with early onset dementia or mild cognitive impairment who were either in employment or wished to gain employment.

Search Strategy

The databases searched included AMED, Cinahl, EMBASE, Medline, PsycArticles, Psycinfo and Web of Science. The search terms dementia, mild cognitive impairment, Alzheimer*, and confus* were combined using an 'OR' command. Search terms work*, employ*, occupation*, labour, job, vocation were combined using an 'OR' command. These two searches were combined using an 'AND' command. The number of quantitative studies was reduced by using the filter "NOT trial NOT randomi*" and target publication dates were determined by the filter "AND Limiters (Published Date: Published Date: 20010401-20150131)"

Figure 1 PRISMA Flow Diagram (Moher et al 2009)



This resulted in 23292 articles being identified for potential inclusion. On the face of it, this might suggest a lack of specificity in the search strategy; however, we chose to have no upper age limit for study participants as we were conscious that there is now no longer a universal retirement age.

6235 duplicates were excluded. 16988 were excluded on evaluation of title and/or abstract. Of the 69 remaining papers, 61 were excluded on reading full text.

Each title and abstract was reviewed by two of the authors independently and the process was audited by the third author. The methodological quality of the studies was rated using the Joanna Briggs Institute Sumari Qualitative Assessment Review Instrument (QARI) (Tables 1)

Table 1 MAStARI Data Extraction Form for Interpretative and Critical Research

Tables 2 and 3 are the instruments that we used to analyse and rate the papers to determine which should be included in the final review.

Table 2: JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research

Table 3 Appendix 3: Appraisal of 8 selected papers (Using JBI Quari checklist)

Insert Tables 2 and 3 here

From the systematic review of the 69 papers, 8 met the criteria for inclusion in this review, and are listed below in Table 4 which summarise the authors critique of the selected papers.

Insert Table 4 here

FINDINGS

A significant number of the original papers identified by the search strategy, superficially matching the criteria outlined in the JBI protocol (Robertson, Fitzpatrick, McCulloch 2015), related to frail elderly people and the impact of dementia on their carers. Of the 69 papers included for full review, 61 were excluded because they failed to focus on dementia/ MCI, employment, or were not qualitative research. These were anecdotal or opinion pieces, surveys, literature reviews and quantitative studies, some of which have been referred to in the background to this paper.

Of the 8 papers included (Table 4), 1 paper was from an occupational therapy perspective and the participants of 2 of the other published studies (Gallagher et al 2014, Hopcroft et al 2013) had HIV related dementia. It was apparent that there was a dearth of research literature relating to this topic.

The quality of the literature included in this review was variable. The papers were published by teams from different global locations, thus, the findings may not all be applicable to the health, social care and legislative context of the UK. There was variety in terms of the participants selected, for example some researchers were examining data gathered from people resident in 2 different continents (Braudy Harris and Keady 2009) whereas 1 study detailed the experiences of participants in 1 localised, supported employment initiative (Robertson and Evans 2015). Not all the papers focussed entirely on employment but all included employment within their scope. Chaplin's 2014 paper was the one which perhaps reflected most closely the aims of this literature review. A variety of qualitative research methods were employed, including Grounded Theory, Interpretative Phenomenological Analysis and Exploratory Analysis. 7 of the 8 papers used semi structured interviews to gather participant and carer subjective experiences of transitioning from employment.

On analysis and review of the eight papers which met the criteria for inclusion the authors identified and grouped key themes. From the findings of the eight studies included, four super-ordinate themes emerged. These four themes are discussed below in light of the existing literature:

- i. Disease progression and recognition
- ii. The emotional impact of change
- iii. Employers management of the worker
- iv. Changes to the worker role

i. Disease progression and recognition

An important theme was lack of awareness or denial of the underlying dementia pathology by the individual, recognition of these pathological changes by co workers, family members and carers and the difficulty in obtaining a formal diagnosis.

It has been recognised that lack of insight into pathological change is a common consequence of dementia, a feature which can compound the difficulty in obtaining a dementia diagnosis, a theme discussed by Braudy Harris 2004. Participants also reported being easily distracted by environmental factors, such as background noise, poor memory and an inability to multi-task, which had an impact on ability to function at work. Gallagher et al (2013, p40), quote a participant as reporting *"I've got to either listen [during work presentations] or do the writing. I cannot do both"*. Johannessen and Moller's participant identifies that (2013 p414) *"it started when I was doing a lot of things wrong at work ... My colleagues at work ...told me that it seemed as if I was struggling and they asked me if I was tired"*. Subjects in a number of studies described how they had been forced to decrease their workloads or change professions entirely because of neurocognitive challenges, such as, atypical, uncharacteristic angry outbursts at co-workers.

A number of participants described strategies that they had utilised to enable them to remain in employment. These included spending more time and effort in planning and organising tasks and the use of memory aids such as diaries and files. Self employed participants were more able and likely to obtain support from significant others to facilitate this. An illustration of this in Chaplin and Davidson's (2014) study, a participant reported *(p6) "when we went to meetings she would whisper the name of the person particularly if it is someone who is a client of the company"*.

ii. Emotional Impact

Participants described the emotional impact of their neurocognitive decline on their ability to continue to work. Self awareness and management practices left participants feeling under scrutiny which resulted in reported feelings of stress, guilt, depression, fatigue and boredom and questioning their competence at work. Limited opportunities to share fears and feelings were identified by study participants, most attempting to manage these complex emotions alone.

Where managers or colleagues noted difficulties in participants performing tasks, the manager or coworker appeared to manage this by increased observation of the employee but failed to discuss this heightened vigilance with the employee. Participants would have preferred to have been consulted about being observed covertly. A participant in one study (Chaplin and Davidson 2014 p7) reported resentment from colleagues; *they didn't think I was pulling my weight, which I was, I just wasn't doing it right"*, when a work adjustment had been initiated by management.

Neurocognitive challenges were worsened by stress arising from sources such as finances, personal relationships, and work. Stress was identified by participants in the studies as particularly affecting memory, concentration and clarity of thought processes, thereby making the management of the effects of stress hugely challenging. Participants in all studies reported feelings of depression in some form or another, regardless of a formal diagnosis of depression and in addition reported how depression worsened their memory or concentration, and decreased their participation in work activity. The fatigue reported by participants was disproportionate to the efforts demanded in the work situation and activities requiring intense concentration resulted in high levels of fatigue. For example a participant in Gallagher et al's (2013 p40) study reported *"[After] three or four hours of [a] meeting, I began to feel almost brain dead. ... I ...felt physically and mentally exhausted from feeling bombarded by a lot of information I couldn't really understand.* The duration of the working day impacted on fatigue levels in a number of participants, who reported impaired decision making and information retention later in the day (Hopcroft et al 2013)

iii. Employers Management of the Worker

For many, diagnosis meant early retirement, something that was not planned, resulting in boredom and lack of meaningful occupation. Participants described the importance of having a meaningful occupation and how it provided them with a strong sense of self. For example a participant in one study stated *"I have been forced to take early retirement and for a person who has worked since he was seven years old, retirement and financial dependency upon your wife is very difficult to accept".* (Braudy Harris 2004 p30). Participants who had opportunity to resume work in sheltered environments engaged in purposeful, worthwhile activities, perceived themselves, and were perceived by others, to have improved well-being resulting in a more positive outlook for the future (Robertson and Evans' 2015). Robertson and Evans (2015) study evaluated a supported employment initiative designed for

younger people with dementia and received encouraging feedback from participants with regard to the perceived positive, worthwhile nature of work that utilised previous knowledge and skills, permitted participants to develop new skills and decreased family discord. Family members perceived improved health in their relative with dementia, for example reporting of one participant, *"it's been fantastic. He's had people come back [to the store] the following week when he's on duty to praise what he's suggested so that's been a real boost for his confidence".* (Robertson and Evans 2015 p6)

Four sub themes detailed the experiences of people with dementia who were in the worker role at time of diagnosis. Participants perceived a lack of consultation about management decisions. A minority were given adjusted duties, none were offered 'reasonable adjustments' under the Equality Act (2010) or referred to a Disability Employment Advisor. The majority were advised to take sickness leave post diagnosis and one participant reported immediate termination of employment. *"the situation was taken behind closed doors and ... it was a case of yes he's got it and we're not prepared to even look for anything".* (Chaplin and Davidson 2014 p8).

A second sub-theme focussed on feeling abandoned by the workplace and consequent feelings of resentment towards the workplace and was particularly identified by participants on sickness leave. Financial hardship was exacerbated as human resources departments failed to warn about cessation of sickness pay. Participants questioned the will of employers to find a more suitable role or acknowledge remaining skills. When asking about other jobs in the workplace, rationalisations such as a lack of insurance or competence now that a diagnosis of Alzheimer's disease had been made, (which is an incorrect statement in most countries with disability rights legislation), were used by employers (Chaplin and Davidson 2014)

Traumatic cessation of work was not an uncommon experience. Participants reported walking out of their jobs, being made redundant or getting fired. This sudden and traumatic end to a person's working life had financial, emotional and interpersonal consequences. It also increased the pressure felt by the spouse of the person with dementia as the now sole income provider. A family member in Roach and Drummond's 2014 (p892) study summed up this perception *"They were laid off without empathy ... without even trying to see ...where we can put you... in a less stressful job, even shuffling papers, even copying papers. Keep that person in a job for as long as you can, because when he loses his job, the whole family loses their income . . . " "He was extremely anxious ... felt like people were attacking him ... like he was really being cornered at work and everywhere. He was suspect of people ... of them wanting to get rid of him, push him out... nobody realising what the underlying problem was . . . "*

Families in other studies supported this perception, feeling as though the employers of the person with dementia were treating them unfairly, assuming that their job performance was slipping and not exploring possible physical or mental health conditions that may be underlying such performance (Johannessen and Moller 2013)

iv. Changes to Worker Role

With a diagnosis of dementia, it is usually this identity (work role) that is fractured first, especially in younger-onset dementia, for it is often in the workplace where the symptoms are first noticed. For all, forms of work were reported as being a very positive aspect of their lives. Participants, often at the height of their careers, struggled to make sense of how quickly their work situation was changing. Some believed in their continued competence despite the realisation of impairment if an adjusted work role could be negotiated. Some highlighted the importance of fighting for dignity at work, while others were relieved not to have to work, a big transition. Participants expressed this realisation and the financial impact of work cessation in a variety of ways, *"I lost everything that defined me as a productive and meaningful man when I had to stop working ... it's such a challenge yet to work out finances. How are we gonna live out the rest of our lives until retirement?" (Braudy Harris and Keady 2009 <i>p439*) *"Having to take a 40% reduction in income has had a severe impact". (Braudy Harris 2004 p28).*

A number of participants received employment benefits, for others early retirement or semi-retirement were options though frequently these caused severe financial hardship. Volunteering was described as a way of being productive, however participants emphasized the importance of finding an organisation flexible with structuring routine and accommodating neurocognitive challenges. *"I feel like my job* [volunteering] *is my coping skill... I feel happy. ... I feel that joy of helping other people". (Gallagher et al 2013 p41).* Several of the participants had considered returning to education, but expressed concern about their ability to focus on course work. Those taking courses felt their performance was adversely affected:

Participants believed that engagement in work helped to reduce some of their loneliness and isolation, others who reflected on the meaning of work in their lives expressed an acceptance of the final outcome of the loss of employment. *"I was quite happy with the outcome, for my health, but it was a bit long, 12 months, I think it should have been sooner but never mind"* (Chaplin and Davidson 2014 p9)

DISCUSSION

The original aim of this review was to identify and synthesise the best available qualitative evidence regarding the needs, experiences and perspectives of people with early onset dementia (EOD) or mild cognitive impairment (MCI) who were either in employment or wished to gain employment.

All of the studies employed qualitative methods which the authors reported as including grounded theory (3, Braudy Harris 2004, Braudy Harris and Keady 2009, Johannssen and Moller 2013), interpretative phenomenological analysis (1, Chaplin and Davidson 2014), repeated interview (1, Roach and Drummond 2014), interpretive qualitative methodology (2, Gallagher et al 2013, Hopcroft et al 2013), exploratory approach (1, Robertson and Evans 2015). As expected data collection was predominantly by means of semi structured interviews in seven of the eight studies (Braudy Harris 2004, Braudy Harris and Keady 2009, Chaplin and Davidson 2014, Gallagher et al 2013, Hopcroft et al 2013, Johannessen and Moller 2013, Roach and Drummond 2014) the remaining study used work place observation, workplace journals and focus groups (Robertson and Evans 2015). In addition to semi-structured interviews Braudy Harris 2004 and Braudy Harris and Keady 2009 used focus groups.

A significant proportion of the studies (5, Braudy Harris 2004, Braudy Harris and Keady 2009, Chaplin and Davidson 2014, Robertson and Evans 2015, Roach and Drummond 2014) identified the critical importance of promoting the normalisation of provision of a range of services, including those focused on employment for younger people with dementia. It could be suggested that normalising these services might reduce stigma and promote social inclusion.

People with EOD often fail to receive reasonable adjustments in the workplace (Chaplin and Davidson 2014) resulting in the traumatic cessation of the worker role (4 Braudy Harris 2004, Braudy Harris and Keady 2009, Johannessen and Moller 2013, Roach and Drummond 2014, Robertson and Evans 2015). Transition from paid employment to work programmes which provide a safe and purposeful environment and an opportunity to participate in meaningful occupation (Robertson and Evans 2015, Roach and Drummond 2014) which in 1 study (Robertson and Evans 2015) meant a real work place programme, highlight the importance and value to the individual and their family (Braudy Harris 2004, Braudy Harris and Keady 2009, Robertson and Evans 2015) of an employment routine and worker role.

It could be suggested that increasing awareness and knowledge of employment law (Chaplin and Davidson 2014) might serve to improve the retention of people with dementia or MCI in the workplace which would preserve both the potentially valuable contribution that may be made to society as well as maintain good outcomes in the wellbeing of the individual. It is undoubtedly true that given the predicted increase in the prevalence of people with MCI or dementia in the workplace efforts should continue to establish good practice

guidelines (Braudy Harris 2004) and the importance of longitudinal research to provide data for quality service provision and development cannot be underestimated (Braudy Harris and Keady 2009)

One of the limitations of this review is that the studies were predominantly from 1st world countries where health care is freely available and research funding is embedded in the culture. This bias obscures the experiences of significant worldwide populations with or at risk from early onset dementia. The limitations of qualitative research in respect of these papers are detailed in Table 4.

In summary, 4 themes emerged from the review. It was surprising that there was relatively little emphasis on the disease progression. This may be a manifestation of the syndrome as insight is frequently impaired. Far more important to the individual appeared to be the loss of established roles, in particular the worker role and resultant consequences to the individual and family. The transition out of employment appeared to lead to resentment towards the employer, distress to the individual and family, depression and anxiety and loss of status within their social network.

Supported employment offered a continuation of the worker role, whilst improving well-being, volition and providing meaningful occupation, structure and routine. In theory and in an ideal situation the person with dementia or MCI could be offered an opportunity to discuss 'reasonable adjustments' within their current role. However, the evidence from the reviewed literature suggests that a barrier to this work adjustment under the Disability Act 2010 is the delay in people obtaining a diagnosis (Chaplin & Davidson 2014).

CONCLUSION

This systematic review aimed to identify and synthesize the best available qualitative evidence regarding the needs, experiences and perspectives of people with early onset dementia (EOD) or mild cognitive impairment (MCI) who were either in employment or wished to gain employment. The opinions of carers and significant others were incorporated where possible.

Current services are structured around the needs of older people with dementia. In the UK, from 2012 people no longer have to retire at age 65 (Chaplin & Davidson 2014). An ageing workforce will undoubtedly have a greater proportion of people with dementia or MCI. Occupational therapy has a role within vocational rehabilitation in maintaining people with early onset dementia in work related activity alleviating prescribed disengagement (Swaffer 2015). For example occupational therapists using Model of Human Occupation (MOHO) standardised assessment tools such as the 'Assessment of Work Performance' (AWP) 2010, 'Worker Role Interview' (WRI) 1998 and 'Work Environment Impact Scale' (WEIS) 1998 could help identify reasonable work adjustments for supporting the employee to remain in work, thus enhancing their role within the family and society. Sheltered employment supported by occupational therapists should offer a continuation of the worker role, whilst improving well-being, volition and providing meaningful occupation, structure and routine. Existing literature has identified that neither employers nor employees have the ability to identify the manifestations of early dementia in the workplace. The Allied Health Professionals (AHP) Fit Note (2013) may be the tool which enables occupational therapists to influence employers and other stake holders in maintaining people with early onset dementia in vocational occupation.

Key findings

- Significance of the loss of the worker role.
- Benefits of supported employment
- Lack of awareness of legislation in relation to work adjustments for people with cognitive impairment.

What the study has added

This review highlighted the need for research involving the employment of younger adults with dementia and the paucity of occupational therapy literature regarding this emerging public health issue.

References

Alzheimer's Scotland (2013) About dementia: some facts and figures. Available at:

http://www.alzscot.org/assets/0000/8674/IS16aboutdementia.pdf (accessed 14 October 15)

Alzheimer's Society. Dementia 2013: the hidden voice of loneliness Available at:

http://www.alzheimers.org.uk/site/scripts/download_info.php?fileID=1677 (accessed 14 October 15)

- Arbesman M and Logsdon D (2011) Occupational therapy interventions for employment and education for adults with serious mental illness: A systematic review. *American Journal of Occupational Therapy* 65(5): 238–246.
- Braudy Harris P (2004) The perspectives of younger people with dementia: Still an overlooked population. *Social Work in Mental Health 2(1):* 17–36.
- Braudy Harris P and Keady J (2009) Selfhood in younger onset dementia: Transitions and testimonies. *Aging & Mental Health 13*(3): 437-444.
- Chaplin R and Davidson I (2014) What are the experiences of people with dementia in employment? *Dementia.* Advanced Online Publication DOI: 10.1177/1471301213519252
- Danaei G, Finucane M, Lu Y, Singh G, Cowan M, Paciorek C, Lin J, Farzadfar F, Khang Y-H, Gretchen A, Rao M, Ali M, Riley L, Robinson C and Ezzati M (2011) National, regional, and global trends in fasting plasma glucose and diabetes prevalence since 1980: systematic analysis of health examination surveys and epidemiological studies with 370 country-years and 2·7 million participants. *Lancet* 378 (9785): 31–40.

- Department for Work and Pensions. *Reviewing the state pension age* Available at: <u>https://www.gov.uk/government/policies/reviewing-the-state-pension-age</u> (accessed 14 October 15).
- FitzGerald D, Keane R, Reid A and O'Neill D (2013) Ageing, cognitive disorders and professional practice. *Age and Ageing 42*(5): 608-614.
- Fundarò C and Casale R (2012) Rehabilitation and dementia in the era of elderly workers. *Giornale Italiano Di Medicina Del Lavoro Ed Ergonomia 34*(2): 197-201.
- Gallagher S, Biro S, Creamer E, Della Rossa E, Collins E, Rourke S and Nixon S (2013). 'It's a hidden issue': Exploring the experiences of women with HIV-associated neurocognitive challenges using a disability framework. *Disability & Rehabilitation 35*(1): 36-46.
- Gibson R, D'Amico M, Jaffe L and Arbesman M (2011) Occupational therapy interventions for recovery in the areas of community integration and normative life roles for adults with serious mental illness: a systematic review. *American Journal of Occupational Therapy* 65(3): 247–256.
- Hopcroft L, Beste L, Clement D, Quigley A, Sachdeva M, Rourke S. and Nixon S (2013) "My body's a 50 year-old but my brain is definitely an 85 year-old": exploring the experiences of men ageing with HIV-associated neurocognitive challenges. *Journal of the International AIDS Society 16(7)*: 18506-18506.
- Joanna Briggs Institute (2015) *Joanna Briggs Institute Welcome*. Available at: <u>http://joannabriggs.org/</u> (accessed 28 November 14).

- Johannessen A and Moller A (2013) Experiences of younger persons with dementia in everyday life: a qualitative study. *Dementia 12(4):* 410-424.
- Moher D, Liberati A, Tetzlaff J and Altman D (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med* 6(7). Available at: <u>http://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1000097</u> (accessed 23 November 15).
- Ohara T, Doi Y, NinomiyaT, Hirakawa Y, Hata J, Iwaki T, Kanba S and Kiyohara Y (2011) Glucose tolerance status and risk of dementia in the community: the Hisayama Study. Neurolog 77(12):1126-1134.
- Roach P, and Drummond N (2014) 'It's nice to have something to do': Early-onset dementia and maintaining purposeful activity. *Journal of Psychiatric & Mental Health Nursing 21*(10): 889-895.
- Robertson D, Kirkpatrick P, and McCulloch S (2015) *Sustaining adults with dementia or mild cognitive impairment in employment: a systematic review protocol of qualitative evidence. Joanna Briggs Institute, Adelaide, Australia* 13(3): 124 136.
- Robertson J, Evans D and Horsnell T (2013). Side by side: A workplace engagement program for people with younger onset dementia. *Dementia 12*(5): 666-674.
- Robertson J and Evans D (2015) Evaluation of a workplace engagement project for people with younger onset dementia. *Journal of Clinical Nursing. 3*, 1-9.
- Seidler A, Nienhaus A, Bernhardt T, Kauppinen T, Elo A, and Frölich L (2004). Psychosocial work factors and dementia. *Occupational & Environmental Medicine 61*(12): 962-971.

- Swaffer K (2015) Dementia and prescribed disengagement. *Dementia: The International Journal of Social Research and Practice 14*(1): 3-6.
- Then F, Luck T, Luppa M, Thinschmidt M, Deckert S, Nieuwenhuijsen K, Seidler A and Riedel-Heller S (2014) Systematic review of the effect of the psychosocial working environment on cognition and dementia. *Occupational & Environmental Medicine* 71(5): 358-365.
- Wimpenny K, Savin-Baden M and Cook C (2014) A qualitative research synthesis examining the effectiveness of interventions used by occupational therapists in mental health. *British Journal of Occupational Therapy* 77(6): 276–288.
- World Health Organisation. (2012) *Dementia: a public health priority*. Geneva: World Health Organisation.

Table 1: JBI QARI Data Extraction Form for Interpretive & Critical Research

Reviewer	Date
Author	.Year
Journal	Record Number

Study Description

Methodology

Method

Phenomena of interest

Setting

Geographical

Cultural

Participants

Data analysis

Authors Conclusions

Comments

Yes

No

Table 2: JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research

Reviewer	Date				
Author	Year	Record N	Number		
1	le there congruity between the	yes	no	unclear	Not applicable
1.	Is there congruity between the stated philosophical perspective and the research methodology?				
2.	Is there congruity between the research methodology and the research question or objectives?				
3.	Is there congruity between the research methodology and the methods used to collect data?				
4.	Is there congruity between the research methodology and the representation and analysis of data?				
5.	Is there congruity between the research methodology and the interpretation of results?				
6.	Is there a statement locating the researcher culturally or theoretically?				
7.	Is the influence of the researcher on the research, and vice-versa, addressed?				
8.	Are participants, and their voices, adequately represented?	'□			
9.	Is the research ethical according to current criteria or, for recent studies, and is there evidence of ethical approval by an appropriate body?				
10.	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?				
Overall a	ppraisal 🗆 Include 🗆 E	Exclude		Seek further info.	
Commen	ts (Including reason for exclusion))			

Table 3 Appraisal of 8 selected papers (Using JBI Quari checklist)

Questions 1-10 relate to the 10 questions posed in the JBI QARI Critical Appraisal Checklist for Interpretive & Critical Research (Table 2 above)

Citation	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Braudy Harris	Y	Y	Υ	Y	Y	U	Ν	Y	Y	Y
2004										
Braudy Harris	Y	Y	Y	Y	Y	Ν	U	Y	Y	Y
2009										
Chaplin 2014	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Gallagher 2013	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Hopcroft 2013	Y	Y	Y	Y	Y	N	U	Y	Y	Y
Johanssen 2013	Y	Y	Y	Y	Y	N	U	Y	Y	Y
Roach 2014	Y	Y	Y	Y	Y	U	U	Y	Y	Y
Robertson 2015	Y	Y	Y	Y	Y	N	U	Y	Y	Y

Table 4: Summary critique of the 8 papers selected.

Authors	Study Type	Population n/M/F/Mean Age	Setting	Aim	Method	Results	Conclusion
Braudy Harris P. (2004). The perspectives of younger people with dementia: Still an overlooked population. <i>Social Work in Mental</i> <i>Health, 2,</i> 17–36.	Qualitative grounded theory	23 participants, age range 43-68, mean age 56 years. All participants were caucasian	USA Local Alzheimer Association Focus groups - health centre; interviews - participants home	Subjective experience of early onset dementia	Face to face in- depth interviews, on-line interviews and focus groups	8 themes were synthesised:- difficulty obtaining a dementia diagnosis, marginalisation, changing relationships within the family, workforce/retirement issues, dependency, lack of meaningful occupation, issues of self esteem and awareness of changes in self.	Good practice guidelines for younger people with dementia were developed by the authors. More workshops focussing on the issues of younger people with dementia need to be developed.
Braudy Harris P., & Keady, J. (2009). Selfhood in younger onset dementia: Transitions and testimonies. <i>Aging & Mental Health</i> , <i>13</i> (3), 437- 444.	Qualitative, grounded theory	USA - young caucasian people with dementia age 43-68, mean age 56. UK - carers age 21-64	USA - all participants, living in own home. UK - carers living in North Wales community USA - voluntary agencies UK - participants home	Meaning and construction of selfhood and identity	Semi structured interviews, on- line interviews and focus groups	Identity as a worker, identity of abandoned individual, sexual identity, family identity and identity as an individual engaged in living	Raise public and employer awareness through targeted health education and promotion centred on recognising the early signs of younger onset dementia and the needs of families. Reducing stigma and promoting normalising services for younger people with dementia would positively support each of the identity themes. Future studies should recognise the importance of longitudinal research to provide data for quality service provision.
Chaplin, R. and Davidson, I. (2014) What are the experiences of people with dementia in employment? <i>Dementia</i> . Advanced Online Publication DOI: 10.1177/1471301213519252	Interpretative phenomenological analysis	5 people aged 58-74	UK - participants home	Experience of people with dementia in employment	Semi structured interviews	People with dementia fail to receive reasonable adjustments in the workplace and are poorly treated and have distressing experiences in the workplace.	This study highlights the need for staff working in services for people with early onset dementia to have some knowledge of employment law and to build up relationships with useful agencies in the field of employment. Employment of people with early onset dementia is a growing and imminent problem augmented by the removal of the statutory retirement age in 2012.
Gallagher, S., Biro, S., Creamer, E., Della Rossa, E., Collins, E., Rourke, S. And Nixon. (2013). 'It's a hidden issue': Exploring the experiences of women with HIV-associated neurocognitive challenges using a disability framework. <i>Disability & Rehabilitation</i> , <i>35</i> (1), 36-46.	Interpretive, qualitative study	16 women, age 21-62 Majority of participants were born in East/South Africa	Toronto, Canada neuro behavioural research unit	Experiences of self identified HIV associated neuro cognitive change	In-depth semi structured interviews Structured using an Episodic Disability Framework	Conceptualising neuro cognitive challenges through a disability lens focuses attention on how impairments interact with other realities in these women's lives.	Cognitive impairment restricts participation in a range of activities including work.

Hopcroft, L., Bester, L., Clement, D., Quigley, A., Sachdeva, M., Rourke, S. B., et al. (2013). "My body's a 50 year-old but my brain is definitely an 85 year-old": Exploring the experiences of men ageing with HIV- associated neurocognitive challenges. <i>Journal of the</i> <i>International AIDS Society</i> , <i>16</i> , 18506-18506.	Qualitative, interpretive study	12 men age 50-62 born in Canada	Toronto, Canada neuro behavioural research unit	Experiences of men ageing with HIV associated neuro-cognitive changes	Semi structured interviews using episodic disability framework	Advocates the role of disability orientated approach in managing impairments, difficulties with day to day activities and challenges to social inclusion	Links social inclusion issues to impairments. Individuals adopt living strategies to address their neuro cognitive challenges, demonstrating creativity and resilience.
Johannessen, A., & Moller, A. (2013.). Experiences of younger persons with dementia in everyday life: A qualitative study. <i>Dementia</i> 12: 410-424.	Qualitative grounded theory	20 participants aged 54-67, mean age 62. 8 female participants	Norway Recruited from old age psychiatric hospitals Living at home	Experiences of people with early onset dementia	Semi structured interviews	Opinions of people with early onset dementia should be included as an integral part of the treatment plan, services should focus on keeping persons with early onset dementia connected to others and to society. Employers should be encouraged to do more to facilitate alternative work solutions in collaboration with the person and with health care professionals in the early phase of the disease.	There is need for more knowledge about early onset dementia in order to reduce the difficulties that people and their families experience in the process towards a dementia diagnosis.
Roach, P., & Drummond, N. (2014). 'It's nice to have something to do': Early-onset dementia and maintaining purposeful activity. <i>Journal of</i> <i>Psychiatric & Mental Health</i> <i>Nursing, 21</i> (10), 889-895.	Qualitative repeated interview study	9 families - 20 participants aged 56- 64 years	Canada Family unit recruited through Alzheimer Society Interviews took place in the individual's home with family present	Maintaining purposeful activity, work or volunteering	Semi structured research interviews	Themes were transition out of work, the need for purposeful activity and traumatic cessation of work.	Programmes whether funded by charities or by health are a potential way to address the transition from paid employment by providing a safe and purpose filled environment for younger people with dementia.
Robertson, J., Evans, D. (2015). Evaluation of a workplace engagement project for people with younger onset dementia. <i>Journal of Clinical Nursing</i> , 24 (15-16), 2331–2339.	Qualitative exploratory approach	9 participants with supportive carers Mean age 58.8 all under 65 years old	Australia Clients of a respite cottage and community based dementia support networks Hardware store Side by Side project	Feasibility and safety of engagement in work activities	Observation, interview, work journal and focus group	No adverse workplace events, good outcomes in wellbeing, engagement, contribution to society and socialisation. The workplace programme provided the participants with the opportunity to engage in a real workplace environment, meet people and make new friends.	It is possible to provide younger people with dementia with the opportunity to engage in a real workplace and meet real people if an appropriate framework of support is provided. The authors argue for the value of this model of social inclusion for dementia services for young people.

Authors	Key Strengths	Limitations
Braudy Harris P. (2004). The perspectives of younger people with dementia: Still an overlooked population. <i>Social Work in Mental</i> <i>Health, 2</i> , 17–36.	Well recognised and appropriate methodology	The sample is small and may not comprise a representative sample of people with early on-set dementia. Such a sample limits the generalisability of the findings.
Braudy Harris P., & Keady, J. (2009). Selfhood in younger onset dementia: Transitions and testimonies. <i>Aging &</i> <i>Mental Health, 13</i> (3), 437-444.	Well recognised and appropriate methodology. Data was collected from both the United States and the UK.	Study not explicitly focussed on employment although a comprehensive account of the experiences of people with younger onset dementia and their carers. Limited acknowledgement of the differences in the healthcare systems.
Chaplin, R. and Davidson, I. (2014) What are the experiences of people with dementia in employment? <i>Dementia</i> . Advanced Online Publication DOI: 10.1177/1471301213519252	Only UK based study identified. Well recognised and appropriate methodology	Explorative inquiry with only five participants who had developed a dementia while still in employment. Ages ranged from 58 to 74 years with varying time elapsed since past employment
Gallagher, S., Biro, S., Creamer, E., Della Rossa, E., Collins, E., Rourke, S. And Nixon. (2013). 'It's a hidden issue': Exploring the experiences of women with HIV-associated neurocognitive challenges using a disability framework. <i>Disability & Rehabilitation, 35</i> (1), 36-46.	The use of a disability framework Advocates the role of a disability-oriented approach	Due to small sample size, saturation may not have been achieved. There was variation in participants' ages as well as time since HIV diagnosis. Approximately half of the participants were born in Southern or Eastern Africa, which is likely to create a different life experience in contrast to women born in Canada where the study was located.
Hopcroft, L., Bester, L., Clement, D., Quigley, A., Sachdeva, M., Rourke, S. B., et al. (2013). "My body's a 50 year-old but my brain is definitely an 85 year-old": Exploring the experiences of men ageing with HIV- associated neurocognitive challenges. <i>Journal of the</i> <i>International AIDS Society, 16</i> , 18506-18506.	The use of a disability framework to illustrate linkage of issues of social inclusion to impairments and to focus attention on the living strategies employed by individuals Advocates the role of a disability-oriented approach in managing impairments, difficulties with day-to-day activities and challenges to social inclusion	Study participants were male and born in Canada, a high-income country with a comprehensive social welfare system, including universal health care Experiences of participants may have differed from those not engaged with the formal health care system
Johannessen, A., & Moller, A. (2013.). Experiences of younger	Focussed on the informant's point of view and acknowledges that the	Inconsistencies with existing literature may be explained by confabulation or impaired insight within

persons with dementia in everyday life: A qualitative study. <i>Dementia</i> 12: 410-424.	informants' own descriptions and stories are worth taking into consideration when trying to understand the situation of persons with EOD	the experiences related by the participants
Roach, P., & Drummond, N. (2014). 'It's nice to have something to do': Early-onset dementia and maintaining purposeful activity. <i>Journal of Psychiatric & Mental</i> <i>Health Nursing, 21</i> (10), 889-895.	Coherent search strategy . Conclusions flow from the findings.	The persons with dementia that participated in this study were exclusively male and this limited the analysis and findings to a sex-stratified sample
Robertson, J., Evans, D. (2015).Very comprehensive in-depth interviews gaining both individual and carer perspectives.engagement project for people with younger onset dementia. Journal of Clinical Nursing, 24 (15-16), 2331– 2339.Very comprehensive in-depth interviews gaining both individual and carer perspectives.		This reported on one initiative in one discreet location with resultant limited generalisability