Dementia is a growing health issue: worldwide, around 50 million people are living with dementia, and there are nearly 10 million new cases every year (World Health Organization, 2020); this number is predicted to triple by 2050 (Bit.ly/WHO10Facts). The UK has an estimated 883,100 older people living with dementia, which is projected to increase to 1,590,000 by 2040, with numbers rising from 748,000 to 1,352,400 in England, from 46,000 to 79,000 in Wales, from 22,000 to 42,800 in Northern Ireland, and from 66,300 to 115,200 in Scotland (Wittenberg et al, 2019).

Nichols’ (2019) analysis of dementia across 195 countries and territories showed the largest number of cases to be in East Asia (9.8 million), followed by Western Europe (7.5 million), South Asia (5.1 million) and North America (4.1 million). Overall, there were 27 million women and 16.8 million men living with dementia. Between 1990 and 2016, numbers doubled - the main drivers for this rise being population growth and ageing. This global rise in numbers is expected to continue and to be greatest in Asia due to a rapidly growing population (Fig 1). Other causal links to the rise in dementia include high body mass index, smoking and a high intake of sugary drinks (Rakesh et al, 2017). This caused the WHO (2012) to highlight dementia as a public health priority and, later, to issue a global action plan on the public health response to dementia (WHO, 2017).

Caring for people with dementia puts a significant burden on society, families, and health and care services (Nichols, 2019; WHO, 2015). Despite advances in diagnosis and treatment, there is still no cure, and research into the causative factors receives less attention compared with other diseases such as cancer (Ritchie et al, 2015). Although more people with dementia are being included in research studies, few of them explore the lived experience from the perspective of the person with dementia using health and social care services, with most relating to the experience of care from the perspective of practitioners.

In this article...  
- Consideration of the lived experience of patients with dementia  
- The interaction between biomedical and psychosocial approaches  
- Developing a strengths-based approach

**Achieving person-centred dementia care through a bio-psychosocial model**

**Key points**

- The UK has 850,000 people living with dementia, and this is expected to reach almost 1.6 million by 2040
- There is poor understanding of the complexities of living with dementia and the multifactorial interventions needed to provide holistic and effective support
- Integrated care includes the biomedical and psychosocial perspectives
- The bio-psychosocial model considers internal experiences – such as relationships and interactions – and social environment, as well as the pathology of dementia

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**Abstract** Despite dementia incidence rising globally and the absence of a cure, there is poor understanding of the complexities of living with dementia and the multifactorial interventions needed to provide holistic and effective support. The focus has been on biomedical care models, but an integrated care approach that supports a better understanding of the person with dementia includes biomedical and psychosocial perspectives. Combining a bio-psychosocial approach with person-centred care principles means people with dementia can have their personal, social and emotional – as well as medical – needs met, and are encouraged to be more independent.

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Martyr et al (2018) proposed that this balance needs to be redressed if we are to understand the experiences in relation to person-centred care from the perspective of the person with dementia and use those experiences to improve care services. As such, appropriate strategies and approaches are needed to support therapeutic interactions with people who have dementia.

The best-quality dementia care includes practices that are underpinned by patient-centred care principles (National Institute for Health and Care Excellence, 2018), but there are challenges for practitioners around putting this into practice: research suggests there is a lack of understanding of the complexities of living with dementia and the multifactorial interventions needed to provide holistic, effective support (Dawson et al, 2015). However, the global rise in dementia and associated care costs means biomedical models of care are evolving towards promoting a more person-centred approach.

A biomedical and psychosocial issue
Dementia is an umbrella term for a range of neurocognitive conditions that affect the brain and impair memory, thinking, reasoning and cognition. There are many different types of dementia and dementia-related conditions but, according to Alzheimer’s Research UK, the most common diagnoses in the UK are Alzheimer’s disease and vascular dementia (Box 1).

Ensuring adequate support for people with dementia requires an understanding of the disease and its impact on the person and their family members (Martyr et al, 2018). There is also a need to recognise the diverse needs of people with dementia, such as those living in remote areas and people from Black, Asian and minority ethnic groups, as well as the dissimilar experiences of people with different types of dementia (Ng et al, 2018).

Dementia is a multifactorial syndrome, with physical, social, psychological and economic consequences (Winblad et al, 2016). Despite an increase in dementia research, there has been a focus on the biomedical, rather than the psychosocial model, with the emphasis on symptoms and their management (Vernooij-Dassen et al, 2019).

Biomedical research has increased our understanding of the disease and is bringing us closer to curative treatment (Winblad et al, 2016), while psychosocial research offers some effective interventions and care practice recommendations (Gove et al, 2018). For example, cognitive stimulation therapy, including structured and themed activities such as singing and baking, was found to preserve cognitive ability for longer in people with mild-to-moderate dementia (Knapp et al, 2006). Livingston et al (2017) also highlighted the cost-effectiveness of psychosocial interventions in improving their quality of life and reducing hospital and care home admissions. However, there is still insufficient research into changes associated with dementia pathology and social factors in dementia (Vernooij-Dassen et al, 2019).

Given the global impact of dementia, and the lack of a cure, it is vital to increase our understanding of it by exploring the interaction between the biomedical and psychosocial approaches (Livingston et al, 2017). This can improve management of people’s unique symptoms and allow their individual needs to be met in a way that improves their quality of life, irrespective of dementia pathology (Gove et al, 2018). Personalised psychosocial approaches are without harmful side-effects, and combining them with pharmacological interventions is considered a quality standard in conventional dementia care (Vernooij-Dassen et al, 2019).

Thinking of dementia as a syndrome, and combining a biomedical and psychosocial approach to dementia care, shifts the perspective towards capacities and deficits – practitioners can use this framework to help people self-manage cognitive deficits (Qiu and Fratiglioni, 2018).

Diagnosis and symptoms
Dementia can be caused or characterised by multiple cognitive deficits (Box 2). Symptoms (Box 3) can include loss of memory, language, problem solving and other thinking abilities, which interferes with daily life. Some people with dementia in the mild-to-moderate stages may show many symptoms to varying degrees, while others may only exhibit a few. Later symptoms of dementia include: impaired communication; poor judgment; disorientation; confusion; behaviour changes; and difficulty speaking, swallowing and walking (American Psychiatric Association, 2013).

It is important to recognise that each individual’s experience is unique, with differing disease trajectories (Adli and Lariviere, 2017). When considering the progression of dementia, it is useful to categorise these trajectories into stages, such as the three proposed by Hoe and Thompson (2010): mild, moderate and severe. Using such a system allows those with dementia, their families and care practitioners to conceptualise functional

<table>
<thead>
<tr>
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<tr>
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<td>2%</td>
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Source: Bit.ly/DementiaTypesARUK

![Predicted rise in dementia cases worldwide](source: Alzheimer's Disease International (2015))

Box 1. Dementia in the UK: most common diagnoses

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Source: Bit.ly/DementiaTypesARUK
Discussion

Box 2. Defining dementia

Dementia is a syndrome that may be caused or characterised by multiple cognitive deficits, which include memory impairment and at least one of:

- Aphasia: problems with language
- Apraxia: problems performing tasks
- Agnosia: inability to recognise objects, people, sounds, shapes or smells
- Disturbance in executive functioning
- Impaired social or occupational functioning

Source: American Psychiatric Association (2013)

Risk and prevention

Among the many risk factors for dementia are psychosocial and biomedical aspects, such as lifestyle (for example, physical inactivity, smoking, high alcohol consumption, recreational drug use, cardiovascular disease and poor diet), while a history of mental ill health, social isolation and depression can also increase the likelihood of developing dementia (Winblad et al, 2016). Livingston et al (2017) identified a number of modifiable risk factors – hearing loss, education, smoking, diabetes and obesity – that, if addressed, could reduce dementia incidence by 35%. This highlights the need for further research into timely interventions and prevention strategies. However, studying risk factors in dementia is impeded by the difficulty of identifying individuals at risk (Flaxman et al 2015).

Research into dementia risk has failed to accurately establish causative factors due to the short duration of studies and the variety of individual responses (Rakesh et al, 2017). As a result, there are no official international dementia-prevention guidelines, only recommendations that individuals may select (Vernooij-Dassen et al, 2019). The lack of a concerted primary public health prevention strategy before the onset of symptoms means secondary prevention prevails (Livingston et al, 2017). This focuses on reducing the symptoms, once a diagnosis is confirmed, to reduce the debilitating aspects of the disease (Kate, 2018). Symptomatic relief must consider the unique physical, social and psychological aspects of the person with dementia if high-quality care is to be delivered (McCormack and McCance, 2017).

Shortcomings of the biomedical approach

Brain imaging, sampling of cerebrospinal fluid and biomarkers – although important in diagnosing specific causes and types of dementia – do not account for all the clinical aspects of disease onset and progression (Winblad et al, 2016). For example, a diagnosis of Alzheimer’s disease is made through evidence of neuronal atrophy, injury and biomarkers (Jack et al, 2018). However, the plaques and tangles that are commonly found in the brains of people with Alzheimer’s disease are not pathognomic (specifically characteristic): nearly 50% of very old people with dementia lack the typical brain neuropathy that would explain their cognitive symptoms, while high levels of Alzheimer’s pathology have been found in one-third of very old people without dementia (Vernooij-Dassen et al, 2019).

The focus of the biomedical approach on shortfalls rather than capabilities ignores the aspect of brain resilience and heightens the sense of despair associated with dementia (Winblad et al, 2016). The dominance of the biomedical approach, and a lack of clarity around the concept and benefits of person-centred care and how to put it into practice have resulted in a lower quality of care for people with dementia (Dewing, 2018). While work has been undertaken to define person-centred care and its benefits (Dewing and McCormack, 2016), many organisations lack a person-centred culture, which results in uncertainty about how to put it into practice for people with dementia (Fix et al, 2018).

Psychosocial factors

Epidemiology has a role in revealing other factors, such as social influences, that may affect the onset and progression of dementia (Livingston et al, 2017). As well as understanding the pathophysiology of dementia and associated symptoms, researchers and care practitioners need to balance the biomedical approach with consideration of the wider psychosocial factors (Winblad et al, 2016). This can reduce the potential disconnect with the lived experience of dementia and lead to better ways of dealing with the disease (Vernooij-Dassen et al, 2019).

Ageing populations present significant challenges for society and health systems across the globe in terms of coping with the increasing burden that comes with caring for people with dementia (Nichols, 2019). Given the impact of dementia worldwide, it would seem timely to apply a fit-for-purpose, comprehensive model of care that supports the relationship between biological, psychological, social and economic factors (Winblad et al, 2016).

Box 3. Symptoms of dementia

- Frequent and progressive memory loss: most recent events are quickly forgotten, but long-term memory is initially intact
- Language difficulties: inability to understand instructions and be understood due to trouble finding the rights words (semantic dementia)
- Confusion: relating to time, place and person (difficulty recognising self and others), this can cause estrangement from others
- Inability to perform familiar tasks: difficulty with everyday tasks and sequencing
- Difficulty with abstract thinking: causing difficulty with planning tasks, organising and decision making
- Misplacing belongings: putting things in unusual places
- Rapid mood swings: quick switch between emotions, such as elation and depression
- Behavioural changes: suspicious, irritable, disinhibited, depressed, apathetic, anxious or agitated, especially in situations when memory problems cause difficulties
- Delusions and hallucinations: false beliefs; seeing, tasting, smelling and hearing things that do not exist
- Apathy/lack of initiative: passive behaviour, such as sitting in front of the television for hours, sleeping more than usual or appearing to lose interest in hobbies
- Problems with communication and social engagement: difficulty understanding, initiating and participating in conversations and activities

Source: Radue et al (2019)

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A combined biomedical and psychological approach

The biomedical approach helps care practitioners understand the type of dementia with which a person is diagnosed and any behavioural issues that may present (Vernooij-Dassen et al, 2019); a psychosocial approach helps in the tailoring of individual interventions (Winblad et al, 2016). A combined approach can, therefore, help with effective symptom management, predicting disease progression and planning for care (Gove et al, 2018). When talking to people with dementia, understanding dementia as a disease and its symptomatology helps to develop a therapeutic relationship to support them throughout the care process (Quinn et al, 2017).

By using appropriate language and developing approaches to suit the individual’s cognitive capacity, care practitioners can help people with dementia share their experiences so their needs can be better understood (Quinn et al, 2017). Just as the biomedical approach provides an understanding of dementia and subsequent deficits in capacity (Winblad et al, 2016), the psychosocial approach considers the capabilities of people with dementia, as well as cultural and language differences and other social health factors (Livingston et al, 2017). Having this foreknowledge, and the opportunity to talk with people with dementia about their experiences, can help to deliver better-quality care and generate meaningful research (Jenks, 2019).

High-quality dementia care depends on care practitioners having appropriate skills. The bio-psychosocial model can:

- Enhance positive carer attitudes;
- Increase carers’ sense of role competence and job satisfaction;
- Help carers’ devise personalised, appropriate interventions that meet individual needs (Schepers et al, 2012).

When care practitioners have an understanding of the dementia disease processes, along with the social influences affecting the individual, a person-centred, strengths-based approach can support people with dementia to engage in meaningful activity as part of quality in dementia care (Mc Cormack and McCance, 2017). This requires combining the bio-psychosocial approach with person-centred care principles, such as respect, dignity, understanding of experiences and goals, and the giving of responsibility (McCormack and McCance, 2017). In this way, people with dementia can have their personal, social and emotional needs met alongside their medical needs. The person-centred bio-psychosocial model also motivates and encourages people with dementia to have more independence, and results in a more cost- and time-efficient, high-quality care service (NICE, 2018).

References


