

Data Analytics & Machine Learning

Sample work

Diagnostic Analysis: Empowering Change Initiatives

Introduction

This study aims to conduct a diagnostic evaluation and [data analysis](#) to establish the organizational preparedness for an evidence-based service change related to an action plan at the Outer North East London Community Services (ONEL CS) Inpatient Unit in the London Borough of Havering. This article will go over how doing a diagnostic analysis may lead to change. The evidence-based reform to be adopted and described in the article is the implementation of a Dementia Care bundle to enhance dementia nurse care in Havering's inpatient wards - ONELCS. This study will reflect on applying data analysis in [research approaches](#) that can enhance diagnostic analysis and the formulation and implementation using a service improvement audit done inside the Inpatient Unit.

The document provides background information on the healthcare area chosen for evaluation and service innovation. This will cover the reasoning for selecting this topic, its significance, and an explanation and description of the essential phrases used throughout the article. The method used to perform the literature review will be described in full so that the reader may reproduce it if required. Following that, the evidence relevant to the selected area of improvement will be critically analyzed to determine its value in informing the diagnostic analysis evaluation.

Diagnostic analysis gathers information before implementing change to identify the obstacles and facilitators of change inside an organization and assess organizational preparedness for change (Hamilton, McLaren, and Hamilton, 2007). Theories and models related to organizational transformation will be examined to inform and formulate a strategy or action plan for implementation specific to the local situation.

Background

In acute inpatient hospital wards, dementia care is frequently disregarded (Leung and Todd 2010). Older individuals occupy up to 70% of acute hospital beds (Department of Health (DOH) 2001; Alzheimer's Society 2009). It is believed that up to half of these patients in general acute care at any given time have cognitive impairment, including delirium and dementia (Royal College of Psychiatrists 2005).

Numerous investigations, such as the 'Counting the Cost: Caring for People with Dementia on Hospital Wards' study (Alzheimer's Society 2009), have revealed the unacceptable range in the quality of dementia care offered in general wards in hospitals across England. Both the National Audit Office report "Improving Services and Support for People with Dementia" (2007) and the document "Healthcare for London: A Framework for Action" (2007) draw attention to the fact that services for people with dementia and their caregivers were not consistently well provided throughout London; additionally, people with dementia in general hospitals have the worst outcomes in terms of length of stay, mortality, and institutionalization. The National Audit Office (NAO 2007), which examines how public funds are used, notes in its study that [cancer care](#) in the 1950s was better than dementia care today.

Patients with dementia and their caregivers' experiences have corroborated the reports above. According to patient feedback and a 2011 report by the Parliamentary and Health Service Ombudsman (PHSO) into ten complaints regarding the National Health Service's (NHS) care of older people, there is an urgent need for research into how older patients are treated in general hospitals. Acute general hospitals are not providing a "value for money" service, according to the National Audit Office (NOA) study (NOA 2007), which also offers compelling evidence of the present expenditures of treatment for patients with dementia diagnoses in the hospital environment.

The Department of Health created the National Dementia Strategy (DOH 2009) due to this evidence. The strategy statement outlines a five-year transformation plan for dementia under the following four headings: increasing awareness and understanding, early diagnosis and support, living well with dementia, and making the change (DOH 2009). Dementia has been included as one of the areas where the Department of Health would expect to observe and monitor progress in the NHS Operating Framework for 2009–10 (DOH 2008). Additionally, only five sectors have generated world-class commissioning advice, with dementia being one of them (Commissioning Support for London 2009; DOH 2009). Changing dementia services is necessary, given the many persons with dementia who use health and social care services. This meant that St. George's Hospital needed to strategically align its inpatient services with the commissioning goals for dementia services in Havering to fulfil its role as a service provider for NHS Havering Commissioners. This article's objectives align with National Dementia Strategy Objectives 8 and 13 (DOH 2009). This document focused on adopting a dementia nursing care bundle to improve the nursing care for patients with dementia in inpatient wards

What is Dementia?

(Alzheimer's Society 2009, Commissioning Support for London 2009; DOH 2009 NDS-a/b) The word "dementia" represents a group of symptoms involving impairments in memory, thinking, and communication abilities and a gradual loss of capacity to carry out everyday tasks. According to Gupta, Fiertag, and Warner (2009), there are several distinct kinds of dementia, with Alzheimer's disease accounting for around 60% of cases.

The Different Types of Dementia

1. Alzheimer's disease changes the chemistry and structure of the brain, causing brain cells to die (DOH 2009). Along with this decline, the individual will have symptoms such as difficulty swallowing, eating, or maintaining continence and a loss of speech and other communication abilities, making them increasingly dependent on others (Alzheimer's Society 2009; DOH 2009).
2. Vascular dementia is caused by strokes or small artery disease, which disrupts the brain's oxygen supply (DOH 2009). Symptoms are similar to Alzheimer's disease. However, advancement is often stepped rather than progressive (DOH 2009).
3. Frontotemporal dementia is a kind of dementia that affects the front of the brain. It includes Pick's disease and primarily affects adults under 65 (DOH 2009). The memory may stay intact in the early phases while the person's behaviour and personality alter (DOH 2009).
4. Dementia with Lewy bodies is caused by small spherical protein deposits inside brain nerve cells (DOH 2009). These disrupt the brain's natural functioning, impairing memory, focus, and language abilities (DOH 2009). The symptoms of this kind of dementia are comparable to those of Parkinson's disease, such as tremors and slowness of movement (DOH 2009).

Dementia in Havering - the local picture

Dementia presents a unique challenge for London; with an estimated 65000 people over the age of 65 in London diagnosed with dementia (Commissioning Support for London 2009), projections indicate that the number of people over the age of 80 in London with dementia will increase by nearly 50% to 96000 by 2030 (POPPI 2010).

Dementia is an illness that is underdiagnosed in the London Borough of Havering. This article aims to improve the inpatient nursing care for dementia patients at St. Georges Hospital. Havering's St. Georges Hospital is a community hospital. It primarily serves patients aged 65 and over, with a day hospital and 45 inpatient beds spread across two wards. There is one rehab/assessment ward and one stroke unit. People with dementia, like other community members, can become physically ill and require general hospital treatment. Patients with dementia are admitted to St Georges Hospital from the nearby acute hospital, Barking Havering and Redbridge University Hospital NHS Trust. Demographic changes and an ageing population in Havering will result in a disproportionate increase in common old-age conditions such as cancer, stroke, and dementia; therefore, most patients admitted to St Georges Hospital inpatient wards may have or have a current diagnosis of dementia. According to a Freedom of Information (FOI) Request, the estimated number of persons with dementia is 1015. This accounts for 0.4% of all registered General Practitioners, which is lower than the national average of 1.1%. This amount is expected to climb, as shown in Appendix One. The evidence-based modification that will be implemented is a nursing dementia care bundle to enhance the nursing care delivered in inpatient units.

What Is A Care Bundle?

A "care bundle" is an evidence-based protocol (Resar, Pronovost, Haraden, Simmonds, Rainey, and Nolan 2005). It is a set of therapies (typically three to five) that may address a specific disease and has been used successfully in critical care (Fulbrook and Mooney 2003, Resar, Pronovost Harden et al. 2005; Belt 2006). The assumption behind care bundles is that grouping various evidence-based therapies into a single protocol improves patient outcomes (Resar, Pronovost, and Haraden et al. 2005). The NHS Modernisation Agency (DOH 2004) established the concept of care packages, which is now fully supported by the Department of Health. The invention and subsequent use of care packages demonstrate a high dependence on their utilization.

Care packages have several advantages. They can, in particular, be used to improve the quality of patient care, and they are consistent with the NICE definition of clinical audit and the goal of this paper:

'Clinical auditing is a quality improvement method that enhances patient care and outcomes by systematically examining treatment against stated criteria and implementing change. Aspects of the care organization, methods, and results are chosen and rigorously assessed against specific criteria. If suggested, changes are adopted at the individual team or service level, and further monitoring is done to validate progress in [health care delivery](#).' (NICE 2002)

Care bundles are a method of closing the gap between clinical research analysis and practice, and they are expected to increase clinical efficacy. Although most specialities use 'care packages' for dementia care, the concept is still relatively new. The quality of dementia nursing care is predicted to improve by combining dementia-related evidence-based practices or interventions into a unified protocol that guides patient management. The Royal Wolverhampton, Hospitals NHS Trust, prepared a dementia nurse care bundle after receiving a freedom of information (FOI) request (Appendix three); a copy was requested and was to be locally tailored for the inpatient unit at St Georges Hospital ONELCS-Havering.

References

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