Title

Management of Caseloads in District Nursing: Caseload Profiling, a Systematic Review of the Literature.

Abstract

Background: Current literature suggests the application of caseload profiling could provide a strategy to evidence and manage increasingly complex caseloads in district nursing. **Aim:** This systematic literature review aims to identify and appraise the current evidence to establish if caseload profiling provides a strategy to support district nurses to evidence and manage increasingly complex caseloads. **Method:** A systematic literature review to identify and appraise evidence relevant to the systematic literature review aim. **Findings:** A total of 17 studies where thematically synthesised identifying recurrent themes, summarised under the following thematic headings; defining caseload profiling , caseload profiling in context of caseload management, workload analysis and its relationship to caseload profiling, potential impact of caseload profiling and potential barriers to caseload profiling. **Conclusion:** Caseload profiling provides a strategy to evidence and manage increasingly complex district nursing caseloads. The literature is mainly founded on expert opinion and further research is needed to enhance the validity of the current evidence.

Key Words

District Nursing, Community Nursing, Caseload Profiling, Caseload Management.

Key Points

- There is confusion in practice with numerous definitions and interchangeable use of the terms.
- Caseload profiling is a subset of caseload management.
- There is a relationship between caseload profiling and workload analysis.
- Caseload profiling provides a strategy for district nurses to reflect and analyse their caseload to identify the health needs of caseloads and populations.
- There are numerous potential barriers effecting the application of caseload profiling in district nursing.

Reflective Questions

What are the current methods used in your practice to measure, manage and evidence caseloads?

What would the potential impact be of applying caseload profiling principles to your area of practice?

What barriers could there be in practice to applying caseload profiling to your area of practice?

Introduction

It is appreciated, reflecting all corners of the United Kingdom (UK) demographics are rapidly changing and impacting on health care provision. An ageing population, set to rise further, has resulted in a shifting pattern of disease from acute illness towards growing incidents of patients living with complex and multiple long-term conditions (Dickson and Coulter Smith 2013). Resultant policy drivers suggest shifting the balance of care to the community and avoiding hospital admission is an international priority (World Health

Organisation 2010; Northern Ireland Assembly 2016; Scottish Government 2016; Department of Health 2018; Welsh Government 2018).

Changing demographics and political focus challenge district nursing at a time of increasing caseload size and complexity (Jones and Russell 2007), with no additional resources to meet these demands, with one uniting feature DN caseloads cannot operate waiting lists or become full (Kolehmainen et al. 2010). These challenges have resulted in increasing pressure for active management, monitoring and evidencing of DN caseloads (Baldwin 2006). This is gaining interest at government level, for example Scottish Government recognises that of the £1.7billion spend within primary care, DN services account for the highest single expense at 16.1% (ISD 2010). Arguably at a time of integrating health and social care services this interest is likely to continue. Current literature suggests the principles of caseload management (CM) are imperative to achieve this requirement (Ervin 2008).

Caseload management provides DN's with a method to manage their caseloads (Bain and Baguley 2012). Within CM two components specifically focus on monitoring and the evidencing of caseloads; workload analysis and, the particular focus of this article, caseload profiling (CP)(Ervin 2008). CP is an analysis process which results in a description of the total caseload managed by the district nurse, in terms of a number of variables (Kane 2009). It is carried out in an attempt to articulate the complexity and composition of the caseload. Current literature suggests the application of CP in district nursing could provide a strategy to enable DNs to manage these increasingly complex caseloads, rising to the challenges of the changing healthcare landscape (Thomas et al. 2006).

However currently the application of CP in practice is infrequent, remaining a process unfamiliar to many DNs (Bain and Baguley 2012). Supported in the authors professional experience where routine measurement and evidencing of caseloads is infrequent by practitioners and often does not follow the systematic approaches of either CP or workload analysis. Consequently, this has often resulted in more simplistic methods being utilised by managers to resource and distribute staffing in DN services, mainly based on GP practice list size and not the specific health needs of the particular caseload, failing to deliver even distribution of resources across caseloads (Burns 2003; Bentley and Tite 2000; Kane 2014).

Systematic Literature Review

Aim

This systematic literature review will adopt a methodological approach to comprehensively identifying and appraising the current evidence on CP. The aim of the review is to locate, appraise, and synthesise all available evidence to answer a clearly defined question (ICN 2012). A systematic approach was chosen because adopting a more traditional literature or narrative review would be more vulnerable to criticism, as the chosen literature can be arbitrary, limited in scope, with variation in quality, consequently making it difficult to present an unbiased overview of the literature (Dickson 2005).

Methods

To guide this systematic literature review, an evidence based practice (EBP) approach was applied. This approach enabled a framework to find and appraise evidence to inform decisions that would influence clinical practice (Hamer 2005). In order to ensure application of an EBP and systematic approach, Dawes et al.

(2005) five steps of EBP were applied; formulation of a clinical question; systematic retrieval of best evidence; critical appraisal of evidence for quality and relevance to inform recommendations for practice; critique of the application of evidence to practice and evaluation of emerging issues and recommendations for practice.

Literature Review Question

The use of the acronym PICO (patient/problem, intervention, comparison and outcome) was utilised to inform a systematic literature review question (JBI 2011).

"Does applying the principles of caseload profiling to district nursing caseloads provide a strategy to evidence and manage increasing complexity of patients need?"

Search Strategy

A literature search was conducted using the following databases: Internurse, Medline, CINAHL, Science Direct, JBI Library and Cochrane Database. Search terms applied included; caseload profiling, caseload management, caseload analysis, district nursing, community nursing and complexity of care. Combinations of terms were applied using Boolean operators (Ridley 2012), with search terms truncated for variations in spelling (i.e. Nurs* or Profil*) and synonyms applied. These search terms were wider than the literature review question. However due to interchangeable reference to terms surrounding CP, additional search terms were applied. Additionally, reference lists contained in returned results were also hand checked (ancestry method) to ensure no literature was missed, minimising the potential for bias (SIGN 2014).

While searching for published literature, as described above, it was important to consider and include relevant unpublished or grey literature (Bowers-Brown and Stevens 2010; Bowling 2014), for example, relevant government websites, The Kings Fund, Queens Nursing Institute and Queens Nursing Institute Scotland. Searching for grey literature resulted in one government white paper, and one Queens Nursing Institute report being included in the literature review.

Inclusion and Exclusion Criteria

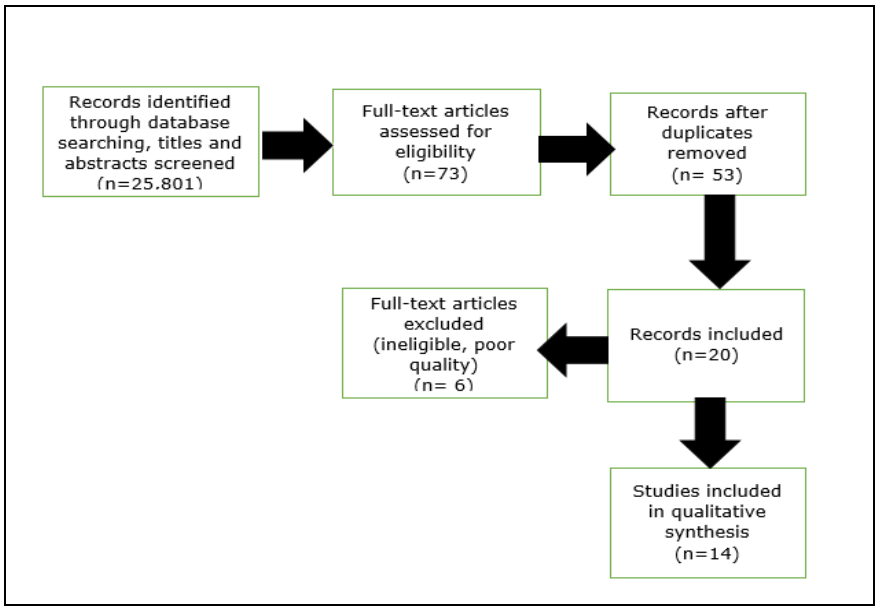
Inclusion and exclusion criteria were set to ensure selection of all relevant sources of evidence (Denscombe 2014). Full text research designs and policy were included. All returned results were written in English and published within the UK. A broad date range was applied (1999-2018) due to the limited literature on CP. Narrowing the date range would have limited the return of quality evidence. Exclusions were applied to evidence relating to caseloads from other professional groups such as health visitors or community matrons as this would include aspects beyond the scope of this literature review. The search resulted in 20 sources of evidence to be considered for the systematic literature review.

Critical Appraisal

While expert opinion holds lower status in the hierarchy of evidence, at times, and in the case of this review, it may represent the best available evidence, justifying its inclusion (JBI 2011). Due to 14 out of 20 pieces of evidence being reviewed being expert opinion pieces, sourced literature was critically appraised using the Joanna Briggs Institute (JBI) critical appraisal instrument (JBI 2011; 2014) which is particularly applicable to expert opinion. The critical appraisal of the evidence resulted in 17 of the 20 sources of evidence being selected (Figure

1). The 3 sources were rejected due either not being published in a peer reviewed journal or on reviewing the evidence it did not meet with the inclusion or exclusion criteria.

Figure 1 – Study Selection Flowchart



Data Analysis and Extraction

Thematic synthesis was applied, involving identification of important or recurrent themes (Beecroft et al. 2015). The strategy employed was that of concept mapping ensuring all findings were considered and aiding identification of key themes (Biggam 2015). For detailed information on the complete study see (Harper-McDonald 2016).

The findings are arranged and discussed under the following five thematic headings.

- Defining caseload profiling
- Caseload profiling in context of caseload management.
- Workload analysis and its relationship to caseload profiling

- Potential impact of caseload profiling
- Potential barriers to caseload profiling

Data Synthesis and Findings

Defining Caseload Profiling

Kane (2008) broadly defines CP as being a description of the total caseload managed by the DN. The included literature more specifically defines CP as a description of the total population managed by the DN in terms of several variables (Table 1).

Table 1 – Variables of Caseload Profile Design

▪ number of active patients ▪ profile of age and gender ▪ frequency of visits ▪ care packages ▪ dependency on team ▪ work generated by a particular case mix ▪ caseload throughput including: inappropriate admissions, one-off referrals, admissions and discharges

Source (Audit Commission 1999; Bain and Baguley 2012; Gould 2012).

This more detailed definition encompasses priorities that inform data collection required to complete a CPs.

On reviewing the literature there was interchangeable use of defining terminology on CP, indicating that there is a potential for confusion in practice, as suggested by Bain and Baguley (2012). For example, Kane (2008) also refers to CP as a caseload audit. However this is a view unsupported by the other

authors, and Kane (2009; 2014) does not refer back to caseload audit in later works.

To summarise, CP can be referred to in the literature under three distinct headings:

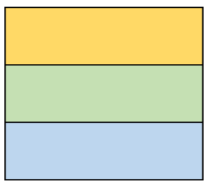
- Caseload Profiling
- Caseload Analysis
- Caseload Audit

In attempt to aid clarity and reach a standardised definition, all three headings have been conceptualised in Table 2.

Table 2 – Defining Caseload Profiling

Authors and their Definitions	Caseload Analysis	Caseload Profiling	Caseload Audit
Kane (2009)	Caseload analysis is an approach used by the caseload holder to analyse and describe the cases that consist of the district nurses caseload.	No reference is made to the term Caseload Profiling.	No reference is made to the term Caseload Audit.
Kane (2008)	Caseload Analysis is a comparison of caseload profiles to detect any variation and to ensure validity of caseload profiles.	Caseload profiling is a description of the total population managed by the district nurse.	Caseload audit is the examination of district nursing caseloads over a range of variables.
Reid, Kane and Curran (2008)	Caseload analysis is a method of examining district nurses caseloads that are then compared against other district nurses caseloads to provide a benchmark and detect any variation to these benchmarks.	No reference is made to the term Caseload Profiling.	No reference is made to the term Caseload Audit.
Kane (2014)	Caseload Analysis is a comparison of caseload profiles to detect any variation and to ensure validity of caseload profiles.	No reference is made to the term Caseload Profiling.	No reference is made to the term Caseload Audit.
Queens Nursing Institute (2014)	Caseload analysis is a description of the demographics and characteristics of the district nurses caseload.	No reference is made to the term Caseload Profiling.	No reference is made to the term Caseload Audit.
Gould (2012)	No reference is made to the term Caseload Analysis	Caseload profiling is a description of the total population served by the district nurse.	No reference is made to the term Caseload Audit.
Bain and Baguley (2012)	No reference is made to the term Caseload Analysis	Caseload profiling is the term used to describe the population managed by the district nurse.	No reference is made to the term Caseload Audit.

Legend/ Key



Cells with matching colours denote matching definitions and relationships.

Cells with matching colours denote matching definitions and relationships.

No definition provided.

When considering a standardised definition of CP the term caseload audit has been removed due to its duplicated term not being used in current literature. Whereas caseload analysis can be considered an overarching sister term that describes the analysis of a number of CPs collectively, to establish variations across caseloads.

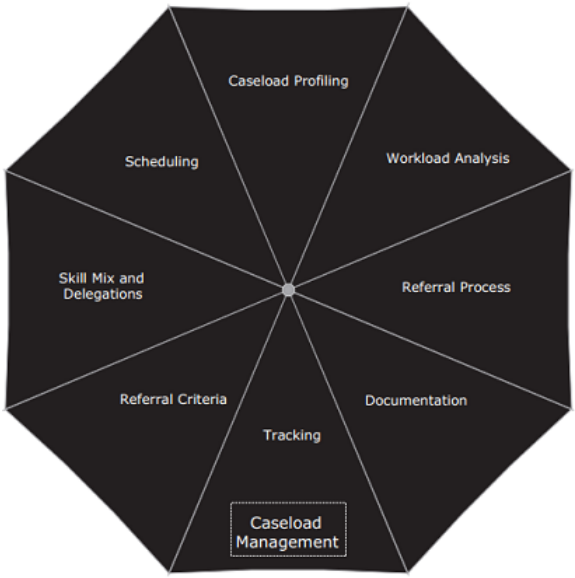
Resulting in CP being defined as:

"Caseload profiling is an analysis describing the total caseload managed by the district nurse, in terms of a number of variables, in an attempt to articulate the complexity and composition of the caseload".

Caseload profiling in context of caseload management.

On conducting the review it is important to consider CP within the context of CM. The main overarching strategy for evidencing, measuring and managing DN caseloads is CM (Bentley and Tite 2000). Within the components of CM (Figure 2) two specifically focus on the monitoring and evidencing of caseloads. These are workload analysis and the focus of this article, CP. CM and its components equip DNs with methods of supervision and organisation to ensure individual and family needs are met by the appropriate person at the appropriate time (Bain and Baguley 2012).

Figure 2 – Caseload Management Umbrella



Source: Harper-McDonald (2016).

Workload analysis and its relationship to caseload profiling

Although the focus of this literature review was to explore CP, it was impossible to ignore the relationship between CP and workload analysis, as both attempt to provide strategies to measure and evidence caseloads. Workload analysis (WA) is a process that compares patient's dependency from single to complex measurements, which determines the nursing time required (time and motion studies)(Reid et al. 2008; Grafen and Mackenzie 2015). As with CP there are interchangeable and varying terms used to describe WA including;

- Workload Analysis
- Workload Tools
- Workload Measurement Tools
- Dependency-Acuity Methods

Source: QNI (2014).

While some literature suggests WA supports management in resourcing services (Grafen and Mackenzie 2015; Jackson et al. 2015), a mixed approach encompassing both WA and CP is suggested as being preferable by some authors (Reid et al. 2008; Gould 2012). However in two practice areas WA was deployed, and was replaced by CP as a more robust alternative, as applying two data collection methods at the same time is viewed as unviable at a time of limited resources and demands on the time of practitioners (Baldwin 2006; Thomas et al. 2006).

Overall concerns raised around WA were its failure to provide a strategy to evidence and ensure even distribution of resources to increasingly complex caseloads. As an alternative method CP was identified as being the favoured method of evidencing complexity of DN caseloads (Baldwin 2006; Thomas et al. 2006).

Potential Impact of Caseload Profiling

Gould (2012) suggests adoption of CP in district nursing is essential to ensure a comprehensive picture of caseload composition. Literature in support suggests CP provides a strategy for the DNs to reflect and analyse their caseload over a range of significant variables (Burns 2003; Bain and Baguley 2012), enabling the opportunity to set relevant and realistic priorities, coordinate a large amount of work, identify skills and educational priorities of the team and reduce inequalities in healthcare, due to more equitable allocation of resources (Bentley and Tite 2000; Reid et al. 2008). Jack and Holt (2008) support CP as essential in improving equity of care provision, important when it is recognised despite the best efforts of governments, health inequalities in populations remain as bleak as ever (Butt 2017; Scottish Government 2018). Additionally, CP supports the

DN to be proactive and anticipatory in care provision (Department of Health 2013; Harper-McDonald and Baguley 2015).

Potential Barriers to Caseload Profiling

While overall the literature reviewed positively portrayed the potential impact of CP, one potential barrier is it remains a process unfamiliar to many DNs (Audit Commission 1999; Thomas et al. 2006). This calls for increased awareness and education of CP in practice (Burns 2003; Ervin 2008).

Burns (2003) argued that the risk of not applying CP is a mismatch between demand and resources, with some teams overstretched and others less so, doing little to promote equity of workload between teams. Presently in practice, more simplistic methods are often employed to resource and distribute staffing in DN services, mainly based on GP practice list size and not the specific health needs of the particular caseload (Bentley and Tite 2000; Kane 2014). However Kane (2008) cautions that a protective and guarding nature applied to disclosing information on caseloads may affect the accuracy of CP or prevent their application in practice. This is complicated with the subjective nature of data collection (Bain and Baguley 2012), where the DN may have incentives to maximise or minimise reported caseload data, such as attempting to protect staffing complements (Kane 2008). In response to these barriers it is essential that an insight is gained into how the change of approach is accepted in practice (Burns 2003; Kane 2014) with effective change management being imperative to ensure effective implementation in practice (QNI 2014). Additionally, this needs supported by available and easily applicable CP designs which are absent in current practice (QNI 2014).

Conclusions

The literature reviewed highlights CP presents as a robust method of articulating the complexity of care, providing information beneficial to DNs and their managers. While this literature review may appear to have a management focus this is attributed to the majority of evidence being written by authors with management status. What this article has highlighted is the broad principles of CP that practitioners could apply to their own caseloads as a supportive strategy in aiding effective caseload management.

It is important however to remain cognisant to barriers of applying CP to practice, and that literature is based mainly on expert opinion, with the work of Kane (2008; 2009; 2014) being the only literature based on the application of CP in the context of the practice. Of all the literature reviewed on CP there was no qualitative work related to the perceptions or experiences of DN's applying CP to their caseloads.

Overall, from reviewing the literature it can be concluded the systematic literature review question has been answered, and CP could potentially provide a strategy to evidence and manage increasingly complex patients' needs in district nursing.

Recommendations

This systematic literature review has highlighted the need for further research into this topic before it can be recommended as the vehicle for evidencing and managing caseloads in district nursing practice, with the following issue emerging:

There is a need for greater understanding on the experiences and perceptions of professionals using caseload profiling, enabling new insights on the barriers,

facilitating factors and significance of using CP in practice, to inform future understanding and development of caseload profiling.

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