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Developing a Caseload Classification Tool for Community Nursing

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Abstract

Acuity and dependency in the community nursing caseload in combination with safe staffing levels are a national issue of concern. Current evidence suggests that there are no clear approaches to determining staff capacity and skill mix in these community settings. As community nursing caseloads are large with differing complexities there is a need to allocate community nursing with the best skill mix to achieve the best patient outcomes. A citywide service improvement initiative developed a tool to classify and categorise patient demand and this was linked to an electronic patient record system. The aim was to formulate an effective management response to different levels of acuity and dependency within community nursing teams and a consensus approach was used to allow the definition of complexity for 12 packages of care. The tool was piloted by a group of community nurses to assess the validity as a method to achieve a caseload classification. Seventy nurses were trained and applied the tool to 3000 patient referrals. Based on this, standards of care were agreed including expectations of assessment, intervention, visit length and frequency. Community nursing caseloads can now be organised according to acuity and complexity of patient need which determines allocation of staff and skill mix.

Key words

Caseload classification, skill mix, acuity and dependency.

Key points

- A complex caseload tool has been developed by community nurses to manage workload

- The tool was systematically developed and piloted for usefulness and validity

- Service improvements resulted from implementation and evaluation of the tool giving

  valuable data to more easily allocate the nursing workforce

Background

There is no standardised validated tool to assess caseload management in community nursing (Roberson 2016) and little evidence to determine the number of staff required to carry out different nursing activities in community settings (Fields and Brett 2015). The role of community nurses has expanded widely over recent years to include independent prescribing, administration of intra-venous (IV) medication and more specialist and complex treatments for people with increasing levels of need and dependency. National benchmarking data indicates an increase in face to face contacts from 49% in 13/14 to 60% in 14/15 (NHS Benmarking Network 2015). It is therefore vital in this current climate that individual patient need is clearly defined to enable appropriate and safe care. The ageing population have increasingly complex levels of health and social care requirements that generate a growing demand for nursing care at or closer to home, with a focus on timely and appropriate discharge from hospital (NHS England 2015).

In order to address the rapidly changing patient and population demand, new and innovative approaches to health care and support systems are needed (Department of Health 2013). Evidence from some recent high profile enquiries and reviews attribute low staffing levels with adverse outcomes and poor patient experience (Francis 2010; Keogh 2013; Griffiths, Ball et al. 2016). In response to this there has been a recommendation for community nursing to have appropriate systems in place to assess population needs in terms of acuity and complexity so the appropriate workforce can be deployed (Queen's Nursing Institute 2014).

The specialist expertise of the community nurse is central to the provision of health care closer to home providing a vital role in helping patients remain independent, and manage their own long-term conditions, in conjunction with the delivery of person centred, preventative and co-ordinated care (Maybin, Charles et al. 2016). However, with growing caseloads and increases in complexity the need to provide appropriate staffing levels and skill mix is a constant challenge (Bain and Baguley

2012). Other factors include the variability of workloads, quickly changing acuity and dependencies,

fluctuating patterns of travel (Thomas, Reynolds et al. 2006; Queen's Nursing Institute 2009; Bowers

and Cook 2012) and individual social circumstances which add further complexity to the

management of caseloads in community nursing.

This article reports on the development and co-production of a caseload classification tool to assess

the demand for community nursing and allocate workforce resources effectively.

Methodology

Review phase: Two toolkits to determine staffing levels were identified in a literature review. One

tool consisted of five criteria; the total caseload size, number of people aged over 65 years, the

number of people aged over 75 years on the caseload, the number of patients seen and the number

of 15 minute units used on direct and indirect patient care (Jones and Russell 2007). The toolkit was

then used to calculate how many full time equivalent nurses were required for each factor in each

team. However, the total number of nurses needed across the service was not calculated and it did

not take into account skill mix or travelling time. A Canadian study used a 'central schedule' to

indicate the number of staff needed to provide a service on any given day but no staffing numbers

were given to show how this was allocated (Ray, DeCicco et al. 2011). Another tool based on a large

prospective audit of 394 community nurses, from 46 teams and 6 localities in Cumbria conducted

over a 7 day period, showed the proportion of time which was spent on different activities (Kirby

and Hurst 2014). Patients were classified against four dependencies (from low to high) and the

number of patients seen per day by each nurse was recorded. Activity was divided between

different tasks (observation, direct and indirect care, associated, travel and unproductive) and

between registered nurses and assistants. This data was then benchmarked against a much wider

data set from Scotland which indicated that the workload index was lower in Scotland compared

with the Cumbria teams who delivered more interventions to patients with higher dependencies and acuities. A more detailed breakdown of tasks was included in a study investigating the interventions carried out by district, general and specialist community nurses. Six categories were used to classify workload (physical, psychological, case management, clinical admin, social and non-clinical admin) with the most common being physical followed by psychological and case management (Jackson, Leary et al. 2015). Over 58 different clinical and non-clinical tasks for each category were recorded illustrating the large and complex roles community nurses undertake.

These tools were reviewed by a working group of senior community nurses in a northern city wide service (one large foundation trust consisting of primary and secondary care) and whilst valuable they did not provide the caseload management method to meet the service need and furthermore they found that there was no validated tool that offered a standardised approach (Roberson 2016) and was transferable to an existing electronic patient record system. The planned improvement in the services was to co-design and pilot a case load classification tool allowing teams to identify the acuity and dependency of individual patients in order to allocate staffing, time and skill mix and that this would be standardised and linked to an electronic system (Roberson 2016).

The initial working group planned for a larger expert group of qualified Community Nurse Team Leaders and Deputies from eight teams within the community nursing service to develop a tool bringing together a number of key staff experience to inform the design. These included the shared understanding of increasing patient complexity, the organisational strategy to drive care from the secondary into primary sector and the resources (workforce) required to deliver this. The initial working group were also aware of the need to improve overall productivity and efficiency, reduce expenditure and make a transition to larger community nursing teams.

A consensus method was used, beginning with an introduction of the purpose and goal, based on the view that traditional community nursing work-planning methods were no longer fit for purpose.

The expert working group was recruited and quickly recognised that the 'reason for referral' was the only current method to measure caseload. The group identified the link to an electronic patient record system as a key factor that enabled managers/ team leaders to manage the caseload.

Design phase: The expert working group community nurse team leaders and deputies took part in facilitated workshops using a nominal group approach (Carney, McIntosh et al. 1996) to define areas of care and the levels of complexity of care needs based on multiple morbidities experienced by the patient and potential outcome measures. The staffing skills required to deliver care within each group were also considered, based on grade and level of assigned responsibility. This shared knowledge was developed into a manual for staff to use, with evidence based care plans embedded in each area. The manual provided a series of examples to help nurses to standardise their responses when defining level of care needed by the patient. The group also designed a working protocol based on assessment whereby the nurse classifies the patient's nursing need in terms of the area of care required and the level of complexity. The level of complexity is based on a number of factors related to wellbeing including the social situation that surrounds the patient. All of the data is then uploaded onto the electronic patient record and therefore does not require a separate database, allowing the live daily capture of interventions and patient need across the whole community nursing caseload.

The pilot phase: The project was registered for governance purposes as a clinical effectiveness project. Four community nursing teams in one locality were asked to use the tool within their normal caseload.   Seventy nurses, health care support workers and administrators were trained to use the tool to categorise over 3000 patients' nursing needs during their assessment. Data was collected centrally allowing service managers to review the patient's need at a team level and also assess the level of dependency within the individual nurse's caseload. This data was presented in a

report to the management team and simple descriptive statistical analysis applied to see the extent to which the level of acuity was met by each team.

Results

This Caseload Classification distinguishes between 12 domains or areas of care need and 3 levels of complexity (routine, additional and significant) that denote acuity and dependency of the patient need (Figure 1). The pilot tool was successfully deployed and demonstrated that it was possible to use the tool to organise community nursing caseloads according to complexity and making use of an established electronic patient record.

The evaluation phase: This was undertaken by the project lead working with the expert review team who analysed the data produced by the tool and identified that across the four teams, over a three month period, 47% of nursing time was spent on wound management, 17% for long term conditions and holistic care planning and 14% for the prevention and management of pressure sores (Figure 2). The data also showed that the time spent on visits for the total workforce indicated that just less than 50% was spent on routine and additional tasks. Application of the tool allowed the interrogation of activity by different grades of staff, for example, when looking at the workload of community matrons more time was spent on significant and assessment tasks than routine ones (Figure 3). This categorisation process allowed community nursing managers to allocate work according to the grade of staff and the tasks that were required to be carried out.

In addition, the pilot phase showed that the tool could help with the adjustments needed in the workforce to accommodate annual leave, sick leave and training within each team. Staff can see at any time the number of patients at each level of complexity in order to deploy the appropriate staff and skill mix.

The evaluation included a review of staff experiences in using the tool which revealed a number of themes. Using a standardised approach can improve safety and the quality of information:

"The caseload feels neat and organised; the process makes the caseload feel safer."

"Patient packages are reviewed more regularly and thus are more appropriate."

It helps to confirm that the appropriate workforce is deployed:

"I can ensure skill mix is correct and refer complex patients to matrons. It is also a forecast of patient need."

It also allows a more transparent picture of the caseload to be illustrated:

"Team working has improved, staff are discussing care more and work allocation is seen to be more equitable."

"Complexity assessment is subjective and depends on the skills, knowledge and experience of the assessor".

The training package which included 1:1 sessions on how to record data on the electronic patient record were felt to be very important. It also indicated that prior to the implementation of the tool; some clinical activities were not recorded in a way that could be captured in monthly performance reports. Use of this classification tool has coincided with the implementation of more agile and paper light working. Community teams have 4g enabled laptops to use during visits where care plans can be inputted on the electronic patient record in patients' homes. Together these initiatives have increased the accuracy of performance and activity data across the service.

Discussion

The design and pilot of a classification tool was implemented within and by community nursing and was a self organised initiative that drew on expert knowledge within a service. The classification of care need by consensus and the differentiation of three levels of acuity were critical to the allocation of workload across the different grades and levels of nurse experience. The management of patient data on an existing electronic record was a significant factor in adoption of the tool. The pilot facilitated the triangulation of data associated with patient demand by specifying the level of nursing need (3 levels) and care packages (12 differentiated) that were based on the referral and identified the primary purpose for community nursing. This information is used to inform caseload management and classifies the complexity of the demand on community nursing at a time when rising dependency is matched with some critical limitations on recruitment and availability of community nurses.

The tool is still in development but evaluation data demonstrates face validity as a measure of patient need and demand within and across community nursing teams. The main indicator of patient demand was used to identify acuity and dependency so that interventions were more standardised and the allocation of community nursing resource could be allocated to patient need thus increasing effectiveness and enabling workload planning. Further work is scheduled to assess the reliability of the tool, particularly focusing on inter-rater reliability, with nurses using the tool across teams and areas and then assessing the degree of difference in the classification of need.

Limitations

This work was undertaken within a single service and led by a project manager with support from a small team including IT expertise and community nursing leadership. The project was delivered as a service improvement and registered as clinical effectiveness but it was quickly recognised that

academic input was required to support the evaluation with further reference to the research literature and to plan further development. The tool is limited to the investigation of patient need and the nurse's rating of the demand for care and a specific treatment intervention. The process of allocation of community nursing time has been agreed by consensus but there is a need to further validate the decisions made in practice and describe and standardise the work loading when associated with the tool. There is also recognition that the work has not been shared with a relevant patient representative group or other stakeholders and this will be a further phase of development allowing views of patients and other health care professionals to evaluate their perspectives on caseload classification.

Conclusion

A consensus method was used to design this caseload classification tool to distinguish between 12 domains/packages of care and three levels of complexity. These classifications were linked to an electronic patient record and piloted across four community nursing locality teams. 'Real time' information has been visible to the teams to enable timely deployment of appropriate staff with the correct skill mix to carry out the nursing tasks required. Evaluation of the tool has shown that information recorded is more consistent, accurate and standardised and staff feel this can improve patient safety and clearly illustrate the needs of each caseload of patients. This caseload classification tool is being further developed through patient engagement and with a specific assessment of the level of inter-rater reliability across three different community nursing services in the region. The ambition is for the tool to be deployed across all the community nursing teams in the Trust to ensure a standardised approach to caseload management, workforce planning, outcome measurement and resource requirements.

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