Are patients admitted to the virtual ward satisfied with the intervention of the community matron in their care pathway?

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ABSTRACT

Introduction: The concept of community matron was introduced by Department of Health strategies set up to address the needs of people in the UK with long-term conditions. Community matrons were seen as highly trained senior nurses who could improve the patient experience through case management at home, and reduce hospital admissions by facilitating self-care.

Purpose: To explore whether the intervention of community matrons improves patient satisfaction with their care provision and prevents unplanned admission and re-admission to hospital.

Materials and methods: A purposive sample of eleven patients was identified as being in the top 0.5% of unplanned emergency admissions using the Combined Risk Model algorithm; a list of emerging risk patients identified using 69 predictor variables to improve predictive accuracy. Semi-structured interviews were audio-taped and transcribed, and Interpretative Phenomenological Analysis (IPA) used to analyse data for emergent themes derived from patient experiences, which is a major strength of this technique. These themes were validated through peer group review, research supervisor oversight and post interview patient follow-up to obtain endorsement of the data captured.

Results: There was an overwhelming wealth of evidence to suggest that all participants were highly satisfied by the intervention of the community matron and the virtual ward. Six themes emerged from the study. They were: Patients’ perception of the community matron; Confidence; Reassurance; A &E awareness; Feelings and Virtual ward experience.

Conclusion: Patients on the virtual ward were very satisfied with the intervention of the community matron in whom they had confidence and trust leading to reduced anxiety and improved self-care.

Key words: Community matrons, long term conditions, case management.

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INTRODUCTION

This study represents a qualitative evaluation of the intervention by community matrons in the health care pathway of patients with long-term conditions admitted to the virtual ward.

There are 15 million people with one or more long-term conditions in the UK, and in recent years they have come to the forefront of the Department of health agenda [3]. According to Singh at el they account for a significant proportion of GP consultations and at least 60% of emergency hospital admissions where their length of stay is often prolonged [4]. These startling figures are accentuated further by concern that they will continue to rise in parallel with an ageing population [3].

The Government’s proposed solution to address this problem was to make patients proactive instead of reactive, but a strategy was needed to facilitate this transition and provide case management for people with the most complex needs. In 2005, the DoH introduced the concept of the community matron in the document: ’Supporting People with Long-Term Conditions’, which represented a blueprint of care that would meet the physical and social needs of these patients in a community or home setting with the community matron at the fulcrum of their care [1].

A target was set to have 3,000 community matrons in post by 2008, together with a reduction in Accident and Emergency (A&E) admissions [1].

The Kings Fund [2] and DoH [1] reported that ‘there is a growing body of evidence and experience suggesting that health care systems that combine multidisciplinary teams, self-management support and clinical information systems can lead to better management of patients with chronic illness’. Consequently PCTs across the country looked at ways to combine these systems, and one solution has been the introduction of the virtual ward within which community matrons act as the interface with patients. The community matron is a new type of practitioner who is highly skilled and a specialist in community care and inter-agency working, and is responsible for meeting the individual’s entire health and social needs [5, 6].

The researcher’s own Trust looked at the concept of the virtual ward to meet the needs of patients with two or more long-term conditions with the highest propensity for unplanned emergency admissions as identified by the combined risk score algorithm [2].

Due to the embryonic nature of the service there has been little qualitative research on its effectiveness, and the views of those admitted.

The aim of this research was to explore whether interventions of the Community Matron improve patient satisfaction with the care provided and prevent admissions and re-admissions to hospital.

Associated objectives were to:

- Determine whether patients are satisfied with the intervention of the Community Matron
- Ascertain whether A&E attendances are reduced using the Combined Risk Model Algorithm
- Compare A&E figures pre and post admission to the virtual ward
- Determine whether positive patient satisfaction feedback provides a useful benchmark for the evaluation of the virtual ward

The research question for this study was: Are patients admitted to the virtual ward satisfied with the intervention of the community matron in their care pathway?

Research Design

Interpretative Phenomenological Analysis (IPA) was selected as the qualitative research method where data are collected through the use of semi-structured interviews. IPA is a qualitative method that allows the capture of data that is rich in the true experiences and emotions of participants. It was used in this study as the purpose was to capture the feelings of individual patients’ managed by community matrons.

Sample

Fifty participants were randomly selected and identified by the Head of the Trust’s IT department. This independent oversight combined with the homogeneity of the population allowed the researcher to maintain the robustness of the study.

Data Collection

Invitations were then sent out to the selected participants with an information sheet to provide further details of the study. The participants who wished to be part of the study were asked to sign and return a response slip in the stamped addressed envelope provided.

There were 14 responses to the invitation. However, three participants were excluded; one was recently diagnosed with dementia, one moved away and a third person had to cancel due to a sudden bereavement. Hence eleven participants were invited to the interview process with at least one patient from each of ten virtual wards.

The participants who responded were contacted by telephone and the study was explained in detail as well as assurance that they could withdraw at any time. All eleven were keen to proceed and a convenient appointment was arranged to meet in their own homes in order to
ensure a relaxed and familiar environment.

The researcher had no prior association with nine out of the eleven participants. The two patients known to researcher were interviewed by a practice mentor, to exclude bias and to ensure rigour.

The semi structured interviews were carried out by the author in the participants own home. The interviews were recorded with the aid of a digital recorder, and ranged from thirty to forty five minutes. The Model of Human Occupation aided the design of the interview schedule and the structure of the interview process to ensure a holistic approach and provide a framework for understanding emergent themes [7].

Interviews
Prior to the commencement of the interview the project was discussed again with each participant giving an opportunity for the researcher to explain the process in detail, and for further questions to be addressed. At this point a signed consent was requested from each participant.

Participants had been informed that from then on they would be identified as a number and not by their name, to safeguard their anonymity. With the exception of the researcher the raw data collected in the interview could not be traced to a named individual.

Ethical Considerations
The local ethics committee was contacted for approval but as the project was an evaluation of the community matron service a full ethical approval was not deemed necessary. The lead of Ethics and Governance Board at Trust level also concurred with this view.

Data Analysis
The researcher transcribed all the recorded interviews verbatim into Microsoft Word. The recording was listened to several times as per the guidance of Smith, and the transcripts repeatedly reviewed [8]. This dual iterative process was essential so that the tone and timing of the interview could be correlated to the written word.

The researcher wanted to develop an analytical methodology that followed the systematic and auditable approach advocated by Smith [9], but wanted to avoid absolute compartmentalisation. As themes were identified the boundaries around them needed to act as a semi-permeable membrane containing the core idea but allowing interaction with the environment around it. Emergent themes were identified via an iterative review process. A matrix of primary and secondary themes was developed and used to identify ‘hidden’ experiences of the virtual ward.

Validity & Reliability/Rigour
The question guide is a tool which contains open simple questions which mitigates the researcher from drawing on their own experiences to lead to answers given by participants.

The nine participants unknown to the researcher were unaware that she was also a community matron as letters were signed off in the guise of research student. The recordings were then transcribed one by one by the researcher, and a reflective diary written after each interview to record what went well, what fell short of expectations and ways to enhance the analysis process [10]. As observed by Wall et al [11] this diarised reflection also helps to evaluate the influence of the researcher on the participants and their responses and is considered an effective way to illuminate bias [12].

The aim of the validation is to ensure the account is true and sound [13] and regular direction from the research supervisor who read a sample of transcripts, helped to ensure the process maintained its objectivity.

Further independent appraisal was provided by peer reviews with two colleagues who were also following the principles of IPA. This took place during fourth to sixth week of analysis stage.

Further verification as to the accuracy of the interview process was obtained by sending a simple summary of themes identified from the interviews to each participant. This ‘member checking’ ensures that no data collected had been perceived incorrectly by the interviewer, and the significance of such validation is stressed as very important by Colaizzi [14] and Silverman [15].

RESULTS
The results are based on the data analysis undertaken on eleven patient interviews used to capture experiences and perceptions of individuals admitted to the virtual ward and their satisfaction with the intervention of the community matron.

The eleven interviewees were all patients who had been admitted onto the virtual ward for more than three months, and had suffered from two or more long-term conditions. The participants comprised of seven men and four women with an age range of 53-89 years (mean age 72 years). The ethnic background of the sample was mixed and it was noted that English was not the first language for three participants.

The analytical approach of the researcher was founded on the three central pillars of IPA (Figure 1).
Six primary themes emerged across the transcripts and provide the focus of the results analysis below. These were complemented by the sub-themes which transcended the primary themes.

**Theme 1**

**Patients’ perceptions of the community matron**

All of the eleven participants were positive about the role of the community matron, and some relished being looked after by a community matron. This proved to be a multi-faceted theme which was not unexpected as the purpose of IPA is to look at the lived experience of an individual. Several participants were all-encompassing in their praise for the community matron, and one female participant used a metaphoric description alluding to something beyond her experience to emphasise the extent to which the service exceeded her expectations: “All I can say is that CM is just out of this world”.

Three participants commented on the skills of the community matron and benchmarked these against other interactions they have with other health care professionals. One patient benchmarked the matron against his GP’s skills and seems impressed: “Yes, she will often suggest things that the GP hasn’t thought of you know; her clinical knowledge is pretty wide.”

Seven participants identified that they perceived the community matron as a facilitator and referred to healthcare roles as being on different levels, one patient described his experience as follows: “You know you have got the District nurses at one level and then the hospital in the other and she sorts of bridges that gap somehow.”

One male described the feeling of being helplessness at home. The community matron had acted as a catalyst to regaining control engendering a feeling of empowerment by inviting the team to his home equipping him with the power to take the lead: “She gets everyone to come here, I’m unable...”
to get out, and so we arranged a meeting here with all the professionals in my house.”

Nine participants said they gained confidence, one participant implies that prior to the arrival of the community he was in darkness implying a lack of confidence and powerless to his situation: “I feel more confident… she illuminates the situation.”

Three participants commented specifically on qualifications of the community matron. One particular participant implies from her experience of the community matron that she has extensive qualifications to do the job: “I imagine she must be reasonably well qualified.”

Participants appeared to perceive a difference between the provision of information and how to apply knowledge which had a positive impact on their quality of life. For instance community matron suggested that the patient changes the order of her medication, to improve mobility, as illustrated in the quote below: “Order of taking medications, do your nebulator first 10-15 minutes then I didn’t think it would make any difference. But it does, it does make a difference. Then, I am able to get up and have a cup of tea.”

Seven participants referred to ‘reassurance’ and five mentioned ‘trust’, these terms imply a good working relationship. One participant captured the essence of reassurance as a result of what the community matron brings to him. His statement referring to “peace of mind” indicates acceptance and clarity in terms of dealing with his long-term condition: “Well it seems to bring you a peace of mind.”

Trust is the vital ingredient in the recipe of holistic patient care and participants appeared comfortable voluntarily transferring personal information about their condition and circumstances; indicating that trust had been gained: “I am more likely to have come out with any sort of personal worries or thoughts with her than with my family.”

Another statement highlights the belief in community matron’s integrity: “You know you can always ask CM and she will always answer you and you have confidence, I know she wouldn’t tell me anything wrong.”

The confidence in the community matron is based on truth and honesty, and use of the word “always” gives a sense of trustworthiness that participants’ response was phrased assertively as if to reinforce this fact.

**Theme 2**
A&E Attendance & Avoidance
It was noteworthy that several patients kept track of their admission rates to A&E prior to being on Virtual ward. Some were able to account for each one and commented on an admission as an occasion. The key words highlighted in this theme were awareness of the admission, avoidance and realisation.

“I think I had 13 admissions in 18 months (pause), which is a lot.”

One patient was very clear about the benefits of getting antibiotics through quick thinking and intervention of the community matron when he contacted her: “I think she has probably prevented me going into hospital twice or three times by getting medicines here very, very quickly if I have an infection”

For three patients there was now a realization that hospital admission could be avoided. A cycle of change was emerging with individuals recognising that they could get the same care at home.

“Last admission I panicked, I really did not need to go into hospital that time but as I say that I’m positive 100% it was down to stress brought on because it was not an infection…”

**Theme 3**
Feelings
Participants with long term conditions face the daily anguish of a variety of feelings, addressing the weight and fear of their long term conditions whilst reflecting on living alone with a long term condition.

One participant stated that when she first met the community matron she described her long term condition as a heavy weight: “Put this burden of my mind.”

One participant relates a harrowing account of his struggle with breathing difficulties. The use of “I” indicates how alone he is, and he feels the the phone is acting as his get out clause: “I won’t say panic but I am close to panic with my thoughts” (to ring 999)

One participant feels assured that she is no longer alone and gains hope in the form of her community matron: “I had no one to turn to, no one to speak to, no one to ask questions…now, I have all that.”

Another participant expressed her frustration with the GP appointment system that only allows ten minute slot to discuss a single condition: “they have this thing if you want to discuss two problems you have to have a double appointment …and several times I have being told that you know you booked only a single appointment, you remember that.”

**Theme 4**
Virtual Ward experience
Participants’ feedback was overwhelmingly positive, but it was interesting how each had their own very personal experience and priorities feeling that the service was custom made
for them this was emphasised by the following quotes: “it’s more personalized.” and “I am regarded as an individual.”

Nine participants gained comfort from the telephone having trust and confidence in the people associated with the service. The reliability of the service provided certainty that they were not alone any more as emphasised by one participant: “I know if I ring CM even if she is not available, receptionist (name of clerk) will always tell her and she will always ring me back.”

A majority of participants commented on lack of time pressure, freedom to speak and a sense of relaxation from being in their own homes. There was also a sense of reassurance as if previous pressures had been removed and the participant below clearly feels her quality of life has been improved by this individual service when the community matron appears at her front door: “Well what can I say, if I wasn’t well, I would have to take nearly a mile walk down to doctors and you get there you have to wait and she just knocks at the door and there she is.”

DISCUSSION

This study analysed the personal experiences of patients admitted to the virtual ward using an IPA approach proposed by Smith [13]. Although previous studies have provided an insight into the intervention of the community matron and patient satisfaction this type of analysis has not been undertaken before. The end result produced several discrete, but interwoven themes dominated by the participants’ feeling of living with a long-term condition pre and post intervention and reflected an almost universally positive feedback on the community matron role.

Patients’ perception of the community matron

The participants in this study were highly approving about their community matron and were positive about the role. Their sense of familiarity was great, with participants referring to “my matron” or using the first name of the matron throughout the interview. The community matron gave these patients a sense of security, which implies that trust was established. The patients liked the feeling of being unique, engendered by accessing care within their own homes and having an association with the same provider. They commented on the community matron making time and always being there for them, further suggesting feelings of safety and security, and in one instance greater control over their own destiny.

These patients have had to adapt to a new concept of health care provision often after many years of different experiences. Creating and building satisfactory relationships with the embodiment of this new service was anticipated to be daunting, but the community matron had won them over.

The findings concur with studies undertaken previously, where community matrons have been perceived as being helpful, kind and caring [4,16-20]. However, there appeared to be an additional facet in that four participants saw the matron as a sort/fixer; someone of actions rather than words. This was evident in the tone of their voice during the interviews and indicated surprise that unlike in their past experience something was now being done and acted on quickly.

Participants commented on the advanced clinical skills of the community matron, which is consistent with Brown [18] who also reported on skill levels. One male participant reported the matron gave new input to his care by suggesting things that the GP had not thought of and reinforcing the assertion that she had a wide breath of knowledge.

Confidence gained

Brown [18] and Masterson [21] found the matron helped build patient confidence, and reported that acquiring knowledge and understanding of their condition promoted self-confidence and led to self-care where the patients took ownership of their health. The ability to self-care has been shown to be effective in improving quality of life and promoting more appropriate utilisation of services [4]. The fact that the matron was open and honest, and gave practical solutions also helped patients to be proactive leading to greater self-belief and further increasing confidence.

Through their accounts the participants emerged as agents actively seeking to cope with their situation, but this requires confidence and it seems that the community matrons contributed to confidence building.

Reassurance and Building Trust

Trust through reassurance was most frequently highlighted by association usually with prior health care experience. One female participant stated that English was her second language and highlighted concern about reporting her symptoms to the GP, fearing she would convey wrong information and thus receive the wrong prescription. This patient had a good professional relationship with her matron based on trust and felt reassured this would not happen on the virtual ward. Although Bird [22] expressed concerns about duplication of the GP’s work this was not the shared experience of the patient or matron, and this was previously stated by Brown who commented that GP workload becomes reduced, once community matrons are introduced [18].
The view that in the past other professionals had not always had the time to devote to their individual needs was an experience of several participants reflecting the findings of Bowler; they felt let down by the system which appeared to have little empathy with their needs [20]. Time devoted to listening to patients concerns and needs resonated with several participants who as a result of their long-term conditions had lost trust with the health service, as staff made no time for them or listened to their problems [23]. A willingness to listen and give time helped to build trust and empowered individuals, and the researcher felt that for the process of self-care to begin the patient needed to trust the matron.

Participants also commented on feeling secure by virtue that the community matrons had good medical knowledge. They also liked that they spend more time with the matron than in a GP appointment system. With a belief in the ability of the matron came a sense that they were reliable, which is a belief that others have also associated with trust [17, 20].

A&E Attendance and Avoidance

The success of the community matron role has been based primarily on the reduction of emergencies. However papers by Granville and Clegg found that no reduction in admission rates occurred, which questions the success of the virtual ward [16, 17]. On the other hand, Brown commented that previous studies may not have extended over a sufficient period of time to allow change to be measured [18].

This study found that seven patients out of eleven believed the community matron had saved/prevented an admission to hospital. Although this finding cannot be proved their beliefs were consistent with a comparison of the pre and post combined risk scores of these participants [2].

The risk of re-admission of seven participants dropped and this was most pronounced for patients who were on the virtual ward for more than one year. During their interviews it was the same sub-group that really engaged with the community matron, demonstrating a greater awareness of their condition, and were consequently more capable of self-management. The community matron had facilitated the patients’ development through this transition [8], and through self-reflection and better assessment of their situation they had moved away from their need to require emergency admission. Again it appeared that the matron was acting as a motivator (fixer/sorter) allowing individuals to set and reach new goals.

The participants who had a higher post admission score on the algorithm such as one female (K) were still relying on the medical model. Although she understood the community matron’s role she did not yet have the confidence to change her established pattern of behaviour. Consequently she felt the need to attend hospital and expressed this clearly during the interview. Another male participant was a patient in transition beginning to realise his role in the management of his illness, and believed that he had avoided two hospital admissions through intervention by the community matron.

Therefore it can be argued that this is a further indication that after a period of adjustment to the new regime patients do benefit from admission to the virtual ward. There appear to be no ‘quick fixes’ to reducing hospital admissions with patients needing constant reinforcement to alter their behavioural patterns.

Feelings of being Overwhelmed, Loneliness and Fear

Nearly all of the participants commented on feelings which provided a portal to the phenomena of living with a long-term condition.

Patients spoke personally about the contrast of being alone with a long-term condition, experiencing silence, dread, and darkness and feelings of being supported by the arrival of the community matron who seemed to illuminate their surroundings. Their reflections during the interview process showed some non-verbal indicators of increased distress, and this sense was reinforced through the analysis. A sense of fear was also expressed and related to the uncertainty which participants felt in tackling their long-term condition. It was also apparent that the intervention of the matron gave psychosocial support to their journey [18, 24]. The open questioning style associated with IPA allowed individuals to provide great detail without feeling pressured to do so.

Changing the Patients’ Journey

One male participant (B) who’s Algorithm score increased, appeared to be in the experimental part of the change curve as he was trying to reduce alcohol intake without much success [25]. He realised but had not yet accepted that to lower his blood sugar he would have to make a dramatic change to his lifestyle. He was ‘burying his head in the sand’ and subconsciously hoping the doctor would provide a solution; it was as if he was afraid of losing the sick role [26].

The mindset of other participants had moved to using the trust they had built with the matron as a springboard to taking responsibility for self-care, whereas B’s relationship with the matron remained one of dependency. He had not yet moved along the change curve to achieve the independence that would break the cycle of denial.
Patient and carer perceptions of case management appeared to contrast with descriptions contained in Department of Health guidance, with the role of the matron extending beyond medical intervention and healthcare service coordination. This ‘implementation surplus’ appeared most pronounced for psychosocial support activities [24]. The provision of significant psychosocial support by community matrons also appeared to differentiate the model from most other case management programmes for frail elderly people described in the literature. The findings emphasise the importance of seeking patient and carer input when designing new case management programmes. Sargent and Brown both stress that emotional support is of great importance to patients which findings from this study also support [18, 24].

Virtual Ward Experience
Patients expressed a feeling of belonging and familiarity towards the virtual ward. Having help freely available without the perceived compartmentalisation of a GP visit (i.e. a fixed time slot) proved an invaluable experience. A sense of belonging exists on an interpersonal level according to Maslow, and is rarely achieved unless individuals give as well as receive [27]. The virtual ward seemed to create a spirit of partnership where patient and matron were working together and this sense of belonging created a motivation for change which improves self esteem and allows patients to accept advice thereby building their knowledge.

Participants used the term ‘always available’ when referring to the matron, a constant provider who is only a phone call away, and this positive view seems to further validate the findings of other recent studies.

The admission process to the virtual ward was mentioned several times throughout the interviews, and reflected how prospective patients felt apprehension about the unknown. What was the ward and why had they been selected? These questions were similar to those identified by Brown [18]. However, this study found that once the process was explained the apprehension disappeared.

Normally a letter is sent from the community matron offering patients an appointment for a full health assessment [28]; they have no prior warning and thus are sceptical, wary or scared of the unknown consequences. This is a natural emotion magnified by the ‘comfort zone’ of long-term exposure to pre-admission case management procedures plus a perceived vulnerability attributable to their illness.

By way of contrast, comfort was gained from the tangible presence of their virtual ward folder. This document appeared to be vital in creating feelings of belonging, and coupled with the telephone contact details it contained it gave comfort and a sense of owning their condition thereby facilitating self-care [1, 6, 27].

The individuals participating in the research represented those who had historically been at greatest risk of emergency admission which had previously represented their release from anxiety about their condition and the folder had become a surrogate for this release. These feelings of comfort were clearly enhanced by meetings with the matron occurring in their own homes which featured strongly in the interviews.

Limitations of the study
Although there is some statistical evidence to suggest that A&E admissions have been reduced after patients have been on the ward for over a year the sample size in this study was too small to draw any claims of significance. One area for future research could be to investigate pre and post virtual ward admission times for accessing correct resources.

The response rate of 28% was initially disappointing, but when reflecting upon the severity of the illness faced by many of the individuals this should have being anticipated. Nonetheless at least one individual from each ward responded and thus all ten were represented in the study.

CONCLUSIONS
IPA provided an insight into the experiences of patients on the virtual ward. The intervention of the community matron demonstrated that this relatively new service is valued and does facilitate change. Patients’ thematic accounts provided a powerful impression of their feelings towards the matron which lacked the third party detachment often associated with the patient/professional relationship.

The virtual ward creates a strong feeling of belonging but the trust this engenders is not won quickly. Patients felt anxiety about their pre-admission circumstances and sometimes were let down by the system. The fear of the unknown initially nullified their ambition for change, and it required the community matron to first build trust to cross this divide. This trust was built through dedication of time, confidence in capabilities and a demonstration through action of getting previously insurmountable problems resolved.

After a ‘settling in’ period participants, in this study, emerged as agents actively seeking to cope with their situation and engage with a way forward. They had become confident in the self-care of their condition, knowing they will have an improved quality of life and reduce hospital admissions.
Conflict of interest
No conflict of interest has been declared by the authors.

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