Original article

Care planning for aggression management in a specialist secure mental health service: an audit of user involvement

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Published in: *International Journal of Mental Health Nursing* (2016); doi: 10.1111/inm.12238

Study carried out at: St Andrew's, Billing Road, Northampton, NN1 5DG, UK

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All authors listed meet the authorship criteria according to the latest guidelines of the International Committee of Medical Journal Editors, and all authors are in agreement with the manuscript.

This audit is part of a larger PhD project funded jointly by St Andrew's, Northampton, and the University of Northampton.

Word count: 4523

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Abstract

This paper describes an audit of prevention and management of violence and aggression care plans and incident reporting forms which aimed to: (i) report the compliance rate of completion of care plans; (ii) identify the extent to which patients contribute to and agree with their care plan; (iii) describe de-escalation methods documented in care plans; and (iv) ascertain the extent to which the de-escalation methods described in the care plan are recorded as having been attempted in the event of an incident. Care plans and incident report forms were examined for all patients in men's and women's mental health care pathways who were involved in aggressive incidents between May – October 2012. In total, 539 incidents were examined, involving 147 patients and 121 care plans. There was no care plan in place at the time of 151 incidents giving a compliance rate of 72%. It was documented that 40% of patients had contributed to their care plans. Thematic analysis of de-escalation methods documented in the care plans revealed five de-escalation themes: staff interventions, interactions, space/quiet, activities and patient strategies/skills. A sixth category, coercive strategies, was also documented. Evidence of adherence to de-escalation elements of the care plan was documented in 58% of incidents. The reasons for the low compliance rate and very low documentation of patient involvement need further investigation. The inclusion of coercive strategies within de-escalation documentation suggests that some staff fundamentally misunderstand de-escalation.

Key words:

Aggression, inpatients, mental health, prevention

Introduction

Violence and aggression by patients are common in inpatient psychiatric hospital settings (Bowers et al., 2011). Survey data suggest that between 35 - 65% of psychiatric staff experienced violence or been made to feel unsafe in the last year (Chen et al. 2009, Roche et al. 2010). Violence and aggression come in many forms including physical aggression towards others (e.g. punching, kicking), objects (e.g. throwing objects, smashing windows), or self (e.g. cutting, burning); verbal (e.g. making threats), and sexual (e.g. inappropriate touching, kissing) (Bowers et al., 2011). De-escalation is the recommended first-line intervention for clinical staff working with aggressive or violent individuals (National Institute for Health and Care Excellence 2015). However, there is no gold-standard method of de-escalation, and no empirical evidence about what constitutes an effective de-escalation strategy (Muralidharan & Fenton 2006). Despite this, there is some consensus that de-escalation comprises a range of skilled interventions including verbal and non-verbal communication, provision of a safe space, and individual knowledge of the patient (Price & Baker 2012, Bowers 2014, National Institute for Health and Care Excellence 2015).

Mental health nursing involves identification of an individuals' needs and, subsequently, the development of care plans designed to meet those needs. A care plan is 'the blueprint of treatment… used to communicate the type of treatment [the patient is] receiving and to review progress' (Padmore & Roberts 2013 pg.220). Care plans have three main goals: to document goals and objectives as identified and agreed by the patient and nurse;;; to identify the interventions that are necessary; and to identify how progress and outcomes will be evaluated (Padmore & Roberts 2013).

Reflecting the marketization of healthcare, considerable political rhetoric has heralded the importance of user involvement, not only in service planning but specifically in individual care

planning; in the United Kingdom this has included policies such as the NHS and Community Care Act, 1990 and, more recently, the 2010 White Paper 'Liberating the NHS' which proclaimed 'no decision about me without me', and extolled the need to 'to give everyone more say over their care and treatment with more opportunity to make informed choices, as a means of securing better care and better outcomes' (Department of Health 2010). In relation to mental health nursing, however, Anthony and Crawford (2000) have reported a longstanding gap between the stated ambition of mental health nursing care planning to be a collaborative enterprise and the reality of clinical practice where involvement is viewed as a valuable concept but one that is problematic to implement due to limited resources, patient characteristics, and limitations in nursing care. Reflecting this, many service user involvement initiatives have been viewed as tokenistic (Tait & Lester 2005).

Research into professional perspectives on user involvement in individual care planning in mental health has highlighted issues including tensions between involvement and professional accountability, lack of effective support for implementation, the need for effective staff training (Bee et al. 2015), the need to account for organisational bureaucracy, the legacy of historical mental health policy and practice (Brooks et al. 2015). Paradoxically, attempts to standardise practices in relation to involvement are viewed by professionals as likely to be counterproductive (Brooks et al. 2015). Research from the service user perspective suggests that there is a desire to be involved in care planning, and that procedural elements of involvement dominated the discourse of participants; these included development of a working relationship between service user and care co-ordinator, demonstrating the users' contribution to the care plan, the content of the care plan, and the review process (Grundy et al. 2015). Important specific contents of shared care plans include plans for dealing with crises, information about medication and related changes, and flags to ensure that insensitive questions are not asked unnecessarily.

In the UK, national guidelines indicate that the development of a care plan that clearly describes de-escalation strategies which the patient knows to be effective, or that have been efficacious in the past is an important element of violence prevention is (National Institute for Health and Care Excellence 2015). From a values perspective, and in the context of moves to greater involve patients meaningfully in care planning outlined above, this is intuitively correct but there is very little evidence to show that it is an effective form of violence prevention; further, no studies have examine the effectiveness of individualised care plans to reduce aggression in a mental health setting. However the introduction of an individualised care plan for the prevention and management of aggression in a learning disability setting was associated with a 79% reduction in physical assaults (Thomas et al. 2005). We have therefore conducted a study to explore the extent to which patients were involved in their own care plan, and the extent to which the care plan was subsequently enacted in the agreed manner. Given the lack of clarity about the precise constituents of de-escalation we have also taken the opportunity to describe how de-escalation is described and planned in patients' care records.

The aims of the audit were to report the compliance rate of completion of prevention and management of violence and aggression (PMVA) care plans so as to identify the level of documentation, to identify the extent to which patients contribute to and agree with their PMVA care plan, to describe de-escalation methods documented in care plans, and to ascertain the extent to which the de-escalation methods described in the care plan are recorded as having been attempted in the event of an incident.

Methods

Design

Clinical audit was selected as an appropriate method of determining whether the content of patients' clinical records reflected relevant national and local standards. Clinical audit is ‘a

quality improvement cycle that involves measurement of the effectiveness of healthcare against agreed and proven standards for high quality, and taking action to bring practice in line with these standards so as to improve the quality of care and health outcomes.' (Burgess 2011 pg. xi). Audit standards for the current study were based on national legislation and guidance, and local policy. Regulation 17.1(b) (Health and Social Care Act 2008) states:

> 'The registered person must, so far as reasonably practicable, make suitable arrangements to ensure… that service users are enabled to make, or participate in making, decisions relating to their care or treatment.'

National Institute for Health and Care Excellence (NICE) guidelines state that service users should be involved 'in all decisions about their care and treatment, and develop care and risk management plans jointly with them' (National Institute for Health and Care Excellence 2015 pg.16). The PMVA policy in the study setting states 'Service users should be involved in the development of the PMVA Risk Assessment, initially and at Care Plan reviews', and that all service users should have a PMVA care plan within seven days of admission.

The audit standards were:

1. There will be evidence in the clinical record that the patient has been consulted about their PMVA care plan.
2. There will be evidence that a PMVA care plan has been completed within seven days of admission.
3. That patients admitted for at least seven days will have a PMVA care plan in place.
4. There will be evidence that there have been attempts to follow the care plan in the event of an incident.

For all four audit standards the expected compliance rate was set at 100%.

Setting

St Andrew's Healthcare is a charitable provider of specialist secure mental health care located at four geographical locations in England. A previous study found that rates of aggression in this setting are higher than those reported in the worldwide literature for similar settings; mental health care pathways had 0.7 aggressive or violent incidents and 0.5 self-harm incidents per 100 occupied bed days. Rates of aggression and self-harm were higher in medium secure units compared with low secure, although these figures included learning disability care pathways (Dickens et al. 2013).

The organisation uses a common electronic patient record system (RiO) on which clinical information about patients is entered, stored, and retrieved. Each patient record should, as per policy CRM26, include a PMVA care plan. Policy mandates that the plan should contain individualised information about early intervention and de-escalation strategies and about preferred strategies for seclusion, restraint, and pro re nata (PRN, as needed) medication should these become necessary. These are documented under three headings: 'Early Intervention Strategies' (identified by staff and the patient), 'Preferred De-escalation Methods' (what the patient wants) and 'Staff De-escalation Strategies or Interventions' (what staff can do to help). Further, the care plan should be created in collaboration with the patient and this should be documented, in addition to the patient's agreement, or otherwise, with the final version. Following a violent or aggressive incident, information is recorded on electronic event forms which require detail about the type and severity of the incident, and a free text description of the incident detailing antecedents, de-escalation strategies employed, and outcomes. Severity is rated on a scale from 1, being no harm or damage, to 4, being severe harm or damage.

Sample

Records of all patients in men's and women's adult mental health care pathways at St Andrew's Healthcare who were involved in aggressive incidents between 1st May 2012 and 31st October 2012 were included in the audit. Aggressive incidents included those labelled in the event form as: abuse/aggression – verbal; abuse/aggression – physical; abuse – sexual; property damage; or self-harm. A list of all incidents during the study period was obtained from the Quality Compliance and Performance department at St Andrew's, Northampton.

Procedure

Ethical approval for this audit study was not required from the National Research Ethics Service (NRES Ethics Consultation E-Group 2007), however ethical approval was obtained from the University of Northampton Ethics Review Board as part of a programme of PhD study by the first author. The audit was approved by St Andrew's audit department. Permission to access patient records in RiO was granted by the Caldicott Guardian at St Andrew's. No identifying information was recorded to ensure anonymity of data.

The data for the audit was sourced from RiO; information about care planning came from the PMVA care plan and information about the incidents was accessed from event forms. Some patients who were involved in more than one incident had their care plans updated / rewritten between incidents; care plans contemporaneous with each incident were included. The data was collected using an audit form designed to capture the relevant information including: age and gender of the patient, whether there was a record of the patient contributing to and/or agreeing to the care plan, free text from the prevention sections of the care plan, and free text from attempted/successful de-escalation documented in the event form. To ascertain whether de-escalation was documented, the free text portion of the event form was inspected to detect any mention of de-escalation measures. Inclusion and exclusion criteria for de-

escalation measures were based on reviews of the literature conducted as part of the PhD of author 1 (Hallett et al. 2014) and on existing reviews of the literature on de-escalation (Price & Baker 2012).

Inclusion criteria:

- Interventions occurred prior to, or during, the incident and involved documentation about:
    - Talking to the patient
    - Removing the patient from the situation (without coercion)
    - Removal of trigger and/or bystanders from the situation
    - Distraction or diversion strategies
    - Interventions described solely as 'de-escalation' without explanation of the actions this refers to.

Exclusion criteria:

- Interventions that occurred after the incident.
- Restraint, even if it is described as having the aim of stopping the incident, or reducing the severity of the incident.
- Seclusion, even if it is described as having the aim of stopping the incident, or reducing the severity of the incident.
- The use of medication

Ten percent (n=54) of the incidents were checked by a second rater (GD) to determine the reliability of the findings; agreement between raters was tested using Cohen's kappa (κ) statistic and assessed against criteria suggested by Landis and Koch (1977). There was strong agreement between the raters, $\kappa = .810$ (95% CI, .667 to .953) $p < .0005$.

The number of incidents per patient ranged from 1-102 (mean = 18, median = 2). Most patients were involved in 1-10 incidents, however four patients were involved in a large number of very similar incidents (n=20, 22, 37 and 102) respectively. To avoid overrepresentation of these similar incidents a maximum of ten incidents per patient, selected randomly from all incidents involving that patient, was included in the audit.

The content of the care plan was examined to ascertain which de-escalation strategies were documented. In order to examine whether the care plan was adhered to in practice we examined reports of incidents recorded in the electronic patient record. The data was collected using a specially designed audit form. The description of the incident was recorded and compared against the care plan to inform a decision about whether it had been adhered to. Adherence was recorded as positive when *de-escalation strategies* identified in the care plan were documented in the event form. For example, if 'moving the patient to a low stimulus environment' (*de-escalation strategy*) had been recorded in the care plan and had been documented as having occurred during the incident, then this would represent adherence to the audit standard. If restraint (*not a de-escalation strategy*) had been recorded in the care plan, and had been documented as having occurred during the incident, then this would *not* have been recorded as adherent. In cases where an incident afforded no opportunity to implement de-escalation (e.g., direct, unprovoked physical assault on a member of staff, or where an incident was reported but had not been witnessed by a member of staff) then this was recorded as such and not as non-adherent.

Analysis

Quantitative data was entered into Microsoft Excel and analysed using descriptive statistics. Thematic analysis of the data gathered from the three violence prevention sections of each PMVA care plan was undertaken following the phases described by Braun and Clark (2006).

Thematic analysis was chosen because of its flexibility; we started from a perspective of theoretical naivety with no predetermined views about what may be documented in the care plans. Because care plans are meant to be written using the patient's words, it would have been problematic to impose a predetermined analysis to count the instances of particular words. The first phase, 'familiarizing yourself with the data' occurred while the data was being collected. Second, initial codes were generated and the frequency of each code was recorded in Excel, separately for each of the three sections of the care plan. These codes were collated into minor and major themes using Excel. The major themes were named, reviewed, defined and agreed by all authors.

Results

In total, 26 wards were included in the audit: 18 (69%) for male and 8 (31%) for female patients; 9 (35%) medium and 17 (65%) low secure; and the mean number of beds per ward was 15.6 (range 6-21). The audit included 147 patients, 76 male (52%) and 71 female (48%). The mean age of patients was 37.4 years (range 18-76 years). There was no PMVA care plan in place at the time of 151 incidents (28%) giving a compliance rate of 72%. The non-compliant incidents involved 49 patients (33%). One hundred and twenty one unique care plans were included in the audit as some patients' care plans were created or updated during the time period, meaning they had more than one care plan.

There were 539 incidents, each recorded on a separate event form. Most recorded incidents were rated level 2 for severity (n=278, 52%), followed by level 1 (n=157, 29%) and level 3 (92, 17%). There were 11 incidents (2%) rated level 4, the highest level of severity. Physical abuse/aggression was the most documented type of incident (n=409, 76%), followed by verbal abuse/aggression (n=85, 16%), self-harm and suicide (n=32, 6%), sexual abuse (n=9, 2%) and

property damage (n=3, 1%). Just under 90% of incidents (n=478) involved patients who engaged in multiple (2+) incidents during the study period.

A minority (40%) of patients contributed to their care plan, and of those who contributed 69% agreed with its content (see Figure 1). Of the 60% who did not contribute to their care plan just under a quarter (23%) agreed to its content while 77% did not agree.

Figure 1 about here

The three most frequently documented de-escalation interventions were: offering to talk to the patient (commonly referred to as a '1:1') (17% of all interventions), low stimulus environment (13%) and PRN medication (10%). These were documented on two to three times as many occasions as the next commonest intervention (de-escalation techniques, unspecified) (6%).

Evidence of adherence to de-escalation elements of the care plan was documented in 58% of incidents (n=220) and were not in 29% (n=108). In the remaining 13% of incidents there was no apparent opportunity for a de-escalation intervention.

Thematic analysis of records revealed five de-escalation themes: staff interventions, interactions, space/quiet, activities and patient strategies/skills. A sixth category, coercive strategies, consisting of seclusion, restraint, PICU and pro re nata (PRN) medication, was also documented.

Staff interventions comprised the staff actions and behaviours that contribute to the prevention of violence and aggression. These included skills that can be taught, such as searching the patient or their property for dangerous or contraband items, and the way staff behave with patients, e.g., offering encouragement, reassurance and support.

Table 1 about here

In the *interactions* theme talking with the patient, or 'having a 1:1', was the most documented intervention overall, being identified in 92 (76%) care plans. Some care plans documented that time to talk with a specific person such as the care co-ordinator should be offered, or that a specific staff member should be identified per shift as a contact point. Specific directions about interaction included using only minimal interactions when the patient was aggressive, encouraging the patient to express their needs in a more appropriate manner, allowing the patient to express their feelings with no interruptions, not forcing the patient to talk about the incident until they are calm, explaining what the patient needs to do, asking the patient to calm down, acknowledging the agitation experienced by the patient, not challenging the patient, offering solutions, giving the patient the opportunity to make plans.

The theme of *space/quiet* was concerned with creating a better environment for the patient, either by moving the patient, or by reducing the number of other patients in the area. Moving the patient to a 'low stimulus environment' (LSE) was the most documented intervention in this theme (137 times in 82 [68%] care plans). This included moving patients to dedicated low stimulus areas of the ward, to their bedroom, to another area of the ward such as an activity room, or outside. It was not clear from the documentation whether seclusion rooms were used for this purpose.

Containment measures comprised the use of PRN (pro re nata or 'as needed') medication, restraint, seclusion, and moving the patient to a psychiatric intensive care unit (PICU). Administering or offering PRN medication was the third most frequently documented subtheme overall, and was by far the most commonly documented containment subtheme.

The most frequently documented specific activity within the *activities* theme was listening to music (25 times in 21 [17%] care plans). Other specified activities included sports/exercise (e.g., football and badminton, going to the gym, and exercise in general), games (including card and board games), and self-care (including having a bath or shower). The least documented theme overall was *patient strategies/skills* and comprised patient coping skills, unspecified coping strategies and skills, anger management, and patient de-escalation strategies.

Discussion

We have examined documentation related to PMVA care plans in one large mental health service. The first aim of this audit was to report the compliance rate of completion of PMVA care plans. Just under one quarter of patients (22%) had no recorded PMVA care plan when an aggressive incident occurred, despite local policy stating that such a policy should be completed within 7-days of admission. Due to the lack of previously published data on this topic, it is unclear how practice in the current study setting compares relative to similar settings. However, it is clearly a concern that, in absolute terms, over one in five patients lacked a PMVA care plan. The reason for the low compliance rate is unclear, however some nurses find computerised care plans problematic as it means they have to be written away from the patient; sometimes they are written with the patient, but are then not transferred to the computerised system (Timmons 2003, Moody et al. 2004). Further reported barriers have included lack of resources and the need for effective training (Bee et al. 2015).

Secondly, this audit aimed to identify the extent to which patients contribute to and agree with their PMVA care plan. Only 40% of patients were documented as having contributed to their care plans, well below the expected standard of 100%. Again, the reasons for this low rate are not clear; this audit did not identify whether the problem was one of documentation, i.e. patients did contribute but this was not recorded, or whether patients were not consulted

on their care plans. Although the former is a concern, correct documentation is important, the latter clearly raises a more pressing issue. The Health and Social Care Act 2008 states that practitioners should 'ensure that service users are enabled to make, or participate in making, decisions relating to their care or treatment'. Although there is no clear evidence to show that shared decision-making leads to improved health outcomes, it is likely that it increases patient satisfaction (Duncan et al. 2010). There is some evidence to suggest that involving patients in care planning could lead to a reduction in rates of seclusion (Boumans et al. 2014). There can be difficulties involving patients in care planning, one challenge being that patients may refuse to collaborate with staff, also that it can be time-consuming to formulate plans in a way that patients agree to (Storm & Davidson 2010). The PMVA care plan in this audit did not record whether patients were offered the opportunity to contribute to the care plan, just whether they did contribute, therefore the low rate of patient contribution may not accurately reflect nursing procedures in the setting.

The third aim of this study was to describe de-escalation methods documented in care plans. A variety of de-escalation methods were documented in the care plans. De-escalation is one of the key staff interventions for preventing imminent inpatient aggression and violence (Price & Baker 2012, National Institute for Health and Care Excellence 2015), and 'de-escalation' was frequently documented. Unfortunately, the variety of actions that may constitute de-escalation means that simply documenting 'de-escalation techniques' in a care plan does not give a clear indication of the patient-specific actions that staff should take. Similarly, documenting 'verbal de-escalation' could cause confusion for staff if specific verbal instructions are not documented. On the other hand, nearly all of the staff behaviours identified in our study are identified in the literature on de-escalation. Being aware of one's own tone of voice and body language are both indicated as part of verbal de-escalation, as is remaining calm and being non-confrontational (Price & Baker 2012). Similarly, good

communication skills and providing a safe place for de-escalation to take place are both regularly cited as cornerstones of de-escalation (Roberton et al. 2012) (Richmond et al. 2012).

Staff-patient interactions are often central to inpatient violence and aggression and precipitate the highest number of violent and aggressive (Bowers et al. 2011). It is therefore hardly surprising that such a major factor in the cause of aggression is also perceived to play a vital role in its prevention and management. The importance of both verbal and non-verbal communication skills are consistently identified as key components of de-escalation (Hankin et al. 2011, Price & Baker 2012, Bowers 2014, National Institute for Health and Care Excellence 2015). Various specific verbal instructions were detailed in the care plans, including instructions to use clear language and give clear explanations.

There appeared to be confusion over where information should be recorded in relation to de-escalation. This audit focused on three sections of the PMVA care plan: 'Early Intervention Strategies', 'Preferred De-escalation Methods' and 'Staff De-escalation Strategies or Interventions'. There was overlap between what was documented in each section of the care plan, and in some care plans information was copied from one section to another. There is no clear definition in the literature as to what constitutes early intervention or de-escalation, therefore this may be confusing for nursing staff and patients (Price & Baker 2012). The section for preferred de-escalation methods is meant to contain what the patient wants to happen in the event of an incident, but this did not appear to be the case for a majority of the care plans, with information being identical to the staff strategies in some care plans, and coercive measures such as seclusion and restraint being documented in others.

Coercive measures are those which are used to prevent or reduce imminent harm, when less intrusive verbal/de-escalation measures have failed (Richmond et al. 2012). The PMVA care plan used in the current study contained separate sections for physical interventions (i.e.

restraint), medication and seclusion, and, therefore, none of these interventions should have been documented within the de-escalation sections of the care plan. Despite this, containment measures were documented 141 times in the de-escalation sections of the care plan. This reflects evidence from a previous study in the current setting where containment and de-escalation methods were sometimes confused (Hallett & Dickens 2015). Additionally, PRN medication was the third most documented intervention, although the prescribed route of medication administration was often not documented. For some staff, forced medication is more problematic ethically than persuading the patient to take medication (Lind et al. 2004). In a number of incidents, the patient appeared to be given the choice between oral and IM PRN, suggesting that despite being allowed to choose the route, they had no choice about whether to take the medication or not, implying that administration by either route was effectively equally coercive. However, some patients who were forced to take medication when unwell retrospectively agreed that the medication had been necessary and that this should be repeated in the future if required (Jarrett et al. 2008).

Finally this audit examined documentation of care plan adherence. There was evidence that care plans were adhered to in over half of all incidents (n=220, 58%); the fourth aim of this audit. However, many care plans contained generic instructions, such as for 'de-escalation techniques' to be used without further explication. As a result, the fact that 58% of care plans were adhered to is perhaps not useful in distinguishing whether specific de-escalation strategies were followed for individual patients or whether generic de-escalation is used during incidents.

Limitations

This audit only examined the care plans of patients who were involved in incidents during the audit period, rather than all patients. It is possible that patients who were not involved in

aggressive incidents had effective care plans that successfully prevented such incidents. This may limit the generalisability of the findings of the current study. Furthermore since over half of incidents go unreported (McKinnon & Cross 2008, Chapman et al. 2010) it is possible that we have overlooked the care plans of patients who were actually involved in aggressive incidents. It is also possible that the results are not entirely representative since we excluded additional events of those with 11+ incidents but on balance we feel this was justified as including more incidents would have diluted the heterogeneity of the included incidents. The records-based nature of the audit may also be a limitation since we essentially looked for documentary evidence of patient involvement, and agreement and staff adherence to care plans. It is likely that record keeping does not accurately reflect actual practice and we have no way of ascertaining this.

Conclusions

This was a large-scale audit, examining every recorded incident of aggression in adult mental health care pathways at one charitable hospital trust over a six month period. In total, 554 incidents were included, carried out by 147 patients, with 121 unique care plans being analysed. The compliance rate for completion of care plans was 72%, well below the target of 100%. Much of the planning recorded in the care plans was in fact standard care; this suggests that it may be beneficial to have a two part de-escalation care plan. The first part would contain standardised care, with tick boxes to choose what is appropriate for that patient, whilst the second would comprise the individualised plans for each patient. This should not only make documentation easier, but would also make it easier for staff to access the necessary information, meaning that the care plans may be more likely to be followed in the event of an incident.

Ward staff are at the frontline of nursing, and are ideally placed to reduce the incidence of violence and aggression in inpatient settings. However, this audit is further evidence of a fundamental misunderstanding by many nurses of PRN medication as a de-escalation method. That this appears to be embedded within the culture, in this setting at least, means that patient care may suffer. Best practice guidelines state that de-escalation techniques should be the initial response to escalating situations, however, if staff believe that PRN medication is part of de-escalation then they may believe that offering PRN medication should be the initial response. Improved training in de-escalation is one of the first steps in changing these beliefs. Further research investigating how de-escalation is used by nurses in other settings is needed to find out whether this is a general problem.

References

Anthony, P. & Crawford, P. (2000). Service user involvement in care planning: the mental health nurse's perspective. *Journal of Psychiatric and Mental Health Nursing.* 7**,** 425-434.

Bee, P., Brooks, H., Fraser, C. & Lovell, K. (2015). Professional perspectives on service user and carer involvement in mental health care planning: A qualitative study. *International Journal of Nursing Studies.* 52**,** 1834-1845.

Boumans, C. E., Egger, J. I., Souren, P. M. & Hutschemaekers, G. J. (2014). Reduction in the use of seclusion by the methodical work approach. *International Journal of Mental Health Nursing.* 23**,** 161-170.

Bowers, L. (2014). A model of de-escalation. *Mental Health Practice.* 17**,** 36-37.

Bowers, L., Stewart, D., Papadopoulos, C., Dack, C., Ross, J., Khanom, H. & Jeffery, D. (2011). *Inpatient violence and aggression: a literature review* [Online]. London: King's College. Available: http://www.kcl.ac.uk/iop/depts/hspr/research/ciemh/mhn/projects/litreview/LitRevAgg.pdf [Accessed 4th May 2012].

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology.* 3**,** 77-101.

Brooks, H., Sanders, C., Lovell, K., Fraser, C. & Rogers, A. (2015). Re-inventing care planning in mental health: stakeholder accounts of the imagined implementation of a user/carer involved intervention. *BMC Health Services Research.* 15**,** 1.

Burgess, R. (2011). *New principles of best practice in clinical audit.* London, Radcliffe Publishing Ltd.

Chapman, R., Styles, I., Perry, L. & Combs, S. (2010). Examining the characteristics of workplace violence in one non-tertiary hospital. *Journal of Clinical Nursing.* 19**,** 479-488.

Chen, W.-C., Hwu, H.-G. & Wang, J.-D. (2009). Hospital staff responses to workplace violence in a psychiatric hospital in Taiwan. *International journal of occupational and environmental health.* 15**,** 173-179.

Department of Health (2010). *Equity and excellence: Liberating the NHS.* London, The Stationary Office.

Dickens, G., Picchioni, M. & Long, C. (2013). Aggression in specialist secure and forensic inpatient mental health care: incidence across care pathways. *The Journal of Forensic Practice.* 15**,** 206-217.

Duncan, E., Best, C. & Hagen, S. (2010). Shared decision making interventions for people with mental health conditions. *The Cochrane Library.*

Grundy, A., Bee, P., Meade, O., Callaghan, P., Beatty, S., Olleveant, N. & Lovell, K. (2015). Bringing meaning to user involvement in mental health care planning: a qualitative exploration of service user perspectives. *Journal of Psychiatric and Mental Health Nursing.*

Hallett, N. & Dickens, G. L. (2015). De-escalation: A survey of clinical staff in a secure mental health inpatient service. *International Journal of Mental Health Nursing.*

Hallett, N., Huber, J. & Dickens, G. (2014). Violence prevention in inpatient psychiatric settings: systematic review of studies about the perceptions of care staff and patients *Aggression and Violent Behavior.* 19**,** 502-514.

Hankin, C. S., Bronstone, A. & Koran, L. M. (2011). Agitation in the inpatient psychiatric setting: a review of clinical presentation, burden, and treatment. *Journal of Psychiatric Practice.* 17**,** 170-185.

Health and Social Care Act 2008, Available: http://www.legislation.gov.uk/ukdsi/2010/9780111491942/part/4 [Accessed 2nd November 2015]

Jarrett, M., Bowers, L. & Simpson, A. (2008). Coerced medication in psychiatric inpatient care: literature review. *Journal of Advanced Nursing.* 64**,** 538-548.

Landis, J. R. & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics.* 33**,** 159-174.

Lind, M., Kaltiala-Heino, R., Suominen, T., Leino-Kilpi, H. & Välimäki, M. (2004). Nurses' ethical perceptions about coercion. *Journal of Psychiatric and Mental Health Nursing.* 11**,** 379-385.

Mckinnon, B. & Cross, W. (2008). Occupational violence and assault in mental health nursing: a scoping project for a Victorian Mental Health Service. *International Journal of Mental Health Nursing.* 17**,** 9-17.

Moody, L. E., Slocumb, E., Berg, B. & Jackson, D. (2004). Electronic health records documentation in nursing: nurses' perceptions, attitudes, and preferences. *Computers Informatics Nursing.* 22**,** 337-344.

Muralidharan, S. & Fenton, M. (2006). Containment strategies for people with serious mental illness. *Cochrane Database of Systematic Reviews.* 3.

National Institute for Health and Care Excellence (2015). *Violence and aggression: short-term management in mental health, health and community setting.* London, NICE.

Nres Ethics Consultation E-Group (2007). *Differentiating audit, service evaluation and research.* London, National Research Ethics Service.

Padmore, J. & Roberts, C. (2013). Care planning. *In:* NORMAN, I. & RYRIE, I. (eds.) *The art and science of mental health nursing: Principles and practice.* 3rd Edition ed. London: McGraw Hill.

Price, O. & Baker, J. (2012). Key components of de-escalation techniques: a thematic synthesis. *International Journal of Mental Health Nursing.*

Richmond, J. S., Berlin, J. S., Fishkind, A. B., Holloman, G. H., Zeller, S. L., Wilson, M. P., Rifai, M. A. & Ng, A. T. (2012). Verbal de-escalation of the agitated patient: Consensus statement of the American Association for emergency psychiatry project BETA De-escalation workgroup. *Western Journal of Emergency Medicine.* 13**,** 17-25.

Roberton, T., Daffern, M., Thomas, S. & Martin, T. (2012). De-escalation and limit-setting in forensic mental health units. *Journal of Forensic Nursing.* 8**,** 94-101.

Roche, M., Diers, D., Duffield, C. & Catling-Paull, C. (2010). Violence toward nurses, the work environment, and patient outcomes. *Journal of Nursing Scholarship.* 42**,** 13-22.

Storm, M. & Davidson, L. (2010). Inpatients' and providers' experiences with user involvement in inpatient care. *Psychiatric quarterly.* 81**,** 111-125.

Tait, L. & Lester, H. (2005). Encouraging user involvement in mental health services. *Advances in Psychiatric Treatment.* 11**,** 168-175.

Thomas, C., Kitchen, D. & Smith, A. (2005). The management of aggression care plans: implementation and efficacy in a forensic learning disability service. *The British Journal of Forensic Practice.* 7**,** 3-9.

Timmons, S. (2003). Nurses resisting information technology. *Nursing inquiry.* 10**,** 257-269.

Table

Table 1. Staff interventions documented in patients' care plans

Staff intervention	**n (%)**	**Description**
De-escalation techniques	47 (39)	Non-specific instructions such as '*De-escalation techniques*' and '*verbal de-escalation*'.
Monitoring/observation	40 (33)	Changing the observation levels e.g. '*likes to have some time on own but may need an increase in observations'* or monitoring the patient.
Distraction	28 (23)	Non-specific instructions, mostly '*Distraction techniques*'.
Staff actions	21 (17)	The actions that staff could take, such as searching the patient and general instructions to maintain a safe environment e.g. *'To provide a safe and therapeutic environment'*
Support/reassurance/ encouragement	19 (16)	Instructions to be reassuring or supportive and specific instructions to encourage the patient e.g. *'Encourage to make use of his de-escalation skills'*.
Staff presentation	16 (13)	The way staff interact with patients, e.g. *'adopt a non-confrontational approach'*, and the body language used
Modification of patient behaviour	15 (12)	Maintaining clear or firm boundaries
Knowledge of patient	10 (8)	The knowledge they have of patients, e.g. *'Staff to be aware of triggers and early warning signs'*
Staffing	10 (8)	Particularly the use of female or familiar staff
Early intervention	7 (6)	Intervening early to prevent escalation
Risky items	2 (2)	Removal of items that could be dangerous

Figure

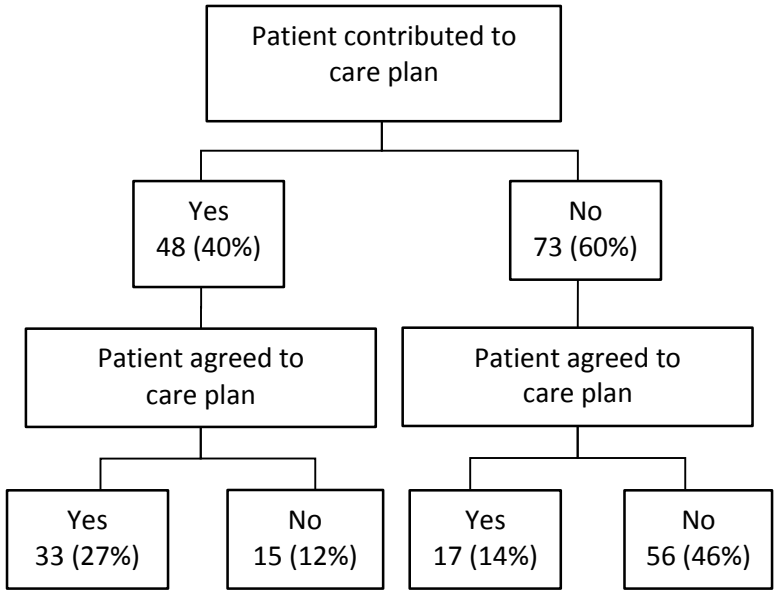

Figure 1. Contribution to/agreement with care plan