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Safer Wards: reducing violence on older people's mental health wards

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Abstract

Through the Safer Wards project we aimed to reduce the number of incidents of physical violence on older people's mental health wards. This was done using quality improvement methods and supported by the Trust's extensive programme of quality improvement, including training provided by the Institute for Healthcare Improvement. Violence can be an indicator of unmet needs in this patient population, with a negative effect on patient care and staff morale. Reducing harm to patients and staff is a strategic aim of our Trust.

We established a multi-disciplinary group who led on the project on each ward and used a Pareto diagram to establish the focus of our work. We established a dashboard of measures based on our incident reporting system Datix, including number of incidents of violence, days between incidents, days of staff sickness, days between staff injury, use of restraint, and use of rapid tranquilisation (the last two being balancing measures in the reduction of violence). Each team identified factors driving physical violence on the wards, under headings of unmet patient needs, staff needs and staff awareness, which included lack of activity and a safe and therapeutic environment.

Using driver diagrams, we identified change ideas that included hourly rounding (proactive checks on patient well-being), the addition of sensory rooms, flexible leave for patients, and a structured activity programme. We also introduced exercise to music, therapeutic groups led by patients, and focused on discharge planning and pet therapy, each of which starting sequentially over the course of a one year period from late 2013 and subject to a cycle of iterative learning using PDSA methods.

The specific aim was a 20% decrease in violent incidents on three wards in City and Hackney, and Newham. Following our interventions, days between violent incidents increased from an average of three to an average of six. Days between staff injury due to physical violence rose from an average of eight (one violent incident resulting in staff injury every eight days) to 22 (one incident every 22 days). Incidents of physical violence reduced from 63 in 2013 to 39 in 2014. We were also able to quantify reduced costs associated with reduction in violence.

The success of this project in our view lay in the involvement of ward staff in understanding the problems and generating local solutions which were also broadly evidenced based. Patients were also closely involved in generating ideas. We are currently incorporating much of this work into routine practice in order to sustain improvement, as well as continuing to generate new ideas for further improvement while using the skills learnt in this process to address other problems.

Problem

The project was based across three older adult's mental health wards in East London; two continuing care wards in Hackney and Newham, and an acute functional mental illness ward in Hackney. According to the Index of Multiple Deprivation 2010 averages, the two boroughs are the second and third most deprived local authorities of 354 local authorities in England.

The wards included in this work are home to 50 inpatient beds. Larch Lodge is a 14 bedded admission unit for adults over 65 years of age experiencing psychotic illness, anxiety, major depression, or personality disorders. Larch Lodge has an average number of 80 admissions per year. Approximately one quarter are admitted under a section of the Mental Health Act 1983 as amended in 2007. Sally Sherman ward in Newham and Cedar Lodge in Hackney are continuing care wards for patients with severe dementia which is complicated by challenging behaviour that cannot be managed in other care environments.

The three wards are staffed by multi-disciplinary teams comprising mental health nurses, occupational therapists, psychologists, healthcare assistants and psychiatrists, working closely with community mental health teams and intermediate care teams. Studies have noted that with a shift toward community treatment, inpatient units now house patients with greater needs.[8]

The aim of the project was to address the problem of physical violence on the wards. Risk factors for violence in adults with mental illness include active psychotic symptoms, use of substances, a history of violence, and co-morbid personality disorders. In addition to these, there is also a group of older people with organic mental illness at high risk of violence.[3]

Background

Violence on older adults' mental health wards may relate to active symptoms or to underlying issues, including unmet needs. It affects the physical health and wellbeing of patients and staff. The negative impact on staff morale has been extensively documented, as has

the effect on the ward environment.

The National Audit of Violence 2006–2007 found a greater likelihood of assault on staff working on wards for older people with organic mental illness than in any other psychiatric in-patient site.[7]

O'Callaghan et al (2010) note the results of this audit in which "64% of nurses working in older people's services had been physically assaulted on an in-patient unit, compared with 46% of nurses in adult services."[6] The audit also found lack of access to physical activities. Other factors noted by O'Callaghan's review were noise, lack of activity, overcrowding, inadequate staff attention, poor communication between staff and service user, conflicts between staff and carers, and weak clinical leadership. Violence was associated with care tasks in an earlier study.[9]

Totman et al (2011) have noted the value of increasing meaningful activities for patients and in improving the physical environment, particularly access to outdoor space.[8] Improvements to the physical environment convey a message that staff and patients are valued. Staff involved in qualitative studies have also noted the importance of having their voice heard by those managing services.

Drawing on work by Algase et al (1996) and Kitwood & Bredin (1992), Livingston et al (2014) have said of those with dementia that "behaviours arise from need and occur when care is task-driven not person-centred."[1,4,5] They go on to note that needs may include "physical discomfort or need for stimulation, emotional comfort or communication." Their systematic review of interventions to address agitation found benefits for an increase in activities, music therapy, sensory interventions, and person-centred care.

Baseline measurement

We opted to use existing processes for reporting data on incidents of violence, namely the Datix system, to establish a baseline of measures. Prior to starting work on the project we encouraged full use of reporting incidents, raising awareness of the importance of accurate data and addressing concerns about the potential to under-report incidents. We also collected baseline data on sickness absence on the wards, and use of restraint and rapid tranquilisation, all of which is routinely collected by the Trust as part of assurance processes.

The core project team analysed the baseline data to consider where best to focus the work. We used Pareto charts to determine where incidents were most common.

On the wards with most violent incidents we found that on average there was an incident of physical violence every three days and a staff injury due to violence every eight days. There were 177 days of staff absence across the three wards per month at the beginning of the process.

See supplementary files: 'Pareto chart'

See supplementary file: ds5018.pptx - "Pareto chart showing incidents of violence"

Design

Local teams were established across the two sites, including a majority of frontline staff, with the support of the Trust's Quality Improvement team. The design of the project used the model for improvement, developed by Associates in Process Improvement and the adopted method of the Institute for Healthcare Improvement. Project leads attended Improvement Science in Action training to gain skills in the model. Having established the multi-disciplinary teams, gained opportunities to involve patients and carers in our plans, and created a regular meeting time and date, we put together a driver diagram to reveal the relevant factors we needed to address to meet our aim.

We used available data on violent incidents to set a target for reduction. We generated change ideas with the use of divergent and convergent decision-making tools. Change ideas included intentional rounding (a system of proactively checking on the well-being of our patients), use of a dynamic risk assessment tool, daily access to meaningful activities, and increasing our understanding of the factors leading to specific violent incidents.

Strategy

Our motivated and enthusiastic ward staff embraced the design of the project. The strategy for implementation of change ideas was based on the PDSA cycle. We were supported to structure each set of changes via a PDSA ramp, and to use statistical process charts to track the impact of our work.

The first tests, centred on one site, were on intentional rounding, which we trialled with a small group of patients in each ward. The purpose of rounding is to proactively engage with our patients and assess their well-being and state of mind, aiming to identify any outstanding issues that could lead to aggressive behaviour before it escalates. We outlined the objectives of the test using a PDSA template, including exactly how it would take place. We made predictions on what would happen. We were able to collect real-time information on the impact of these tests. We adjusted our practice according to patient feedback - when patients felt that hourly rounding was too intrusive we adjusted the plan to two hourly.

We identified the need for a therapeutic space for patients at high risk of violence and introduced a sensory room. On the Newham continuing care ward we began with a test on structured leave which was extended following the success of the initial trial. We initially planned structured leave with a single patient. The benefit of using a small test of change was to build in support for the practice among staff and patients by demonstrating a positive effect.

We introduced a number of tests centred on the impact and acceptability of a range of new activities on the ward, including the sensory room, pet therapy, and increased activities (including exercise to music) during the week. In these tests we focused on documenting benefits to individual patients in order to adapt the available options to form an individualised care plan. The process

helped our staff to focus attention on observing the impact of their interventions on individual patients.

We ran awareness sessions for staff, patients, and carers concurrently with the other PDSA cycles in order to ensure understanding of the project and continued to meet weekly to review progress and track impact on control charts.

Results

Shortly after the team was formed, we experienced a period of increased violence on one of the wards. This may have helped to focus the team on the value of the project, but may also have been due to increased awareness about physical violence resulting from this project. It was not until March 2014 that we began to see data suggesting special cause variation, with a run of eight consecutive points above the centre-line. By November 2014 it was clear that there was a sustained impact on the main outcome measure of days between incidents of physical violence. Staff injury due to violence began to reduce almost immediately after the team was formed. A downward direction of staff absence shifted the mean to 114 days per month over the three wards by June 2014.

See supplementary file: 'Control chart'.

In 2015 we conducted a financial analysis of the impact of the work. We engaged staff to model the financial implications of the work in terms of savings due to reduced staff absence, and injury. We found that a reduction in number of incidents by 36% led to a reduction in the cost associated with violence of 49%. Direct costs due to physical violence reduced from £119,988 during the six months prior to the improvement project to £61,376 during the post-implementation period - a reduction of £58,612 in costs due to physical violence on the wards. This is balanced with the very limited costs of environmental improvements, which amounted to no more than £2000.

See supplementary file: ds5019.pptx - "Outcome measure - days between incidents of physical violence on 3 older adult mental health wards"

Lessons and limitations

We appreciated the need for a specific, measurable, achievable and realistic aim, with clear understanding of drivers contributing to the process. We addressed a problem that was important to staff and patients alike, and the skills mix of the team allowed us to generate an effective strategy. The team was enthusiastic about testing ideas without prejudice. We had strategic support for the project and for the incorporation of improvement initiatives into our work, and the technical and methodological support of the quality improvement team. Since we based our project on accessible data we then had ready access to a set of baseline measures, reducing the amount of additional data collection and allowing teams to focus on the more creative PDSA process.

We were also able to demonstrate change more easily with the benefit of accessible data and relate interventions to data. We continued to be aware of areas that need ongoing work. Having seen a reduction in violent incidents and injury due to violence, we have incorporated change ideas into local practice. We enabled staff to have access to improvement resources and we have involved all our staff in reporting the project back to governors, executive and non-executive directors, external stakeholders, management teams, and other clinical teams.

We are continuing to trial new ideas to reduce violence. As part of this work we are taking steps to engage patients and carers more actively in the work. Patients were involved most closely in the development of a therapeutic group. We are now working on spin-off projects relating to noise reduction that are co-led by a carer, and on involving patients in self-management and coping with emotional dysregulation.

We have learnt that the use of improvement methods can also yield significant cost savings.

Conclusion

The problem identified in this project was violence across inpatient older adults' psychiatric wards housing patients with functional and organic illness. The problem was one clearly articulated in research, and was of concern strategically, and to staff and patients, with a significant negative impact on both. We used improvement methods and resources provided by IHI and East London NHS Foundation Trusts' quality improvement programme and benefited from an enthusiastic, motivated, and creative team. The use of existing measures allowed the team to focus on the more creative elements of the project.

Following a series of interventions aimed at addressing unmet needs, making more sensitive risk assessments, providing a more therapeutic environment, and creating a suite of meaningful structured activities for our patients that were all adjusted according to PDSA testing, we were able to see a reduction in physical violence on the wards of 50%. Days between staff injury due to physical violence rose from an average of an injury every 11 days to an injury on average every 30 days. The project not only resulted in a reduction in harm caused by violence, but changes in the physical environment on the ward improved staff morale. Staff members involved in the project were empowered to make meaningful changes and to recognise the impact they have made.

We are embedding many of the interventions we tested into daily practice and continuing to generate new ideas for testing. Increased skills, knowledge, and confidence in improvement work will be carried forward to future projects.

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Declaration of interests

No competing interests.

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Ethical approval

This work met criteria for operational improvement activities exempt from ethics review.