SPECIAL ARTICLE

The Connelly House approach: occupational therapists facilitating the self-administration of medication in a psychiatric rehabilitation in-patient ward

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Summary This paper explores the potential for occupational therapists (OTs) to manage medicines and support patients in an in-patient psychiatric ward to effectively and safely self-administer their medication. Connelly House is an occupational therapy-led six-bed, open psychiatric rehabilitation in-patient ward supporting people transitioning from being in-patients to living in the community. Policy, process, governance and training needs are identified and discussed. Positive feedback was received from patients and staff involved with the service development, opening the door for OTs to manage medicines and support the self-administration of medication on other psychiatric rehabilitation in-patient wards using focused occupational interventions.

Keywords Education and training; forensic mental health services; in-patient treatment; rehabilitation; service users.

The World Health Organization[1] recognises the importance of adherence to medicine regimes for health and well-being. Management of psychiatric disorders, in particular chronic schizophrenia, is greatly affected by poor adherence, which is a crucial factor for relapse and hospital readmission.[2] Assessment of an individual's ability to manage their own medication, especially at times of potentially high risk of destabilisation such as transitioning from an in-patient unit to the community, is of utmost importance. When factors that can have a negative impact on pharmacological management and treatment response are identified promptly, measures can be put in place to support the patient and minimise the risk of intentional/unintentional non-adherence pre- and post-discharge. Within occupational therapy practice, medicines management is considered to be part of an individual's self-care regime. The management of the individuals' medication as an integral part of occupational therapy assessment of activities of daily living (ADL) was discussed by Rogers et al.[3] It has been shown that restricting opportunity to participate in basic ADL, length of stay and institutionalisation correlate with subsequent deskilling of the patient in terms of daily living skills.[4]

Occupational therapists (OTs) are not routinely trained in the management of medication as part of the standard curriculum of the occupational therapy qualification in the UK. The Medicines Act 1968 does not prevent an appropriately trained OT from handling medication in the UK – indeed, the Royal College of Occupational Therapists supports involvement of OTs in the management of medicines because of the potential benefits that it could offer patients and carers.[5]

In the UK, the practice of non-nursing and non-medical professions in supporting medicines management – specifically the administration of medication – is nothing new. Support workers and healthcare assistants in community-supported living and residential rehabilitation settings can be delegated the task of administering medication; indeed, the National Institute for Health and Care Excellence (NICE) guidelines offer robust recommendations for this approach.[6] Community pharmacists can also support the administration of medication, for example supervised consumption of substance misuse treatments[7] and, in many countries globally, the administration of vaccines.[8] However, the development of routine practice for OTs in the UK, and internationally, to manage and/or support administration of medication is in its relative infancy. The expansion of this part of the OTs' skill set is important because the NHS England's Five Year Forward View expresses the intention to develop further community-based

support as a way of preventing readmission through a graded step-down approach to less restrictive environments.[9] For this to succeed, it is crucial to ensure patients have appropriate support regarding medication when transitioning from in-patient to community services.

Critical reflection on practice

This article reflects on the change in practice at the Devon Partnership NHS Trust (DPT) in the south-west of England at a time when the secure facility based at the Langdon Hospital site consisted of four medium secure, two low secure and two open psychiatric in-patient rehabilitation wards.

Patients residing at Langdon Hospital had complex and specialist mental health needs. Connelly House was an OT-led, six-bed, open psychiatric rehabilitation in-patient ward situated on the Langdon site. Patients at Connelly House were deemed to be suffering from a serious mental illness that reached the threshold of risk requiring formal detention under a section of the Mental Health Act 1983 (MHA). Under the MHA, patients' capacity to consent to treatment was formally assessed and the majority of patients at Connelly House were deemed to have good insight into their illness as well as capacity and had consented to their treatment. Connelly House transitioned from a traditional nurse-led in-patient ward to an occupational therapy-led ward focusing on individual's occupational skills and enabling a smooth transition to the community as part of a site-wide service development between November 2016 and December 2019. One of the most significant challenges to the change in service provision was that of medication management, primarily supporting the self-administration of medication.

The occupational therapy approach to medicines management in Connelly House was specifically focused on supporting the self-administration of medicines rather than administering medication to a patient. The Royal College of Occupational Therapists has recognised that any activities to enhance patients' occupational performance may be considered within the professional scope of practice.[10] Therefore, OTs at Connelly House endeavoured to support patients transitioning into the community to independently manage their medication through a graded rehabilitation programme designed by the Medicines Optimisation Team.

The switch to an OT-led provision necessitated the development of bespoke modified framework policy and procedures to ensure the legal, safe and effective delivery of care to Connelly House patients. More detailed research and specific national guidance on management of medication for OTs are required. Therefore, owing to the limited training available (and relative inexperience) for OTs managing medication in an in-patient environment, the change was carried out in a planned, stepwise and graded manner described in detail later in this article.

The first phase of the transition lasted approximately 19 months and saw OTs leading ward management duties including, but not limited to, shift planning, staffing and risk assessments. At the same time, patients attended a neighbouring ward so a registered nurse could administer medication. Although this process for medication administration was neither sustainable nor particularly patient-focused, it was necessary as part of a safe transition between programmes. During this period, *de novo* processes and polices had to be created and ratified at relevant DPT governance groups. Enhanced medicines training was provided to OTs during the transition period, which enabled initial teething problems to be identified and rectified before OTs took the lead on the management of medication unsupported by nursing colleagues.

The second phase involved OTs taking over the management of medicines on the ward, removing the requirement for patients to visit the neighbouring ward for the administration of medication by a nurse. During both the first and second phases, the OTs at Connelly House were regularly supported by pharmacists and pharmacy technicians and feedback was shared between the disciplines.

Training

The OTs working in Connelly House were required to complete enhanced medicines training facilitated by the Trust's Medicines Optimisation Team (Table 1). This was to ensure that they had the appropriate knowledge, were able to identify sources of information to enable a safe and effective service and could act as autonomous professionals in relation to the management of medication.

Training was an essential part of the project. The structure of the training provided to OTs was largely based on the existing provision for medical and nursing colleagues. It was acknowledged that OTs have different knowledge, awareness and skill set and it was important for the training to provide all OTs with the information and confidence to facilitate effective and safe medicines management. Face-to-face and individualised training allowed OTs to ask questions and allowed the assessor(s) to ensure that both parties were in agreement before the OT was signed off as competent to manage medication in Connelly House.

Service provision

OTs were present at Connelly House between 07.30 h and 20.30 h. Outside of these times there were no qualified OTs or registered nurses present on the ward; instead the ward was led by healthcare assistants and support workers, with support available from qualified nurses from other in-patient wards across the secure hospital site. Therefore, between 20.30 h and 07.30 h medicines were either self-administered by the patient or administered by a qualified nurse called to attend from another in-patient ward. Out of hours the medication keys were securely stored with a qualified nurse on another in-patient ward. Connelly House did not hold controlled drugs subject to special storage requirements; this was something that was being considered during the process, but it never manifested.

Self-administration of medication

The DPT self-administration of medication scheme (Table 2) was aimed at empowering patients to take an active

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Table 1 Training requirements for occupational therapists (OTs) to be authorised to manage medicines in Connelly House

Training	Duration	Frequency	Target audience	Description
Trust-wide medicines introduction	All day	One-off	Medical doctors, qualified nurses and pharmacists and pharmacy technicians as well as OTs working in Connelly House	This session was aimed at all groups. It introduced a range of topics, including sources of medicines information, shared decision-making approaches to medicines, high-risk medicines, including clozapine and lithium, Mental Health Act consent to treatment, medication charts and controlled drugs. The day also offered an introduction to rapid tranquillisation and injectable medication – this was just for awareness as it was not expected that OTs were directly involved with these.
Dealing with patients own drugs (PODs)	1 h	One-off	OTs working in Connelly House	A medicines optimisation technician provided one-to-one training to OTs outlining how to review and manage PODs (e.g. supplements and vitamins) that may have been bought by the patient for personal use at Connelly House.
Bespoke Connelly House medicines introduction	3 h	One-off	OTs working in Connelly House	A medicines optimisation pharmacist provided half-day training building on the information obtained from the Trust-wide medicines introduction day to put into practice at Connelly House.
Observed competency assessment	3 h	Yearly	OTs working in Connelly House	Following the introductory sessions, a medicines optimisation specialist nurse carried out an assessment to ensure that each OT could follow correct processes and safely manage medicines.
Medicines optimisation refresher training	3 h	Every 2 years	OTs working in Connelly House	Refresher training covered a range of scenarios and discussion points building on information from the Trust-wide medicines introduction.
Continuing professional development (CPD)	As required	As required	OTs working in Connelly House	It is a requirement that OTs, as part of their professional registration, complete CPD relevant to the working environment; this incudes continuing review of personal practice and self-motivated sourcing of information on medicines management.

Table 2 Summary of the Devon Partnership NHS Trust self-administration of medication scheme

Stage	Medication practicalities	Description
Stage 1	Stock medication	The patient attends the clinic room on the ward at the correct times for administration. The patient is not required to know or identify which medication is required at these times. The healthcare professional administers medication to the patient. The medication is securely kept in the treatment room.
Stage 2	Order labelled medication from pharmacy. Labels and supply need amending following changes to prescriptions	The patient attends the clinic room at the correct time and is provided with a 28 day supply of all of their medication, labelled with names and instructions. Unlike stage 1, the patient is required to identify which medication is required at each time in front of the OT. Once checked and deemed correct, the patient self-administers the required medication witnessed by the OT on all occasions. The medication is securely kept in the treatment room.
Stage 3	Order labelled medication from pharmacy. Labels and supply need changing following changes to prescriptions	Every 7 days the OT supplies the patient with a week's worth of medication labelled with instructions. The patient stores the medication securely in a medicines locker in their own room. The empty medication boxes are removed and checked for any medication that may have been missed. During the week the patient self-administers the medication without being witnessed by a nurse/OT, although spot checks are carried out. Patients at this stage cannot be on a form T3 or section 62 under the Mental Health Act.

role in managing their medication. This formed an integral part of the patient's recovery as well as encouraging them to learn about and take responsibility for their own treatment. Typically, the scheme was followed by registered mental health and intellectual disability nurses, who routinely managed medicines on in-patient wards. However, in Connelly House OTs had been trained and were authorised to follow the same process.

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The scheme consisted of three stages that reflect the individual's knowledge and ability to manage their own medicines correctly. The multidisciplinary team (MDT) reviewed progress with the patient at regular intervals (usually during ward rounds/care review meetings). Movement between stages within the self-administration of medication programme was fluid, dependent on the individual's demonstrated ability, needs, goals and any relevant associated risks. If at any time it was deemed unsafe to continue on a particular stage of the scheme, this was communicated to the MDT and consideration given to reducing the stage accordingly.

OTs were limited to supporting the self-administration of medication, rather than directly administering medication to a patient. Connelly House had strict referral criteria, accepting only patients who were on stage 2 or 3 of the self-administration scheme or the equivalent. Initially, patients admitted to Connelly House were predominantly on stage 3 of the scheme, requiring few medication changes and with fairly simple medication regimes. However, as Connelly House evolved over time there were more patients on stage 2, with complex medication regimes requiring more frequent medication changes. Owing to the positive management of this change, Connelly House moved to a position of accepting referrals of patients who perhaps might not have initially been appropriate when the ward first switched to being OT-led.

Patient specific directions

The OTs followed patient specific directions (PSDs),[11] which had been agreed by the ward's consultant psychiatrist. Under UK law, a PSD is a legal document that is written by an authorised prescriber (either doctor, dentist or non-medical prescriber). The legal document must comply with Human Medicines Regulations 2012.[12] Across the DPT and at Connelly House, the prescription and administration chart was the document that acted as the PSD for OTs to follow. The front of each prescription and administration chart included the following statement:

> 'Appropriately trained, qualified Occupational Therapists have been granted authority to support the self-administration of prescribed medication within this medication chart. Please see Care Plan written by the Responsible Clinician, list of authorised Occupational Therapists and locally agreed policy for the Management of Medication on Connelly House for more information.'

Accompanying this was a specific care plan on the patient's electronic medical records. The following shows an example of a statement in a care plan:

> 'I, XXXX, Responsible Clinician for the care of XXXX (patient), have granted authority for the appropriately trained qualified Occupational Therapists (see updated list in the front of the medication charts) to support XXXX (patient) in stage X (either 2 or 3) self-administration of medication.'

Careful consideration was given to this new way of working and a thorough procedure was ratified following discussion at the DPT's Medicines Optimisation Governance Group, Directorate Medicines Optimisation Governance and Directorate Governance Board meetings. It is important that for OTs to manage medicines in Connelly House, it was clear that these OTs would not be administering medication, but rather supporting the self-administration of medication by patients on the ward. In light of this, it was paramount that OTs acted within their professional competence at all times when ensuring the safe and appropriate management of medicines.

At the time of writing, to our knowledge, there has been no research on the processes, implementation and effectiveness of OT practitioners following PSDs as a method of intervention within secure psychiatric rehabilitative in-patient services.

Feedback

Following the change in service provision in Connelly House, notable developments occurred. These included representation from Connelly House at the Langdon Hospital Medicines Optimisation Governance Group and increased communication and joint working between OTs and the Medicines Optimisation Team. There was also a positive learning culture embedded and the reporting of medicines-related incidents was promoted. Medicines-related incidents were reviewed and compared with those from Connelly House before the change in service provision – it was identified that the incidents reported by OTs were predominantly low in severity. The Medicines Optimisation Governance Group promoted a culture of incident reporting in order to identify trends, learn from incidents and change processes to reduce the risk of similar incidents in the future. Reporting medication-related errors within the Trust's incident reporting system formed part of the training for OTs before the service change.

A small sample of both patients and OTs were surveyed regarding their experience of the management of the self-administration of medication in Connelly House. The questionnaires integrated widely applied occupational therapy models,[13] primarily the principles within Kielhofner's model of human occupation (MOHO).[14] Volition, habituation, performance capacity and environment were utilised as concepts within the questionnaires to maintain the occupational therapy focus. The feedback sample was small and comprised the six residing patients and nine OTs involved in regularly supporting the self-administration of medication in Connelly House. The Medical Research Council/NHS Health Research Authority self-assessment form was completed in September 2019, which stated that ethical approval was not required as the work was a service development project rather than research. However, before submission of this article for publication, written informed consent was obtained from both patients and staff for the use of the information gathered from the questionnaires. The two short questionnaires were anonymised and contained five closed questions.

All patients identified the importance of having an established medication regime, and five out of six acknowledged an increase in their confidence and ability to manage their medication and in feeling able to maintain their established routine in the community (Table 3).

Although the sample was small, the general opinion among the OTs was that, as a part of their role, they had

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Table 3 Connelly House in-patient medication questionnaire – responses from six patients residing in Connelly House

Question	Yes	No
Q1 Is having an established medication regime important to you?	6	0
Q2 Do you feel that you will be able to maintain the routine you have established in Connelly House in the community?	5	1
Q3 While in Connelly House, has your confidence and ability developed in managing your own medication?	5	1
Q4 Do you feel that the environment in which the self-administration/dispensing of medication takes place is fit for purpose?	6	0
Q5 Do you feel that occupational therapists have skills that are beneficial in supporting you in the management of your medication regime?	5	1

Table 4 Connelly House occupational therapist medication questionnaire - responses from nine occupational therapists who were involved with the management of medication in Connelly House

Question	Yes	No
Q1 Do you feel that an individual's volition to be self-directed in the taking of their medication improves over time at Connelly House?	9	0
Q2 Do you feel that the self-medication regime allows habits and routines to be built sufficiently for the community?	9	0
Q3 Do you feel that the environment where patients are supported in the dispensing/self-administration of medicines is fit for purpose?	2	7
Q4 Do you feel that there is a further role for occupational therapists in supporting the self-administration of medication?	9	0

Q5 How confident have you been in the development of managing your own skill set to support individuals in the self-administration of medication?

Not at all	Somewhat	Okay	Confident	Very confident
0	0	1	6	2

developed the skill set and awareness to support and facilitate the self-administration of medication scheme. The majority said that they felt confident or very confident in their skill set to support patients in the self-administration of their medication (Table 4).

Interestingly, the feedback highlighted a significant disparity of opinion between patient and OT views regarding the environment in which the patients were supported with their medicines. The majority of the OTs identified feeling the environment was not fit for purpose, whereas all the patients considered it fit for purpose. Owing to the relatively small space available in Connelly House, medication was stored in the main office area, and at times distractions in the area made it difficult for OTs to concentrate on sorting medication. This prompted an alternative and more appropriate room to be identified within the building where the medicines cupboard was later moved.

The samples for each questionnaire were small and the restriction on the range of answers to the questions might have biased responses and limited the depth of analysis. However, for the purposes of this practice analysis, the questionnaire responses provided promising feedback in support of Connelly House OTs' ability to manage medicines and their development of the appropriate skill set to support and facilitate the self-administration of medication scheme after they had completed the relevant training.

Summary

The support and interventions described in this article occurred following strict governance oversight, agreement and a detailed training plan. OTs followed PSDs as agreed by the MDT, which included a consultant psychiatrist. The number of reported medicines-related incidents increased during this period. This was recognised as a positive outcome because the reported incidents were deemed to be relatively minor in severity, prompting discussion and learning at the hospital Medicines Optimisation Governance Group. Overall, the feedback from patients and OTs was positive, highlighting that the service provided was well received. The Connelly House approach to facilitate the self-administration of medication within a psychiatric rehabilitation in-patient ward opens the doors for OTs in other regions to develop and fulfil similar roles and responsibilities in the future.

Key messages

- OTs can facilitate patient independence in the self-administration of medication
- OTs are an integral part of MDT discussions and should be part of discussions involving medication
- Robust processes, training, governance and a suitable environment are essential for OTs to manage medication

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Data availability

Data sharing is not applicable to this article due to there being no new or additional data created or analysed.

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Author contributions

J.M. led the theory and implementation of the new approach at Connelly House, Langdon Hospital. This included the legality, processes, governance and training package. M.H. and S.A. are occupational therapists who worked at Connelly House, Langdon Hospital throughout the implementation of the new approach, supporting quality improvement and patient/staff feedback. J.M. led on the pharmaceutical-related literature review and background, and directed the analysis and wider article production. M.H. and S.A. led on the occupational therapy aspects of the literature review and background. All authors discussed the results and contributed to the final manuscript.

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Declaration of interest

None.

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