
Article:
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Title: What factors influence the decisions of mental health professionals to release service users from seclusion?

Abstract

Mental health policy stipulates seclusion should only be used as an intervention of last resort and for the minimum possible duration. Current evidence details which service users are more likely to be secluded, why they are secluded and what influences the decision to seclude them. However, very little is known about the decision to release service users from seclusion. An integrative review was undertaken to explore the decision-making processes of mental health professionals which guide the ending seclusion. The review used a systematic approach to gather and thematically analyse evidence within a framework approach. The twelve articles identified generated one overriding theme, maintaining safety. In addition, several sub-themes emerged including the process of risk assessing which was dependent upon interaction and control, mediated by factors external to the service user such as the attitude and experience of staff and the acuity of the environment. Service users were expected to demonstrate compliance with the process ultimately ending in release and reflection. Little evidence exists regarding factors influencing mental health professionals in decisions to release service users from seclusion. There is no evidenced-based risk assessment tool and service users are not routinely involved in the decision to release them.

Implications for practice: Support from experienced professionals is vital to ensure timely release from seclusion. Greater insight into influences upon

decisions to discontinue episodes may support initiatives aimed at reducing durations and use of seclusion.

Key words

Mental health, professionals, decision, seclusion

Introduction

Seclusion in healthcare settings should be an intervention of last resort (Substance Abuse and Mental Health Services Administration (SAMHSA), 2010, UK Department of Health (DOH), 2014, Australian National Mental Health Commission (NMHC), 2015), undertaken in accordance with the United Nations Principles for the Protection of People with Mental Illness (United Nations (UN), 1991). In response to a growing recognition that service users who have been secluded may suffer lasting harm, international efforts are underway to reduce and eventually eliminate the practice (Ashcraft and Anthony, 2008). If seclusion is used, it should be replaced with less restrictive interventions (World Health Organisation (WHO), 2017) and services should work to ensure service users remain isolated or behind a locked door for the shortest possible time (National Institute of Clinical Excellence (NICE), 2015).

The act of seclusion in healthcare settings is defined as:

'… isolating an individual away from others by physically restricting their ability to leave a defined space. It may be by locking someone in a defined space (e.g. room, cell) or containing them in a specific area by locking access doors or by telling them they are not allowed to move from a defined space and threatening or implying negative consequences if they do.'

(WHO, (2017), p15).

Globally, it is estimated that one in five psychiatric service users are secluded at least once during a period of hospitalisation (Bullock et al., 2014). However the practice remains contentious, subjective and inconsistently applied (Lindsey,

2009). It also remains the focus of both moral and ethical debate (Laiho et al., 2014) having been described as ‘cruel, inhuman and degrading’, (UN, 2013). In many countries the rights of service users subject to seclusion are protected under law. International legal requirements differ, for example, UK legislation requires seclusion be managed and regularly reviewed by a multidisciplinary professional team (MDT) and that any decision to release a service user must involve or be sanctioned by a medical practitioner (NICE, 2015), whereas in other jurisdictions such as Australia, review and release is at the discretion of one or more registered nurses.

Comparison of the reasons for and ways in which seclusion has been used is problematic due to, differing definitions, methods of recording and collecting data (Janssen et al., 2013). Evidence suggests being younger, male, experiencing psychotic symptoms (Happell and Koehn, 2011), having a history of substance misuse or violence (Renwick et al., 2016), all carried a greater risk of being secluded. Being unresponsive to de-escalation attempts or having poor compliance with PRN medication also increased the probability (Loi and Marlowe, 2017). However, findings are contradictory as service user demographics or characteristics, clinical indicators or acuity cannot fully explain the patterns of use (Janssen et al., 2013). Research indicates staff attitudes (Laiho et al., 2014), local cultures (Soininen et al., 2013), environmental, and contextual factors (Janssen et al., 2013), all impact upon the likelihood a service user may be secluded. Furthermore, even when individual variables are accounted for, groups of hospitals and individual wards working under the same organisational policies differ in their approach and use (Cleary et al., 2010).

Evidence regarding the most acceptable way of managing disturbed behaviours is also conflicting. Internationally clinical practice varies as follows: Scandinavian countries use mechanical restraint rather than seclusion (Nielsen et al., 2016); Australian, UK and US professionals administer higher levels of enforced medication, whereas the Dutch are more likely to seclude. Service users generally report negative associations with seclusion, feeling it to be a punishment and a violation of their rights (Mayers et al., 2010). Yet, when given a choice, those who have been secluded favoured short episodes of isolation over enforced medication, whereas those who had never been secluded would opt for medication (Georgieva et al., 2012). Mental health professionals acknowledge seclusion may be harmful to service users (Kinner et al., 2016) yet continue to support its use (van Der Merwe et al., 2013). Despite professionals rating seclusion as the least acceptable coercive measure (Pettit et al., 2017), many believe it is necessary for maintaining safety (Happell et al., 2012). They express concerns the removal of seclusion facilities may lead to increases in the use of other methods of restriction such as physical restraint or rapid tranquilisation (Maguire et al., 2012), or result in more injuries to service users and staff (Moylan and Cullinan, 2011). However, this is disputed and not supported by evidence (Duxbury, 2015).

Efforts to date have focussed upon reducing rather than eliminating seclusion (Kinner et al., 2016), although there is a growing consensus and pressure for services to work towards less, and ultimately zero use (WHO, 2017). There have been a number of nationally driven initiatives such as the Six Core Strategies

from the US (Huckshorn, 2004), the Beacon Project in Australia, Positive and Proactive Care in the UK and the Dutch restraint reduction programme. The initiatives have used multiple concurrent interventions to achieve variable rates of reduction although it is not clear which of these might be the most effective (Wieman et al., 2014).

Research evidence has produced models for preventing flashpoints (Bowers, 2014), de-escalating aggression (Price and Baker, 2012), and decision-making in regards to initiating seclusion episodes (Whittington and Mason, 1995, Larue et al., 2009, Mann-Poll et al., 2011). Models demonstrate how decisions are influenced by local personal, professional and organisational discourses, but do not explain why service users remain secluded. None have a primary focus explaining decisions to release service users and they are based upon evidence from nurses as they are most likely to initiate and use seclusion (Kuosmanen et al., 2015). Generalisation regarding nurse decision making is problematic as the international nursing workforce is diverse with different training and registration requirements. Additionally, areas such as the UK are experiencing an increase in the numbers of non-nursing and non-medical mental health professionals working within inpatient services, such as psychologists, occupational therapists and social workers. Therefore, although nurses have traditionally managed seclusion use, non-nursing professionals may increasingly become part of decision making.

Service users complain they are kept isolated for too long (Allen et al., 2003), whereas professionals continue to dispute this (Korkeila et al., 2016). The actual

length of time spent in seclusion differs between international, regional and institutional settings with average durations estimated to range from 9 minutes to 49 days and 6 hours (Steinert et al., 2010). The effect of local practice upon the length of seclusions is again evident as, staff training (Nagayama and Hasegawa, 2014), changes to nursing practice (Sullivan et al., 2004) and the use of structured risk assessments (Van de Sande et al., 2013) have been shown to reduce durations. Such studies indicate that the process of assessment and review may affect the length of time a service user remains secluded (Sullivan et al., 2004). This was recognised by the American Psychiatric Nurses Association (APNA) (2014) who stated, skilled assessment should ensure measures to discontinue seclusions and safely release service users are in place, however their report failed to outline what this should look like.

In conclusion, there appears to be very little guidance or research exploring how decisions to release service users from seclusion are made. Despite the existence of evidence and models regarding how decisions to seclude are made, such decisions are made during crisis and may not necessarily be reflective of considered multidisciplinary or joint professional discussion.

Aim

The aim of the review was to explore what factors influence the decision making of mental health professionals' working in inpatient settings when releasing a service user from seclusion.

Method

Design

This paper presents an integrative review. Integrative reviews employ a systematic approach to support the gathering and synthesis of evidence from diverse methodological and theoretical sources (Whittemore and Knafl, 2005). Similar data is extrapolated, reduced and categorised for analysis into themes (Doody et al., 2017). Despite criticism that integrative reviews may lack rigour and introduce bias, they can directly address clinical practice and policy enquiries (Whittemore and Knafl, 2005). When little is known about a topic, the approach can provide an initial conceptualisation as it supports searching and incorporating evidence from diverse sources. The review follows Cooper's (1998) five stage framework: problem identification, literature search, data evaluation, data analysis and finally presentation of findings.

Problem identification

There is a need to gather and synthesise the evidence relating to the decision making of mental health professionals' at the point they are considering to release a service user from seclusion. A greater understanding of factors influencing such decisions may support further work to identify areas for future study or establish best practice guidance.

Literature search

Search Strategy

A research question was developed by defining the population, concept and processes involved. This was broken down into discrete facets (see Table 1). A comprehensive systematic search of Electronic databases: Medline, CINAHL,

EMBASE, PsychInfo, BNI (British Nursing Index) and the Cochrane database was carried out. The search parameters chosen extended from April 1991 to September 2017 to capture changes in policy and practice to meet the standards set by the United Nations Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care (UN, 1991) (see Table 2).

A total of 14,009 articles were retrieved and downloaded to Endnote© Version X7. These were supplemented by further three articles, one identified via hand searching of reference lists and two through systematic searching of grey literature making 14,012. 5,040 duplicates were removed. Using the software Covidence (https://www.covidence.org/ accessed 15.9.17) 8,972 articles were screened by title. 8,723 of these were discounted. 249 abstracts were screened by the lead author (HJ) and checked by a second reviewer using inclusion and exclusion criteria (See Table 3). Twenty-eight of these were selected for full review. Sixteen were removed as they did not refer to decisions to release service users. Twelve were identified as relevant. The review process has been summarised in a PRISMA diagram (Moher et al., 2009) (see Figure 1).

Data Evaluation

Quality Appraisal

The articles retrieved comprised a range of methodologies. The ten research studies were assessed using the CASP Critical Appraisal check lists (www.casp-uk.net/casp-tools-checklists accessed 12.2.17). CASP offers tools to assess both quantitative and qualitative research. The two expert opinion articles retrieved were appraised using a checklist developed by Burrows and Walker (2012) to

support judgements regarding quality and reliability of the articles. Due to the small number of articles none were discounted on methodological grounds.

Data Analysis

Data analysis is the least developed stage of the integrative review process (Riahi et al., 2016). This review used framework analysis, a matrix-based method whereby thematic categories are constructed into which data can be coded (Ritchie et al., 2014). The process supports transparency for analysing and reporting patterns in the data. It followed the recommended five key steps of familiarising, constructing a thematic framework, indexing and sorting, reviewing extracts, before finally summarising and displaying data (Ritchie et al., 2014). The framework consisted of seven sections: Aim/Overview, Intervention/Phenomena, Setting/Sample, Ethics, Outcomes, Methodology and Results. Relevant data were extracted from each article. Patterns and relationships were identified via an iterative process. Findings were grouped according to similarities and differences. Data in each theme was compared and contrasted. Themes were verified by a second analyst. Conclusions were drawn from each theme and integrated into summary statements (Whittemore and Knafl, 2005).

Results

The main methodological features of the included articles are presented in Table 4. The studies were undertaken in five countries: UK (2), Netherlands (1), USA (1), Canada (1) and Australia (5). Four studies were quantitative based upon questionnaires. Six were qualitative studies, two used face to face interviews,

whilst Hyde et al. (2009) ran a practice development project with staff group forums. The remaining Australian articles used grounded theory and were from one study (Muir-Cochrane, 1995, Muir-Cochrane and Harrison, 1996a, Muir-Cochrane, 1996b). Three studies were conducted in high security settings, one at a PICU (Psychiatric Intensive Care Unit), two at metropolitan hospitals and two in district/rural settings. Five of the studies included only nursing staff whereas the others used staff from differing professional groups. Excluding Hyde et al. (2009) who stated they included nurses employed on two inpatient wards, the total sample of the articles was 215 consisting of sample sizes ranging from 7 to 87. The two articles of expert opinion outlined good practice for medical professionals undertaking seclusion reviews with a view to end episodes. The inclusion of expert opinion is justified if it supports evidenced-based practice and is an information source used by practitioners.

The articles retrieved were of mixed quality. Their generalisability and transferability could be questioned as samples were small (Steele, 1993, Johnson, 1997, Muir-Cochrane, 1995, Muir-Cochrane and Harrison, 1996a, Muir-Cochrane, 1996b), diverse and undertaken in a range of differing healthcare settings (Steele, 1993). Additionally, local clinical factors such as policies, inpatient population and cultural influences varied widely (Steele, 1993, Johnson, 1997, Mason and Whitehead, 2001, Hyde et al., 2009). There was even variation within studies due to organisational change (Boumans et al., 2015). Although the qualitative studies recruited purposive samples to gain rich data, there was an over-representation of nursing views. This was rationalised in that they are the professional group most likely to initiate seclusion (Muir-Cochrane, 1995, Muir-

Cochrane and Harrison, 1996a, Muir-Cochrane, 1996b). Samples were often poorly described (Steele, 1993, Johnson, 1997, Mason and Whitehead, 2001), subject to gender bias (Wynaden et al., 2002, Larue et al., 2010), age and/or experience bias (Johnson, 1997, Wynaden et al., 2002) and could not guarantee participants did not give socially desirable answers (Steele, 1993, Johnson, 1997, Mason and Whitehead, 2001, Larue et al., 2010).

The main findings related to decisions to release service users from seclusion are reported in Table 5. The twelve articles included generated seven themes (see Figure 2). There was one overriding theme, 'Maintaining Safety'. The sub-theme of 'Risk Assessment' as a process also emerged. Risk assessment incorporated further sub-themes of 'Interaction', 'Control', and of 'External Factors' peripheral to the service user secluded. External factors included the influence of staff and the acuity of wider environment. Once professionals were satisfied the service user was safe to release, two further sub-themes, the requirement for service user 'Compliance', and ultimately 'Release and Reflection' were considered. Each theme is discussed in more detail below.

Themes

Safety

Safety was the major factor considered by professionals deciding when to release a patient from seclusion (Wynaden et al., 2002, Hyde et al., 2009). Perceptions of safety (Boumans et al., 2015) were discussed in terms of staff being or feeling safe, such as when faced with the threat or fear of violence (Steele, 1993, Johnson, 1997, Mason and Whitehead, 2001). Likewise,

professionals wanted to feel it was safe enough to go in the seclusion room (Steele, 1993, Muir-Cochrane and Harrison, 1996a, Larue et al., 2010), or safe enough to allow the service user to leave the environment (Hyde et al., 2009, Boumans et al., 2015):

Nurse: '*We let him out as soon as it was safe to do so'*

(Wynaden et al., 2002, p264).

Professionals adopted utilitarian principals regarding safety, striving to maintain the safety of the service user secluded, plus viewing safety as a right of the other service users and the team:

Nurse: *'We have to ensure the safety of the other patients and staff… The* danger aspect is always there and I think once you can isolate that danger away from others everyone breathes a sigh of relief.'

(Muir-Cochrane, 1995, p17).

Professionals saw themselves as being responsible for maintaining safety, bound by ethical and legal considerations and obliged under their duty of care to provide a safe environment (Muir-Cochrane and Harrison, 1996a). The premise of safety was an overarching theme which was informed by perceived risk.

Risk assessment

Risk assessment was integral to the professionals' decision. No clear link was expressed between the risk relating to type or target of assault preceding the

incident upon the willingness of staff to release service users (Mason and Whitehead, 2001). Although no specific risk assessment tools were available to support professionals making decisions to release service users from seclusion (Bhavsar et al., 2014) there was a general consensus among the articles of issues which were relevant. These included historical factors of previous recorded aggression, prior use of seclusion and staffs' own knowledge of the service user (Steele, 1993, Hyde et al., 2009, Larue et al., 2010). Their current physical health status was also considered (Bhavsar et al., 2014, Beck, 2015), as were immediate risks of harm (Muir-Cochrane, 1995, Mason and Whitehead, 2001, Hyde et al., 2009), measured by the service users' approachability (Boumans et al., 2015) and observations of their behaviour:

Nurse: 'Has he slept? Is he agitated? Is he still walking around with clenched fists? The nature of his speech, the tone, the loudness, his face? What sort of impression does he gi*ve?'*

(Larue et al., 2010, p212).

Nursing staff implied they assessed behaviours associated with anger or frustration rather than symptomatic indicators of mental illness when considering release. In contrast, articles by medical practitioners suggested they undertook a more holistic assessment including a mental state examination (Bhavsar et al., 2014, Beck, 2015). At the point of release, there was consensus the service user should no longer be deemed an imminent risk of causing harm to self or others (Beck, 2015). Yet it was acknowledged elevated risk indicators may still be present or fluctuating:

Nurse: *'He was still unpredictable and for the rest of the sh*ift he has been reasonably okay There are still periods of [high] arousal but he can still be talked down',

(Wynaden et al., 2002, p264).

The process of risk assessing was ongoing, being undertaken by individual professionals and discussed within teams. However, professionals struggled to make accurate predictions regarding levels of risk (Mason and Whitehead, 2001), especially for violent individuals (Mason and Whitehead, 2001) or those secluded under the influence of illicit substances (Wynaden et al., 2002). Furthermore, it was unclear why, even if a service user stabilised within the first hour, it had no bearing on the decision to release them (Mason and Whitehead, 2001). This suggested the threat or fear of continued violence was not the only factor impacting upon the decision to release a service user from seclusion.

Interaction

Risk assessment incorporated three further sub-themes. The first related to the service users' ability and willingness to interact with the professionals. Interacting also encompassed the quality of communication, engagement and relationships that took place. Initially, communication was one directional with professionals explaining to service users why they were secluded, giving them clear and persistent instructions as to what would happen next and what was expected of them (Steele, 1993, Muir-Cochrane, 1995, Muir-Cochrane, 1996b, Muir-Cochrane and Harrison, 1996a, Wynaden et al., 2002, Larue et al., 2010):

Nurse: 'You explain the reasons to them why their behaviour is unacceptable, explain the choices and that this or that will happen... even if they don't appear to understand...',

(Muir-Cochrane, 1995, p17).

Service users were expected to move to a state where they were appropriately engaging with professionals who placed great emphasis upon verbal and sometimes non-verbal communication (Hyde et al., 2009). Although cognitive impairments, language barriers and medication were mediated for, communication was seen as a key test of functioning (Bhavsar et al., 2014). Diminished communication (Boumans et al., 2015) or ongoing abuse directed at staff (Mason and Whitehead, 2001) adversely affected the duration service users spent in seclusion. There was a consensus across the articles that professionals continually reassessed a service user's ability to engage in a reasoned negotiation, which entailed working to connect with them (Muir-Cochrane, 1995, Larue et al., 2010), whilst gaining their feedback (Wynaden et al., 2002). When service users were able to express their feelings and demonstrate increased insight, they were viewed as moving towards release:

Nurse: *'If they can step back and allow me to come in and talk about what's* happened and can engage in some form of conversation, you know you are getting somewhere'

(Muir-Cochrane, 1996b, p.323).

Communication was also seen as essential to give information and offer reassurance to other service users:

Nurse: '*There's other sick patients and they don't know what's going on and* they *need to be told what's happening and that they are safe… and keep things* normal'

(Muir-Cochrane, 1996b, p322).

Professionals reported using themselves as a therapeutic tool to move service users towards the point of release. This they did by meeting the service users basic needs (Larue et al., 2010), plus by providing emotional care such as supporting reflection (Wynaden et al., 2002), counselling, parenting (Muir-Cochrane, 1996b), praising and problem solving (Muir-Cochrane and Harrison, 1996a). Professionals stated they strove to maintain any therapeutic previous or existing relationship:

Nurse: 'When they see me, sometimes we can circumvent the whole situation... *because they say, 'Hi* XXX *', and they know what I'm like and what my limits are*'

(Muir-Cochrane, 1996a, p322).

Despite, professionals feeling justified in their decision to seclude, they accepted their involvement in the management of an episode of seclusion may damage any therapeutic relationship they held with the service user. Although they held concerns regarding what the service users thought, many admitted to not being

swayed by their requests to be released (Steele, 1993). However, concerns were expressed regarding the way the event was perceived by service users who had been secluded:

Nurse: 'I'm always concerned about how the clients perceived the experience. Did they come away thinking they were helped or harmed by the experience?'

(Muir-Cochrane, 1995, p26).

Control

A further sub-theme of risk assessment was control. As, despite professionals believing they worked to maintain partnerships (Larue et al., 2010), at times they admitted seclusion was used to take control and exert power as opposed to it being a therapeutic intervention (Steele, 1993, Muir-Cochrane, 1995). It was accepted seclusion is an environment where control was removed from the service user (Bhavsar et al., 2014), with professionals initially acting as a controller, protecting others against the service user exhibiting aggression or distress:

Nurse: 'When they don't have a clue and are disrobing, defecating, *etc. … if they* are so out of control that you have to control them'

(Muir-Cochrane, 1995, p17).

Control was also seen to flow back and forth between professionals and service users. Professionals described this process differently. On the one hand, some stated they handed or allowed service users to take control (Muir-Cochrane,

1995), whereas on the other, service users were said to have regained or took it themselves (Wynaden et al., 2002). The assessment that service users had control was integral to the risk assessment process. Although not an essential prerequisite to release, service users were expected to demonstrate they had some control over their actions and behaviours. According to Steele (1993), the return of control occurred as part of a cool down phase and indicated when service users were calmer, reasonable, more manageable and had ceased unwanted behaviours (Muir-Cochrane, 1995). Likewise, professionals reported they would be prepared to end an episode when comfortable with the degree of calmness (Johnson, 1997):

Nurse: 'Before seclusion is terminated we [staff] go through the process with the patient just to see how she feels in herself is she is calm and settled'

(Wynaden et al., 2002, p264).

External influences

A third sub-theme of risk assessment was that no decision to release was made without consideration of risk factors external to the service user. Such factors not only affected the chance a service user might remain secluded, but also the length of time their seclusion may last. External factors included the acuity of the wider population (Johnson, 1997, Wynaden et al., 2002) and the local ward culture (Johnson, 1997, Wynaden et al., 2002, Larue et al., 2010). Individual professionals' attributes also influenced any decision such as their attitude towards the service user (Muir-Cochrane, 1995, Johnson, 1997, Mason and Whitehead, 2001), or the number of staff on shift (Muir-Cochrane, 1996b,

Johnson, 1997, Wynaden et al., 2002, Boumans et al., 2015). There was a strong consensus within the articles regarding the impact professional staff had upon the decision summed up by one:

Nurse: *'My own experience gives me a degree of confidence. As far* as the infrastructure [staff on unit], it is becoming more problematic. We are more frequently moving into a scenario of where there is one male on [duty] and the male thing is only a part of the issue. The other side of the issue is that the other staff on duty are agency staff or new to the service. There is a problem when staff are not confident, and able to react quickly. There is an increasing potential for risk because of the loss of experience and gender [male staff] in this area. Intervening in a team where people are not capable also carries risks. Feeling *confident to manage violence is not totally a gender issue but it is exaggerated …* We are losing more and more staff and it is getting more dangerous. We work with reduced staff and with much mor*e violence.'*

(Wynaden et al., 2002, p262).

Professionals reported thinking they made good decisions regarding seclusion (Steele, 1993), however they agreed experience and expert knowledge was essential (Steele, 1993, Muir-Cochrane, 1995, Johnson, 1997, Wynaden et al., 2002). Decisions were shown to be influenced by organisational factors. For example, Boumans et al. (2015) demonstrated during periods of turmoil, restrictions placed upon service users increased up to five times on wards which had previously managed to reduce use. Furthermore, political influences such as the 1991 critical national enquiry into the improper care and treatment of patients

in UK Special Hospitals (DOH, 1999), left professionals feeling pressured to terminate episodes of seclusion early (Mason and Whitehead, 2001).

Compliance

Once professionals were satisfied that the risk of further violence or aggression had reduced to a manageable level, the release of the service user from seclusion was determined by the likelihood they would be compliant. A clear power imbalance was evident as professionals set conditions regarding what service users should be, or not be doing, before they would agree release. For some this involved gentle guidance towards compliance:

Nurse: *'As a little prompt, we will try to give some feedback that is positive in that* these are the behaviours we are trying to target*'*

(Wynaden et al., 2002, p264).

Whereas, at times this was more overt with professionals requiring service users to have ceased all offending behaviours (Muir-Cochrane, 1995) and shown remorse (Beck, 2015).

Nurse: *'...can you give me the commitment that you've got control… if they say, 'No I don't want to talk to you',* in no uncerta*in terms then I'd say 'I think you need* a little more ti*me…,*

(Muir-Cochrane, 1996b, p323).

Compliance was also judged by the service users' reaction or willingness to accept medication (Muir-Cochrane and Harrison, 1996a). Whilst some professionals linked levels of compliance and commitment with exit plans to release (Wynaden et al., 2002, Larue et al., 2010) others reported exit conditions should reflect pre-crisis behaviours (Larue et al., 2010).

Releasing and Reflecting

Finally, exiting was usually a stepped or graded process to allow staff and service users to build trust, test out and re-integrate back on to the ward in a controlled and safe manner (Bhavsar et al., 2014, Beck, 2015). Actual re-entry to the ward was usually an assisted process (Muir-Cochrane, 1996b). Many service users were initially transferred to a low stimulus environment, taken to their bedroom to relax or accompanied outside to a garden area before returning to the ward:

Nurse: 'I would like you to come to the day room to have a drink and smoke, talk about what's happened...,

(Muir-Cochrane, 1996b, p323).

Conversely, If a service user asked to remain in seclusion their request maybe granted, with the door left open so that they could emerge when they felt ready (Muir-Cochrane, 1995). As part of being released, service users should be encouraged to reflect and talk about their experience of the event (Steele, 1993, Wynaden et al., 2002). Professionals were also advised to reflect to identify learning to support the management of future episodes:

Nurse: 'I try to look and see if our outcomes have been successful. Is there any other ways we could have done this [managed the patient] and how could we have done it better?'

(Wynaden et al., 2002, p265).

Discussion

There is an increasing body of literature evaluating ways in which seclusion is used to manage violence and aggression in mental healthcare (Duxbury, 2015). However, this is the first integrative review to focus solely upon the factors considered by mental health professionals when making decisions to release service users from seclusion within inpatient settings. The review found there to be very little evidence to guide professionals and that which is available is embedded within literature relating to perceptions, experience and decisions to initiate seclusion episodes. The evidence found was mostly gathered from mental health nurses. Although nurses are usually the profession who manage seclusion, the UK policy and guidance (NICE, 2015) requires non-nursing professionals to be included in monitoring and reviewing the progress of service users who are secluded. The impact or any potential benefits of MDT involvement, specifically that of medical practitioners, has not been explored and warrants further study.

Decisions regarding seclusion use are a complex interaction between professional, service user, organisational and environmental cues (Mann-Poll et al., 2011). How these cues influence decisions to release service users or why some service users are quickly returned to seclusion remains unclear. Despite finding little evidence, the review suggests to some extent decisions to end episodes may mirror those professionals cite as influential when opting to initiate seclusion. Literature

overwhelmingly reports that professionals believe they use seclusion only as a last resort when faced with violence and aggression (Chambers et al., 2015). Likewise, the review found that an ongoing threat of violence and aggression was a primary factor in their decision making.

Yet the actual decision to release a service user may differ as decisions made during crisis can be distorted by stress (Morrison, 1990), whereas when situations feel less pressured, there is time for discussion, consideration and planning. Thus, release can be a gradual tested process remaining under the control and management of the professional staff. As reported by Hernandez et al., (2017), findings here suggest regular team discussions and the involvement of senior experienced staff can be effective in supporting timely discontinuation and reducing the number of hours service users remain secluded. Training sessions for staff have also been shown to assist in professional development, build confidence and develop less risk-averse practices (Ramluggan et al., 2018). Therefore, the presence of senior leadership and organisational support is imperative if less experienced professionals are to be assisted in learning the skills necessary to enable them to proactively plan the release of service users from seclusion in a safe manner.

When faced with actual or threatened violence mental health professionals believe they use seclusion to maintain safety rather than for any therapeutic value (Chambers et al., 2015). Similarly, the review found safety is the main consideration in any decision regarding seclusion. Safety is the dominant value and risk management a cornerstone of the provision of nursing care (Slemon et al., 2017). Furthermore the importance of maintaining a safe environment is paramount in acute psychiatry, with health professionals feeling it is their duty to manage

safety as they can be held personally, morally or legally responsible for not doing so (Simon and Shuman, 2007). Decision making regarding safety and the use of restraint in general has been shown to be a result of a number of complex and interrelated rather than clear-cut reasons (Riahi et al., 2016). The review found there to be no best practice guidance or a specific risk assessment tool to support decisions to release service users from seclusion. In reality, the assessment of harm from ongoing or imminent violence is likely to be based upon unstructured clinical judgement rather than one guided by structured professional, clinical or actuarial tools (Lewis and Webster 2004). As such, decisions may be subject to variation, potentially meaning service users may remain secluded longer than is necessary. If services are to meet policy requirements and ensure seclusion is only used for the shortest time possible, inconsistent and subjective decision making within the release process needs to be challenged.

There are risk assessment tools which help professionals make decisions regarding the need to use seclusion. These include the Staff Observation Aggression Scale–Revised (SOARS) which considers demographic and diagnostic risk factors, the Dynamic Appraisal of Situational Aggression (DASA) which predicts imminent aggression, or the East London Modified Broset (ELM-B) for predicting seclusion use in PICUs. Although they have successfully demonstrated they can be used to support a reduction in the frequency seclusion is used (Abderhalden et al., 2008), they have not been tested in decisions to release service users, nor take into account wider environmental and interactional factors described by the professionals in this study. Thus, there is scope for the creation and validation of an appropriate assessment tool which could offer both support and evidence professionals are releasing service users at the earliest and safest opportunity.

Finally, service users want to be involved in planning and decisions about their recovery (Ashcraft and Anthony, 2008). Efforts should be made by staff to engage, holistically assess and maintain therapeutic relationships with service users to ensure seclusion episodes are kept as short as possible (Ramluggan et al, 2018). However, the review found seclusion episodes are directed by professionals with services users having little choice but to comply. Goulet and Larue (2016) stated paternalism and control continue to dominate psychiatric care and that both professionals and service users have internalised standards relating to how these processes operate. As cautioned by Langan et al. (2004), professionals should not expect service users to agree with the act or the maintenance of their seclusion, but should ensure they understand a service users personal situation plus take great care not to confuse insight with disagreement. It is difficult to know to what extent service users agree with the ways in which they are released or feel involved in decisions, as there appears to be very little in current literature relating to their views or experiences about the ending of seclusion episodes. This warrants further research as whilst in seclusion service users want professionals to interact and involve them in collaborative decision making (Ezeobele et al., 2014).

Currently, there is a lack of evidence relating to the factors that influence mental health professional decisions to release service users from seclusion. These findings were strengthened by the use of an integrative review which allowed the incorporation of literature from a range of sources. Despite criticism integrative reviews may lack rigor or introduce bias, they support the inclusion of a greater depth and breadth of material (Riahi et al., 2016). The articles used in the review

were of mixed quality and methodological rigour, coming from a diverse range of settings and samples. The generalisability and transferability of the findings is limited as there are possibly differences in factors influencing decisions to release between clinical settings. McKenna et al. (2017) suggested prolonged durations in seclusion in forensic services are more likely associated with clinical presentation, whereas adult mental health are more likely influenced by contextual factors. Nevertheless, findings may be of general interest to mental health professionals working in inpatient environments or services implementing restraint reduction programmes. The review provided a robust and transparent explanation of the processes used which adds to the credibility of the findings, plus highlights areas of interest for future study.

Conclusion

In conclusion, the review found there to be very little evidence with regard to decisions to release service users from seclusion. Previous studies have focused on seclusion reduction initiatives, de-escalation and methods of preventing seclusion. They have also reported which service users are more likely to be secluded, why and how it was decided. Plus, despite some countries requiring seclusion be managed by the MDT, to date the focus of evidence has been biased towards nurses as they are seen as the group most likely to oversee the management of seclusion. The review found that as with decisions to seclude, professionals state their main focus is safety. However, findings also indicate that wider environmental and organisational factors influence the decision to release a service user. Although professionals believed they involve service users in decisions, professionals use control over service users, requiring compliance with

professional expectations and plans prior to agreeing release. The support of experienced practitioners and the provision of appropriate seclusion training for staff can reduce the duration service users remain secluded. A useful addition may be the provision of a specific risk assessment tool to support professionals to make timely and safe decisions when releasing service users. However, this review concludes that further research is needed to provide a greater understanding into what factors influence and how decisions are made to release service users from seclusion. Such an understanding may support the production of best practice guidance for nurses and allied professionals ensuring service users are secluded for the shortest time possible.

Relevance for clinical practice

Further research is required to identify what factors influence mental health professionals when making decisions to release service users from seclusion. Although safety is the main consideration, other factors may differ and a greater understanding into these may support the development of more effective seclusion reduction initiatives. Professionals should be encouraged to use existing violence and aggression prediction risk assessment tools to ensure service users do not remain secluded longer than is necessary. The development of a specific assessment tool to guide decisions to release service users would enable development of evidence-based best practice guidance, to inform both service planners and policy makers. Training should be provided to support the development of professionals working with seclusion. This training should ensure professionals have the skills to involve service users at every possible opportunity within the process of release.

References

Abderhalden, C., Needham, I., Dassen, T., Halfens, R., Haug, H.-J. & Fischer, J. E. (2008). Structured risk assessment and violence in acute psychiatric wards: randomised controlled trial. *The British Journal of Psychiatry,* 193**,** 44-50.

Allen, M. H., Carpenter, D., Sheets, J. L., Miccio, S. & Ross, R. (2003). What do consumers say they want and need during a psychiatric emergency? *Journal of Psychiatric Practice,* 9**,** 39-58.

American Psychiatric Nurses Association (APNA) (2014). Position Statement: The Use of Seclusion and Restraint. http://www.apna.org/i4a/pages/index.cfm?pageid=3728#PositionStatement. Accessed 29 January 2018.

Ashcraft, L. & Anthony, W. (2008). Eliminating seclusion and restraint in recovery-oriented crisis services. *Psychiatr Serv,* 59**,** 1198-1202.

Beck, K. (2015). Seclusion Reviews In: Stringer, S., Hurn, J. & Burnside, A. (Eds). *Psychiatry: Breaking the Ice Introductions, Common Tasks, Emergencies for Trainees.* (p. 246). Chichester: John Wiley and Sons Ltd.

Bhavsar, V., Sethi, F. & Hillier, B. (2014). Medical guidelines for PICU seclusion reviews. *Journal of Psychiatric Intensive Care,* 10**,** 40.

Boumans, C. E., Egger, J. I. M., Bouts, R. A. & Hutschemaekers, G. J. M. (2015). Seclusion and the importance of contextual factors: An innovation project revisited. *International Journal of Law and Psychiatry,* 41**,** 1-11.

Bowers, L. (2014). Safewards: a new model of conflict and containment on psychiatric wards. *Journal of Psychiatric and Mental Health Nursing,* 21**,** 499-508.

Bullock, R., McKenna, B., Kelly, T., Furness, T. & Tacey, M. (2014). When reduction strategies are put in place and mental health consumers are still secluded: An analysis of clinical and sociodemographic characteristics. *International Journal of Mental Health Nursing,* 23**,** 506-512.

Burrows, E. & Walker, S. (2012). Developing a Critiquing Tool for Expert Opinion. *Working Papers in Health Sciences,* 1.

Chambers, M., Kantaris, X., Guise, V. & Välimäki, M. (2015). Managing and caring for distressed and disturbed service users: the thoughts and feelings experienced by a sample of English mental health nurses. *Journal of Psychiatric and Mental Health Nursing,* 22**,** 289-297.

Cleary, M., Hunt, G. E. & Walter, G. (2010). Seclusion and its context in acute inpatient psychiatric care. *Journal of Medical Ethics,* 36**,** 459-462.

Cooper, H. M. (1998). *Synthesizing research: a guide for literature reviews,* Thousand Oaks, California; Sage Publications.

Department of Health (1999). Ashworth Special Hospital: Report of the Committee of Inquiry. London: HM Government.

Department of Health (2014). Positive and Proactive Care: reducing the need for restrictive interventions. London: HM Government.

Doody, O., Butler, M. P., Lyons, R. & Newman, D. (2017). Families' experiences of involvement in care planning in mental health services: an integrative literature review. *Journal of Psychiatric and Mental Health Nursing,* 24**,** 412-430.

Duxbury, J. A. (2015). The Eileen Skellern Lecture 2014: physical restraint: in defence of the indefensible?: Eileen Skellern Lecture 2014. *Journal of Psychiatric and Mental Health Nursing,* 22**,** 92-101.

Ezeobele, I. E., Malecha, A. T., Mock, A., Mackey-Godine, A. & Hughes, M. (2014). Patients' lived seclusion experience in acute psychiatric hospital in the United States: a qualitative study. *Journal of Psychiatric and Mental Health Nursing,* 21**,** 303-312.

Georgieva, I., Mulder, C. L. & Wierdsma, A. (2012). Patients' Preference and Experiences of Forced Medication and Seclusion. *Psychiatric Quarterly,* 83**,** 1-13.

Goulet, M. H. & Larue, C. (2016). Post-Seclusion and/or Restraint Review in Psychiatry: A Scoping Review. *Archives of Psychiatric Nursing,* 30**,** 120-128.

Happell, B., Dares, G., Russell, A., Platania-Phung, C. & Gaskin, C. (2012). The Relationships between Attitudes toward Seclusion and Levels of Burnout, Staff Satisfaction, and Therapeutic Optimism in a District Health Service. *Issues in Mental Health Nursing,* 33**,** 329-336.

Happell, B. & Koehn, S. (2011). Seclusion as a necessary intervention: the relationship between burnout, job satisfaction and therapeutic optimism and justification for the use of seclusion. *Journal of Advanced Nursing,* 67**,** 1222-1231.

Hernandez, A., Riahi, S., Stuckey, M. I., Mildon, B. A. & Klassen, P. E. (2017). Multidimensional approach to restraint minimization: The journey of a specialized mental health organization. *International Journal of Mental Health Nursing,* 26**,** 482-490.

Huckshorn, K. (2004) Reducing seclusion and restraint in mental helath settings: core strategies for prevention. *Journal of Psychosocial and Mental Health Services, 42, 22-33.*

Hyde, S., Fulbrook, P., Fenton, K. & Kilshaw, M. (2009). A clinical improvement project to develop and implement a decision-making framework for the use of seclusion. *International Journal of Mental Health Nursing,* 18**,** 398-408.

Janssen, W. A., Noorthoorn, E. O., de Vries, W. J., Hutschemeakers, G. J. M., Lendemeijer, H. H. G. M. & Widdershoven, G. A. M. (2008). The use of seclusion in the Netherlands compared to countries in and outside Europe. *International Journal of Law and Psychiatry,* 31**,** 463-470.

Johnson, B. (1997). Factors in the continuation and discontinuation of seclusion in a special hospital. MSc thesis, Liverpool University, Liverpool.

Kinner, S. A., Harvey, C., Hamilton, B., et al. (2016). Attitudes towards seclusion and restraint in mental health settings: findings from a large, community-based survey of consumers, carers and mental health professionals. *Epidemiology and Psychiatric Sciences***,** 26, 535-544.

Korkeila, H., Koivisto, A. M., Paavilainen, E. & Kylma, J. (2016). Psychiatric Nurses' Emotional and Ethical Experiences Regarding Seclusion and Restraint. *Issues in Mental Health Nursing,* 37**,** 464-475.

Kuosmanen, L., Makkonen, P., Lehtila, H. & Salminen, H. (2015). Seclusion experienced by mental health professionals. *Journal of Psychiatric and Mental Health Nursing,* 22**,** 333-336.

Laiho, T., Lindberg, N., Joffe, G., et al. (2014). Psychiatric staff on the wards does not share attitudes on aggression. *International Journal of Mental Health Systems,* 8**,** 14-14.

Langan, J., Lindow, V. & Joseph Rowntree, F. (2004). *Living with risk: mental health service user involvement in risk assessment and management,* Bristol, UK: Policy Press.

Larue, C., Dumais, A., Ahern, E., Bernheim, E. & Mailhot, M. P. (2009). Factors influencing decisions on seclusion and restraint. *Journals of Psychiatric and Mental Health Nursing,* 16**,** 440-446.

Larue, C., Piat , M., Racine , H., Ménard , G. & Goulet , M. (2010). The Nursing Decision Making Process in Seclusion Episodes in a Psychiatric Facility *Issues in Mental Health Nursing,* 31**,** 208-215.

Lewis, A. H. O. & Webster, C. D. (2004). General instruments for risk assessment. *Current Opinion in Psychiatry,* 17**,** 401-405.

Lindsey, P. (2009). Psychiatric nurses' decision to restrain. *Journal of Psychosocial Nursing and Mental Health Services,* 47**,** 41-49.

Loi, F. & Marlowe, K. (2017). East London Modified-Broset as Decison-Making Tool to Predict Seclusion in Psychiatric Intensive Care Units. *Frontiers in Psychiatry,* 8**,** 1-11.

Maguire, T., Young, R. & Martin, T. (2012). Seclusion reduction in a forensic mental health setting. *Journal of Psychiatric and Mental Health Nursing,* 19**,** 97-106.

Mann-Poll, P. S., Smit, A., de Vries, W. J., Boumans, C. E. & Hutschemaekers, G. J. M. (2011). Factors Contributing to Mental Health Professionals' Decision to Use Seclusion. *Psychiatric Services,* 62**,** 498-503.

Mason, T. & Whitehead, E. (2001). Some Specific Problems of Secluding Female Patients. *Medicine, Science and the Law,* 41**,** 315-324.

Mayers, P., Keet, N., Winkler, G. & Flisher, A. J. (2010). Mental Health Service Users' Perceptions and Experiences of Sedation, Seclusion and Restraint. *International Journal of Social Psychiatry,* 56**,** 60-73.

McKenna, B., McEvedy, S., Maguire, T., Ryan, J. & Furness, T. (2017). Prolonged use of seclusion and mechanical restraint in mental health services: A statewide retrospective cohort study. *International Journal of Mental Health Nursing,* 26**,** 491-499.

Moher, D., Liberati, A., Tetzlaff, J., Altman, D., and Grp, P. (2009) Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement (Reprinted from the Annals of Internal Medicine). Physical Therapy, 89, 873-880.

Morrison, P. (1990). A multidimensional scalogram analysis of the use of seclusion in acute psychiatric settings. *Journal of Advanced Nursing,* 15**,** 59-66.

Moylan, L. B. & Cullinan, M. (2011). Frequency of assault and severity of injury of psychiatric nurses in relation to the nurses' decision to restrain. *Journal of Psychiatric and Mental Health Nursing,* 18**,** 526-534.

Muir-Cochrane, E. (1995). An exploration of ethical issues associated with the seclusion of psychiatric patients. *Collegian,* 2**,** 14-20.

Muir-Cochrane, E. (1996b). An investigation into nurses' perceptions of secluding patients on closed psychiatric wards. *JOURNAL OF ADVANCED NURSING,* 23**,** 555-563.

Muir-Cochrane, E. & Harrison, B. (1996a). Therapeutic interventions associated with seclusion of acutely disturbed individuals. *Journal of Psychiatric and Mental Health Nursing,* 3**,** 319-325.

Nagayama, Y. & Hasegawa, M. (2014). Nursing care process for releasing psychiatric inpatients from long-term seclusion in Japan: Modified grounded theory approach: Release from long-term seclusion. *Nursing & Health Sciences,* 16**,** 284-290.

Nielsen, L. D., Gildberg, F. A., Bech, P., Lange Dalgaard, J., Munksgaard, G. & Hounsgaard, L. (2016). Forensic mental health clinician's experiences with and assessment of alliance regarding the patient's readiness to be released from mechanical restraint. *International Journal of Mental Health Nursing*.

National Mental Health Commission (NMHC) (2015). Report of mental health programs and services Australia.

National Institute for Clinical Excellence (NICE) (2015). *Violence and Aggression: short-term management in mental health, health and community settings (NG10)*. London: NICE.

Pettit, S. A., Bowers, L., Tulloch, A., et al. (2017). Acceptability and use of coercive methods across differing service configurations with and without seclusion and/or psychiatric intensive care units.

Price, O. & Baker, J. (2012). Key components of de-escalation techniques: A thematic synthesis. *International Journal of Mental Health Nursing,* 21**,** 310-319.

Ramluggan, P. C., C. Anjoyeb, M. (2018). The practice of seclusion: a review of the discourse on its use. *Mental Health Practice,* 21**,** 17 - 23.

Renwick, L., Stewart, D., Richardson, M., et al. (2016). Aggression on inpatient units: Clinical characteristics and consequences. *International Journal of Mental Health Nursing,* 25**,** 308-318.

Riahi, S., Thomson, G. & Duxbury, J. (2016). An integrative review exploring decision-making factors influencing mental health nurses in the use of restraint. *Journal of Psychiatric and Mental Health Nursing,* 23**,** 116-128.

Ritchie, J., Lewis, J., McNaughton Nicholls, C. & Ormston, R. (2014). *Qualitative research practice: a guide for social science students and researchers,* Los Angeles: SAGE.

Simon, R. & Shuman, D. (2007). *Clinical Manual of Psychiatry and Law,* Washington, DC: American Psychiatric Publishing, Inc.

Slemon, A., Jenkins, E. & Bungay, V. (2017). Safety in psychiatric inpatient care: The impact of risk management culture on mental health nursing practice. *Nurs Inq,* 24.

Soininen, P., Välimäki, M., Noda, T., et al. (2013). Secluded and restrained patients' perceptions of their treatment. *International Journal of Mental Health Nursing,* 22**,** 47-55.

Steele, R. (1993). Staff Attitudes Toward Seclusion and Restraint: Anything New? *Perspectives in Psychiatric Care,* 29**,** 23-28.

Steinert, T., Lepping, P., Bernhardsgrütter, R., et al. (2010). Incidence of seclusion and restraint in psychiatric hospitals: a literature review and survey of international trends. *Social Psychiatry and Psychiatric Epidemiology,* 45**,** 889-897.

Substance Abuse and Mental Health Services Administration, S. (2010). Promoting Alternatives to the Use of Seclusion and Restraint - Issue Brief #1: A National Strategy to Prevent Seclusion and Restraint in Behavioral Health Services. Rockville, MD: US Department of Health and Human Services.

Sullivan, D., Wallis, M. & Lloyd, C. (2004). Effects of patient-focused care on seclusion in a psychiatric intensive care unit. *International Journal of Therapy and Rehabilitation,* 11**,** 503-508.

United Nations (1991). United Nations Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care. http://www.equalrightstrust.org/content/un-principles-protection-persons-mental-illness-and-improvement-mental-health-care: United Nations.

United Nations (2013). Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, Juan E. Méndez, 1 February 2013 (A/HRC/22/53). Para 78. In: Assembly, U. G. (Ed). Geneva: United Nations Human Rights Council (UNHRC).

Van de Sande, R., Noorthoorn, E., Wierdsma, A., et al. (2013). Association between short-term structured risk assessment outcomes and seclusion. *International Journal of Mental Health Nursing,* 22**,** 475-484.

van Der Merwe, M., Muir-Cochrane, E., Jones, J., Tziggili, M. & Bowers, L. (2013). Improving seclusion practice: implications of a review of staff and patient views. *Journal of Psychiatric and Mental Health Nursing,* 20**,** 203-215.

Whittemore, R. & Knafl, K. (2005). The integrative review: updated methodology. *JOURNAL OF ADVANCED NURSING,* 52**,** 546-553.

Whittington, R. & Mason, T. (1995). A New Look at Seclusion - Stress, Coping and the Perception of Threat. *Jounal of Forensic Psychiatry,* 6**,** 285-304.

Wieman, D. A., Camacho-Gonsalves, T., Huckshorn, K. A. & Leff, S. (2014). Multisite study of an evidence-based practice to reduce seclusion and restraint in psychiatric inpatient facilities. *Psychiatr Serv,* 65**,** 345-351.

World Health Organisation (2017). Strategies to end the use of seclusion, restraint and other coercive practices. WHO QualityRights training to act, unite and empower for mental healt (pilot version). Geneva: WHO.

Wynaden, D., Chapman, R., McGowan, S., Holmes, C., Ash, P. & Boschman, A. (2002). Through the eye of the beholder: to seclude or not to seclude. *International Journal of Mental Health Nursing,* 11**,** 260-268.

Table 1 Search Terms

Search Terms	
Population	mental health OR psychiatr* OR learning disabilit* OR forensic OR PICU
	AND
Concept	seclu* OR isolat* OR confine* OR segr* OR separ* OR time out OR quarantine*
	AND
Processes	assess* OR decision* OR judge* OR consider* OR protocol* OR process* OR outcome* OR review*

Table 2 Sources searched

	Date	Search strategy used, including any limits	Hits
CINAHL	3.9.17	Abstracts/1991/English/Peer Reviewed	1,494
Medline	3.9.17	Abstracts/1991/English/Human OVID Medline 1946 to September Week 1 2017	6,323
Embase	5.9.17	Abstracts/1991/English/Journal/Human/ not including medline journals Embase Classic+Embase 1947-2017 September	1,254
PsychInfo	3.9.17	Abstracts/1991/English/Peer Reviewed/Human 1806-September 2017 Week 1	4,762
BNI	5.9.17	Abstracts/1991/Peer Reviewed	174
Cochrane	6.9.17	MeSH descriptor: [Decision Making] AND MeSH descriptor: [Psychiatry] AND seclusion (2790, 471, 57)	2
		Total Minus Duplicates	14,009 5,040
		TOTAL	8,969

Table 3 Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
• Mental health or psychiatric nurses; doctors; inpatient settings • Primary research: qualitative or quantitative studies relating to decisions about seclusion	• reviews of other literature, commentary or opinion • studies primarily decisions to restrain/manage aggression • demographic and diagnostic indicators of seclusion use if they did not contribute to understanding of decision-making processes • children and adolescents • only describing nurses or patient characteristics • predictors of seclusion • patient experience/views/perceptions of being secluded • family experience/views/perceptions of seclusion

Table 4 Methodological Features

Citation	Aim	Method	Setting/ Sample	Data Collection	Method of analysis	Trustworthiness
Boumans et al., (2015)	Did innovation project change attitudes towards seclusion and/or decision making?	Quantitative	Netherlands High security 14 MHNs experimental vs 30 from control wards	Questionnaires	Statistical analysis	Pragmatic study in uncontrolled conditions across time-points. Anonymous staff responses. Data triangulation.
Johnson (1997)	To formulate a checklist to support review decisions to continue or terminate seclusion.	Quantitative	UK High security 87 MHNs (responses from 160)	Postal survey	Statistical analysis	Questionnaire developed from literature on reasons to seclude, reasons to end may be different. Small sample, low response, no reference to sampling errors.
Larue et al., (2010)	To explore and describe nursing interventions in episodes of seclusion in a psychiatric facility.	Qualitative Descriptive/ exploratory	Canada Short-stay 24 MHNs	Semi-structured Interviews	Content analysis	Researchers not connected to setting. Purposive sample with male gender bias. Results had numeric focus rather than depth of understanding. Clear audit trail provided.
Wynaden et al., (2002)	To explore decision making process surrounding use of seclusion.	Qualitative Descriptive/ exploratory	Australia PICU 7 MHNs 1 Medic	Semi-structured Interviews	Content analysis	Purposive sample with male gender bias. Responses may have been subject to social desirability. Clear audit trail, analysis and description. Team checking supported consensus.
Hyde et al., (2009)	To devise frameworks for decision to seclude and release.	Qualitative Action Research	Australia District hospital MDT	PDSA cycles	4 staged practice development project	Mixed staff group. Strong local relevance.
Mason and Whitehead (2001)	A study of secluded female patients in a special hospital.	Quantitative /Descriptive	UK High security 16 Nurses	Face to face questionnaire	Statistical analysis	Small purposive sample from randomised episodes of seclusion. Limited generalisability.
Steele (1993)	To determine attitudes and opinions and factors influence decision to remove restriction.	Mixed/ Survey	US Inpatient 28 mixed MDT staff	Survey	Basic descriptive statistical analysis	Small sample with no indication of recruitment process. Limited data analysis.
Muir-Cochrane (1995)	To investigate the dynamics of seclusion and provide a conceptual framework for this nursing practice.	Qualitative Grounded Theory	Australia Inpatient 7 MHNs	Semi-structured interviews	Constant comparative analysis	Limited information given regarding sample and position of researcher in data collection and analysis. Not clear which method of grounded theory approach used.
Muir-Cochrane and Harrison (1996)	To map conceptually the perceptions of experienced psychiatric nurses in relation to use of seclusion.	Qualitative Grounded Theory	Australia Inpatient 7 MHNs	Semi-structured interviews	Constant comparative analysis	Builds on Muir-Cochrane (1995) giving detailed description of formulation of categories.
Muir-Cochrane (1996)	To investigate nurses' perceptions of secluding psychiatric patients on closed wards.	Qualitative Grounded Theory	Australia Inpatient 7 MHNs	Semi-structured interviews	Constant comparative analysis	No clear audit trail to assess if early data formed later inquiry. 2 month period brief for grounded theory study. Findings credible as reflective of other studies.
Bhavsar et al., (2014)	To examine and outline the process of undertaking medical reviews of secluded patients	Expert opinion	UK PICU 3 Medics	Discussion		Opinion rather than research. Practice rather than empirically based.
Beck (2015)	Seclusion reviews for Junior Medics.	Expert opinion	UK	Problem based example		Opinion rather than research. Practice rather than empirically based.

Table 5 Main findings

Author(s)	Findings
Boumans et al (2015)	Demonstrated nurse decision making was affected by team confidence, staffing levels and the ability of the patient to communicate. During periods of organisational instability staff work engagement decreased whilst staff insecurities increased and they were more hesitant when ending episodes and reintegrating patients back to the ward.
Johnson D. J. (1997)	Suggested factors involved in decisions to discontinue are significantly similar to those for initiating episodes. The threat of violence/fear behaviors were most important, followed by a history of violence, agitation then active symptoms of mental illness. External factors were of lesser importance. The duration of episodes related to the severity of the incident. Decisions were complicated by professionals ability to risk assess and the accuracy of risk assessments.
Larue et al (2010)	Patient condition was assessed by their behavior and expectation of risk via observation and knowledge of history. Decisions were affected by local culture. 50% of nurses found the environment stressful and felt overworked which affected their decision making. Nurses set expectations to patient to end seclusion and looked for pre-crisis behaviors to return. Criteria for bringing episode to an end are related to the circumstances that led to it in the first place.
Wynaden et al (2002)	Step-wise process using knowledge, experience, pattern recognition and consideration of alternative exists to make decisions. Safety is paramount and influences decisions. Decisions were affected by staff experience, expertise and number of regular staff, plus increased number and acuity of patients. Termination occurred if patient 'manageable', no longer a risk to self, other patients or staff and showed commitment to plan.
Hyde et al. (2009)	Safety was single most important factor. There should be enough staff to assess patient safely. The purpose of assessment was to assess if the patient was safe enough to leave the secluded environment and would not pose a risk to self or others. Considerations included patient history (past, current and history of seclusion), current presentation (behavioral and verbal cues) and risk assessment data.
Mason and Whitehead (2001)	Findings suggested despite majority of patients' symptoms reducing within 1 hour it did not affect decisions to terminate. Staff became acclimatised to certain patients' behavior and anticipated they would be secluded longer. No significant relationship was found between type of assault, target of assault and duration of episode. Decisions were shaped by external pressures to terminate seclusion prematurely followed by the level of risk, paperwork, problems of secluding female patients and unpleasant behaviors.
Steele, R. (1993)	Staff encouraged patients to be calm and be able to discuss rationally inappropriate behavior and alternatives. Patients were released when they could demonstrate they had regained control. Staff assessed reaction to release and then assisted in re-entry to ward. Patient requests did not affect decision and 70% of staff were not at all swayed by client requests to come out. Staff felt they made 'good decisions when to terminate episodes'.
Muir-Cochrane (1995)	Core category of, 'controlling' was identified in which nurses were concerned for individuals but saw their own role as a controller to maintain therapeutic milieu and preserve safety for good of all. Staff negotiated, re-assessed and give control back to the patient. The decision to terminate an episode was based upon a patients' ability to reason, to express how they are feeling and to behave with some personal control. Practice was bounded by unequal power, staffing levels, environmental and organisational practices, legalities and protocols.
Muir-Cochrane and Harrison (1996a)	Staff were looking for conforming behaviors. Staff wanted to be convinced patients had regained self-control. Control was perceived if the patient could reason with clinicians, talk about what had happened, cease unwanted behaviors and accept the limits placed by staff. Seclusion was legitimatised for safety, the reduction of stimulus, supporting low staffing, poor environments and fitting with organisational requirements. On termination, patients most frequently returned to their rooms or were accompanied outside for a cigarette before returning to the ward.
Muir-Cochrane (1996b)	Termination was a gradual and systematic process of assessment and re-integration. Assessment of readiness was a team decision. Nurses set strong clear limits and assess compliance via conversation and observation of behavior. Patients needed to be in control of self and accept behavioral limits. Initially patients were nursed in a low stimulus environment, their bedroom to relax or went into the garden.
Bhavsar et al., (2014)	Medical guidelines for PICU seclusion reviews. Splits process into: Information gathering, mental state review, physical examination, risk assessment and debrief documentation. Authors found despite existence of local and NICE guidance, there was no risk assessment or specific guidance on what practitioners should be doing during reviews
Beck (2015)	Text book to support learning of junior doctors undertaking seclusion reviews