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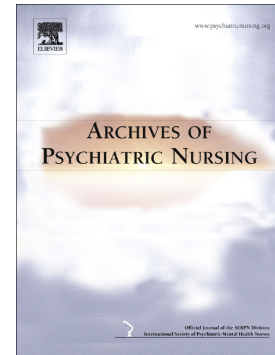
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Use of Coercion Prevention Tools in Finnish Psychiatric Wards

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Declaration of interest

None.

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ABSTRACT

Inpatient violence is a widespread problem in psychiatric wards and has often serious consequences. Literature indicates that de-escalation techniques are the recommended first-line intervention for managing violence, are widely used to reduce it, and restrictive practices in mental health settings. However, these techniques and models are not used at the optimum frequency and/or important factors are limiting their use and effectiveness. We aimed to determine what kind of de-escalation methods are used to reduce violence and coercion in Finnish psychiatric hospitals. Descriptive qualitative research using semi-structured questionnaires and Framework Analysis was used. The results of the study are reported in quantitative terms. A survey of psychiatric wards (N=65) in Finland's hospital districts (n=16) was conducted in the Autumn of 2019 to find out which de-escalation models are used. Finnish psychiatric wards use both the Safewards and Six Core Strategies models to reduce violence and the use of restrictive practices. Half of the hospitals used interventions and strategies from both models. Violence preventive methods are widely used in mental health settings in Finland. These interventions and models cover the organization, leadership, and patient perspectives to improve safety and decrease coercion actions in psychiatric wards.

Keywords: Safewards; Six Core Strategies; restrictive practice prevention

International literature indicates high frequencies of violence in mental health settings (Bowers et al., 2011; Iozzino, Ferrari, Large, Nielssen & de Girolamo, 2015), as well as in Finland. Patients' violence has adverse effects on patients and staff, and at the organizational level (Asikainen, Vehviläinen-Julkunen, Repo-Tiihonen & Louheranta, 2020; Bowers et al., 2006; Martin & Daffern, 2006). To reduce the damage caused by patient violence, restrictive practices are widely used in psychiatric nursing. Restrictive practices are expensive and jeopardize the safety of, and relationships between, patients and staff (Flood, Bowers & Parkin, 2008; LeBel & Goldstein, 2005) and impose significant burdens on health services (NHS, 2010). Costs of restrictive measures are driven by the number of tasks and staff, staff time, and the average episode duration (LeBel & Goldstein, 2005). These practices can cause ethical dilemma (Kontio et al., 2012), psychological and physical harm (Bowers et al., 2011; Renwick et al., 2016) such as post-traumatic stress (Bonner et al., 2009), delayed recovery (Ashcraft & Anthony, 2008), severe injury (Renwick et al., 2016), and even death (Rakhmatullina, Taub & Jacob, 2013; Paterson et al., 2003). Violence and restrictive measures can be prevented and reduced by using de-escalation methods (NICE, 2015; Richmond et al., 2012). We need more information and evidence on which methods work best to prevent and reduce violence and restrictive measures in different care cultures and countries. This study (Figure 1) investigates the types of de-escalation methods used in Finnish psychiatric hospitals to reduce or prevent violence and restrictive practices. The database used in this study consists of the methods of de-escalation strategies used by Finnish psychiatric units.

Restrictive measures include physical restraint, seclusion, enforced intramuscular medication, and referral to a psychiatric intensive care unit (Stewart, Bowers & Ross, 2012). Rates of coercive measures such as seclusion (a patient at any time of the day or night alone in a room or area from which free exit is prevented) and restraint (mechanically tying a patient to a bed using softened

leather straps) vary between individual units and across countries. The results of Kalisova et al. (2014) suggest that between 21% and 59% of patients in psychiatric hospitals in European countries will be subject to coercive measures at some point during their stay in hospital. In Finland, coercive measures use has declined but is still high, annually about 13% (The Finnish Institute for Health and Welfare, 2020). Types of coercive intervention used vary between countries depending on their laws governing psychiatric care (Bak & Aggernaes, 2012; Jacobsen, 2012; Steinert & Lepping, 2009). In Finland, the criteria for the use of restrictive measures in the Mental Health Act of Finland (1116/1990) extend beyond violent behavior or threats of violence. A patient whose behavior obstructs hard the care of other patients or jeopardizes his or her safety or causes significant damage to property. Mechanical restraint is only allowed in the case of self-harm or large harm to others (Mental Health Act (1116/1990). However, coercive measures continue to be widely used and controversial (Salzmann-Erikson, Rydlo & Wiklund Gustin, 2016).

Restrictive practices such as physical restraint and seclusion are used to minimize harm from violence (Department of Health, 2014). In clinical practice, restrictive measures may partially or temporarily prevent unwanted behavior, but they do not fully eliminate it, at least when applied without other measures (Stewart, Bowers & Ross, 2012). In the past, self-defence techniques were commonly used to reduce or manage inpatient violence in psychiatric nursing. In recent years, guidelines (National Institute for Health and Care Excellence, 2015; NICE, 2015) and different de-escalation techniques and strategies (Bowers et al., 2010; Happell & Koehn, 2010; Huckshorn, 2006; Kontio et al., 2012; Noorthoorn et al., 2016; Putkonen et al., 2013; Smith, Ashbridge, Davis & Steinmetz, 2015; Wieman, Camacho-Gonsalves, Huckshorn & Leff, 2014) are internationally regarded as the preferred first-line interventions for managing violence (NICE, 2015; Richmond et

al., 2012). Recent findings indicate that restrictive practices are frequently used to manage escalations of violence in mental health settings (Fisher, 2003; MIND, 2013).

NICE (2015) has therefore recommended a range of de-escalation techniques including verbal and non-verbal skills and strategies for reducing violence and improving the interactions between staff and patients to strengthen the therapeutic alliance (Cutcliffe & McKenna, 2018; Norman & Griffiths, 2019). Additionally, from an inpatient's rights perspective, seclusion and restraint can only be justified as methods of last resort. Therefore, reliable alternative therapeutic measures and techniques are needed to manage challenging situations (Asikainen et al., 2020; Richter, Needham & Kunz, 2007). Studies have recognized the complexity of violent incidents and the need to better understand the potential barriers to the effective use of preventive strategies and management techniques (Bowers et al., 2015; McCann, Baird & Muir-Cochrane, 2014). There is a particular need for more information on the implementation and effectiveness of de-escalation techniques in practice (Oud, 2006). Besides, mental health nurses need training (Oud, 2006; Ye et al., 2018), experience, and advanced skills when dealing with potentially aggressive patients to maintain safety and provide care in challenging situations (Whittington et al., 2013). The importance of managing interactions between staff and patients effectively to prevent violent incidents is illustrated by the meta-analysis conducted by Papadopoulos et al. (2012), which found that staff-patient interactions were an antecedent theme in 39% of violent and aggressive incidents. Accordingly, Farrell, Shafiei & Salmon (2010) highlighted the need for interpersonal communication skills such as active listening, summarizing, paraphrasing, negotiating, questioning for clarification and non-threatening body language when dealing with patients, especially those with the potential for violence.

MATERIAL AND METHODS

In this study, de-escalation methods were divided into three main methods: Safewards, Six Core Strategies, and Others (Figure 4). De-escalation can be described as a complex process involving communication, self-regulation, assessment, actions, and the maintenance of safety between nurses and patients. Its objective is to reduce violence, create a safe environment, and improve staff-patient relationships (Berring, Hummelvoll, Pederson & Buus, 2016; Hallett & Dickens, 2017; Price et al., 2018). There is evidence that de-escalation effectively disrupts the progression from verbal aggression to violence and restrictive practices (Lavelle et al., 2016; Price & Baker, 2012). In practice, de-escalation is usually implemented based on a multifactorial model (Figure 4) designed to reduce violence and the use of restrictive practices in mental health settings (Bowers, 2014b; Duxbury & Whittington, 2005; Putkonen et al., 2013). Two models designed to create safe therapeutic environments for patients and staff in psychiatric units. The Safewards model is based on 10 care interventions (Figure 4) that have been found to have a positive influence on conflict (e.g. aggression, self-harm) and containment (e.g. prn medications, seclusion, restraint) in acute inpatient units (Bowers et al., 2015; Fletcher et al., 2017). Also widely used is the Six Core Strategies (Huckshorn, 2004), model (Figure 4) which incorporates interventions designed to influence targets ranging from the organization to the patient. Its purpose is to focus leadership on organizational change and promote the use of data to inform practice. Also, it highlights the role of the patient and the importance of vigorous, nonpunitive, and supportive debriefing (Huckshorn, 2004). Other models emphasize the development of effective training programs for nursing staff and students and the creation of recovery-oriented environments that enable the use of restraint reduction tools such as comfort rooms (Heckemann et al., 2015).

Sample, Data Collection and Ethical Issues

In Finland (5.5 million inhabitants), mental health services consist of specialized medical services provided in connection with medical and health care centers, as well as mental health services provided in the context of primary and social services. Also, private health care and third-sector operators provide services. In addition, there are two forensic state hospitals where patients are forced to care. Finland is divided into 20 treatment districts (The Finnish Institute for Health and Welfare, 2020). These medical districts treat 196 241 psychiatric patients in their areas. Psychiatric wards have approximately 25000 patients (Statistics Finland, 2020). In this study (see Figure 1), de-escalation techniques were defined nonverbally and verbally for skills, methods, or actions to prevent violence.

The researcher (JA) sent out invitations to participate in the study to all 20 Finnish healthcare district areas during November and December of 2018 (each hospital district serves several municipalities). These areas included two forensic hospitals. Permission to conduct the study was granted by 16 (80%) of the district 65 psychiatry wards, including two forensic state hospitals; no response was received from the remaining four districts. In total, data were gathered from 65 psychiatric wards; the number of adult psychiatric inpatient wards in the included hospitals ranged from 1 to 14. Each district was asked to nominate a contact person who would forward the questionnaire to the head nurse (or clinical expert, doctor) working on psychiatric wards. Messages were sent to these contact persons during January and February of 2019 asking what kind of force reduction tools were used in their wards.

The questionnaire was developed based on previous literature (Huckshorn, 2004; Bowers, 2014a) and divided into four parts (Safewards, Six Core Strategies, mixed 2 main models and Other). The

semi-structured questionnaire included 22 questions. In addition, there was an open space for additional comment. Purposive sampling (Teddle & Yu, 2007) was used to ensure that the sample reflected Finnish mental health de-escalation interventions and diversity of model use. The inclusion criteria for wards were that they had to provide adult acute mental health care and have a strategy in place for reducing violence and restrictive practices such as seclusion and restraint. The ward did not use any means to prevent violence or restrictive measures. Methods, such as forced medication, and non-inpatient mental health care were excluded. Data collection continued until saturation was achieved (Francis et al., 2010).

The questionnaire was pre-tested in two wards in October 2018 before the actual survey. No corrections were made after pre-test. Therefore, the replies were included in the data. Completion of the survey was voluntary, and the research ethics committees of the participating hospital districts evaluated the study's design to identify potential ethical issues and granted permission for the research to be conducted. Ethical approval of this study was granted by the xxx Ethics Committee.

Data Analysis

The author (JA) identified four main categories into which individual elements of the responses could be classified: Safewards, Six Core Strategies, both Safewards, and Six Core Strategies, and other methods. The analysis focused on determining whether the wards used all or some of the components of the violence prevention models corresponding to these categories. Two researchers performed data analysis using IBM SPSS Statistics 25 and the results of the study are reported in quantitative terms. The analysis (Figure 1) was supported with statistics by the

calculation of descriptive statistics including frequency distributions (n), percentage distributions (%), and ranges. Open responses were treated separately. They contained detailed information on questions such as "we do not have a debriefing form, but we talk to the patient after restrictive practices".

FINDINGS

The prevention of violence and restrictive practices are used extensively in Finland in mental health settings (see Figure 2). The results (see Figure 3) indicated that Safewards (88%) and Six Core Strategies (59%) are the most widely used violence prevention models in Finnish psychiatric hospitals. Half of the wards (50%) partially used both models to reduce coercion. One hospital district used the Violi model (2 wards, 3%), which was developed at a local university and features the same elements as the Six Core Strategies model. Only 2 state forensic hospitals use most elements and interventions of both models to prevent violence and restrictive practices. In all hospitals (n = 16), Safewards and Six Core Strategies intervention differ between wards. Overall, the approach to violence prevention adopted in Finland appears to be consistent with international recommendations (National Institute for Health and Care Excellence 2015; NICE 2015).

The results have been processed by 65 wards to obtain what practices of prevention of violence and coercion are used in the Finnish hospital district (80%). We did not obtain the exact number of wards in all psychiatric hospitals for comparison of the wards involved in the study because not all hospitals report them. The wards treat adult psychiatric patients in long-term care with e.g. depression and schizophrenia. This questionnaire was answered by 54 head nurses, doctors, or

clinical experts. Two clinical experts responded to more than one ward and three of the head nurses had more than a single ward. Responses were received within 2 months.

Use of Violence Prevention Models and Interventions in Finnish Psychiatric Hospitals

Several research participants wards (see Figure 3) reported using all 24 (41%) or part 34 (59%) of the Safewards (Bowers et al., 2015) components (Figure 4). However, there were many differences between wards, even within the same hospital. Only a few research participants reported using all the interventions associated with this model. Two of the Safewards interventions were particularly common. First, almost all the units using these components attached importance to the patient-nurse relationship in the therapeutic environment. As a result, the “Soft and positive words 56 (97%)” and “talk down 51 (88%)” interventions were widely used. Additionally, two of the Safewards interventions – “Calm down Methods” and “Talk Down” – were regarded as prevention tools. Most of the surveyed 53 wards (83%) reported using clear mutual expectations intervention. However, it was not clear whether these expectations were set in collaboration with patients. The least commonly used Safewards interventions were bad news mitigation 13 (22%), reassurance 16 (27%), and mutual help meetings 18 (32%). Additionally, the wards desired more information and training on violence prevention tools and patient involvement (see Heckemann et al., 2015).

Another model (see Figure 3) that is widely used all in Finland is Six Core Strategies (Huckshorn, 2004). All elements of the strategy are used by 17 (41%) wards and some of the elements by 24 (59%) wards. One major hospital (12 adult wards) included in this study uses Six Core Strategies as its main model for reducing violence and restrictive practices. All the model’s interventions are used in this hospital, and their effectiveness in this setting has been evaluated in a cluster-randomized controlled trial (Putkonen et al., 2013). Some of this hospital’s wards also use selected

Safewards interventions. Strategies employed at this hospital include increased executive participation as well as interventions to enhance staff knowledge, skills, and attitudes and to promote inpatient involvement, allowing patients and their families to influence care plans. Other interventions target the development of the patient's environment (e.g. its color scheme and the availability of relaxation rooms), the communication skills of healthcare professionals, seclusion orders, and common decision-making (see Maguire, Ryan, Fullam & McKenna, 2018). Additionally, wards at this hospital make use of electronic medical records and require debriefings after each use of seclusion.

In this study, 41 of the participating wards used at least some of the Six Core Strategies. Most of these wards reported applying the leadership strategy ("leadership sets clear goals based on a vision or policy goals") at the organizational and ward levels to give nurses information and support. Several research participants reported a need to improve leadership at the organizational level but stated that their leadership at the wards level was effective. Another of the six core strategies is the implementation of seclusion and restraint prevention tools. The use of such tools varied among wards using the Six Core Strategies, partly because the tools were understood differently by different wards: some regarded them as individual methods, while others regarded them holistically, considering them with the organization, ward, and environment as well as individual patients. In addition, various means of self-defense were also used to prevent violence on some wards. However, the research participants desired additional training in the use of prevention tools for managing encounters with aggressive patients. In these wards, a therapeutic environment was understood as one that supports the good and gentle treatment of patients. The wards made extensive use of the soft and positive words intervention from the Safewards model.

Additionally, research participants expressed a desire for more open spaces and comfortable rooms for patients.

Two of the six core strategies - patient's involvement in their own care 18 (43%) and debriefing 21 (51%) – were not widely used even in wards using this model. Action should, therefore, be taken to increase the use of these strategies. The use of debriefing after all seclusion events continues to be minimal or not implemented at all in most hospitals. Research participants also wanted information and training to better understand how to involve patients in their care and associated decision-making. A few research participants hoped that the organization would have a better commitment to preventive coercion. One hospital approached this objective using the Violi model, which was developed at a local university. This model includes the same interventions as the Six Core Strategies; leadership, training, patient involvement, violence prevention tools, therapeutic environment use, and debriefing after restrictive practices.

DISCUSSION

This work was based on semi-structured questionnaires conducted to investigate the use of de-escalation models and interventions in Finnish psychiatric wards to preventive violence and the need for restrictive practices. The objective of the study (Figure 1) was to determine what kind of de-escalation methods are used to reduce violence and restrictive practices in Finnish psychiatric hospitals.

De-escalation Models and Interventions in Finland

De-escalation methods and interventions to prevent the use of restrictive practices such as seclusion and restraint are widely used in Finland. As in many other countries, two models for

preventing violence are widely used in Finland: Safewards (Bowers et al., 2015) and the Six Core Strategies (Huckshorn, 2004). De-escalation of potentially violent situations involves a wide range of community skills as well as knowledge and requires healthcare staff to deploy personal skills in communication, self-regulation, assessment, activity, and safety maintenance. The objective is to prevent patient agitation, rule-breaking, and aggression towards themselves or others. Some of these undesirable actions may be prompted by staff actions, communication, and/or environmental factors (Asikainen et al., 2020). The danger posed by patient aggression and violence consequences can cause healthcare staff to apply restrictive and/or coercive measures such as seclusion or restraint or coercive medication, which patients often regard and describe as traumatic. Consequently, the use of such measures can retraumatize patients and increase the likelihood of violence instead of promoting engagement and cooperation with treatment (Kontio et al., 2012). Conversely, the application of de-escalation methods and interventions can reduce patient violence (Fletcher et al., 2017; Kuivalainen et al., 2017; Putkonen, et al., 2013), limiting the need for further restrictive measures such as seclusion and restraint (Bowers et al., 2015; Lavelle et al., 2016; Price & Baker, 2012), as in Finland. The survey showed that some Finnish psychiatric wards are experiencing the implementation of de-escalation models are incomplete and interventions are not sufficient in hospitals. Challenges are inadequate nurse training, and patient involvement and environmental factors such as communication difficulties (Farrell, Shafiei & Salmon, 2010) can reduce the effectiveness of violence prevention (Mustafa, 2015, Price et al., 2016). This study showed that there is a need for better implementation of prevention models and interventions in Finnish hospitals. Therefore, there is a need for further consideration of both model implementation (Putkonen et al., 2013, Sutton, Webster & Wilson, 2014) and nurse education (Richter, Needham & Kunz, 2007) to prevent restrictive practices. The Six Core Strategies (Huckshorn, 2004) model emphasizes multi-level action; it is assumed that

comprehensive violence prevention requires action at the organization, ward, and patient levels. There is still need an improvement in the prevention of multilevel coercion in Finland. The research participants who participated in the study hoped for better organization engagement in coercion reduction and prevention. This study showed that some strategies (e.g. leadership) should be more widely applied at the organization level. Also, there is a need to modify cultural and environmental factors. (see Sutton, Webster & Wilson, 2014).

The results presented that most of the participating hospitals used organization and wards leadership help to prevent violence. International literature also shows that leadership is one of the most important components for preventing violence (e.g. Johnson et al., 2018; LeBel et al., 2014). At the organizational level, nurses were given training in communication, violence prevention tools, and patient encounters. However, one-third of the research participants called for additional training, especially in the use of tools for preventing violence such as debriefing and dealing with aggressive patients.

Prevention of violence issues highlighted at the wards level was primarily treatment-related, such as the use of friendly and soft words when interacting with patients and sought to increase environmental comfort, e.g. by providing a relaxation room and equipment. This seems to be a positive trend in the participating wards. Previous studies have shown that patients desire respectful treatment from healthcare professionals and implementing these interventions may help ensure that this is delivered (Kontio et al., 2012; Tingleff et al., 2017). Several research participants hoped to receive further training in the use of calm down methods and to obtain access to related facilities such as relaxation rooms.

In this study, patient involvement as an intervention method, got little emphasis was placed on the patient's influence over their treatment. It is not clear whether this is because the patient's participation in their treatment was something taken for granted by the respondents or because the participating organizations retained an authority model based on the idea that "the nurses know best". Patients' opinions on their ability to influence their treatment were not sought during this study. The patient's views for their treatment can be obtained using debriefing.

International studies have identified debriefing as an important element of an effective violence prevention strategy and a method for enhancing patients' ability to influence their treatment (see Needham & Sands, 2010; Van Der Merwe et al., 2013; Sutton, Webster & Wilson, 2014). This study showed that debriefing is not systematically used after coercion, but efforts to make it so are underway in several hospitals. In some wards, there was a lack of clarity about how and when debriefing should be done. In one large hospital, a debriefing was performed after almost half of all seclusion and restraint incidents. A recent international study (see Godfrey et al., 2014) concluded that debriefing requires strong leadership support and multilevel debriefing (Sutton, Webster & Wilson, 2014) requires organizational commitment. The results presented here also show that there is a need for further instruction and training on the implementation of debriefing in Finland.

LIMITATIONS

This study mapped out the use of violence prevention tools and interventions in Finnish psychiatric wards. Because western values are respected in Finland, the country has strict laws governing the restriction of patients' freedom, and the use of coercive measures or restraint is

subject to extensive scrutiny. This work is therefore influenced by the authors' immersion in a compulsive culture where there is minimal coercion.

We requested permission to research all 20 of Finland's hospital districts, but only received responses from 16. Nevertheless, the number of responses obtained was sufficient to provide a comprehensive overview of the use of violence prevention models and interventions in Finland. The survey examined the approaches used at the organization and wards levels, but patients' opinions were not sought. Although data were gathered using a semi-structured questionnaire with free space for respondents to elaborate on their responses, there was little use of this free space.

CONCLUSION

This study shows that restrictive practices prevention interventions and models are widely used in Finland. The study illustrated, restrictive practices have been effectively reduced by 13% compared to the international level (21% and 59%, Kalisova et al., 2014), but prevention needs to be further strengthened. However, there is a need to improve their implementation and to better train staff in their use. Our findings suggest that other countries and psychiatric teams should also use elements of both Safewards and Six Core Strategies interventions together. We need more research into how different preventive measures for violence should be combined, and we can effectively prevent violence.

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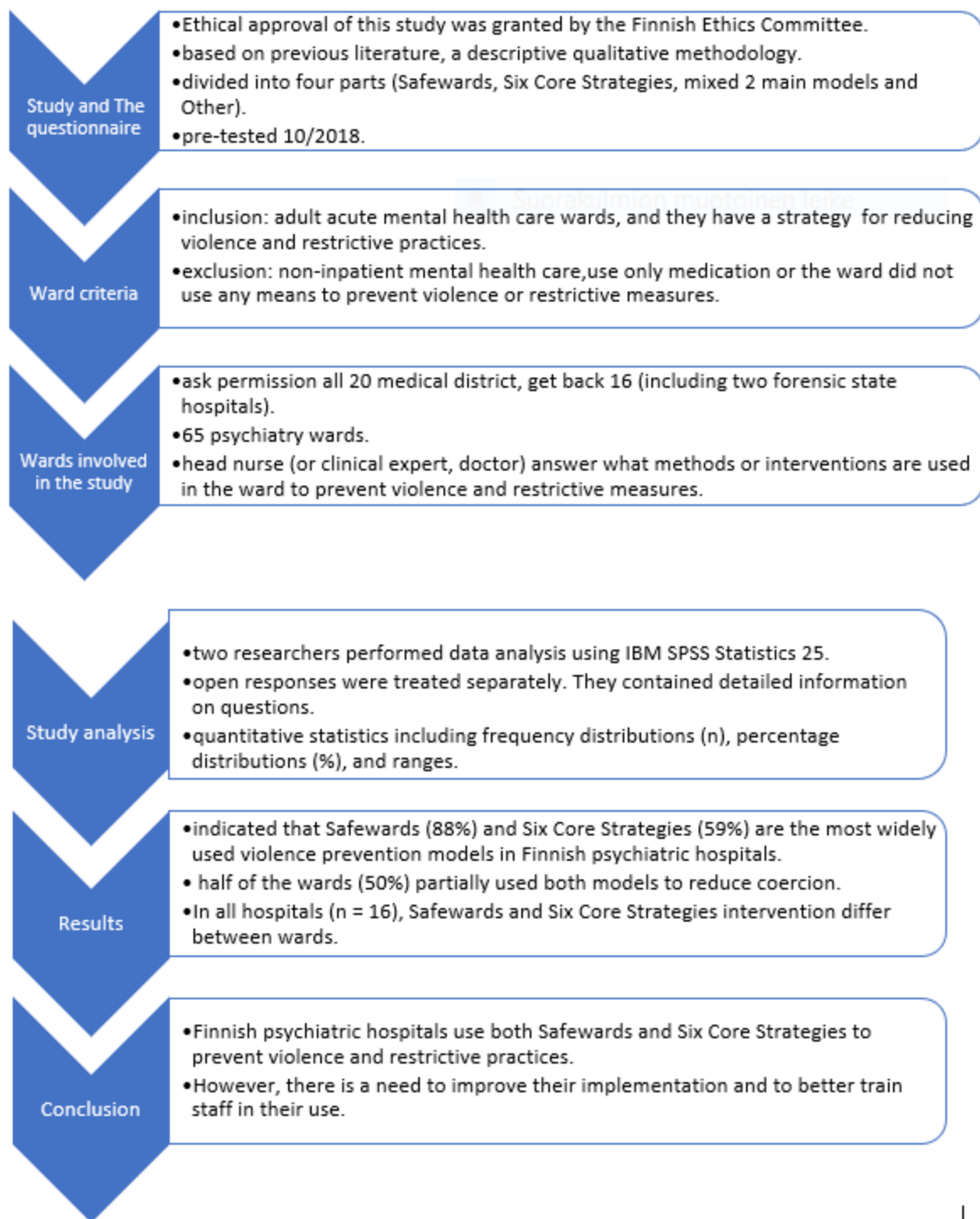


Figure 1. Study design and results

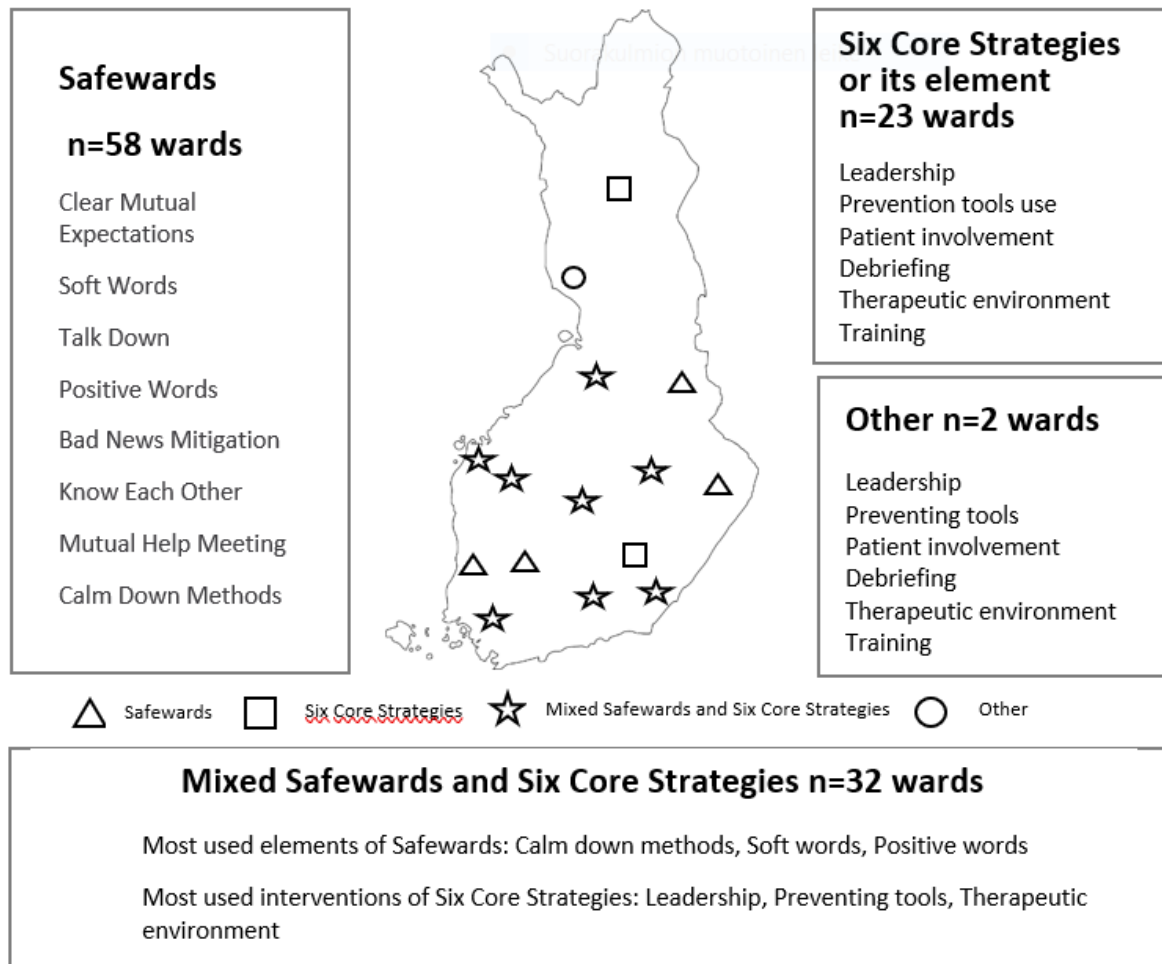


Figure 2. Finnish methods of reducing violence and coercion in mental health settings.

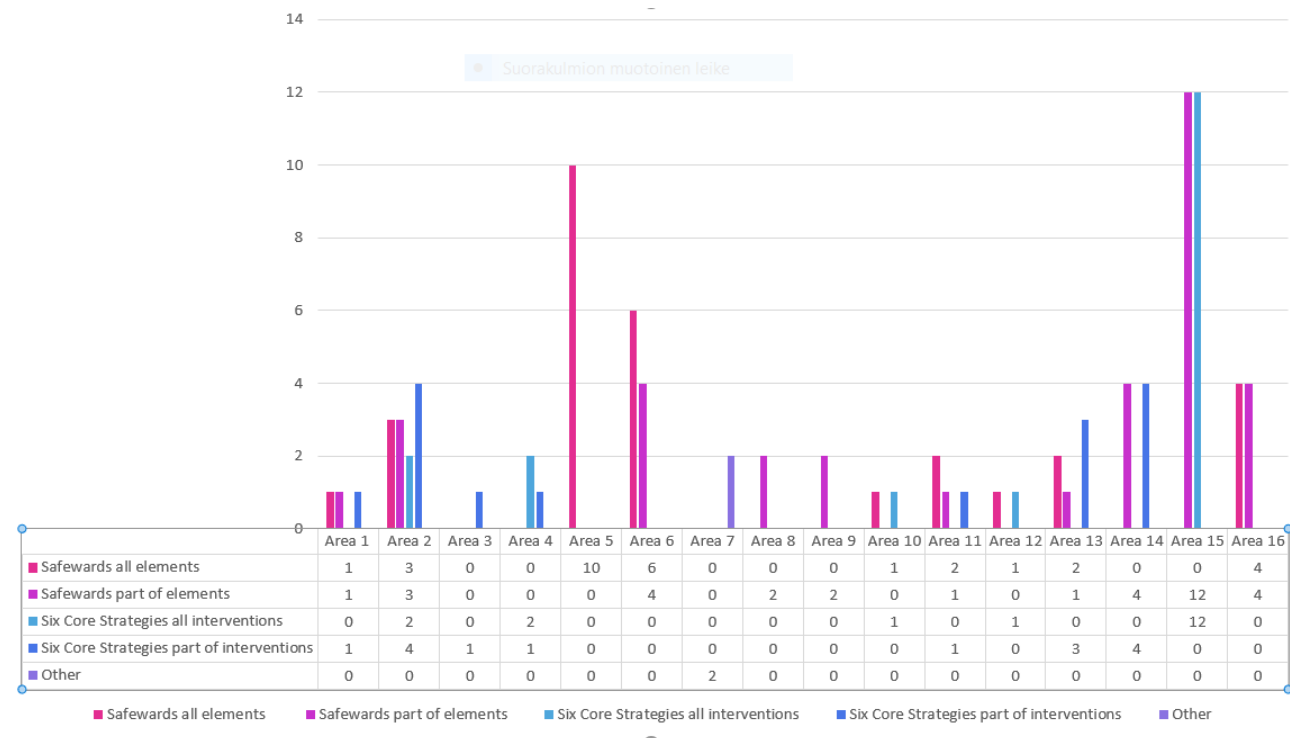


Figure 3. Methods used by Finnish hospital districts for the prevention of violence and restrictive practices by wards.



Figure 4. Safewards and Six Core Strategies Interventions.

Use of Coercion Prevention Tools in Finnish Psychiatric Wards

Highlights

- Over half of the Finnish hospitals (50%) used interventions and strategies from both models.
- In Finland, used widely in violence preventative methods in mental health settings.
- These interventions and models cover the organization, leadership, and patient perspectives to improve safety and decrease coercion actions in psychiatric wards.