Staff attitudes and use of coercion in acute psychiatric wards in Norway

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Hvor trives noe godt og skjønt og stort i tvang?

Kvel engen - og gresset blir ei grønt; bind ørnen, dør den på sin pynt; stans kilden, som med sang begynt har raskt sin gang, og den en giftig sump vil bli!

Naturen hater, sterk og fri, all tvang.

Henrik Wergeland

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Abbreviations

Abbreviations

ECT = Electroconvulsive Therapy

GAFF = Global Assessment of Functioning Scale

GAFS = Global Assessment of Symptoms Scale

ICC = Intraclass Correlation

HR = Human Rights

HoNOS = Health of the Nation Outcome Scales

LOS = Length of Stay

MAP = Multicentre Study on Acute Psychiatry

MD = Medical Doctor

MHC = Mental Health Care

OR = Odds Ratio

PCA = Principal Component Analyses

SACS = Staff Attitude towards Coercion Scale

SD = Standard Division

Summary

Background

Previous research has repeatedly shown differences between otherwise comparable wards, hospitals, geographical areas and countries as regards the amount of coercive intervention used in psychiatric facilities. Worldwide, there is growing concern about the ethical questions related to the use of coercion and to its potentially harmful effect on patients and patients' human rights in mental health care. Because of this, reducing use of coercion to a minimum is a highly prioritized matter in health politics worldwide. To be able to reduce the use, we need to know more about the processes and factors involved that lead to coercive intervention. This thesis investigates the attitudes of acute psychiatric staff towards the use of coercion and investigates amount and variation in actual use of coercive interventions on Norwegian acute psychiatric wards. Further, it analyses staff, ward and patient variables associated with the actual use of coercive measures. To do this, a questionnaire was developed to measure staff attitudes towards the use of coercion. The thesis also includes an ethical essay on how coercion in MHC may be seen in relationship to users' human rights.

Aims

- **Paper I.** The aim of paper I was to develop a questionnaire to measure staff attitudes towards the use of coercive interventions in mental health care.
- **Paper II.** The aim of paper II was to measure staff attitudes towards the use of coercion among staff in Norwegian acute psychiatric wards, to analyse differences in staff attitudes between wards and to identify variables associated with differences in staff attitudes towards coercion.
- **Paper III.** The aim of paper III was to investigate the frequency and variance in use of coercive measures in Norwegian acute psychiatric wards and to identify variables associated with the use of coercion, with emphasis on patient-, staff- and

ward-level characteristics. Of the staff variables, one particular aim was to examine whether staff attitudes towards coercion was associated with the actual use of coercive interventions. Coercive measures in this study were the use of shielding, restraints and involuntary medication.

Paper IV. The aim of paper IV was to discuss the use of coercion in an ethical perspective, by using a human rights perspective.

Methods

Paper I. The process of designing a questionnaire to measure staff attitudes towards coercion included item selection, pilot testing and a test of validity, before the questionnaire was used on a sample of 215 staff members from 15 acute psychiatric wards. Principal component analysis was used to identify the structure of subscales.

Paper II. The newly developed Staff Attitude towards Coercion Scale was used to measure staff attitudes in a sample of 651 staff members from 33 acute psychiatric wards. Multilevel regression analysis was performed to investigate variables associated with staff attitudes towards the use of coercive measures.

Paper III. Multilevel logistic regression was performed on data from 1016 involuntarily admitted patients that were linked to data on 32 acute psychiatric wards and multidisciplinary staff groups. The sample comprised two hierarchal levels (patients and wards) and the dependent variables had two values (0 = no use and 1 = use). Coercive measures were defined as the use of shielding and restraints during admission and involuntary depot medication at discharge.

Paper IV. Paper IV is an ethical essay on how coercion in MHC may be seen in relationship to users' human rights. The paper presents literature and studies relevant to the topic.

Results

Paper I. A questionnaire was developed to measure staff attitudes towards the use of coercion in MHC. A model with three different subscales of attitudes was

developed, based on principal component analysis, validity testing and clinical considerations. The three subscales were named: *Coercion as offending*, which comprises the view that the use of coercion may be potentially harmful and offensive to patients; *Coercion as care and security* (pragmatic attitude), which is the view that coercion is required for care and security reasons; and *Coercion as treatment* (positive attitude), the view of coercion as a treatment intervention. The questionnaire was named the Staff Attitude towards Coercion Scale and is considered a feasible questionnaire for the purpose.

Paper II. Multilevel analysis showed that there was significant variance across different wards, estimated to contribute about 8–11% of the total variance on the three scales. The independent variables included characteristics of individual staff members and ward-level variables. The independent variables could explain the variance in the dependent variables to only a small degree. The independent variables could explain the variance in the dependent variables to only a small degree, and mostly by individual variables. Hence, there are other variables that explain the differences in staff attitudes than those in the present study.

Paper III. The percentage of patients exposed to shielding, restraints or involuntary depot medication was in the range of 0–88% across wards. The total number of involuntarily admitted patients in this sample was 1214 (35% of the admitted patients). Of the involuntarily admitted patients, 424 (35%) had been shielded, 117 (10%) had been restrained, and 113 (9%) had received involuntary depot medication at discharge. It was possible to link data from 1016 patients in the multilevel analysis. There was a substantial between-ward variance in the use of coercive measures; however, this was influenced to some extent by compositional differences across wards, especially for the use of restraint. When adjusted for other variables, the difference between wards in the use of shielding and involuntary medication was statistically significant. The staff attitude towards coercion variables aggregated as ward-means were not fund to be significant associated with the differences in actual use of coercive measures.

Paper IV. The paper argues for the view that use of coercion in mental health care may threaten patients' human rights. Thus, to reduce use of coercion in mental health care to an absolute minimum is also a human right matter, as well as a question of quality on care. The variation in use of coercion between otherwise comparable wards, indicate that some wards have a potential for reducing the use. To quality insure this; all staff working with potentially vulnerable individuals should undergo training in human rights issues and medical ethics in general.

Conclusion

The substantial between-ward variance, even when adjusted for individual patient psychopathology, indicates that ward variables influence the use of shielding and involuntary depot medication. The between-ward variance indicates that some wards have potential for quality improvement by reducing the use of coercive interventions. This study indicates that interventions to reduce the use of coercive interventions should target the special needs of wards in urban areas, patient aggressiveness and patients with the most severe problems. Such efforts should also take into account organizational and environmental factors. Interventions to reduce patients' aggressiveness may include increased user involvement and empowerment. The missing link between staff attitudes and actual use of coercion may indicate that staff consciousness and knowledge about ethics and users human rights could be improved to further reduce use of coercion and to general improve the quality of care. Further research effort should be done to understand more about the variation between wards in use of coercive measures, to better be able to reduce the use.

Acknowledgements

When I first started working in psychiatric hospitals in my early twenties, I was troubled by the use of coercion and what I thought of as a failure to meet patients' existential needs. After working in different hospitals and wards, I became aware of the variation in the frequency of use of coercive interventions, and differences in staff attitudes towards the use of coercion in care. This led to my interest in variation in the use of coercion and its relationship to staff attitudes. With support from The Norwegian Council for Mental Health and financial aid from EXTRA funds from the Norwegian Foundation for Health and Rehabilitation, I have been able to study this topic. I am deeply grateful for this opportunity. I would also like to express my gratitude to the Ullevål University Hospital, which gave me the initial funding (VIRUUS), and to my current workplace SINTEF and Britt Venner, for the support to conduct and finish it. I also want to thank all the participants in the Multicentre study on Acute Psychiatry (MAP) for providing data and sharing their experiences and thoughts about coercion in mental health care.

I have learned so much in these years, and I have been lucky to have had the best of teachers. I especially want to express my deepest gratitude to my supervisors and co-authors Torleif Ruud, Arnstein Finset, Johan Håkon Bjørngaard, Haldis Hjort and Georg Høyer. I also want to express my gratitude to the late Tom Andersen, who introduced me to the ideas of social constructionism, which made me humble as regards the concepts of truth and knowledge. I also want to show my gratitude to my colleagues at SINTEF; Reidun, Sissel, Anne Mette, Nanna, Tine, Gloria and everyone else in the corridor, in the Tidsskrift for psykisk helsearbeid, the Coercion in Mental Health Care Research Group, Gro Hillestad Thune's network on human rights in mental health care, and the committee for the "Hvis vi kunne starte på nytt..." ("If we could start again") conferences for their support and inspiration. A special thanks to my colleague Lasse Hem, who patiently and repeatedly answered my questions about statistics and SPSS through the years, and to Olav Nyttingnes, for fellowship and

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Oslo, 2011 Tonje Lossius Husum

List of Papers

Paper I

Husum, T. L., Finset, A., & Ruud, T. (2008). The Staff Attitude to Coercion Scale (SACS): Reliability, validity and feasibility. *International Journal of Law and Psychiatry*, *31*, 5, 417–422.

Paper II

Husum, T. L., Bjørngaard, J. H., Finset, A., & Ruud, T. (2010). Staff attitudes and thoughts about the use of coercion in psychiatric acute wards. *Social Psychiatry and Psychiatric Epidemiology*, *Published online 2 July*. doi: 10.1007/s00127-010-0259-2.

Paper III

Husum, T. L., Bjørngaard, J. H., Finset, A., & Ruud, T. (2010). A cross-sectional prospective study of seclusion, restraint and involuntary medication in acute psychiatric wards: Patient, staff and ward characteristics. *BMC Health Services Research*, *10*, 89. doi:10.1186/1472-6963-10-89. *Open Access*.

Paper IV

Husum, T., & Hjort, H. (2009). Menneskerettigheter i psykisk helsevern (Human rights in mental health care). *Tidsskrift for Norsk Psykologforening*, 12. 1169-1174. In Norwegian.

1 Background

1.1 Use of coercion in mental health care

Mental health care (MHC) lies in the chasm between care and control (Norvoll, 2007; Vatne, 2003), and the use of coercion has been under almost constant debate (Hermundstad, 1999, Shorter, 1997). Coercive practices are seen in both the delivering of treatment and in the handling of aggressive and violent behaviour during hospitalisation.

Individual freedom and integrity are fundamental values of the Western world, and the United Nations Universal Declaration of Human Rights was proclaimed in 1948. Article I states that "all human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act toward one another in a spirit of brotherhood". The emphasis on individual human rights has also influenced health services, and in the last few decades there has been a heightened focus on user rights, empowerment and participation (Lewis, 2009; Prior, 2001; Sjöstrand & Helgesson, 2008). The theme is currently of interest and there has been a recurring debate in the media, within user organizations and among mental health professionals about the use of coercion in mental health care (Hannigan & Cutcliffe, 2002; Høyer, 2008; Janbu, 2008; Kallert, 2008; Sosial- og helsedirektoratet, 2006). This is seen in Norway, and internationally (Bracken & Thomas, 2001; Hannigan & Cutcliffe, 2002; Parker, 2007; Prior, 2001; WHO, 2005). In 2006, the Norwegian national health politicians launched a national health plan to ensure quality and reduce the use of coercion in mental health care (Sosial- og helsedirektoratet, 2006). The Norwegian Health Directorate also financed a project that aimed to develop user-centred alternatives to use of coercive interventions (Norvoll, Hatling & Hem, 2008).

In an historical context, the responses of the public, users and professionals to the use of coercion have been, in general, increasingly adverse, and we may be in the midst of a paradigm shift on the use of coercion and paternalistic attitudes in MHC (Kuhn, 2002; Parker, 2007; Prior, 2001, Aarre, 2010). Lately, new theories on how to help those who struggle with emotional problems has been developed that emphasise people's resources, network, empowerment and participation. Examples of these newer developments are the theories about dialogue and network (Seikkula, 2000), recovery (Borg & Topor, 2007) and empowerment (Askheim, 2007; Strack & Schulenberg, 2009). "Mental health care (psykisk helsearbeid)" is also presented as an alternative to traditional medical-oriented psychiatry (Bøe & Thomassen, 2003; Bøe & Thomassen, 2007). These newer developments share an emphasis on ethics, user involvement, dialogue, patients' existential needs, non-medical treatment, treatment in the community and the strengthening of patients' own recourses and networks.

However, users still claim their human rights are violated in traditional medical-oriented mental health care (Thune, 2008; Vaaland, 2007), and coercion as treatment, for demobilizing and for protection is used worldwide. This stresses the need to understand more about the process of coercive intervention and to develop alternatives. There is a consistent finding that there are differences between relatively comparable wards, hospitals and geographical areas in the amount and type of coercion used. These differences are puzzling and have not yet been explained (Helsetilsynet, 2006; Salize & Dressing, 2004a). To reduce the use of coercion it is important to understand more of the processes that lead towards the use of coercive interventions.

This thesis investigates variations in the use of shielding, restraint and involuntary medication between acute psychiatric wards in Norway and the relationship between these interventions and staff, patients and wards characteristics. Of ward characteristics, it especially investigates staff attitudes toward use of coercion and if staff attitudes are related to actual use of coercive measures on wards. One part of the study has been to develop a questionnaire to measure staffs attitudes toward use of coercion. Because to much use of coercion in MHC may violate patients' human rights, the thesis also includes an essay that discuss use of coercion in a human right perspective.

1.2 Background to my interest

My interest in this topic is a result of working on closed wards, both as a psychology student and later as a clinical psychologist. In particular, as a part-time night worker in the early nineties, I experienced use of coercion that I found to be non-therapeutic, ethically wrong and potentially harmful towards patients. I also became aware that patients had existential needs that were not fulfilled. Since then, I have been engaged in increasing the quality of MHC towards the most troubled and severely disturbed patients, reducing the use of coercion in MHC, asking ethical questions and developing alternatives to the use of coercion in MHC.

I have been especially interested in the systematic and stable variation found in the use of all kinds of coercive measures in both national and international studies, and why such geographical variation occurs between otherwise comparable wards and hospitals. This brought me to my interest in staff attitudes and the question if differences in staff attitudes could explain the differences in use of coercive measures.

When I started to work in MHC, my experience was that there was no climate for talking about the adverse effects of using coercion and restrictions in treatment. There seemed to be little room for reflection about ethical aspects or for interest in the patients' experiences, which is the main reason for my interest in these matters and in doing this work. This has changed for the better over the last decade, and today there is room for debate and discussion about the adverse effects of coercion, ethical aspects and human rights in MHC. I do not think it is possible to provide MHC without the use of some coercion of and restrictions on patients. Being aggressive and being a threat to others or the self are human reactions to emotional struggle, especially when feeling threatened and powerless (Archer, 2009). I do, however, think that there is room for a reduction in the use of coercive interventions and for the development of alternatives. In my view, the relatively new perspectives of patients' human rights stress the ethical considerations and concerns about using coercion in MHC, and therefore I include an article on this issue in this thesis.

What can be learned from wards that use less coercion in treatment, and how can this knowledge be applied to wards that use more coercion? I think these questions are crucial to be able to reduce the use of coercion in MHC. This is a field of ideological debates and standpoints, and in my opinion, research is strongly needed to advance the field.

My main concern is that use of coercion can and should be reduced to the absolute minimum, and alternatives should be developed. Furthermore, in general, the ethical aspect of patients' human rights should be emphasized whenever coercion is being used in treatment. If this thesis contributes to an increase in awareness of these matters, I will have achieved my goals.

1.3 Coercive measures in this study

In Norway, the use of coercion in MHC is regulated through the Lov om etablering og gjennomføring av psykisk helsevern (Law on the establishment and implementation of the Mental Health Act) (Sosial- og Helsedepartementet, 1999).

In § 4-2 Protection of personal identity, it is stated that restrictions and use of coercion shall be restricted to the absolute minimum, and that the patients' views are to be considered. Interventions may be used only where the positive effects clearly outweigh the negative effects of the intervention. It is also stated that when treated in an institution, patients should make their own decisions regarding admission, wherever possible.

In the international literature, the term "coercive measures" usually refers to coercive interventions recurring <u>under</u> hospitalization on psychiatric wards (Kalisova, Raboch, Kitzlerova, & Kallert, 2007; Martin, Kuster, et al., 2007). This includes seclusion, restraints and involuntary medication. Some, but not all, studies include involuntary medication. Two studies included involuntary status of the patients and patients' perception of coercion in the term: "coercive incident" or "coercive events". These studies have put together different kinds of coercive interventions to develop an "accumulated measure" to investigate the influences on patient satisfaction or

general outcome of treatment (Iversen, Høyer, & Sexton, 2007; Kjellin & Wallsten, 2010).

In this study, coercive measures were applied during hospitalization in acute psychiatric wards; these include shielding, restraints and involuntary medication.

1.3.1 Shielding

The Norwegian practice of shielding is difficult to translate into English. In Norway, the practice of shielding resembles the concept of "open-area-seclusion", "segregation nursing", "segregation area", "quiet room" or "sheltered area" in international literature (Bowers et al., 2007; Lidz et al., 1998). A British study of different containment methods for disturbed patients listed 11 different methods commonly used in different European countries. They were: oral medication, physical restraints, increased observation, seclusion, time out, intramuscular medication, Psychiatric Intensive Care Unit, mechanical restraints, constant observation, net beds, and open area seclusion (Bowers, Alexander, Simpson, Ryan, & Carr-Walker, 2004). The names and definitions of the interventions used differ between different countries. Personal communication with an English researcher revealed that in the UK, the term "seclusion procedures" includes different kinds of interventions, and, because of this, researchers in this field increasingly use the term "containment strategies or methods", which refers to all the things the staff do to keep patients and others safe (L. Bowers, personal communication, 4. November 2009). It seems that one main difference between the international use of the term "seclusion", and the Norwegian practice, is that in Norway the patient should not be left alone, but should be observed by staff at all times.

For practical reasons, a word for the practice had to be denoted in this dissertation and after years of consideration, the word "shielding" was chosen in this dissertation. It is defined as "patients confined in a single room or in a separate unit/area inside the ward, accompanied by staff'.

This decision was prompted by the fact that the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT) has

used the word "shielding" to refer to the Norwegian practice since 2000 (CPT, 2006). The CPT organizes visits to places of detention, in order to assess how persons deprived of their liberty are treated. These places include prisons, juvenile detention centres, police stations, holding centres for immigration detainees, psychiatric hospitals, and social care homes.

In Norwegian mental health law (Sosial- og Helsedepartementet, 1999) § 4-3, shielding is not denoted as a coercive intervention per se, but as an intervention that may be applied when grounds for treatment, such as a patient's emotional state or aggressive behaviour, require it. The law says that in this case, when required by the patient or fellow patients, the patient may be kept completely or partly separated from other patients. The medical doctor (MD) or psychologist responsible for the patient shall resolve the situation if shielding is maintained for more than 24 hours. If the segregation is comprehensive from the patient's point of view, a resolution should be made after 12 hours. Shielding may not continue for longer than 14 days at a time. The description of the practice in the law on the establishment and implementation of the Mental Health Act is:

Shielding means interventions, which may include a patient being held partially or completely separated from his or her fellow patients and from staff that do not participate in the care and treatment of the patient. The intervention is carried out as a means of treatment or in consideration of other patients.

Because it took many years for me to come to this conclusion, the word "seclusion" is used in paper III. "Seclusion" was a more common keyword in international journals and was therefore considered to be the best solution at the time. There is also variation in the Norwegian use of the concept. The shielding area ranges from a single room to small separate units/areas inside wards (Norvoll, 2007). Pursuant to Norwegian mental health law, patients in shielding should not be left alone but should be accompanied by staff. However, research on shielding in Norway has shown that patients may experience a practice that resembles the more common

internationally used "seclusion", which, in Norway, is denoted "isolation" (Norvoll, 2007).

I will therefore use the word shielding when referring to the present study and Norwegian practice, and seclusion when talking about international studies and literature. This may be a little confusing, but it is the most accurate way. I include studies on seclusion in this literature review because previously mentioned studies have shown that, from the patients' point of view, elements in the subjective experience of seclusion and shielding resembles and are similar (Norvoll, 2007). In literature about the purpose of seclusion, several aspects are mentioned, as follows.

Control and protection. The most common reason for using seclusion is to protect and intervene when the patient is aggressive or agitated. In this perspective, seclusion is viewed as a device to protect patients and staff for security reasons. An American study showed that patients who were secluded had mostly either harmed or threatened others, while patients who harmed themselves were more often restrained. Threatening others was the most common reason to seclude or restrain the patient (Swett, 1994). A study from Finland also found that the main reason for using seclusion and restraint in psychiatric care was to calm or manage patients' agitation and disorientation (Kaltiala-Heino, Tuohimaki, Korkeila, & Lehtinen, 2003).

Therapeutic motives. Another reason for using seclusion is to achieve stimulireduction in psychotic patients (Lendemeijer & Shortridge-Baggett, 1997). This view
rests on the assumption that psychotic patients need to become calmer, and this is
achieved by the reduced intake of stimuli (Gutheil, 1978). Other reasons mentioned
are that patients lack internal structure, and seclusion is used as a way to replace this
with external structure (Fisher, 1994). The therapeutic effect of seclusion or
structured supervision is also discussed by Alty and Mason (1994). They divide
theoretical reasons for using seclusion into three groups: as therapy, as containment
and as punishment. They conclude that the seclusion is not therapy in itself, but
provides a site where therapy can take place. The seclusion room enables health
professionals to communicate with the patient, which may be impossible outside the
seclusion room, where the patient can avoid contact and communication by means of

his or her behaviour. From this perspective, seclusion allows therapists to establish therapeutic contact with the patient (Alty & Mason, 1994; McCoy & Garritson, 1983a). Further, seclusion as a therapeutic intervention also includes approaching patients' aggressive behaviour from a psychodynamic perspective. This refers to using seclusion as a mechanism for addressing the patients' maturational needs, which involves the patients' own self-assessment of relationship development strategies. Although not totally clear, it is assumed that the patient gains some therapeutic insights from the seclusion process (Alty & Mason, 1994). Other assumed therapeutic effects of seclusion are what Gutheil (1978) called the "mastery of space". This theoretical concept involves the patients' access to areas of the ward first being restricted, so that they establish the ability to cope with an increasing number of encounters and the widening of the physical space of the ward. In this way, they may gradually learn to master first the seclusion room, then the ward, then the hospital, and ultimately the society. The seclusion room represents the smallest space in the graduated system, and Gutheil called it "the zero point" (Gutheil, 1978).

Punishment. A third group of reasons for seclusion, mentioned in the literature, involves punishment as a reaction to unwanted behaviour (Alty & Mason, 1994; Angold, 1989; Fisher, 1994). Punishment is not legal under the Norwegian mental health law (Sosial- og Helsedepartementet, 1999). Moreover, seclusion as punishment is undoubtedly not a conscious motive in this regard. However, if seclusion is used as a "time out" for disturbing or unacceptable behaviour, then from the patient's point of view at least, it may resemble or be perceived as punishment.

Patients' perception. Studies on shielding have also investigated patients' perceptions of being shielded. In her PhD thesis, Norvoll found that patients' perceptions of being shielded varied and reflected the ambiguous character of shielding as an intervention for both treatment and control. Their experience of coercion and confinement was strong and in that way the patients' experience of being shielded resembles being isolated (Norvoll, 2007). A British study on patients' perceptions of seclusion found that patients reported seclusion to be associated with many negative feelings. The quest for the human element, dignity, to understand and

to be understood, and to be reassured was a constant theme (Norris & Kennedy, 1992). Another British study of patients' perceptions of seclusion also noted the ambiguous character of seclusion and that patients' feelings afterward varied. The majority of patients felt angry and upset, but a smaller group also felt safe. The researchers' conclusion was that some patients found seclusion helpful, while others saw it as a highly abusive and invasive experience (Stowers, Crane, & Fahy, 2002). An interesting finding in this study was that half of the patients thought that the seclusion episode could have been prevented with the use of other interventions.

1.3.2 Restraints

Use of restraints in MHC is regulated through "Lov om etablering og gjennomføring av psykisk helsevern" (Law on the establishment and implementation of the Mental Health Act) (Sosial- og Helsedepartementet, 1999). In § 4-8, restraints are categorized as a coercive means together with isolation, use of involuntary medication with short-term effects and physically holding the patient. The law states that when restraints are used, the patient should be under constant observation by staff, and a resolution must be made by the MD or psychologist responsible for the patient. Specifications for the use of coercive means are given to clarify the law (Helse- og omsorgsdepartementet, 2000). The regulation was last modified in 2006. In this clarification, it is stated that coercive means only shall be used when there is no other solution available to prevent harm. The patients' personal dignity and integrity are to be respected.

Many forms of restraint devices exist. A study from the USA lists what different writers mean when they use the word "restraint" (Johnson, 1998): four-way leather restraints, Posey vests, "holding", straitjackets, forced medication, cold wet packs, abdominal belts, geriatric chairs, electroconvulsive therapy, mitts, cribs, preventive aggressive devices, sheets and chains. In general, however, to restrain a patient means that one uses some kind of device to severely limit his or her range of bodily movements. In Norway, five-point restraints on beds are most common, and

this is the variable included in this study. This is a bed with belts over the patient's arms, legs and torso. Not all belts need to be used at all times.

Theoretical basis. The theoretical basis and reasons for using restraints are mostly the same as for the use of seclusion. Gutheil (1978) recognized three different justified motivations for using restraints or seclusion. They were to:

- 1. Prevent patients from harming themselves or others (control)
- 2. Remove a patient from an interaction that may provoke her/his paranoid thinking (treatment, protection)
- 3. Reduce sensory overload (treatment)

Day (2002) sums up the theoretical basis for use of restraints as including theories about attachment (holding and holding environment) and the psychodynamic theories. The psychodynamic theories include assumptions that being put in restraints may involve a cathartic effect or the release of pent-up anger and the verbal expression of difficult feelings. The psychodynamic paradigm also serves as a basis for the discussion of transference and counter-transference issues in physical restraints. It launches the term "counter-aggression" which refers to the phenomenon of staff taking part in interactions with patients that involve competition for power and the use of restraints (or seclusion) because staff are unconsciously demonstrating their power. From this perspective, patient—staff interactions may include the use of restraints because of the staff members' own unconscious needs and personality. This resembles what is called a "fighter relation" in the child/youth psychiatry literature. This describes a kind of interaction that is not only found between children and adults, but also between adults, especially where there is a power imbalance, as is the case with staff and patients (Jørgensen & Schreiner, 1991).

Previous research. Some of the early research on restraints and seclusion is 20 to 30 years old. The use of restraints in particular seems to have been a controversial theme and an area for research in the USA in the 1970s and 1980s (Carpenter, Hannon, McCleery, & Wanderling, 1988; Carpenter et al., 1988; Gutheil, 1980;

McCoy & Garritson, 1983b; Miller, Walker, & Friedman, 1989; Okin, 1985; Schwab & Lahmeyer, 1979; Swett, Jr., Michaels, & Cole, 1989; Way & Banks, 1990). This describes, in a historical context, a different kind of psychiatry that is not relevant for acute psychiatric wards in Norway today. I will therefore concentrate my inquiry around studies conducted in the last two decades.

In addition to a Cochrane review, which stated that there have been no randomized controlled studies on the use of seclusion and restraint, I found three reviews with wider inclusion criteria. The first mainly discusses preferences between physical and chemical restraints in an emergency room setting. It concludes that MDs prefer to start treatment with physical restraints and then proceed to chemical restraints (Zun & Downey, 2005). The term "chemical restraint" is unfamiliar in a Norwegian setting, but resembles the use of involuntary medication given in an acute crisis to calm the patient down. My assumption is that in Norway we have ethical concerns about using medication and prefer not to drug patients in this way. The review by Zun and Downey also considers reports on injuries and complications in the use of restraints. It seems that Zun and Downey investigated different kinds of belt devices but not necessarily the bed belts that are most commonly used in Norway. Reported complications in the use of restraints include: problems with elimination, pneumonia, circulation obstruction, cardiac stress, skin breakdown, poor appetite, dehydration, accidental death, getting out of restraints, vomiting, injuring self, injuring others, and hostile or increased agitation. A Norwegian study also described incidences of thrombosis associated with the use of restraints (Hem, Steen, & Opjordsmoen, 2001).

A second review, from 2003, is a synthesis of what is known about the use of physical restraints on and seclusion of patients in psychiatric and acute care settings (Bower, McCullough, & Timmons, 2003). The conclusion in this review is that the little that is known about restraint and seclusion use in these populations is inconsistent. Attitudes and perceptions of patients, family and staff differed. However, all patients had very negative feelings about both restraint and seclusion, regardless of whether they were restrained or secluded themselves or had observed

others. The reasons for restraint and seclusion use also vary, with no accurate use rate available for either one of them. What precipitates their use also varies, but professionals claim they are necessary to prevent violent or unruly behaviour. Some believe the use of restraint and seclusion is effective, but there is no empirical evidence to support this belief. Many other alternatives have been tested with varying outcomes. Several educational programmes to help staff learn about different ways to handle violent and confused patients have been successful. Until more is known about restraint and seclusion use from prospective controlled research, the goal of using the least restrictive methods must be pursued (Bower, McCullough, & Timmons, 2003).

The third review on restraints and seclusion concludes that, lately, prominent international recommendations have aimed to restrict the use of restraints and seclusion, and reminds us that they should only be used in exceptional cases, when there are no other means of remedying the situation and only under the supervision of an MD (Sailas & Wahlbeck, 2005). In the review, they found several innovative programmes that have succeeded in controlling and reducing the use of restraints and seclusion. They also found that staff attitudes to the use of seclusion and restraints had not changed much in the last decade. A large Finnish study on reasons for using seclusion and restraints showed that the main reason in everyday ward practices was the agitation and disorientation of the patient (Kaltiala-Heino et al., 2003). They concluded that even if restraint and seclusion can be theoretically justified as first options for treating violent patients in emergencies, they are not the most important applications in practice. They also state that there is obviously a need for clearer and more comprehensive instructions for using restraints and seclusion at legislative and health care levels, and clinicians should pay attention to the management of agitation and disorientation to ensure that the least coercive and most therapeutic interventions are used in these situations.

Patients' perceptions. Three studies on patients' perceptions of being restrained were found. In semi-structured interviews of patients who had received a diagnosis of schizophrenia, Naber et al. found that one-third of the patients expressed negative attitudes after being restrained, one-third were indifferent and one-third were positive

to the event. They also found that there was a small subgroup of patients who were restrained more often than other patients. This may indicate a kind of learned behaviour, with patient and staff having learned and grown accustomed to the use of restraints when a particular patient was agitated or disoriented (Naber, Kircher, & Hessel, 1996).

Johnson attempted to understand the impact of leather restraints on the restrained person by unstructured interview. She found that most of the ten patients felt frightened and vulnerable because of the experience of being restrained, worrying that because they were unable to protect themselves, some harm might befall them. They did not assume that the use of restraint was therapeutic but viewed it as a consequence of not following the rules of the unit or not doing what they were told. These participants experienced these practices as punitive. Furthermore, for some of the participants, being restrained was harmful. If they struggled, they often injured themselves. For the most part, they experienced the restraint as unpleasant and traumatic, and some said it would be a negative memory for the rest of their lives. Being "tied down", immobile, and helpless were the most disturbing aspects for the participants and they felt dehumanized (Johnson, 1998).

Wynn, a Norwegian psychiatrist, interviewed 12 patients who had been restrained. While some felt that the use of restraint had been warranted, others were more critical. Many thought that the use of restraint could have been avoided. Patients felt that being restrained evoked feelings of anxiousness, anger and hostility. Some reported that they calmed down after being restrained, while others did so only after having received additional pharmacological restraints. A few had suffered minor abrasions and two reported that it revived memories of prior sexual abuse. Some believed that the restraint use had protected them from hurting themselves or others. Some felt angry, fearful and distrustful of staff after the restraint, and some believed it had damaged the alliance between themselves and the staff. Patients who had psychotic symptoms during the restraint were more understanding of the decision to restrain taken by the staff (Wynn, 2004a).

1.3.3. Involuntary medication

In Norway, legislation differentiates between involuntary admission and involuntary treatment during the stay. This is not the case in many other countries. There is also a division between involuntary medication as a treatment intervention and involuntary medication as an acute intervention in a crisis. Under the Norwegian mental health law (Sosial- og Helsedepartementet, 1999), use of involuntary medication is regulated in § 4-4 Treatment without personal consent. § 4-4 states that patients under involuntary admission may be treated with involuntary medication that is of a type and dosage that is generally accepted in the field. The paragraph also affirms that examination and treatment without consent may be used only after normal consent procedures have been tried and found to fail, or if it is obvious that such consent cannot be given. If consent is at all possible, other voluntary alternatives should be considered before resorting to involuntary treatment. Involuntary treatment can be given only after sufficient examination, and it is reasonable to believe that treatment will have a positive effect on the patient's mental problems, or prevent the patient from becoming even worse. The MD responsible for the patient must make the decision about treatment.

The variable in this study is whether the patient has been involuntary treated with depot medication at discharge. Depot medication is used as a treatment; it is seldom used as a chemical restraint for an acute crisis in Norway and was not registered in this study. Not all countries make this distinction, which makes comparison of studies across countries difficult.

Previous research. A literature review from 2006 concludes that there has been very little published about involuntary medication (Helsetilsynet, 2006). In addition, it is complicated because in the international literature there is often no distinction between involuntary admission and involuntary medication. Some countries do not have a juridical division between the two (Salize & Dressing, 2004a). There are also indications of different definitions/practices of what is considered to be voluntary and involuntary between different countries (Steinert & Schmid, 2004). In addition, as

previously mentioned, there is not always a clear division between involuntary medication as an intervention to calm the patient in an acute crisis or episode of agitation and aggression, and long-term depot medication given for psychotic symptoms (Kaltiala-Heino, Korkeila, Tuohimaki, Tuori, & Lehtinen, 2000).

International literature also often deals with outpatient involuntary medication in the community rather than involuntary medication under admission (Bindman, 2004).

Only one Finnish study (Kaltiala-Heino, Valimaki, Korkeila, Tuohimaki, & Lehtinen, 2003) and one Norwegian study which deal with the epidemiology of involuntary medication with comparable numbers (Helsetilsynet, 2006) were found. There are also some studies about the types of patients who are involuntarily treated (Christensen & Onstad, 2003; Jarrett, Bowers, & Simpson, 2008; Nicholson, Ekenstam, & Norwood, 1996; Schepelern, Aggernaes, Stender, & Raben, 1994).

Patients' perceptions. A study on patient and staff perceptions about forced medication found that patients and staff did not share the same views of what patients experienced when forcibly medicated. A minority of patients, and not as many as the staff thought, retrospectively approved of the use of forced medication (Haglund, Von Knorring, & Von Knorring, 2003). Further, a study from the USA on consumer perceptions of pressure and force in psychiatric treatments showed that of 115 people with mental illnesses who had been under treatment, 57% reported having been pressured or forced into hospitalization. In the year before the survey, 30% of respondents reported being pressured or forced into taking medication and 26% had been pressured or forced into attending therapy or a rehabilitation programme. The most common type of pressure or force was verbal persuasion. In general, respondents reported negative effects from forced treatment, although the intensity of effects varied by treatment area, and about half retrospectively felt that the forced treatment was in their best interest. Many respondents believed that pressure or force has an appropriate role in psychiatric treatment, although most wanted to maintain the right to refuse any treatment that they considered was not in their best interest. Differences in patterns of response to pressure and force in psychiatric treatment highlight the variety of user experiences and the need to know more about the role of

forced or pressured treatment in their lives (Lucksted & Coursey, 1995). It is important to recognize that people react differently when forced into treatment or medication use, and a number of them recognize the need for help or medication in retrospect.

1.4 Research on coercion in mental health care

Major Norwegian and Nordic contributions. In the last decade, several PhD theses have been written on the topic of coercion in MHC in Norway. This demonstrates the actuality and importance of the topic in the contemporary psychiatric debate. The theme of Solfrid Vatne's dissertation was psychiatric nurses' rationality for setting limits in an acute psychiatric ward (Vatne, 2003). The theme for Rolf Wynn's dissertation was the use of restraint and seclusion in a Norwegian university hospital (Wynn, 2004b), Reidun Norvoll's dissertation was on the topic of shielding (Norvoll, 2007) and Knut Ivar Iversen's topic was the use of coercion in the delivery of MHC services in Norway (Iversen, 2008). Further, Professor Georg Høyer has carried out research, and has collaborated in a Nordic research network on research into coercion in MHC (Høyer, 1986; Høyer, 1988a; Høyer, 1988b; Høyer, 1998; Høyer, 2000; Høyer et al., 2002a; Høyer, Engberg, Kaltiala-Heino, Kjellin, & Sigurjonsdottir, 2002; Høyer et al., 2002b; Høyer, 2008). The Nordic countries have produced many of the studies conducted in this field (Hoyer, 2008; Kaltiala-Heino et al., 2003; Keski-Valkama et al., 2009; Kjellin, Östman, & Östman, 2008; Sjöström, 2006). Recently, two Finnish PhD theses have also been completed on the topics of coercion in Finnish civil psychiatric in-patients (Keski-Valkama, 2010), and the use of seclusion and mechanical restraints in psychiatry (Tuohimaki, 2007).

Other research conducted in this area in Norway includes Maria Knutzen's Master's thesis on the use of restraints, isolation and involuntary medication in an acute psychiatric ward from 1994 to 1999 (Knutzen, 2001; Knutzen, Sandvik, Hauff, Opjordsmoen, & Friis, 2007). In addition to this, and as a part of the Norwegian plan for strengthening the mental health services (Sosial- og Helsedepartementet, 1997), the research institute SINTEF has delivered a vast number of reports on the statistics

of coercion in Norway (Bremnes, Hatling, & Bjørngaard, 2008a; Bremnes, Hatling, & Bjørngaard, 2008b). Research in this field, compared to other fields in MHC, has generally been sparse and the contributions come from individual researchers and small research groups from a few sites in Europe and the USA. Some of the main research questions remain unanswered (Høyer, 2008; Kallert, 2008). From 2008, the Norwegian Directorate of Health has taken the initiative for a national network for research on the use of coercion in MHC and launched a national plan for the reduction and quality assurance of use of coercion in MHC (Helsedirektoratet, 2006).

Major international contributions. International research contributions in this area have come from small research groups from different parts of the world. One of the earliest contributions to this field was the MacArthur Research Network in the USA (Gardner et al., 1999; Hoge et al., 1993; Hoge et al., 1997; Hoge et al., 1998; Lidz et al., 1998; Lidz et al., 2000). The MacArthur Coercion Study was designed to provide information to policy makers, clinicians, patients and family members to broaden and deepen the conversation about the appropriate role of coercion, if any, in the provision of mental health services. Starting in 1988, this was possibly the start of systematic research on the use of coercion. The research group developed several instruments to measure patients' perceptions (The MacArthur Perceived Coercion Scale and Ladder) of coercion, which were later used in research worldwide (MacArthur Research Network, 2001).

Recently, research contributions have also come from Germany (Kallert et al., 2005; Kallert, Glockner, & Schutzwohl, 2007; Kallert, 2008; Salize & Dressing, 2004a; Salize & Dressing, 2004b; Steinert, Lepping, Baranyai, & Herbert, 2004; Steinert, Lepping, Baranyai, Hoffmann, & Leherr, 2005; Steinert et al., 2007; Steinert et al., 2009). The German research group has investigated the themes of outcomes, ethics and epidemiology related to the use of coercion. In 2009, they investigated differences in the use of seclusion and restraint rates in 12 European countries. They concluded that there were huge differences in the amount of use, that the quality of national health register data was poor and that efforts should be made to improve the quality of national statistics on the use of coercion (Steinert et al., 2009). An

additional research network has performed research on coercion in England, and comparative studies between different European countries and Australia (Bowers et al., 2005; Bowers et al., 2007; Bowers, 2009). They have developed the Attitude to Containment Measures Questionnaire and have shown that there are differences in the type of containment method used in different countries as well as differences in staff attitudes towards them (Bowers et al., 2007; Bowers et al., 2004).

A Cochrane review of studies on seclusion and restraint was completed in 2003. The conclusion, after reviewing 2155 citations, was that there were no controlled studies that evaluated shielding and restraint. The authors commented that there were reports of serious adverse effects from these techniques in qualitative reviews. Alternative ways of dealing with unwanted or harmful behaviours need to be developed. Continuing use of seclusion or restraint must therefore be questioned in well-designed and reported randomized trials that are generalizable to routine practice (Sailas & Fenton, 2003).

A British review of studies on the quality of care in acute psychiatric wards in general concluded that there has been little in-depth ethnographic research on content and quality of care in the UK since before the big ethnographic studies in the 1960s and 1970s in the USA by Goffman (1961) and Stauss, Schatzman, Bucher, Ehrlich, and Sabshin (1964). The reviewers remark that we do not know if that research still gives a current picture of acute psychiatric care in Europe, nearly 50 years later (Quirk & Lelliott, 2001).

1.5 Variation in the use of coercion

A consistent finding is considerable variation in the use of coercive measures in comparable wards and geographical areas in MHC. This is found in Norwegian studies (Bremnes, Pedersen, & Hellevik, 2010; Bremnes et al., 2008; Helsetilsynet, 2006) in studies in other countries (Betemps, Somoza, & Buncher, 1993; Carpenter et al., 1988; Kalisova et al., 2007; Kaltiala-Heino et al., 2000; Kaltiala-Heino et al., 2003; Kjellin et al., 2008; Korkeila, Tuohimaki, Kaltiala-Heino, Lehtinen, & Joukamaa, 2002; Okin, 1985; Steinert et al., 2007; Way & Banks, 1990). Further, this

variation is also found in comparative studies between different countries (Jansen, 2008; Martin et al., 2007; Sailas & Fenton, 2003; Seilas & Wahlbeck, 2005; Steinert et al., 2009).

It is harder to understand the large differences in the use of coercive measures within one country with one legal system than it is to understand the differences between countries. An additional complication is that in Norway, the quality of data about shielding, use of restraints and involuntary medication is still not satisfactory and this makes the interpretation of the data difficult. This is probably the case in other countries as well; it is difficult to get high-quality, complete data from health registers.

Little is known about why this variation occurs, although several hypotheses have put forward possible factors. Figure 1 shows the factors that may have an influence on the amount of coercion used under hospitalization on psychiatric wards. As the figure shows, many interaction effects are possible between the factors. The Staff Attitude towards Coercion Scale (SACS) refers to the questionnaire developed for the present study to measure staff attitudes to coercion.

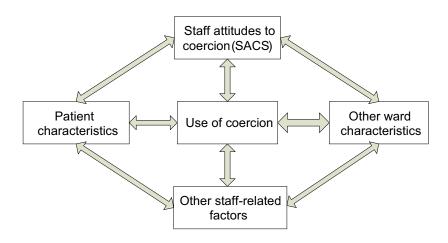


Figure 1. Factors that may explain the variation in the use of coercion on wards.

Wynn has divided potential factors into four groups; structural factors, staff-related factors, patient-related factors and treatment-related factors. The list is not exhaustive and some of the factors may belong in several categories (Wynn, 2004b), as follows.

Structural factors. These are variables of physical characteristics of the ward: size of ward, double or single rooms, crowding and patient turnover (Betemps et al., 1993; Carpenter et al., 1988; Cope & Encandela, 1998; Korkeila et al., 2002; Palmstierna, Huitfeldt, & Wistedt, 1991; Palmstierna & Wistedt, 1995; Stolker, Nijman, & Zwanikken, 2006; Way & Banks, 1990). Betemps et al. (1993) found that among hospital characteristics, only geographical location was associated with differences in the use of seclusion and restraint. They concluded that the large geographical variations in the use of seclusion and restraint might be a function of different standards of practice or of different state laws. Carpenter et al. (1988) found that large-town hospitals had higher rates than suburban and small-town hospitals of seclusion and restraint. The authors believe that clarification of regional variations in assaultive behaviour is important for treatment and system planning. Some studies have investigated organizational factors related to the use of coercion (Cope & Encandela, 1998; Visalli & McNasser, 2000). The latter study concluded that the success of a programme designed to reduce the use of seclusion and restraint could be attributed to the organizational leadership and the interdisciplinary approach taken to provide individualized treatment. Korkeila et al. (2002) investigated factors predicting overall and "heavy use" of restrictive measures and differences in the population-based rates of use of seclusion in three university psychiatric centres in Finland. The individual institutions best predicted the overall use of restrictive interventions, whereas previous commitment and involuntary legal status on admission were factors predicting "heavy use" of these measures. They concluded that implementation and monitoring of restrictive measures should be further harmonized. Palmstierna et al. (1991) found that higher numbers of patients on wards significantly increased the likelihood of aggressive behaviour. Way and Bangs (1990)

also found that residence in a hospital with high rates of seclusion and restraint was associated with a high probability of the patient being secluded or restrained. Stolker et al. (2006) found a significant association between patients residing in multiple-bed rooms prior to seclusion and a less negative view on seclusion. The finding suggests that the ward environment may have a rather large effect on how seclusion is perceived by the patients.

Staff-related factors. This includes factors such as staff-patient ratio, age and sex of staff, experience of staff, proportion of unqualified staff, level of qualifications, de-escalation training, staff turnover, staff and administration attitudes (Betemps et al., 1993; Carpenter et al., 1988; Currier, 2003; Kaltiala-Heino et al., 2003; Klinge, 1994; Kullgren, Jacobsson, Lynoe, & Kohn, 1996; Sattar, Pinals, Din, & Appelbaum, 2006; Wynn, 2003; Wynn, Myklebust, & Bratlid, 2007). Betemps et al. (1993) investigated possible factors that might predict the use of seclusion and restraint and concluded that the large geographical variations in use may be a function of the different standards of practice or state laws in the USA. Carpenter et al. (1988) found that, compared with suburban and small-town hospitals, city and large-town hospitals used seclusion more often than restraint. These hospitals also had a higher ward census and a lower staff-patient ratio. Currier (2003) questioned whether staff perception and attitudes influenced the use of "chemical restraint" or involuntary acute medication in acute psychiatric care in the USA. Kaltiala-Heino et al. (2003) found differences between hospitals in the use of involuntary medication. They concluded that even if involuntary medication takes place mainly in the treatment of those patients perceived to be the most unwell and perhaps the most resistant to treatment, the treatment culture obviously plays a role. Klinge (1994) found differences in staff attitudes towards the use of seclusion and restraint, and that the gender and level of education of staff influenced their attitudes. Klinge concluded that these differences in staff attitudes should have important implications for staff training. Kullgren et al. (1996) also found gender differences between staff attitudes towards the use of compulsory treatment, with women being more restrictive as regards the use of restraints.

Sattar et al. (2006) investigated if the psychiatry residents' personal variables (age, gender, level of training, previous experience and temperamental predisposition) influenced the likelihood they would seek involuntary commitment. They found that the level of staff training and residents' risk-taking behaviour might be linked to their decision to seek involuntary commitment. They concluded that psychiatric residency training should address non-patient variables that may inappropriately influence a resident's decision regarding seeking involuntary commitment. Wynn (2003) investigated Norwegian MHC staff attitudes towards shielding and restraint and found that a majority of staff believed that the interventions were used correctly. He also found that male staff members were more critical of the use of coercive interventions, contrary to Kullgren et al.'s (1996) finding that women were more restrictive towards the use of coercive interventions. Staff preferred the use of restraints to shielding, although they believed that patients were least accepting of this intervention. Wynn concluded that staff should be informed of the negative effects of restraint and shielding and trained in less restrictive ways of dealing with aggressive and violent patients.

Patient-related factors. This group of variables includes: patient's diagnosis, level of aggression, symptoms, age and sex of patient, ethnicity, time of day, and season (Betemps et al., 1993; Carpenter et al., 1988; Kaltiala-Heino et al., 2003; Knutzen et al., 2007; Korkeila et al., 2002; Steinert et al., 2007; Tuohimaki et al., 2003; Way & Banks, 1990). Betemps et al. (1993) found that patients who had received a diagnosis of schizophrenic disorder were secluded or restrained most frequently. Kaltiala-Heino et al. (2003) analysed all episodes of seclusion and mechanical restraint in a large, non-selected sample of civil admissions in Finland and showed that the main reason for using shielding and restraints in everyday ward practices was agitation and disorientation of the patient. Theoretically, the use of seclusion and restraint are justified by the need to treat violent patients in emergencies, but this was not the main indication for using these devices in this study. The researchers concluded that there seems to be a need for clearer and more comprehensive instructions for using seclusion and restraint at legislative- and health-

care levels. Further, Tuohimaki et al. (2003) compared patients who were involuntarily admitted because they were considered dangerous to themselves or others with patients not admitted for this reason. They found no difference in the use of coercive interventions in the two groups.

Korkeila et al. (2002) investigated factors predicting overall and "heavy use" of restrictive measures and differences in population-based rates of the use of seclusion and restraints in three university psychiatric centres in Finland using a retrospective chart review. The individual institutions best predicted the use of restrictive interventions, and previous commitments and involuntary legal status on admission predicted "heavy use" of these measures. Steinert et al. (2007) investigated the incidence of coercive measures in psychiatric care in 10 psychiatric hospitals. They developed software able to process data and to calculate four key indicators for routine clinical use. Data from 36,690 cases were examined. Patients with organic psychiatric disorders (ICD-10, F.0) comprised the patient group most exposed to coercive interventions. The incidence and duration of coercive measures varied widely between different diagnostic groups and different hospitals. Use of detailed guidelines for the use of seclusion and restraints was associated with a lower incidence of coercive measures. Way and Banks (1990) examined the use of seclusion and restraint in 23 adult public psychiatric hospitals in the USA in regard to patients' characteristics and facility effects. Patient characteristics associated with a high probability of being coerced included being under 26 years of age, having a relatively long length of stay on the ward, involuntary legal status, female gender, a diagnosis of mental retardation and residence in a hospital with previous high rates of seclusion and restraint. Knutzen et al. (2007) investigated the association between the use of restraints and patient characteristics in a two-year retrospective study at a department of emergency psychiatry. The rate of restraint was significant higher among patients with an immigrant background, especially in the younger age groups. They concluded that both patient age and immigrant background seemed to have an effect on the use of restraint. Carpenter et al. (1988) also found that Afro-Americans

and males were overrepresented compared with the rest of the hospital population in regard to the use of seclusion and restraint.

Treatment-related factors. This includes variables about pharmacological treatment, psychotherapeutic treatment, activities for patients, ward atmosphere, treatment philosophy and ideology, regulations and guidelines on the use of restraint and shielding, ward routines and transitions in ward routines (Betemps et al., 1993; Bowers et al., 2004; Currier, 2003; Gaylin, 1974; Kullgren et al., 1996; Sattar et al., 2006; Wynn et al., 2007). Betemps et al. (1993) found that only the geographical location of hospitals was associated with large differences in the amount of use of seclusion and restraint. They concluded that this may be a function of different standards of practice or different state laws. Contradictory to this hypothesis, Bowers et al. (2004) investigated the relationship between staff attitudes to different containment methods and exposure to psychiatric education and practice. It was hypothesized that the culture of psychiatry in the study country would socialize students' views towards the locally dominant pattern of relative evaluations. They concluded that the relative evaluations of psychiatric containment methods are a property of wider national cultures rather than isolated traditions of professional psychiatric practice.

Currier (2003) discussed the different views of professionals on the use of "chemical restraint" or forced medications used in an acute situation. The differences include whether forced medication is considered an invasive intervention on the same level as a mechanical restraint or whether it may be deemed clinically necessary and have a beneficial effect. The professionals' attitudes to this matter probably influence their decision to use forced medication or not. Gaylin (1974) discusses a psychoanalytic view of coercion. They conclude that professionals' different basic views on mental health and MHC may be one of the factors influencing how much they tend to use coercive interventions.

Kullgren et al. (1996) examined the attitudes and ethical beliefs of psychiatrists by asking them to comment on ethical statements related to clinical vignettes. In this study, female psychiatrists tended to be more restrictive in suggesting coercive

interventions. This is in contrast to other findings where women have demonstrated greater willingness to use coercive interventions. Sattar et al. (2006) studied whether psychiatry professionals' personal variables influenced their decision to use involuntary commitment. They found that the professionals' level of training and their risk-taking behaviour (temperamental dispositions) could be linked to their likelihood of seeking to commit patients involuntarily.

Wynn et al. (2007) looked at psychologists' attitudes to using coercion towards patients. A majority would use coercion if the patient were violent. Among the psychologists, higher age, female sex and prior experience with coercion were positive predictors of willingness to coerce.

The main impression gained from studies on the variation in coercive measures is that the results are contradictory and complex. Many of the studies have small samples and the results may not be representative in other countries or settings. Psychiatric in-patient services probably differ across decades in an historical context, and between different countries, hospitals and even wards.

The main impression, however, is that geographical variation in the use of all coercive interventions is a consistent finding in epidemiological and multi-site studies, and this variation is not yet explained. Many of the studies conclude with the assumption that the differences in the use of coercion may be explained by differences in staff attitudes, ward culture or treatment ideology. If we understood more of the process in which coercion is used, we may be better able to plan interventions and programmes to reduce its use. There is therefore a great need for studies that try to explain the variation from both a clinical and a scientific point of view, like the present study.

The aim of this thesis is to investigate differences between Norwegian acute psychiatric wards in the use of shielding, restraint and involuntary medication, and to analyse patient, staff and ward influences on variations in use. Of staff variables, the emphasis is on staff attitudes to coercion.

1.6 Staff attitudes and use of coercion

As previously shown, there are variations in how often coercive interventions are used between different wards and institutions in Norway, and between different countries. As already mentioned, many possible factors have been suggested that may influence this. Differences in ward culture, treatment ideology, composition of patients, size of ward and number of staff per patient are some of the factors mentioned. Staff attitudes are often mentioned as a possible influence on the use of coercion (Alem, Jacobsson, Lynoe, Kohn, & Kullgren, 2002; Bowers et al., 2004; Brooks, 2006; Klinge, 1994; Tateno et al., 2009; van Doeselaar, Sleegers, & Hutschemaekers, 2008; Wynn, 2003). Underlying this is an assumption that there is a correlation between attitudes and behaviour. This is the main reason why attitudes are seen as important targets of investigation. The term "attitude" is used rather loosely in this study to convey the pattern of beliefs, judgements and feelings about the use of coercion in MHC. A widely accepted definition of attitude is "...a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour" (Eagly & Chaiken, 1993, p 1).

A traditional view of attitudes is that they have three interrelated components: cognition, affect and behaviour. However, a preferred newer approach is to consider these three aspects as separate and distinct entities: beliefs, attitudes and behavioural intentions (Fishbein & Ajzen, 2005; Oskamp, 1991).

In social psychology, the study of the relation between attitudes and behaviour is extensive. Classical social cognitive theory (Bandura, 1986), theory of reasoned action (Fishbein, 1982), and theory of planned behaviour (Ajzen, 1991) are all social cognitive models that are based on the assumption that attitudes can predict behaviour. In this case, the assumption is that attitudes and personal values towards the use of coercion predict and influence the decision-making process regarding the actual use of coercion. However, later theories (Sjøberg, 2005) claim that attitudes only predict behaviour to some extent, and that there are other variables that can predict and explain behaviour, such as emotion, opportunity and economic realities.

Background

Cognitive dissonance theory (Festinger, 1957) is also relevant. It claims that not only is behaviour predicted by personal attitudes, but that we also tend to alter or construct our attitudes in retrospect to minimize discomfort when not acting in accordance with our belief systems and attitudes. According to this theory, we may construct our attitudes in retrospect to fit with our behaviour and not vice versa. The theories have, however, been tested empirically, and this indicates that attitudes do, to some degree, predict behaviour. For a more thorough, contemporary discussion about the relationship between attitudes and behaviour, see Fishbein and Ajzen (2005). Figure 2 shows factors that may influence staff attitudes towards the use of coercion in MHC.

An aim in the present study was to investigate if differences in staff attitudes towards coercion could explain the variation in actual use of coercion between wards. As it was not found any questionnaire that investigated staff attitudes toward use of coercion in general the first goal for this study was to develop a questionnaire for this purpose. It was found little research that investigated patters in and which factors that influenced on the formation of staff attitudes, and therefore this research question is also included in the present study.

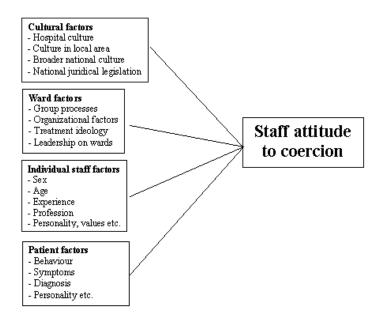


Figure 2. Factors that may influence staff attitudes towards coercion.

We have not fund any studies that investigate the relationship between staff attitudes towards coercion and actual use of coercive practice on acute psychiatric wards. There is, however, one study on the use of physical restraints towards the elderly living in geriatric care settings in Sweden. The cross-sectional study of 33 nursing homes and 529 staff members evaluated resident, staff, organizational and environmental variables. The wards were classified in three groups: restraint free, low-use wards and high-use wards. The study concluded that use of restraint on the elderly was strongly related to the residents' functional status and nursing staff attitudes towards their use (Karlsson, Bucht, Eriksson, & Sandman, 2001). Some studies have investigated staff, professional and psychiatrists attitudes towards

different aspects of the use of coercive interventions. Because they are relevant to this topic, they are also presented here.

Alem et al. (2002) investigated differences in ethical attitudes between Ethiopian and European MHC professionals. Compared to the European sample of professionals, the Ethiopian psychiatrists and nurses were more likely to recommend involuntary hospitalization and apply restraints. This study showed differences between countries in staff attitudes towards the use of coercion, but did not investigate the influence of staff attitudes on the actual frequency of coercive interventions.

Bowers et al. (2004) investigated differences in attitudes towards different containment methods in student psychiatric nurses. Neither the relative evaluation of methods, nor the intensity of those evaluations, changed systematically with duration of training. The findings support the interpretation that the relative evaluations of psychiatric containment methods are a property of wider national cultures, rather than an isolated tradition of professional psychiatric practice. This study did not investigate the relationship between staff attitudes and actual use of coercion.

Brooks (2006) investigated differences in attitudes towards involuntary commitment in psychiatrists in the USA. Their conclusion somewhat contradicted that of Bowers et al. (2004). They found that the psychiatrists' attitudes were not influenced by their personal characteristics of race, employment setting, and experience with commitment or political climate of the state. However, they did find the respondents' support for the various commitment grounds to be most significantly associated with what they believed was the law. This study did neither investigate the relationship between attitude and actual use of coercion.

Klinge (1994) also investigated the opinions of forensic hospital staff on the use of seclusion and restraint. Responses indicated that the staff tended to treat patients as they themselves would want to be treated. Female staff believed that patients experienced seclusion or restraint as positive attention, while male staff believed that it was experienced as negative. Staff with more education believed that restraint, seclusion and medication were overused. The author concluded that the findings that

gender and level of education affect staff use of restraint and seclusion should have important implications for staff training. This study did neither link staff attitudes to actual use of coercion.

Wynn (2003) used a questionnaire-based design to examine the attitudes of staff to restraint and seclusion in a Norwegian university psychiatric hospital. He found that a majority of staff believed that the interventions were used correctly. Staff working in wards with a high frequency of seclusion and restraint, and male staff, were most critical of how often the interventions were used. Many of the staff believed that the use of restraint and seclusion could violate patients' integrity, harm the provider—patient alliance and frighten other patients. Violence, self-harm and threats were given as the main reasons for the use of restraint. Increased staffing and more attention by level-of-care staff were cited as the most important strategies for reducing the use of restraint and seclusion. The author concluded that there is a need to inform staff about the negative effects of restraint and seclusion and for training staff in less restrictive ways of dealing with aggressive and violent patients. The study did not investigate the link between staff attitudes and actual use of coercion, but asked staff to comment on constructed patient vignettes.

Tateno et al. (2009) also used a case-vignette design when investigating young Japanese psychiatrists' attitudes towards coercion. The results showed great diversity in the likelihood of prescribing the use of restraint, and there was general agreement among the psychiatrists that the case in the vignette should involve involuntary admission and seclusion. They also found differences between the study hospitals, with staff working in general hospitals tending to prescribe the use of coercion more than staff in university hospitals.

Van Doeselaar et al. (2008) investigated professionals' attitudes towards reducing seclusion in The Netherlands. Their research question was whether the lack of effectiveness of programmes to reduce the use of restraint could be related to the attitudes of the professionals. They used a questionnaire on a sample of 540 professionals working in MHC. The design also included several other personnel and organizational characteristics. They found that the more the professionals were

involved in using coercive interventions, the more they believed in it. They also divided the professionals into three groups based on their willingness to change their practice. The three groups were named: Transformers, Doubters and Maintainers. More than half of the psychiatrists (56%) were classified as Maintainers. The nurses were more divided. The authors concluded that the professionals working in clinical settings were not really opposed to the use of restraints and that this can explain the limited effect of innovation projects.

As little research was found on the relationship between staff attitudes towards coercion and the actual use of coercive interventions. Clearly, there is a need for research on this topic, like the this study.

1.7 Ethical aspects and patients' human rights perspectives

Use of coercion in mental health is ethically challenging and raises many ethical questions and considerations. When coercive interventions are used in MHC, some of the relevant ethical themes and challenges are as follows.

Human rights. The issue of human rights (HR) is not one with which psychiatry has traditionally been occupied. Books on medical and psychiatric ethics hardly mention HR (Bloch, Chodoff, & Green, 2003; Donna & Fulford, 2000; Rüyter, Førde, & Solbakk, 2008). However, in the last decade, some articles have discussed HR in relation to MHC and in the use of coercion (Bindman, Maingay, & Szmukler, 2003; Kuosmanen, Hatonen, Malkavaara, Kylma, & Valimaki, 2007; Liegeois & Eneman, 2008; Lind, Kaltiala-Heino, Suominen, Leino-Kilpi, & Valimaki, 2004; Parker, 2007; Prior, 2001; WHO, 2005).

Paper IV in this thesis argues for the view that patients' HR should be considered when they are treated in MHC, especially when involuntary treatment and coercive interventions are used. The Human Rights states that all humans are protected from ill-treatment and detention. Using coercion against someone, deprivation of someone's freedom and restrictions on a person's life are usually violations against the person's HR. HR regulations do, however, allow the use of detention and restraint when a person has an "unsound mind" and especially if the

person is a threat to themselves or others. The concept of "unsound mind" is, however, not objective or clearly defined and depends on subjective interpretation (Søbye, 2011).

User involvement. In contemporary MHC, user involvement is the norm, and use of coercion clearly violates principles of user involvement and participation. Service users' rights to participate in their own treatment are also fixed in the Norwegian law of patients' rights (Helse- og omsorgsdepartementet, 1999). A Swedish study showed that only a minority of patients and relatives reported participating in treatment and care planning, both of which are regulated under Swedish law (Kjellin et al., 2004). Heightening user involvement and participation may lead to a reduction in the use of coercive practices.

Patient satisfaction. There is a heightened focus on user involvement and user satisfaction with health services, and a Norwegian study has looked at the relationship between the use of coercion and patient satisfaction. The researchers investigated legal, perceived and objective coercion received separately, and received cumulatively, with a measure of accumulated coercion. They found that accumulated coercive events significantly reduced both overall satisfaction, and satisfaction on four of five subscales evaluating different aspects of treatment (Iversen et al., 2007).

Risk of doing harm. An important issue in the ethics of psychiatry is whether the use of coercion may violate and harms patients. Testimonies from former patients describe how they have been psychologically injured and traumatized by the treatment itself (Frueh et al., 2005; Robins, Sauvageot, Cusack, Suffoletta-Maierle, & Frueh, 2005; Thune, 2008; Vaaland, 2007). As previously mentioned, the literature on restraint includes a long list of possible adverse effects and complications of being restrained. This includes problems with elimination, pneumonia, circulatory obstruction, cardiac stress, skin breakdown, poor appetite, dehydration, thrombosis, and accidental death. Other complications reported are getting out of restraints, vomiting, injuring self, injuring others and hostility or increased agitation (Hem et al, 2001; Mohr, Petti, & Mohr, 2003; Mohr, 2006; Zun & Downey, 2005). Persons who have experienced sexual and physical abuse may respond especially negatively to

being restrained, as they may re-experience trauma and additional harm (Wynn, 2004a).

Quality of care. The question of effect and outcome is a crucial one. If the use of coercion can be ethically defended, one should know that it actually has a positive effect on the individual exposed to the treatment. Until now, this has not been demonstrated in research that is good enough to allow a conclusion to be drawn (Høyer, 1998; Høyer, 2008; Kallert, 2008; Wynn, 2006). As commented in a German study:

Research activities are remarkably few in number, especially considering the frequency of involuntary measures and the controversial perception or discussion of these measures among the persons concerned, professionals, or a wider public. Many basic research questions still remain to be adequately addressed, such as the long-term effects of involuntary treatment. (Salize & Dressing, 2005, p 576).

As many researchers have now noted, data on the effectiveness of coercive measures are lacking and there is no evidence base for involuntary commitment. The few existing studies have focused mainly on outpatient commitment and show mixed results (Steadman et al., 2001; Swanson et al., 2000; Swanson, Swartz, Elbogen, Wagner, & Burns, 2003). Studies on this topic today often conclude that the relationship between subjective and reported coercive incidents and outcome of care are not yet fully understood and should be investigated in future research (Kjellin & Wallsten, 2010).

Variation in use. Another ethical challenge is how to interpret the variation in the coercive measures. In legislation, and from a HR perspective, it is an ethical imperative that coercive practices are used only as the last intervention, after voluntary interventions have been tried. If the variations in use of practice mean that some places may potentially reduce the use of coercive interventions, there may be HR consequences (Bowers et al., 2007; Bremnes et al., 2008; Carpenter et al., 1988; Helsetilsynet, 2006; Kjellin et al., 2008; Kullgren et al., 1996; Okin, 1985; Salize &

Dressing, 2004a; Way & Banks, 1990). There is also an ethical principle in MHC called the *principle of least coercive intervention* (O'Brien & Golding, 2003; Wynn, 2002). This also emphasizes the need to understand more of the situations in which coercion is used.

1.8 Aims of study and summary of research questions

As discussed, the use of coercion in MHC may threaten patients' HR, and, for ethical reasons, reducing its use to an absolute minimum should be a priority. Consequently, all research aimed at reducing the incidence of coercive interventions is important, as is research that aims to give more insight into the situations in which coercion is used. The main aim in the present thesis is to develop a questionnaire for the purpose and to explore the attitudes of staff towards the use of coercion in MHC in acute psychiatric wards in Norway. In addition, the thesis examines variations in the use of shielding, restraint and involuntary medication under hospitalization in acute psychiatric wards in Norway and investigates if these variations may be explained by staff attitudes, additional staff variables, ward or patient characteristics.

Paper I presents the development of a questionnaire to measure staff attitudes and thoughts towards the use of coercion in MHC. In paper II, the questionnaire is applied to a population of staff members to investigate patterns and geographical variations in staff attitudes towards coercion. Paper III investigate variation in actual use of coercion during hospitalization and the relation between the use of coercion and patient, staff and ward characteristics. The use of coercion in MHC has substantial ethical aspects, as implications for patients' human rights; paper IV discusses the use of coercion in MHC from a HR perspective. The structure of articles is shown in Figure 3.

Background

Paper I | The development of the SACS questionnaire

Paper II Staff attitudes and thoughts about the use of coercion in acute psychiatric wards Paper III
A cross-sectional study of seclusion restraint and involuntary medication in acute psychiatric wards: Patient staff and ward characteristics

Paper IV Human rights in mental health care

Figure 3. Structure of the four papers included in this thesis.

My research hypothesis was that staff attitudes towards the use of coercion could explain some of the variation in use of coercion. I therefore wanted to investigate if staff attitudes, ward or patient characteristics could explain differences in the use of coercive interventions.

My aim and research questions were as follows:

- To develop a questionnaire that measure staffs attitudes towards coercion in MHC (Paper I).
- Are there differences between staff groups in attitudes to the use of coercion in MHC? (Paper I and II)
- 3. Does this sample show the variation in the use of shielding, restraint and involuntary medication shown in previous studies? (Paper III)
- 4. Are staff attitudes toward coercion, ward or patient characteristics associated with the use of coercive interventions? (Paper III)
- 5. How may coercion in MHC be seen in relationship to users' human rights? (Paper IV).

2.1 Design

The study was part of the Multicenter study on Acute Psychiatry (MAP) in Norway in 2005 and 2006, which was carried out by an acute psychiatric services network as a cross-sectional prospective study. The study is also presented in one of the publications of the study group: "Treatment of schizophrenia with antipsychotics in Norwegian emergency wards, a cross-sectional national study" (Kroken, Johnsen, Ruud, Wentzel-Larsen, & Jorgensen, 2009). The research institute SINTEF Health Research in Norway organized the network and co-ordinated the study with support from the Norwegian Directorate of Health and Social Affairs. The study was approved by the Regional Committee for Ethics in Medical Research and by the Privacy Ombudsman on behalf of the Data Inspectorate. The Regional Committee for Ethics in Medical Research approved the study without requiring consent from the patients; thus, the study was restricted to chart data only.

2.2 Sample

Sample in paper I. The sample in paper I includes data from staff from six psychiatric departments consisting of 15 psychiatric acute and subacute wards. This included data from 215 individual staff members. Staff groups in Norwegian acute psychiatric wards are multidisciplinary and consist mainly of psychiatric nurses, enrolled nurses, psychologists, MD, psychiatrists, physiotherapists and social workers. The acute psychiatric departments included in paper I are the ones that are not included in the main study presented in paper II and III. This means that together this two samples include all acute psychiatric departments in Norway, expect one.

Sample in paper II. The sample in paper II consists of ward and staff variables.

Wards: Wards from 17 of the 23 acute psychiatric departments in the five health regions of Norway were included, and the sample is considered representative

of Norwegian acute psychiatric wards. Thus, 75% of Norwegian hospitals receiving in-patients for acute treatment were included. The sample consisted originally of 39 acute wards, which were categorized into three groups: four admission wards, 28 acute wards and six subacute wards. One ward was an intermediate term ward and was removed from the sample. Not all wards could be linked to staff and patient data in the multilevel analysis and paper II includes 33 wards in the multilevel analysis. Additional data about ward variables included in the multilevel analysis in paper II can be viewed in Table 1.

Staff: Of the original 772 staff members who participated in the MAP study, we had data from 651 individual staff members about their attitudes to coercion. In the multilevel analysis, it was possible to link data from 529 individual staff. The number of staff on the different wards was in the range of 3–50, with a mean of 20 and a median of 18 persons on each ward who completed the questionnaire. When estimated to full-time equivalents (Klimitz, Uhlemann, & Fahndrich, 1998), approximately 60% of the staff on the wards in the sample had filled in the staff questionnaires. Staff variables and frequencies are presented in Table 1.

Table 1: Sample Characteristic: Staff and Ward Variables in paper II

Variable	Mean (%)	n (%)	Missing (%)
Staff-level variables $(n = 651)$			
Women		386 (59)	30 (5)
Age (years)			4(1)
20–29		104 (15)	
30–39		189 (29)	
40-49		190 (29)	
50-59		135 (21)	
60+		29 (5)	
Acquired specialty in one's field		312 (48)	13 (2)
Total years of work experience	18 (10)		
Years of work experience in	10 (9)		43 (7)
MHC ^a			
Profession			1 (0)
MDs		74 (11)	
Psychologists		21 (3)	
Nurses		335 (52)	
Social workers, other			
professionals ^b		43 (6)	
Enrolled nurses		78 (12)	
Day shift		119 (18)	8 (1)
Day and evening shift		340 (52)	
Day and night		100 (15)	
Night shift		84 (13)	
Ward-level variables $(n = 33)$	Mean (SD)	n	
Acute wards		29	
Subacute wards		4	
Staff-to-bed ratio	3.2 (0.8)		
HoNOS total mean score ^c	1.24 (0.2)		
^a MHC = mental health care	• •		

^aMHC = mental health care ^bProfessionals with three-year educations

^cHoNOS = Health of the Nation Outcome Scales in the range of 0–4, with higher ratings indicating more severe problems.

Sample in paper III. The sample in paper III consisted of ward, patients and staff variables. To be included in the multilevel analysis, there must be no missing data on the variable. Paper III includes 32 wards in the multilevel analysis. Figure 4 shows data that could be linked in the two different multilevel analyses.

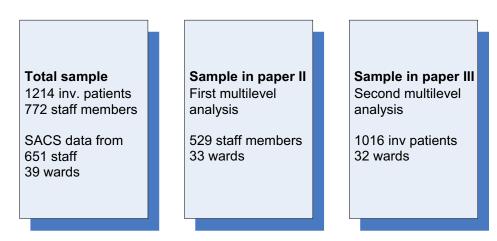


Figure 4. Total sample, and samples in paper II and III.

Wards: In paper II, the sample was divided into acute and subacute wards, and in paper III, the sample was divided into acute and admission wards, which gives slightly different samples. The reason for this is that while a division between acute and subacute wards seemed most appropriate at the time that paper II was written, a division between acute and admission wards seemed more adequate later when paper III was conducted. The admission wards have very short stays and serve like a gate-keeper to the other wards. Because of this, they are perhaps the wards that differ most from the other acute psychiatric wards. Ward variables consist of data about the staff attitudes to coercion, staff-to-bed ratio, and whether the ward was located in an urban or rural setting. Ward-level variables in paper III are shown in Table 2.

Table 2: Ward Variables in paper III

Ward Variables	
Acute wards	28
Admission wards	4
Mean number of beds (SD)	11 (3.5)
Mean staff-to-bed ratio (SD)	3.5 (0.8)
Wards in urban area ^a	8
Wards in rural area	24
Staff Attitude towards Coercion Scale ^b	
Coercion as offending (mean, SD)	2.9 (0.2)
Coercion as care & security (mean, SD)	4.2 (1.6)
Coercion as treatment (mean, SD)	2.5 (0.2)

^aWard in city with more than 100,000 inhabitants.

Patients: The sample consisted of a total of 3572 patients. We estimate this to be approximately 95% of the patients admitted in the three-month inclusion period. Of these, 1214 patients were involuntarily admitted. This constituted 35% of all patients admitted in the period. Patients on involuntary observation (19%) and involuntary admission (16%) were combined in this sample. Coercive measures are used almost exclusively on involuntarily admitted patients. Hence, voluntarily admitted patients were excluded from the multilevel analyses. For the multilevel analysis it was possible to link data on patients and wards for 1016 involuntarily admitted patients. Patient variables in paper III are presented in Table 3.

^bScale is in the range of 1–5, with higher ratings indicating higher agreement with attitude (mean score).

Table 3: Characteristics of Total Sample and Involuntarily Admitted Patients in paper III

	Total Sample	Involuntary Adm
Patient Variables	3462 (100%)	1214 (35%)
Mean age (SD)	40 (15.5)	40 (16.7)
Sex (women/men) (%)	1710/1752 (49/50)	587/625 (48/52)
Norwegian background (%)	3077 (89)	1053 (88)
Non-Norwegian background (%)	350 (10)	144 (12)
Not having own home (%)	715 (21)	305 (25)
Previous contact with MH services (%)	2572 (74)	864 (72)
GAFS at admission (mean, SD) ^a	36 (12)	31(11)
GAFF at admission (mean, SD) ^b	38 (11)	34(11)
F 20–29 diagnosis (%)	831 (24)	460 (41)
Health of the Nation Outcome Scales ^c	mean (SD)	mean (SD)
HoNOS 1 (overactive & aggressive)	0.96 (1.23)	1.47 (1.37)
HoNOS 2 (self-injury & suicidal)	0.96 (1.35)	0.77 (1.30)
HoNOS 3 (drinking & drugs)	1.09 (1.45)	1.02 (1.45)
HoNOS 4 (cognitive problems)	0.91 (1.13)	1.24 (1.29)
HoNOS 5 (physical illness & disability)	0.67 (1.08)	0.65 (1.07)
HoNOS 6 (hallucinations & delusions)	1.35 (1.44)	2.02 (1.47)
HoNOS 7 (depressed mood)	1.65 (1.23)	1.25 (1.26)

^aGAFS = Global Assessment of Symptoms Scale

Inclusion of patients. Patients were included in the study over a period of three months, and data were collected at admission and at discharge. Data collection was completed two months after admission if the patient had not been discharged in this time, although most patients were discharged before this. Mean duration of stay on all wards was 7.4 days (SD = 11.2). Mean duration of stay was 9.5 days (SD = 12.5) for the "traditional" acute wards and 3.2 days (SD = 6.0) for the very short-stay wards (admission wards). A very few patients may have had more than one admission in the three-month inclusion period. For the same wards, data were collected on the number of beds, staffing, staff characteristics and attitudes towards coercion at the beginning of the inclusion period. Figure 5 gives an overview of the data collection, including the data that were collected at admission and at discharge.

^bGAFF = Global Assessment of Functioning Scale

^{ab}Scale is in the range of 0–100, with lower ratings indicating more severe problems.

^cScale is in the range 0–4, with higher ratings indicating more severe problems.

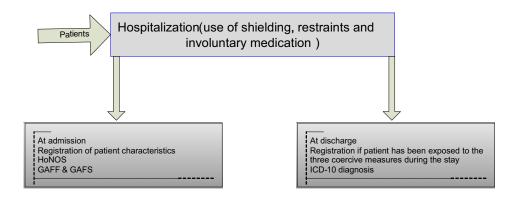


Figure 5. Schedule for data collection during the inclusion period of three months.

2.3 My position

Thru my period as a Ph.D. scholar, I have been asked if not my own views about ethics and quality of care in MHC may have influenced on my interpretations of my findings. The purpose of scientific work and publishing is that they are to be transparent and thoroughly describes methods and findings in such a way that other researchers may follow the process and argumentation. In this way, the readers can read for themselves and evaluate if my own standpoints have influenced on my conclusions. I do think all researcher have they own opinions, values and ethical views which influence on their choice of research topic. In such ways, I do not think my position is very different. I do however think that my experience in doing clinical work and my studies in ethics have made me suitable to choose a needed and important topic for research. As quality insurance for my interpretations of the data, my papers are written in collaboration with other more experienced researchers than myself. Especially the second author (Johan Haakon Bjørngaard) who have conducted the multilevel analysis, have contributed in the interpretations of the data. Personally, I feel safe that my interpretations are reasonable given the present data.

2.4 User involvement in the study

Mental health service users have been involved in several aspects of this study. This PhD thesis had funding from Health and Rehabilitation (*Helse & Rehabilitering*) through the Norwegian Council for Mental Health (Rådet for psykisk helse). The main study (MAP) had a reference group of users from the major user organizations (Mental Health Norway, National Association for Relatives in Mental Health Services) together with representatives from several types of health services. A user researcher was involved in the making of the SACS questionnaire, and a group of "expert" users and professionals was involved in the construct validity testing of the SACS. The clinicians and mental health researchers were considered to be experts in this field because they had long experience with working in and with the services. The users were considered to be experts because they had experience with using the services and had worked as user participants in different user organizations.

2.5 Definition of coercive measures

Coercive measures during hospitalization in this study were defined as shielding, restraint and involuntary medication. At the time of patient discharge, a questionnaire was completed. The questionnaire registered whether the patient had been subject to shielding or restraint during their stay. For the involuntary medication variable, the questionnaire asked if the patient had been given involuntary depot medication. The instruction to the wards was that a person who knew the patient well should complete the discharge questionnaire. This could be the patient's contact nurse, MD or psychologist responsible for treatment.

2.6 The Staff Attitude towards Coercion Scale

The Staff Attitude towards Coercion Scale was developed for this study to measure staff attitudes about the use of coercion in MHC. The 15-item questionnaire gives three subscales that represent three different clusters of staff attitude as follows.

I. Coercion as offending (critical attitude)

This dimension represents the view of coercion as offensive towards patients. This dimension consists of the items that are most critical to the use of coercion and focuses on a wish to reduce the use of coercion. Other aspects in this view are that coercion is potentially harmful and offensive towards patients and can violate the relationship between caregiver and patient. It also contains statements that claim that the use of coercion could be reduced if staff had more time available to be with the patients and talk with them.

II. Coercion as care and security (pragmatic attitude)

This dimension represents the view of coercion as being required for care and security. This dimension consists of items that focus on the use of coercion for security reasons, and the opinion that using coercion is perceived as giving care. This attitude can be considered to be a middle position and has a pragmatic view of the use of coercion. In this view, the use of coercion is not considered to be positive or wanted, but necessary for safety and security reasons. Other aspects in this attitude are the assumption that when people are in a crisis, they sometimes have to be cared for by others. This position represents some element of mild paternalism, which is considered to be taking care of someone.

III. Coercion as treatment (positive attitude)

This dimension represents the view of coercion as a treatment intervention. This dimension includes the items that have the most positive view of the use of coercion. One item says that more coercion should be used in MHC. The two other items suggest that the use of coercion towards patients who are regressive and who lack insight is necessary. This is a common assumption in mental health nursing literature. This position represents a strong element of paternalism, and the paternalism is regarded as a treatment intervention.

Items in the three subscales. Items are arranged in descending order of factor loading strength.

I. Coercion as offending (critical attitude)

Use of coercion could have been much reduced, by giving more time and personal contact.

Scarce resources lead to more use of coercion.

Coercion violates patients' integrity.

Too much coercion is used in treatment.

Use of coercion can harm the therapeutic relationship.

Use of coercion is a declaration of failure on the part of mental health services.

II. Coercion as care and security (pragmatic attitude)

For security reasons coercion must sometimes be used.

Coercion may represent care and protection.

Use of coercion is necessary as protection in dangerous situations.

For severely ill patients, coercion may represent safety.

Coercion may prevent the development of a dangerous situation.

Use of coercion is necessary for dangerous and aggressive patients.

III. Coercion as treatment (positive attitude)

Patients without insight require the use of coercion.

Regressive patients require the use of coercion.

More coercion should be used in treatment.

Development and initial validation of the instrument. The initial pool of items was developed through a process in which a group of mental health researchers acted as a focus group. The aim of this process was to formulate items that represented different kinds of attitudes and opinions towards using coercion in MHC. The work was based on theory and studies considered to be relevant to staff reasons for using coercion, seclusion and boundary setting in MHC. The group also contained a user researcher to facilitate the user perspective. The research group's own clinical experience was that the reason for using coercion was for security reasons, to give care or as treatment. This is congruent with the dimensions identified in the literature review described above. The aim of the item construction was to ensure that the items covered this diversity of attitudes and opinions of using coercion. The items were then sent to other service users, mental health clinicians and researchers for comment. The initial questionnaire at the end of this process contained 22 items. In June 2005, the questionnaire with the initial 22 items was pilot tested and data from 137 individual staff members was collected. SPSS was used to perform an exploratory principal component analysis with Varimax rotation. This gave six dimensions with an eigenvalue above one. This explained a total of 61% of the variation. The items with dimension loadings less than 0.40 were left out, as were items that left a higher Cronbach's alpha for a dimension when removed. This process reduced the questionnaire from 22 to 15 items, and the number of factors from six to five. Both a five-dimension and a three-dimension model were then explored and discussed as working models. The five-dimension model was eventually rejected in favour of the three-dimension model, which was considered to be statistically and clinically meaningful. The three-dimension model also harmonized with theoretical models and previous studies that were used as a working hypothesis during item selection and scale construction. As a conclusion, 15 items and the three-dimension model were chosen for the final SACS questionnaire. The questionnaire is presented in the Appendix and additional psychometric qualities of the questionnaire are presented in the Result section.

2.7 Health of the Nation Outcome Scales

The Health of the Nation Outcome Scales (HoNOS) is a 12-item instrument that was developed in the United Kingdom in 1996 to quantify and thus potentially measure progress in patient mental health during treatment. It covers clinical and social functioning with reasonable adequacy (Wing et al., 1998). The scales are rated by staff on a scale in the range of 1–4, with higher ratings indicating more severe problems. The subscales used in this study are:

- ➤ HoNOS 1: Overactive, aggressive, disruptive or agitated behaviour
- ➤ HoNOS 2: Non-accidental self-injury and suicidal attempt
- ➤ HoNOS 3: Problem drinking or drug taking
- ➤ HoNOS 4: Cognitive problems
- ➤ HoNOS 5: Physical illness or disability problems
- ➤ HoNOS 6: Problems associated with hallucinations and delusions
- ➤ HoNOS 7: Problems with depressed mood

To increase the reliability of the data, staff members were trained in using the scales before the data inclusion period, using the training model developed for HoNOS in the United Kingdom.

2.8 Statistical methods

Multilevel regression analysis. Health services research regularly involves questions in which individual outcomes, such as patient outcomes, are influenced by contextual factors, such as ward characteristics. Hence, explanatory variables may be defined at both the individual and contextual levels. Analytically, this raises some important methodological challenges. Standard statistical tests lean on the assumption

of independence between observations, which is obviously not true if the context is an important factor. If this assumption is violated, estimates of standard errors may be too narrow. The causal process affecting the probability of the outcome is likely to be affected both by individual and shared contextual factors, such as patients within wards. The multilevel framework allows for simultaneous analysis of both individual and contextual variables and also takes into account the clustering structure of data (Leyland & Goldsted, 2001).

Paper II. In paper II, data about staff attitudes towards the use of coercion were analysed using multilevel regression analysis. The sample comprised two hierarchical levels (patients and wards). This analysis simultaneously examines the contribution of ward- and staff-level characteristics. The regression intercepts were allowed to vary randomly across wards, making possible an estimation of the variance attributed at the ward versus the staff level. The intraclass correlation coefficient (ICC) is a measure of the degree of agreement between staff members from the same ward. When multiplied by 100 it can be interpreted as the percentage of variance attributed to the ward level. The dependent variables were treated as continuous variables and *linear regression analysis* was performed. Differences were considered significant when p < 0.05. Multilevel regression analysis was performed using the software Stata (http://www.stata.com).

Paper III. In paper III, multilevel regression analysis of coercion, ward and patients characteristics was completed. The sample comprised two hierarchical levels (patients and wards), and the dependent variables had two values (0 = no use and 1 = use). *Multilevel logistic regression* in Stata was applied. Selection of variables for multilevel analysis was based on theoretical considerations. The number of cases limited the number of variables that could be included in the analysis.

In the present analysis, this framework allowed the estimation of the relationship between coercion use and patient- and ward-level characteristics (fixed parameters), and the estimation of variance in coercion probability between wards that was not accounted for by individual- and ward-level factors. The variance

attributable to the ward level was estimated with the ICC (Snijders and Bosker, 1999).

Because the patients have been at risk of coercion for different lengths of time, the multivariable analysis is adjusted for patients' length of stay on the ward (LOS) and LOS² to take nonlinearity into account.

Principal Component Analysis. In designing the SACS questionnaire, SPSS version 15 was used to perform explorative principal component analysis with Varimax rotation. This procedure is presented in paper I.

Descriptive Statistics. SPSS version 15 was also used to perform additional analysis of descriptive statistics in paper I, II and III.

3 Results

3.1 Summary of paper I

The Staff Attitude towards Coercion Scale: reliability, validity and feasibility.

A 15-item questionnaire was developed through a process that included item construction and sampling, a pilot study and tests of reliability and validity. The questionnaire was tested on a sample consisting of 215 staff members from 15 multidisciplinary staff groups in acute and subacute psychiatric wards in Norway. Descriptive statistics and Cronbach's alpha were used to examine the psychometric properties of the items, and principal component analysis was used to analyse the dimensional structure. The process of developing the SACS questionnaire is shown in Figure 7.

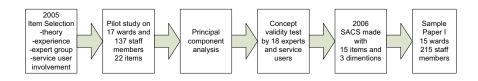


Figure 7. The process of developing the SACS questionnaire.

Structure of subscales

Explorative principal component analyses with Varimax rotation showed that the three-dimension model from the pilot study sample was replicated in the sample in paper I, had an eigenvalue above 1.6 and explained 49% of the variation. Results from the principal component analysis are presented in Table 4.

Table 4: Principal component analysis, Rotated Component Matrix, Varimax solution in sample in paper I

	Coercion as	Coercion as	Coercion as
	offending	care and	treatment
Items		security	
1. Coercion as offending			
15. Use of coercion could have been much reduced, giving more time and personal contact	0.78	0.07	-013
14. Scarce resources lead to more use of coercion	69.0	0.13	-0.10
8. Coercion violates the patient's integrity	0.61	-0.24	-0.10
13. Too much coercion is used in treatment	0.58	-0.23	60.0
3. Use of coercion can harm the therapeutic relationship	0.50	80.0-	-0.18
4. Use of coercion is a declaration of failure on the part of the mental health services	0.50	-0.37	0.16
2. Coercion as care and security			
2. For security reasons coercion must sometimes be used	0.16	92.0	0.08
5. Coercion may represent care and protection	-0.31	0.67	-0.17
1. Use of coercion is necessary as protection in dangerous situations	-0.07	0.64	0.04
9. For severely ill patients coercion may represent safety	-0.22	0.59	0.19
7. Coercion may prevent the development of a dangerous situation	-0.12	0.56	0.21
11. Use of coercion is necessary towards dangerous and aggressive patients	0.04	0.48	0.44
3. Coercion as treatment			
10. Patients without insight require use of coercion	-0.20	0.12	0.81
12. Regressive patients require use of coercion	-0.04	0.05	0.81
6. More coercion should be used in treatment	-0.35	0.09	0.55

Reliability. The internal consistency (Cronbach's alpha) of the subscales was 0.70, 0.73 and 0.69. The correlations between the three subscales are shown in Table 5. All correlations are statistically significant at the 0.01 level (two-tailed). The correlations are considered to be moderate. This supports the use of three subscales. However, moderate correlation coefficients and high internal reliability for the whole scale (Cronbach's alpha = 0.78) also indicates that the scale also may give meaningful results when used as one dimension. Items in the *Coercion as offending attitude* are reversed when used as one dimension.

Table 5: Pearson Correlations* between the Three Subscales

-	Offending Attitude	Security Attitude	Treatment Attitude
Offending attitude	1	-0.203	-0.134
Security attitude	-0.203	1	-0.231
Treatment attitude	-0.134	0.231	1

^{*} All correlations are statistically significant at the 0.01 level (two-tailed)

Additional psychometric properties (mean, SD and skewness) of items and dimensions are presented in Table 6.

Table 6: Reliability and psychometric properties in sample in paper I

				Cronbach
Items	Mean	SD	Skewness	Alpha
1. Coercion as offending				0.70
15. Coercion could have been much reduced, giving more time and personal contact	3.41	96.0	-0.03	
14. Scarce resources lead to more use of coercion	3.22	60.1	-0.25	
8. Coercion violates the patients integrity	3.24	0.92	-0.20	
13. To much coercion is used in treatment	2.54	0.91	0.46	
3. Use of coercion can harm the therapeutic relationship	3.31	1.04	-0.47	
4. Use of coercion is a declaration of failure on the part of the mental health services	1.95	0.84	89.0	
2. Coercion as care and security				0.73
2. For security reasons coercion must sometimes be used	4.41	69'0	-1.62	
5. Coercion may represent care and protection	4.21	9.0	-0.54	
1. Use of coercion is necessary as protection in dangerous situations	4.34	0.70	-1.49	
9. For severely ill patients coercion may represent safety	4.00	0.64	-0.75	
7. Coercion may prevent the development of a dangerous situation	3.92	0.82	98.0-	
11.Use of coercion is necessary towards dangerous and aggressive patients	4.06	0.84	-0.88	
3. Coercion as treatment				69.0
10. Patients without insight require use of coercion	2.64	80.1	0.28	
12. Regressive patient require use of coercion	2.33	6.03	0.29	
6. More coercion should be used in treatment	2.23	0.81	0.32	

Results

Content validity. The dimensional structure was validated by a group of experts. The method of having the initial item pool revised by experts is described by DeVellis (2003). This can be performed in several ways to measure the content validity of the scale. We used 18 clinicians, mental health researchers and users who were considered to be experts in the field. The clinicians and mental health researchers were considered to be experts in this field because they had long experience with working in and with the services. The users were considered to be experts because they had experience with using the services and had worked as user participants in different user organizations. They were asked to sort the 15 items into the three subscales that were used as the first working model. Altogether, 18 questionnaires were returned. The respondents generally placed the items in the correct subscale. For 11 of the items, the correct placement of the item was above 80%. The results of the validity test are presented in Table 7.

Table 7: Content validity: percent of items sorted in the three subscales in sample in paper I

	Coercion as	As care and	Coercion as
Items	offending	security	treatment
1. Coercion as offending			
15. Coercion could have been much reduced, giving more time and personal contact	100	0	0
14. Scarce resources lead to more use of coercion	100	0	0
8. Coercion violates the patients integrity	94	9	0
13. To much coercion is used in treatment	100	0	0
3. Use of coercion can harm the therapeutic relationship	78	9	16
4. Use of coercion is a declaration of failure on the part of the mental health services	94	9	0
2. Coercion as care and security			
2. For security reasons coercion must sometimes be used	9	94	0
5. Coercion may represent care and protection	9	88	9
1. Use of coercion is necessary as protection in dangerous situations	0	93	7
9. For severely ill patients coercion may represent safety	0	68	11
7. Coercion may prevent the development of a dangerous situation	9	94	0
11.Use of coercion is necessary towards dangerous and aggressive patients	0	94	9
3. Coercion as treatment			
10. Patients without insight require use of coercion	13	18	69
12. Regressive patient require use of coercion	19	31	50
6. More coercion should be used in treatment	19	9	75

Results

A model with three groups (subscales) of attitudes/opinions was chosen, based on principal component analysis, construct validity testing and clinical considerations. Items in each subscale are presented in the Methods section.

The three groups of attitudes have been named:

- I: Coercion as offending (critical attitude)—the view of coercion as being offensive towards patients
- II: Coercion as care and security (pragmatic attitude)—the view of coercion as being needed for care and security
- III: *Coercion as treatment* (positive attitude)—the view of coercion as being a treatment intervention.

An important question in the development of a questionnaire is its feasibility. The SACS is considered to be easy to administer, quick to complete and easy to comprehend. Because it consists of only 15 items, it takes only a few minutes to complete. The questionnaire was well received by the staff, and the majority filled it in. This is also an indicator of good feasibility.

Main results from paper I. A 15-item questionnaire suitable for measuring staff attitudes towards the use of coercion in MHC was developed. The questionnaire has shown stable psychometric abilities in two different samples, and is considered to have shown good reliability, validity and feasibility.

Exploratory principal component analysis indicates that staff attitudes towards the use of coercion in MHC can be divided into three dimensions (subscales); *Coercion as offending, Coercion as care and security & Coercion as treatment.*

3.2 Summary of paper II

Staff attitudes and thoughts about the use of coercion on Norwegian psychiatric acute wards. The study investigated staff attitudes and thoughts towards coercion among 651 staff within 33 Norwegian acute psychiatric wards. More information about the staff and wards is presented under sample characteristics in the Methods section in Table 1. The newly developed SACS was used to measure staff attitudes towards the use of coercion in MHC. Mean, standard deviation and confidence intervals of items and subscales for the whole sample are presented in Table 8. The three subscales explained 47% of the variation in measured attitudes, and Cronbach's alpha for the three subscales in this sample was 0.65, 0.73 and 0.62.

Differences in staff attitudes towards coercion between wards. Multilevel analysis was done for each of the three subscales (dependent variables). Results are shown in Table 9. The multilevel analysis model showed that there was significant variance between wards, estimated to about 8–11% of the total variance on the three scales. Most of the variation in staff attitudes between staff could however be explained by differences between individual staff.

Factors that influence staff attitudes towards coercion. The independent variables comprised individual staff members' characteristics and ward-level characteristics. The independent variables could explain the variance in the dependent variables to only a small extent. Thus, other variables that the ones included in this study may influence on staff attitudes toward coercion.

Table 8: Descriptive statistics of items and subscales in the Staff Attitude towards Coercion Scale in sample in paper II

			1		
Items	n	Mean	SD	95% Conf	95% Confidence Interval
				Lower	Upper
I. Coercion as offending attitude	651	2.89	0.56	2.38	2.49
15. Coercion could have been much reduced, giving more time and personal contact	989	3.24	0.97	3.17	3.32
14. Scarce resources lead to more use of coercion	637	2.94	1.15	2.85	3.03
8. Coercion violates the patients integrity	634	3.26	0.91	3.19	3.34
13. To much coercion is used in treatment	637	2.52	0.82	2.45	2.58
3. Use of coercion can harm the therapeutic relationship	989	3.34	1.03	3.26	3.42
4. Use of coercion is a declaration of failure on the part of the mental health services	632	2.01	0.92	1.94	2.09
II. Coercion as care and security attitude	651	4.19	0.49	4.15	4.23
2. For security reasons coercion must sometimes be used	637	4.34	08.0	4.28	4.41
5. Coercion may represent care and protection	637	4.27	99.0	4.22	4.32
1. Use of coercion is necessary as protection in dangerous situations	635	4.41	0.67	4.36	4.46
9. For severely ill patients coercion may represent safety	989	4.16	0.67	4.10	4.20
7. Coercion may prevent the development of a dangerous situation	636	3.99	0.84	3.93	4.06
11.Use of coercion is necessary towards dangerous and aggressive patients	634	3.97	0.90	3.89	4.04
III. Coercion as treatment attitude	651	2.44	89.0	2.38	2.49
10. Patients without insight require use of coercion	634	2.56	0.99	2.49	2.64
12. Regressive patient require use of coercion	631	2.39	0.85	2.33	2.46
6. More coercion should be used in treatment	989	2.35	0.90	2.28	2.42

Answers given on a 5-point Likert response scale (1=Disagree strongly – 5=Agree strongly)

Table 9: Multilevel analysis of staff attitudes towards coercion in sample in paper II

	Offending	Security	Treatment
Fixed effects	b p value (95% conf. int)	b p value (95% conf. int)	b p value (95% conf. int)
Staff level variables:			
Women compared with men	$-0.10 \ 0.071 \ (-0.20, 0.01)$	$-0.01 0.849 \ (-0.10, 0.08)$	$-0.13 0.036 \ (-0.26, -0.01)^*$
Age 30-39 compared with 20-29	0.08 0.295 (-0.07, 0.24)	0.01 0.930 (-0.13, 0.14)	0.05 0.631 (-0.14, 0.23)
Age 40–49 compared with 20–29	0.28 0.008 (0.07, 0.48)**	$-0.11 0.237 \ (-0.28, 0.07)$	$-0.05 0.693 \ (-0.29, 0.20)$
Age 50–59 compared with 20–29	0.35 0.009 (0.09, 0.62)**	$-0.17 \ 0.151 \ (-0.40, 0.06)$	$-0.14 0.382 \ (-0.46, 0.18)$
Age 60+ compared with 20–29	0.58 0.004 (0.19, 0.97)**	$-0.21 0.227 \ (-0.54, 0.13)$	0.00 0.987 (-0.47, 0.47)
University compared with nurse	$-0.17 \ 0.047 \ (-0.35, 0.00)*$	0.09 0.230 (-0.06, 0.24)	0.19 0.075 (-0.02, 0.39)
Other college education	$-0.05 \ 0.609 \ (-0.25, 0.15)$	$-0.04 0.642 \ (-0.21, \ 0.13)$	$-0.14 0.238 \ (-0.38, 0.09)$
Other professions	$-0.10 \ 0.106 \ (-0.23, 0.02)$	0.13 0.019 (0.02, 0.24)*	0.06 0.423 (-0.09, 0.21)
Speciality compared with not	0.05 0.360 (-0.06, 0.16)	0.01 0.866 (-0.09, 0.10)	$-0.16 0.018 \ (-0.29, -0.03)^*$
Total work experience	-0.02 < .001 (-0.03, -0.01) ***	0.00 0.879 (-0.01, 0.01)	$0.00 0.847 \; (-0.01, 0.01)$
Night- compared with day-shift	0.05 0.636 (-0.14, 0.24)	0.16 0.056 (0.00, 0.32)	$0.25 0.035 \ (0.02, 0.47)$ *
Day&evening- compared with day-shift	$-0.04 \ 0.632 \ (-0.19, 0.11)$	0.09 0.185 (-0.04, 0.22)	$0.22 0.016 \ (0.04, 0.40)$ *
Day&night- compared with day-shift	$-0.15 \ 0.096 \ (-032, 0.03)$	0.18 0.023 (0.02, 0.33)*	$0.24 0.026 \ (0.03, 0.45)^*$
Ward level variables			
Acute compared with subacute	$-0.28 \ 0.083 \ (-0.60, 0.04)$	$-0.02 \ 0.877 \ (-0.34, 0.29)$	$-0.11 0.580 \ (-0.51, 0.29)$
Staff to bed ratio	$-0.07 0.187 \ (-0.18, 0.04)$	0.06 0.248 (-0.04, 0.17)	$-0.04 0.591 \ (-0.17, 0.10)$
HoNOS-mean ^a	0.74 0.005 (0.23, 1.25)**	-0.27 0.284 (-0.77, 0.23)	-0.33 0.312 (-0.97, 0.31)
Random effects			
Ward level variance	0.024 (0.01, 0.07)	0.027 (0.01, 0.06)	0.041 (0.02, -0.10)
Staff level variance	0.289 (0.26, 0.33)	0.213 (0.19, 0.24)	0.415 (0.37, -0.47)
p value likelihood-ratio test	<.001	<.001	<.001
ICC	~	11	6
Observations	529	529	529
3 0 -1 - 0 - 0 - 1 -1 -1 -1	Control from the A width higher from metings from months and have \$\pi \cdot \cdot \pi	1000/: *** 100	í.

 $^{^{\}rm a}$ Scale from 0 to 4 with higher ratings for more severe problems. *p < 0.05, **p < 0.01, *** p < 0.001

Individual staff-level variables. Staff members older than 40 years of age had higher scores on the scale of offending attitudes (p < 0.01), but there were no significant age differences on the other two scales. In this sample, older staff were more critical of the use of coercion. Women were slightly more critical on the treatment attitude scale than men (p < 0.05). The difference in scale scores between the professional groups was marginal. University-trained personnel (MDs and psychologists) had a slightly lower score on the offending attitude scale than nurses (p < 0.05). Compared with nurses, other professional groups (e.g., social workers) had a significantly higher score on the security attitude scale (p < 0.05). Staff with a specialized qualification in MHC had a significantly lower scale score on the treatment attitude scale (p < 0.05). Length of time as a MHC worker was negatively associated with scores on the offending attitude scale (p < 0.01), but not with the other two scales. Staff members who worked day and evening shifts had lower scores on the scale of security than those who worked only day shifts (p < 0.05). Compared with day-shift workers, those who worked night, day and evening, and day and night shifts, had higher treatment attitude scale scores (p < 0.05).

Ward-level variables. Higher severity of psychiatric problems among patients on the ward, as measured by the mean level of HoNOS, was significantly associated with higher ward scores on the offending attitude scale (p < 0.01). There were no statistically significant differences in attitudes between staff members in acute wards and those in subacute wards. The staff-to-bed ratio was not significantly associated with scores on any of the three scales.

Main results from paper II. Multilevel analysis showed there was a significant variance in staff attitudes towards the use of coercion between wards, estimated to explain about 8–11% of the total variance in the three subscales. However; most of the variance could be attributed to individual staff level factors.

Variables in this study could explain the variance in staff attitudes between staff groups to only a small extent. Hence, there are other factors beyond the study that influence attitudes.

Results

Statistically significant findings are that women had a marginally lower score on the treatment attitude scale. Furthermore, staff over 40 years considered the use of coercion to be more offensive towards patients than did younger staff members. On the other hand, experienced staff members seemed to have lower scores on the offending attitude scale. This indicates that experienced staff members, to a lesser degree, consider the use of coercion to be offensive towards patients.

Staff members with higher levels of education seemed to consider coercion to be less offensive than staff with lower levels of education. Furthermore, in this study, staff with a speciality in MHC had a significantly lower score on the treatment attitude scale. This finding indicates that staff members who had gone through a speciality program believed less in the use of coercion as a treatment intervention.

Compared with day-shift workers, staff who work other shifts reported higher scores on the treatment attitude scale. This indicates that staff members who work other than shifts than day shifts have a higher belief in the use of coercion for treatment.

Staff on wards with patients with higher severity (HoNOS) of mental health problems showed higher agreement with items in the offending attitude scale. This may indicate that staff members working with more troubled patients are more concerned about the possible negative effect the use of coercion can have on patients.

3.3 Summary of paper III

A cross-sectional prospective study of seclusion (shielding), restraints and involuntary medication in acute psychiatric wards: patient, staff and ward characteristics. Previous research on MHC has shown considerable differences in the use of shielding, restraint and involuntary medication among different wards and geographical areas. This study investigates the extent to which the use of shielding, restraint and involuntary medication for involuntarily admitted patients in Norwegian acute psychiatric wards is associated with patient, staff and ward characteristics. The study includes data from 32 acute psychiatric wards. Sample characteristics for patients, staff and wards are presented in Tables 1, 2 and 3 in the Methods section.

Differences in the use of coercive measures between wards. The total number of involuntarily admitted patients in the sample was 1214 (35% of the total sample) with a range of 0–88% across wards. Of these patients, 424 (35%) had been shielded, 117 (10%) had been restrained, and 113 (9%) had received involuntary depot medication at discharge. One hundred and six patients (9%) had been both secluded and restrained. The differences in the use of coercive measures between the 32 wards are shown in Figure 8.

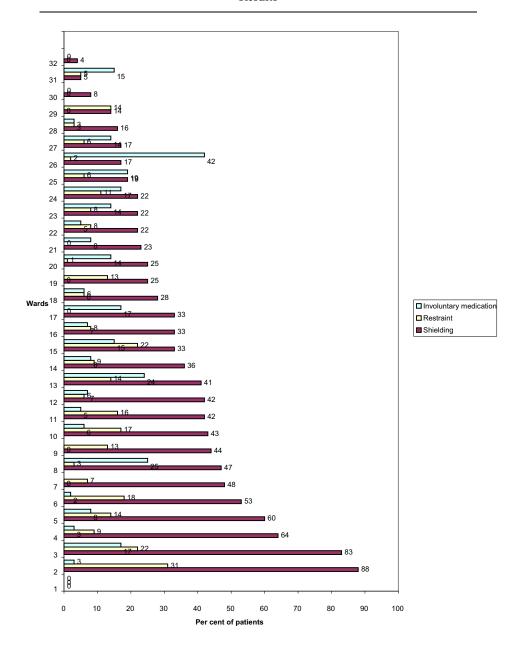


Figure 8. Variation in the use of coercive measures between wards in sample in paper III, involuntarily admitted patients on wards exposed to (%) (n = 1214)

Results

Multilevel analysis. For the multilevel logistic regression analysis, data were available for 1016 patients for all the independent variables and were included in the analysis. Dependent variables in this analysis were shielding, restraint and involuntary medication. Results for the multilevel analysis are presented in Table 10. Main findings are presented here.

Shielding. The ICC in a model only, adjusted for LOS (Length of Stay) and LOS², was 0.22 for the use of shielding. After adjustment for patient- and ward-level variables, the ICC for shielding was reduced to 0.09 (p < 0.01). There was no statistically significant difference between male and female patients regarding the use of shielding. There were positive associations between aggressive/overactive, self-injury/suicidal and hallucinations/delusional symptoms scores and the risk of being shielded, and there was a negative association between depressed mood and shielding. There were no statistically significant associations between shielding and drinking/drug problems, cognitive problems and physical illness. There were no significant differences in the risk of being shielded between patients who were homeless or not, well known to the referring agency or not, drugged at admission or not, and Norwegian or not. Wards located in urban areas used more shielding (OR = 7.65) than wards in smaller towns and rural areas. There was a substantially lower level of use of shielding in admission wards (OR = 0.19) than in other wards. The staff-to-bed ratio was not substantially associated with the use of shielding.

Table 10: Multilevel logistic regression (Odds Ratio) on sample in paper III, only involuntary admitted patients in the analysis

	Shielding		Restraints		Involuntar	Involuntary medication
Patient variables	OR	95% Int.	OR	95% Int.	OR	95% Int.
Sex (female)	1.29	0.92-1.79	29.0	0.39-1.13	86.0	0.57-1.67
Other than Norwegian	1.15	0.70 - 1.88	0.39*	0.16 - 0.96	0.50	0.20-1.24
Not having own home	1.85	0.89–3.81	1.34	0.49–3.64	0.44	0.09-2.13
Patient known to referring agency	08'0	0.57-1.13	0.57	0.32 - 1.02	3.27***	1.87–5.71
F 20–29 diagnosis (ICD–10)	1.04	0.71-1.51	1.76	0.99–3.14	10.85***	5.32-22.13
Intoxicated at admission	1.48	0.85–2.56	1.43	0.65 - 3.12	0.79	0.30-2.08
HoNOS 1 (overactive & aggressive)	1.88***	1.65–2.15	2.38***	1.91–2.98	1.07	0.86-1.33
HoNOS 2 (self-injury & suicidal)	*81.1	1.02-1.37	1.39**	1.12–1.73	1.02	0.75–1.39
HoNOS 3 (drinking & drugs)	68'0	0.76 - 1.04	96.0	0.76 - 1.21	0.98	0.75–1.27
HoNOS 4 (cognitive problems)	1.11	0.97-1.27	76.0	0.78 - 1.20	1.02	0.81-1.29
HoNOS 5 (physical illness & disability)	0.94	0.80-1.10	0.95	0.73 - 1.24	0.88	0.68-1.15
HoNOS 6 (hallucinations & delusions)	1.17	1.02-1.33	1.00	0.81 - 1.24	96.0	0.76-1.20
HoNOS 7 (depressed mood)	*88.0	0.71-0.98	1.05	0.81-1.35	0.82	0.62-1.07
Ward variables						
Admission ward	0.19***	0.08-0.46	0.53	0.26 - 1.16	0.80	0.16-4.03
Staff to bed ratio	1.37	0.91–2.07	1.58	1.07–2.66	1.14	0.59–2.20
Ward in urban area	***S9 [.] L	3.36–17.49	3.58**	1.28-4.86	0.48	0.11–2.03
SACS: Offending staff attitude (mean)	1.23	0.36-4.20	0.35	0.11 - 1.16	4.04	0.47–34.63
SACS: Security staff attitude (mean)	4.04	0.72–22.83	66.0	0.07 - 3.11	1.11	0.06-20.48
SACS: Treatment staff attitude (mean)	1.14	0.30-4.35	1.93	0.46 - 11.48	98.0	0.08-9.53
Between-ward variance	0.32***	0.11 - 0.88	0.04	0.00-30.50	0.68***	0.24-1.91
ICC	60.0		0.01		0.17	
u	9101		1016		1016	

*p < 0.05, **p < 0.01, *** p < .001

Restraints. For use of restraint, the ICC in a model adjusted for LOS and LOS², was 0.11, and statistically significant (p < 0.01). After adjustment for patient- and ward-level variables, the between-ward variance was reduced and not statistically significant. There was no substantial difference between male and female patients regarding the use of restraint. There was a positive association between aggressive/overactive and self-injury/suicidal symptoms on the (HoNOS), and the likelihood of being restrained. The other HoNOS variables were marginally associated with the risk of being restrained and not statistically significant. Patients of ethnic groups other than Norwegian had a lower risk of being restrained (OR = 0.39). There were no significant associations between being restrained and being homeless or not, or being drugged at admission or not. Wards in urban areas used more restraints (OR = 3.58) than wards in smaller towns and rural areas. Admission wards were not statistically different from other wards in the use of restraint, and the staff-to-bed ratio did not show any substantial influence.

Involuntary medication. For the use of involuntary medication, the ICC in a model adjusted for LOS and LOS^2 , was 0.20. After adjustment for individual- and ward-level variables, the ICC was reduced to 0.17 (p < 0.01). There was no substantial difference between male and female patients regarding the use of involuntary medication. Patients diagnosed with schizophrenia were much more likely to be given involuntary medication (OR = 10.85) than patients in other diagnostic categories. None of the HoNOS variables was substantially associated with the risk of being involuntarily medicated. Patients known to the referring agency had a higher risk of being involuntarily medicated (OR = 3.27) than previously unknown patients. There were no significant associations between being involuntarily medicated and being homeless or not, or being drugged at admission or not, or being Norwegian or not. None of the ward variables was associated with the use of involuntary medication.

Staff attitudes towards use of coercion. The ward means for the three SACS subscales were not significantly associated with the use of shielding, restraint or involuntary medication.

Main results from paper III. In this sample of patients being treated in Norwegian acute psychiatric wards, 35% had been involuntarily admitted. Of these, 35% had been secluded, 10% had been restrained, 9% had been involuntarily medicated and 9% had been both secluded and restrained.

This cross-sectional observational national study showed substantial differences between Norwegian acute psychiatric wards in the use of shielding, restraint and involuntary medication; 0–88% of patients had experienced coercive interventions across wards. To some extent, this variation was influenced by compositional differences (difference in patient characteristics) across wards, especially for the use of involuntary medication.

There was substantial between-ward variance, even when patients' individual psychopathology was adjusted for.

Shielding. Wards located in urban areas used significantly more shielding (OR = 7.65) than wards in smaller towns and rural areas. There was a positive association between aggressive/overactive, self-injury/suicidal and hallucinations/delusional symptoms scores and the risk of being shielded.

Restraint. Wards in urban areas used restraints more often (OR = 3.58) than wards in smaller towns and rural areas. There was a positive association between aggressive/overactive and self-injury/suicidal symptoms on the HoNOS and being restrained.

Involuntary medication. Patients diagnosed with schizophrenia had a much higher risk of being given involuntary medication (OR = 10.85), than patients in other diagnostic categories. None of the HoNOS variables was substantially associated with being involuntarily medicated. Patients who were known to the referring agency were more likely to be involuntarily medicated (OR = 3.27) than previously unknown patients.

Staff attitudes towards coercion. The ward means for the three SACS subscales were not significantly associated with the use of shielding, restraint or involuntary medication.

3.4 Summary of paper IV

Human rights perspectives related to treatment in mental health care institutions. This paper is not an empirical paper, but a discussion of the use of coercion in a HR perspective. The use of coercion is ethically challenging, mainly because the use of restriction and coercion threatens an individual's HR. The use of coercion and ethics cannot be separated, and that is the main argument for including this paper in this dissertation. The ethical aspects of the use of coercion are my main concern and the reason for my interest in this field.

The HR perspective in MHC is of relatively new interest in Norway, and the rest of the Western world. The heightened focus on user perspectives and empowerment has influenced this development. The aim of this paper is to discuss the HR perspective and argue that it is a crucial issue in MHC institutions. Four articles of special relevance in the European Convention of Human Rights are discussed:

- Article 3: Prohibition against torture and inhuman treatment
- > Article 5: The right to personal freedom
- Article 8: The right to respect for privacy, family, home and correspondence
- ➤ Article 9: The right and freedom to thought, consciousness, and religion

Article 3: Prohibition against torture and inhuman treatment. This prohibition is absolute and in the European Convention of Human Rights there are now exceptions. Few people will argue for that there exists torture and inhuman treatment in psychiatric services today, at least in Norway. Some of the methods and treatments in the history of psychiatry have however had so profound devastating effects on patients that one can argue for the view that they were inhuman and

torture-like at least from the patients' point of view. Examples on this are lobotomy, focal therapy and different kind of shock treatments like insulin, and cardiazol. In the Norwegian history book by Haave (2008) it is described how nausea are inflicted with injections' as part of the cardiazol shock treatments towards patients as punishment. Even if we are far from this in Norway today, the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or punishment (CPT) has criticised Norway for too extended use of shielding and restraints and degrading use of police and handcuffs in transport to the hospital. ECT gived by force are also a very invading intervention that may violate a persons integrity and be offending. ECT treatment given forcefully are still given in Norway.

Article 5: The right to personal freedom. This article argues that all people has the right to personal freedom. However the European Convention of Human Rights gives some exceptions when deprivation of someone's freedom are accepted as in use of involuntary hospitalization. Article 5 affirms among other exceptions that a state has the legal right to take freedom from someone who has an unsound mind. The definition of the term "unsound mind" is, however, both relative and subjective and can be rather random. There is also the challenge that, empirically, there is no evidence to show that involuntary treatment has a positive effect. Some former patients claim to have been violated and injured by the involuntary treatment itself. In this perspective, the use of involuntary admission may threaten Article 5. Deprivation of someone's freedom should always only be used as a last resort after other alternatives are tried with no success. As previous argued for, the huge differences in use of involuntary commitment may indicate that some places has a potential for reduction. In this perspective reduction of coercion in MHC also become, I question of patients HR.

Article 8: The right to respect for privacy, family, home and correspondence. Some of the rules and restrictions in institutions may violate Article 8, which sets out the individual's right to respect for his or her privacy, family, home and

Results

correspondence. This kind of restriction is often stated in house rules. Restrictions may include meeting one's spouse or children, having one's hair cut or being washed by force or not being allowed in having personal belongings in one's room, like PC, radio or telephone. This right includes the right to have romantic affairs or express ones experience of gender or sexual preference. Some of these restrictions are not individually necessary.

Article 9: The right and freedom to thought, consciousness and religion.

Some patients have argued against involuntary medication with the argument that this threatens their right to freedom of thought, consciousness and religion. This is an ethically difficult area and there is concern about who can judge, among other things, what is an accepted religious opinion and what is a religious delusion, what are acceptable thoughts and what are pathological ones, and whether someone hearing voices needs treatment or not.

The paper argues for the view that use of coercion in mental health care may threaten patients' human rights. Thus, to reduce use of coercion in mental health care to an absolute minimum are also a human right matter, besides a question of quality on care. To quality insure this; all staff working with potentially vulnerable individuals should undergo training in human rights issues and medical ethics in general.

4 Discussion

4.1 Methodological considerations

4.1.1 Sample considerations

This multicentre study was part of the MAP study in Norway in 2005-2006. The strength of this study, being multicentre, is the number of study sites included. It was possible to link data in the final multilevel analysis about wards with data about patients from 32 acute psychiatric wards located in 17 of the 23 acute psychiatric departments across all five health regions in Norway. Altogether, the samples of SACS data comprise all the psychiatric departments in Norway, except one. This gives a unique completeness of data and is representative of Norwegian acute psychiatric wards.

Conversion to full-time equivalency indicates that approximately 60% of staff on the sample of wards completed the staff questionnaires. This is considered a representative sample of staff on Norwegian acute psychiatric wards.

Patients were included over a three-month inclusion period. Almost all wards succeeded in including all patients admitted during the inclusion period. We estimate that approximately 95% of all patients admitted in the inclusion period were included in the material, which makes the sample almost complete. This is a big strength of this material and the study. Because of this, it is possible to generalize conclusions to Norwegian acute psychiatric wards, staff and patients. The high percentage of patients included in the study is probably because the data collections in many wards replaced other registrations of patients and were included in the wards' consecutive procedures. The data collection was also very well prepared before the actual patient-inclusion period. In addition to this, the MAP study was organized as a research network consisting of staff from the wards. This probably secured that the staff felt ownership to the study and were dedicated in collecting the data.

Altogether, the sample is considered to be of a considerable size, also compared with other international studies. The completeness of wards included and in the inclusion of patients are very high and secure representatively for Norwegian acute psychiatric wards.

4.1.2 Methodological limitations

Several methodological limitations need consideration. One of them is that, since the study was multicentre, many people were involved in collecting data. This is perhaps a weakness, because we do not know if they have had the same interpretation of the questions on the questionnaires. This may especially be the case for the patient variables where staff observed patients and filled out the HoNOS and GAF measures. The study did not include procedures to secure the inter-rater reliability. We are therefore not able to document the quality of the HoNOS scores.

Another disadvantage of this particular part of the project on coercion is that the registration form were designed to measure variables in general about acute psychiatric services, and the registration of coercive measures was for this reason not so detailed as it would have been in a study with coercive measures as the main variables. As a result, we do not have access to data on involuntary medication given for short-term crisis intervention. This is sometimes referred to as "chemical restraint" in English-language literature and differs from long-term medication given as a depot injection, which we had in our study. Having a variable for this kind of coercive medication would have strengthened the study. The questionnaire only asked at the time of discharge if the patient had been exposed to coercive measures or not during the stay, and we do not know if the patient had been exposed to coercive measures more than once. We also missed other important aspects of the use of coercive measures, such as the length of time in shielding and restraint. Another interesting aspect of variables about coercion is when in the phase of hospitalization the coercive intervention occurred. We only had variables about if patients had been exposed or not.

Of ethical reasons, we have not looked at individual profession groups because the groups could be so small that individuals could be identified. It was considered important to secure the anonymity of the individual staff members. Further, we do not have data about ward-leaders that maybe could strengthen the study because ward-leaders maybe are strong agents for attitudes and for ward cultures.

Another weakness is that we did not have data concerning if some patients have had more than one admission during the inclusion period. However, because the inclusion period was only three months, this is unlikely to be the case for many patients.

A possible weakness of the analysis is the use of variables aggregated at group (ward) level. This is a necessary in use of a multi-level approach but may conceal or hide individual differences. To investigate individual differences another design on the study would have been needed. In paper II, patient variables were aggregated at group level and staff variables at individual level, and in paper III vice versa.

Further, as the different data sets were merged for the multi-level analysis, we unfortunately lost some data. The structure of the data set for the multilevel analysis was quite complex and consisted of four different data sets collected separately and then merged (patient, ward, staff and SACS data). For each merging, some data could not be linked and was removed from the analysis. This explains why there is some incongruence in the samples between paper II and paper III.

Unfortunately, the data sets do not include data from the patients themselves, which would have given the study an additional dimension by better ensuring the user perspective. This was considered at an early phase of the multicentre study, but was not implemented as the rules from the Data Inspectorate would have led to exclusion of clinical data on all patients who did not give or were capable of giving informed content to participating in the study.

The challenge of assessing attitudes. There are several challenges in measuring attitudes, which may also have influenced the results. When assessing attitudes, certain considerations need to be made. Self-report data are subject to socially desirable responses (Oskamp, 1990). This means that the staff may have answered

according to what they think are the socially accepted answers to the statements in the questionnaire. This may be a particular risk when measuring values and potentially sensitive themes such as racism, political opinions, religious beliefs, sexual preferences and behaviour. People may not be honest about themselves and others, and may want to express the "right" values. It may also be that they do not have a conscious opinion about the matter. Our impression is that, to some extent, the theme of attitudes towards the use of coercion in MHC was considered to be sensitive and potentially provocative by staff. This may be personal opinion based on personal values and not something they talk about in their daily work. In this perspective, the act of completing the questionnaire may have raised consciousness and been an intervention in itself. This may be one of the ways the SACS questionnaire may be used in the supervision of staff and in staff training in the future.

The idea behind assessing attitudes is the assumption that our attitudes predict the way we act. In other words, we behave in accordance with our attitudes towards a certain topic. However, early research trying to establish a close causal relationship between attitudes and behaviour produced mixed results (Bohner & Wänke, 2002). It turned out that sometimes attitudes predict behaviour quite well, while at other times it is hard to detect any relationship between the two. Therefore, the second generation of research on attitudes and behaviour was devoted to revealing the conditions under which attitudes predict behaviour. The third generation of research on attitudes addresses the cognitive processes involved in the attitude—behaviour relationship.

A relevant concept in this matter is the term cognitive dissonance, formulated by Leo Festinger (1957). According to this theory, when we do not act according to our beliefs and attitudes, it causes us distress and an intellectual challenge in maintaining a stable and consistent view of ourselves. To solve this inner conflict between what we think our belief system is and what we actually do, we may change our attitudes in retrospect to fit our behaviour. Because staff on acute psychiatric wards presumably are involved in using coercive intervention towards patients, this may influence the results. Decades of research on the relationship between attitudes and behaviour shows a strong correlation between the two, but no conclusion on

causal relationships. Some research indicates that people may draw on similar informational inputs when forming an attitude as they do when making a behavioural decision (Bohner & Wänke, 2002). In this study, it should be kept in mind that most of the staff did not make the actual decision to use coercive intervention.

A relevant study is one from Sweden on Swedish psychiatrists regarding the ethics of compulsory treatment. The study showed a gap between what the psychiatrists claimed to be their ethical beliefs and what clinical experience dictates in practice (Kullgren et al., 1996). This indicates there is a gap between expressed values and behaviour in daily clinical work.

4.1.3 The Staff Attitude towards Coercion Scale

The aim of this part of the study was to create an instrument that captured different attitudes among psychiatric staff group members towards using coercion in MHC. Three subgroups of staff attitudes to the use of coercion in MHC were identified in paper I, based on Principal Component Analysis. Clustering methods, like PCA have, however, been criticized for not testing any specific hypothesis, and for being subjective and dependent on the researcher's choice of variables. It is, however, important to note that the use of PCA is not aimed at giving an "objective" representation of reality, any more than any other statistical method is. The results of clustering analysis are largely valued for their usefulness and stability. This is an initial attempt to try to recognize some differences in attitudes and values about the use of coercion and to identify the factors that influence the often-found variation in the use of coercive measures between wards. The three different clusters of staff attitudes identified were interpreted as meaningful and useful, and harmonized with previous theory (Alty & Mason, 1994) and with studies on staff attitudes towards coercion (Chien & Lee, 2007; van Doeselaar et al., 2008; Vatne, 2003).

We found three clinically meaningful subscales that were internally consistent and which seemed relevant for use in further research, and in a clinical context. The three groups of attitudes are that coercion is *offending towards patients*; that coercion is *needed as care and security*; and that it can be viewed as a *treatment intervention*.

Coercion in this questionnaire was not defined and did not distinguish between different coercive interventions, but referred to the use of coercion as a general principle. The purpose of developing the SACS questionnaire was to investigate if there were differences between staff in their attitudes and opinions on the concept of coercion per se.

As presented in paper I the three subscales had Cronbach's alpha coefficients of 0.70, 0.73 and 0.69. Considering the necessary sample size for factor analysis of a set of items in a questionnaire, it is suggested a ratio of at least five to ten subjects per item up to about 300 subjects (De Vellis, 2003). A sample size of 215 subjects should therefore be adequate. De Vellis also claims that there are no absolute rules for what is considered to be the right, or good enough, Cronbach's alpha coefficient. A Cronbach's alpha of 0.70 is often suggested to be the lower acceptable limit for subscales. Because attitudes are a "soft" variable, a Cronbach's alpha of 0.70 is considered acceptable. De Vellis (2003) name Cronbach's alpha above 0.70 for respectable. Item loadings (interim correlations) on the three subscales were between 0.48 and 0.81 and are considered high enough. Items with item loadings beyond 0.40 were rejected from the item pool early in the process of collecting items and developing of the SACS questionnaire. Loadings on the other two scales are also low, which supports the existence of three different groups of attitudes.

The three subscales correspond with earlier studies and theory. The Norwegian PhD theses of Vatne (2003) and Alem et al. (2002) also found that attitudes to the use of coercion can be divided into three different groups. Vatne named the dimensions of coercion as giving care, acting like a parent and being like a guard. This is similar to the names of the attitudes in this study. In addition, Vatne categorized the dimensions on a continuum from a weak to a strong application of power. Alem et al. found the same pattern in different kinds of attitudes and named them on a continuum from ethical, through neutral to an unethical view on the use of coercion. The consistency of this and similar categorizations across studies supports the validity of the dimensions, and that these three concepts are meaningful.

When it comes to the content of the different attitudes, it is interesting that the view that more coercion is wanted in treatment correlates with the view that patients who are regressive or lack insight in their illness are in need of coercive interventions. The assumptions that psychotic patients are regressive in terms of psychological development or maturity, and that people with serious mental problems lack insight into their own illness, are widespread in mental health services (David, 1990; Strand & Hermansen, 1990). This discovery may indicate that these assumptions may promote the use of coercion, and should be reviewed and more thoroughly investigated thru research. There are some theoretical arguments for using restraint as treatment in MHC, especially in the psychoanalytical theories of MHC (Day, 2002; Miller et al., 1989). These theories seem to date back to the early theories of Winnicott and Bowlby on human development (Bowlby, 1978; Winnicott, 1968). The theoretical and philosophical roots of restraint, shielding and seclusion are intriguing, but a deeper examination lies outside the scope of this thesis.

4.2 Empirical considerations

4.2.1 Staff attitudes to the use of coercion

Paper II investigated staff attitudes and thoughts towards the use of coercion in MHC.

We found substantial differences in staff attitudes to coercion between wards, with 8–11% of the total variance attributable to the ward level. Nevertheless, most of the variance was attributable to differences among staff members within wards. This indicates that attitudes toward use of coercion are more a personal matter than influenced by the staff group the individuals belong in. This further may suggest that attitudes and thoughts about use of coercion are not very outspoken on the wards. Studies which show that strong and clear leadership on wards may reduce use of coercion give support to this interpretation (Bowers et al., 2010). The good results in reducing use of coercive interventions shown in the Norwegian "Breakthrough projects" also give support to this view. One of the interventions that maybe had

positive effect and lead to good results was probably that the projects was initiated by ward leaders and had clear goals (Føyn & Mathisen, 2002). Further this may indicate that in general wards lack focus on values, ethics and attitudes in delivering care. This again is a question of good leadership, consciousness and prioritization on this issues. That The Norwegian Health Directorate now have launched a national action plan for reducing and quality insurance of use of coercion in MHC are a big step in the right direction (Sosial- og Helsedirektoratet, 2006).

The available independent variables could only explain differences in staff attitudes to a small degree. This finding indicates that important variables that may influence the formation of staff attitudes have not been included in this study and these need further investigation in future research.

As described in paper I, staff agreed most with statements in the *Coercion as* care and security subscale. On a Likert score of 1-5, staff in general agreed most with the subscale *Coercion as care and security* (4.21, SD = 1.6). On the *Coercion as* offending subscale, the mean response was 2.86 (SD = 0.24) and on the *Coercion as* treatment subscale, the mean response was 2.45 (SD = 0.21). It seemed that, overall, staff had a rather pragmatic view of the use of coercion in daily caregiving, as required for care and security reasons, but not necessarily as a wanted intervention. On a five-point Likert scale, the middle response option (3) is defined as "neutral" or "do not know" on the questionnaire. The mean results on the other two subscales are 2.86 and 2.45; it may be that, in general, staff members are unsure on these questions. These subscales express concern for the potentially harmful effects of the use of coercion (*Coercion as offending*) and suggest that the use of coercion is required in the treatment of patients (*Coercion as treatment*).

The results indicate that the majority of staff tend to consider the use of coercion as caregiving, and that coercion is considered to protect staff and patients. Furthermore, it does not appear that staff in general look upon the use of coercion as a treatment intervention. This may also explain why a considerable proportion of the staff members were not very critical of the use of coercion and did not think of

coercion as offensive towards patients. Perhaps the idea of giving good care excludes the thought that its use may also be offensive and potentially harmful to patients.

An interesting finding in this context was described in the BAT study (User-led Alternatives to use of Coercion Study), another Norwegian study, which used the SACS questionnaire before and after interventions to reduce the use of coercion under admission (Norvoll, 2008). That study showed a tendency towards staff being more concerned by the potentially negative effect of coercion, and viewing coercion as less important for care and security reasons after the interventions. A tentative interpretation of this finding is that the interventions heightened staff awareness about the use of the potentially harmful effects of coercion and drew them away from the pragmatic position, towards a more critical position. This may indicate that an important intervention in reducing the use of coercive measures is to heighten staff awareness about ethical and HR issues, and the potentially harmful effects of the use of coercion. This may be done by education, staff supervision and ethical reflection groups with the purpose of discussing ethical issues.

Only one study was found to investigate the relationship between staff attitudes towards coercion and actual use of coercion. This is a Swedish study of staff attitudes to the use of restraint for elderly people in nursing homes. The study divided the nursing homes into three groups: non-users, low users and high users of restraint, and found a significant relationship between staff attitudes and the use of restraint. In the nursing homes that did not use restraint, the nursing staff had more negative attitudes towards using it and more knowledge about the regulations for restraint use (Karlsson et al., 1996). This indicates a relationship between attitudes, knowledge and actual use of coercion.

A study from The Netherlands investigated staff attitudes towards reducing the use of restraint (van Doeselaar et al., 2008). The study was conducted because interventions and public opinion about reducing the use of seclusion had not led to a decreased use of restraint. The study developed a questionnaire and used cluster analysis. The results divided the professionals into three groups according to their attitudes towards the use of restraint: Transformers, Doubters and Maintainers. This is

very interesting in relation to our findings, because the results are compatible with our results. This may indicate that staff members place themselves into one of three groups: those who desire and work for change, those who do not have very strong opinions or have not taken a position on the issue, and those who are in favour of the status quo and oppose change. In this study, there was a clear difference in the type of professionals, with the majority of psychiatrists being maintainers and nurses being more divided in their opinions. The researchers concluded that interventions to reduce the use of restraints have not succeeded, mainly because professionals do not really oppose the use of restraint.

As presented in article II, the multilevel analysis showed significant variance between wards, estimated to account for about 8–11% of the total variance on all three scales. This may be explained by several factors. One possible important agent for influencing staff attitudes is leadership on the wards, as proposed by Bråten in his power-through-model-paradigm theory (Bråten, 1973). This view was supported by a recently published study that found that acute psychiatric wards with particularly good leadership, teamwork, structure, staff attitudes towards patients and low burnout had significantly lower rates of containment events in wards (Bowers, Nijman, Simpson, & Jones, 2010). Another possible explanation may be that people who work together tend to adopt the same attitudes and opinions. In the general literature about attitudes and opinions, acquisition by group processes and imitation of role models are mentioned as sources of attitude formation (Bohner & Wänke, 2002).

Nevertheless, despite substantial differences in attitudes between wards, most of the variance could be attributed to individual staff-level variables. Hence, it is likely that staff attitudes are, to a large extent, influenced by each individual's personality and values. The individuals may also have been educated in different places, which may have influenced their attitudes. We have not found any other studies that addressed differences in staff attitudes towards coercion among different wards or areas in the same country. We have, however, found some comparative studies that investigated differences in staff attitudes between countries. One of these found that staff attitudes towards compulsory procedures were influenced by both

differences between countries, and, to some degree, differences on an individual level (Steinert et al., 2005). The study showed significant differences among countries in MHC workers' attitudes towards compulsory procedures. Staff members from Hungary and England were more accepting of compulsion than staff from Germany and Switzerland. Furthermore, substantial individual differences were found and it was concluded that, to a considerable degree, acceptance of compulsory procedures is based on traditions and personal attitudes. Research on the formation of attitudes in MHC in general is also relevant to this topic. Bowers et al. concluded that their results supported the interpretation that the relative evaluations of psychiatric containment methods are the property of a wider national culture (Bowers et al., 2004). Our study also found differences in staff attitudes between individual staff members and wards in the same country. An explanation for this may be that individual variables, as well as group variables and broader national culture, have an influence on staff attitude formation in MHC.

We have some interesting significant statistical findings. Older staff agreed significantly more with the *Coercion as offending* subscale. An interpretation of this is that staff over 40 years considered the use of coercion to be offensive to patients more often than younger staff members did. Previous studies showed that older staff members tend to be more accepting of the use of coercion (Falkum & Førde, 2001; Lepping, Steinert, Gebhardt, & Rottgers, 2004; Steinert et al., 2005). However, in our study, staff age was highly correlated with the variable *Total work experience*. More work experience was negatively associated with scores on the *Coercion as offending* subscale (p < 0.01), but not with the other two scales, a result more in line with the findings reported in previous studies.

Women had a marginally lower score on the *Coercion as treatment* subscale. Other studies have also shown gender differences. Klinge (1994) found that a higher percentage of female than male staff believed that patients experienced the use of seclusion and restraint as positive attention. However, in another study by Kullgren and colleagues (1996), female psychiatrists suggested the use of physical restraint and compulsory use of ECT less often than male staff.

Furthermore, Falkum and Førde found that female doctors expressed attitudes in favour of less paternalism, and more for patients' autonomy, and in general had more moral deliberations than male doctors (Falkum & Førde, 2001). This is compatible with our findings.

Staff members with a university education seemed less likely to consider coercion to be an offence than did nurses. This is contradictory to the finding of another study, which found that staff with more education believed that restraint, seclusion and forced medication were more overused than did staff with less education (Klinge, 1994). However, Steinert and colleagues discovered that in four European countries, psychologists and social workers were less supportive of compulsive procedures than psychiatrists, who were more in tune with laypeople and nurses (Steinert et al., 2005). Further, our study showed that staff that specialized in MHC had a significantly lower score on the *Coercion as treatment* subscale. The finding may indicate that staff members who had been through a speciality programme believed less in coercive interventions as treatment.

Compared with day-shift workers, those who worked other kinds of shifts reported higher scores on the *Coercion as treatment* subscale (p < 0.05). These results are adjusted for staff education level. A hypothesis may be that if staff used coercive measures more often on these shifts, they may possess more positive attitudes towards the use of coercion. There was also a significant association between wards with patients with more severe problems, and higher ward scores on the *Coercion as offending* subscale (p < 0.01). Patient pathology is indicated by higher HoNOS scores. In other words, staff on wards with more severely disturbed patients may find the use of coercion more offensive and may be more preoccupied with the potentially negative effects that coercion can cause. A possible explanation for this may be that higher severity of mental health problems may influence staff in such a way that they are more aware of the negative effects of the use of coercion on patients. Due to the cross-sectional design of the study, it is important to be cautious in drawing causal conclusions from the associations demonstrated.

4.2.2 Prevalence and variation in the use of coercive measures

Prevalence of coercive measures. In this study, we found that 35% of the involuntary patients had received shielding, 10% had been restrained and 9% had been treated with involuntary medication.

Shielding and restraints. It has not been possible to find comparable studies using acute psychiatric ward samples (Bremnes et al., 2008; Helsetilsynet, 2006). Previous Norwegian studies, which it is natural to compare with, include different kinds of wards. Because the use of coercion in acute psychiatric wards is probably higher than in other kinds of wards (intermediate and long-term), it is not surprising that the incidence in this study was higher. A Norwegian study, based on national health statistics, included different kind of wards and showed that 13% of patients had been shielded and 5% had been restrained (Bremnes et al., 2008). Further, in another study including different kinds of wards, 7% of patients had been involuntarily treated with medication (Helsetilsynet, 2006).

As mentioned, it is difficult to compare Norwegian data with data from other countries because of different definitions and uses of coercive measures, as well as different and often an inadequate quality of health statistics. An example is a study that compared the incidence of seclusion and restraint in 12 different countries, which did not always distinguish between seclusion and restraint. They concluded that their results show a huge variety in the type, frequency and duration of coercive measures used in different countries. Use of seclusion varied between less than 1% (Norway and Wales) and 16% (New Zealand) of admissions. The corresponding numbers for the use of restraint varied from 1% (The Netherlands) to 8% (Germany) of admissions (Steinert et al., 2009). In Finland, these figures were 8% (seclusion) and 5% (restraint) of admissions. This study included different kinds of wards (Keski-Valkama, 2010).

Involuntary medication. In a Norwegian study on the use of involuntary medication on one acute psychiatric ward between 1996 and 2000, 19% of the treated patients had been involuntarily treated (64 of 340 patients) (Christensen & Onstad,

2003). This is twice the amount found in the present study. This may be because of individual differences between wards or because the use has declined in the period between that study and the present one. As we see in the present study, there are significant differences in use between the wards. It is also a plausible explanation that use of involuntary medication is declining due to more restrictive practices in using coercive interventions towards patients.

A recent study on involuntary medication reviewed 14 papers from seven countries and found three different definitions of the term. The study did not systematically investigate occurrence of use. However, one Finnish study (Kaltiala-Heino et al., 2003) found 8% of patients had received involuntary medication (123 of 1543 patients). One of the conclusions was that "...both staff views reported in the literature and the dearth of literature itself suggests that involuntary medication is a "taken-for-granted" practice in inpatient psychiatry" (Jarrett et al., 2008, p 546).

Variation in the use of coercive measures. As presented in paper III, this study showed substantial differences between Norwegian acute psychiatric wards in the use of shielding, restraint and involuntary medication, with a range of 0–88% of patients who experienced coercive interventions across wards.

The variation was influenced to some extent by differences in patient characteristics across wards, especially for the use of involuntary medication. There was substantial between-ward variance, even when adjusting for patients' individual psychopathology. The between-ward variance was statistically significant for shielding and involuntary medication.

This is compatible with the consistent findings of the differences in use between wards, geographical areas and countries (Betemps et al., 1993; Bremnes et al., 2008; Carpenter et al., 1988; Kalisova et al., 2007; Keski-Valkama et al., 2007; Korkeila et al., 2002; Martin et al., 2007; Okin, 1985; Sailas & Wahlbeck, 2005; Way & Banks, 1990). A newly performed literature review and survey of international trends in the incidence of seclusion and restraint in psychiatric hospitals (Steinert et al., 2009) found the same results. They collected data that fulfilled certain inclusion criteria from 12 different countries, covering single or multiple sites in most countries and

with complete national figures for two countries (Norway and Finland). Both mechanical restraint and seclusion are forbidden in some countries for ethical reasons. They concluded that there are huge differences in the percentage of patients subject to coercion and the duration of coercive interventions between the different countries. This was also the case in a Norwegian study based on register data from 2003 (Helsetilsynet, 2006). Two newer reports about the use of coercion in MHC in Norway in 2009 for adults confirmed the impression that the variation in use between different institutions is still the most striking (Bremnes et al., 2010; Bremnes et al., 2008).

A study from the USA found that the proportion of patients who had been secluded and restrained varied in the range of 0–66% between wards (Brown & Tooke, 1992). Studies on what are considered very similar and comparable types of wards have found that the proportion of patients being secluded and restrained varied in the range of 0–48% (Okin, 1985). The differences in these studies cannot be explained exclusively by patient characteristics alone.

In this situation, it is hard to speak about the mean numbers, and, more meaningfully, to investigate the reasons for these differences and the process involved when coercion is used as an intervention. An interesting finding in the studies from Norway using large-scale data sets is that there is a high correlation in the amount of use between the individual institutions across years (Bremnes et al., 2008). This indicates that the institutions have a stable amount of use, which supports the hypothesis that there are cultural differences between the institutions, and that some institutions have a higher use of interventions than others. There is also a relatively high correlation between different coercive measures in the same institution. It may be that institutions that use one kind of coercive measure frequently might also use other kinds frequently (Bremnes et al., 2008). These findings also give support to a postulated general stable culture of coercion use in some institutions or wards.

4.2.3 Patients, staff and ward characteristics associated with coercive measures

Shielding and restraints. Because the use of shielding and restraint follow the same pattern in the multilevel analysis, they will be discussed together.

Wards located in urban areas showed higher levels of shielding and restraint than wards in more rural areas and smaller towns. This may indicate that patients in urban areas have more emotional problems. Furthermore, there may be more challenges with drug use, homelessness, poverty and lack of social networks. It is natural to believe that in smaller areas and towns, patients are more often known to staff, which makes it easier for staff to individualize treatment and find alternatives to the use of shielding and restraint. Carpenter et al. also found that large-town hospitals had higher rates of seclusion and restraint than suburban and small-town hospitals (Carpenter et al., 1988).

A comprehensive 15-year nationwide Finnish study investigating which patients were subject to the use of seclusion and restraint found that most of the interventions were used early during admission, in the acute period. In the early phase of admission, patients are probably more disturbed, confused and aggressive which makes these interventions more likely. Unfortunately, we did not have "phase of stay" as a variable in our study, but only whether the patient had been exposed to shielding and restraint or not during their stay. The Finnish study only investigated patients' characteristics and not ward characteristics, so we could not compare our results on ward characteristics with them. However, patients' age and gender did not predict the use of seclusion or restraint in this study. Besides the "phase of stay" under hospitalization, only the diagnosis was found to be a predictive factor. The use of restraint and seclusion was most prevalent in the substance-abuse-related diagnosis group followed by patients in the schizophrenia-related diagnosis group. However, the differences between these two groups disappeared when the diagnosis variable was adjusted for the other variables (year, age, gender, phase of hospital stay) and the risk of being restrained or secluded was smaller in the mood-disorder-related diagnosis group than the schizophrenia group. In the present study, the schizophrenia

diagnosis group also had a higher risk of being restrained or secluded but the result was not statistically significant. The study also suggested that prediction models should not rely solely on patient factors, but need to be dynamic and consider situational and contextual factors as well. They also concluded that to reduce the use of seclusion and restraint, resources should be targeted especially towards the most disturbed patients (Keski-Valkama et al., 2009).

We did, however, find a statistically significant association between the patient being overactive and aggressive, as measured by the HoNOS, and use of restraint or shielding. This finding indicates that this behaviour is threatening and a challenge for staff, which may be the reason for using coercive interventions. Patients' aggressiveness as a main reason for using shielding has also been found in other studies (Bowers, 2006; Daffern & Howells, 2002; El-Badri & Mellsop, 2002; Sailas & Wahlbeck, 2005). As previously recommended, reasons for patients' aggressiveness and staff-patient interactions should be more thoroughly investigated and targeted for interventions to reduce the use of shielding and restraint on wards (Bowers, Brennan, Flood, Lipang, & Oladapo, 2006; Daffern & Howells, 2002). Furthermore, patients' aggressiveness should be considered to be a product of staffpatient interaction and not only a trait or state of the patient. A review of the literature on interventions to reduce the use of seclusion gives support for complex interventions involving changing several aspects of the organization (Gaskin, Elsom, & Happell, 2007). Another study also found that being in a hospital with a high rate of seclusion and restraint gave higher risks of being secluded or restrained (Way & Banks, 1990), which indicates a stable pattern of practice on the different wards.

A third predictor for using shielding/restraints in this study is self-injury/suicidal behaviour, as measured by the HoNOS. Self-injury is the most likely to be targeted with containment practices. Self-injury may be dangerous for the patient and a therapeutic challenge for staff.

In addition, hallucinations/delusional symptoms were significantly associated with being shielded. This again indicates that patients at risk of receiving containment procedures are agitated, delusional and in an acute phase of confusion. Unfortunately,

as already mentioned, we do not have data about the phase of hospitalization patients are in when they are placed in containment.

Involuntary medication. Patients diagnosed with schizophrenia were more often involuntarily medicated than patients in other diagnostic categories. As presented in paper III, patients with a diagnosis of schizophrenia or other psychosis (F20 diagnosis in ICD-10), had a substantially higher risk of being involuntarily medicated. This may be because this is the group of patients mainly treated with involuntary medication. Some patients receiving involuntary treatment in the community are admitted to hospital for more depot medication. Another study showed that receiving a diagnosis of schizophrenia, involuntary legal status and having been previously committed for treatment, predicted the use of involuntary medication (Kaltiala-Heino et al., 2003). A factor to bear in mind is that presumably the staff that diagnose the person also decide if the patient should be involuntarily treated with medication. Because it is an existing notion that patients receiving a diagnosis of schizophrenia need antipsychotic medication, it may be understandable that these two factors have a relationship. These patients may be involuntarily medicated because of the present view on adequate treatment of schizophrenia rather than because of their agitated or aggressive behaviour.

A factor that may influence this finding is the considerable variation in the use of the F20 diagnosis (schizophrenia-related disorders). A Norwegian study based on national health statistics showed that there are considerable differences between catchment areas in the proportion of patients who receive an F20 diagnosis. The report suggests that this difference is not due to differences in the prevalence of schizophrenia-related disorders, but is more likely an expression of differences in diagnostic practices. Other influences may be differences between the catchment areas in accessible community mental health services and the number of beds in the catchment area (SINTEF Research Institute, 2008).

Patients known to the referring agency were more often involuntarily medicated than patients who were not previously known. A plausible interpretation is that there is co-operation between the referring agencies and the hospital in admitting patients

for re-administration of medication. There may also be differences in broader culture when it comes to understanding mental difficulties, diagnostic practices, and when to use coercion in treatment towards patients. This should be further investigated.

Ward variables. Some of the differences in the use of coercive measures are attributable to the ward level. To estimate the variance attributable to the ward level, we computed the ICC as a measure of how similar the wards were in their use of coercive measures. In a logistic regression analysis we do not have information about the residuals in the same way as in a linear regression. Therefore, a calculation of explained variance is not available. However, the ICC, as applied here, may be understood as an estimate of the relative proportion of the variance represented by the ward level. The ICC value is largest for the use of involuntary medication. However, none of the ward variables we entered in the equation predicted the use of involuntary medication. The finding indicates that there are ward characteristics other than those measured in our study that represent ward effects on the dependent variables. Another possible explanation is that we did not assess ward-specific characteristics well enough. Future research should attempt to identify these characteristics.

Interventions to reduce the use of coercive measures. A review of the literature on interventions to reduce the use of seclusion and restraint gives support for complex interventions involving change to several aspects of the organization (Gaskin et al., 2007; Norvoll, 2007; Visalli, McNasser, Johnstone, & Lazzaro, 1997; Visalli & McNasser, 1997; Visalli & McNasser, 2000). Visalli et al. describe a successful project in reducing the use of seclusion and restraint in a psychiatric facility. Over a five-year period, they experienced a major reduction in use. The success of this programme is attributed to organizational leadership and the interdisciplinary approach taken to provide individualized treatment. Much of the initiative stemmed from a working relationship with the patient to improve customer service. Further, the programme included interventions on many levels in the organization, including a focus on anger management. General work with quality improvement of care was also included. The title of the programme was Recovery, Respect, Empowerment, Leadership and Customer Service (Visalli et al., 1997;

Visalli & McNasser, 1997; Visalli & McNasser, 2000). The mental health division of the Ullevål University Hospital (UUS) in Norway also documented an interesting experience. They formulated a project with the aim of increasing the quality of care in general, and found that the use of coercive measures was halved (Næss, 2010). The project involved strong leadership and interventions at the organizational level. These results harmonize with other attempts to reduce the use of seclusion and restraint; for example, a study in the USA concluded that such attempts should involve strong organizational leadership, and an interdisciplinary approach taken to individualized treatments. Initiatives to facilitate a working relationship with patients and improve customer service also seemed to have a positive effect (Visalli & McNasser, 2000).

Interventions in general seem to be successful and lead to a reduction in coercive interventions. A review of 46 projects on violence and restraint reduction efforts on in-patient psychiatric units concluded that primary prevention strategies should include building staff skills, improving teamwork, creating a culture of professionalism and relationship-based care, monitoring the use of restraint or seclusion for aggression/violence, providing greater organizational support for the creation of expert practitioners on the unit, providing consultation around difficult cases, and structuring the unit and working within the constraints of the unit's physical design to make the unit safer (Johnson, 2010). Another review of attempts to reduce the use of seclusion in psychiatric facilities concluded that such attempts generally require staff to implement several interventions. Staff typically used multiple interventions, including state-level support, state policy and regulation change, clear leadership, examinations of the practice contexts, staff integration, treatment plan improvement, increased staff-to-patient ratios, monitoring of seclusion episodes, psychiatric emergency response teams, staff education, monitoring of patients, pharmacological interventions, treating patients as active participants in seclusion reduction interventions, changing the therapeutic environments, changing the faculty environments, adopting a faculty focus and improving staff welfare and safety (O'Connell, Crawford, Tull, & Gaskin, 2007).

Staff attitudes to the use of coercion. The three dimensions of staff attitudes to the use of coercion were not substantially associated with the use of coercion in this study, contrary to the hypothesis. An explanation for this finding may be that staff-expressed attitudes do not predict differences in use of coercion. That is, coercion is used regardless of the attitude the staff express. A Swedish study found a relationship between staff attitudes towards restraint of elderly people in nursing homes and actual use of restraint. The study had a different design and divided the nursing homes into three groups: non-users, users and heavy users of restraint (Karlsson et al., 1996). This indicates that there may be a relationship between staff attitudes and coercion, but we have not succeeded in showing the relationship in this study.

One reason for this may be that, in this study, staff attitudes are aggregated at the ward level and are expressed as the staff group's mean answers. It could be that individual differences in attitudes influence the use of coercion, but that these individual differences are masked when using mean answers for the staff group. The staff groups may also be influenced by leaders or other persons acting as role models (Bråten, 1973). And this individuals opinions and influence may be concealed when using the SACS scores as mean scores on wards.

The missing link between staff attitudes and actual use of coercion on wards may also indicate that the staff on wards do not have high consciousness and knowledge about ethical perspectives and human right issues in using coercion. This explanation is in line with the one on leadership on wards. It is plausible that clear and strong leadership and high focus on ethical questions on wards maybe would make staff more consistent in their outspoken opinions and actual use on wards.

An other possible explanation could be methodological weaknesses with the instrument, in the sense that the SACS might be unsuccessful in capturing relevant staff attitudes. Differences in ward culture and staff attitudes are still among the factors often mentioned as possible explanations for differences in the use of coercion (Betemps et al., 1993; Bowers et al., 2004; Kaltiala-Heino et al., 2003; Norvoll, 2007; Way & Banks, 1990), and should be more thoroughly investigated.

Fear and sense of security. An explanation for the finding that the staff expressed attitudes towards the use of coercion that did not correlate with the actual use of coercive measures may be that containment actions have a strong emotional component. The situations where they are used are chaotic and frightening for both staff and patients, and in using the intervention, the staff regain control and a sense of security. Fear is perhaps the strongest individual agent in predicting the use of containment methods. If the use is mainly emotion driven, more intellectual functions, such as values and attitudes, may be set aside. The hypothesis that attitudes and behaviour do not always correspond was supported by the investigation on Swedish psychiatrists' ethics of compulsory treatment. This study showed that 60% of the respondents recommended (in response to a case study) depot neuroleptic medication shortly after the hospitalization of a psychotic patient in an emergency. On an attitude scale, only 30% of respondents considered it fully ethical to give depot neuroleptics to a patient with chronic psychosis. The paper also noted that in Sweden at this time there was intense debate as to whether or not depot neuroleptics should be used in the acute phase of compulsory care. At that time, the consensus in the medical community was not to use long-lasting depot medication in these situations (Kullgren et al., 1996).

Experience-based practice. Use of coercive measures may be self-reinforcing. In other words, using these interventions becomes a habit or learned procedure so one continues to use them. Staff develop a way of dealing with challenges, and because it works, they continue doing it. This may be called "experience-based practice". It resembles the better-known concept of "learning by doing". Some studies have found that wards with high rates of coercive measures predict the use of coercion (Korkeila et al., 2002; Way & Banks, 1990). Korkeila et al. (2002) investigated factors that predicted overall and "heavy use" of restrictive measures and differences in population-based rates of the use of shielding and restraint in three university psychiatric centres in Finland using a retrospective chart review. The individual institutions best predicted the use of restrictive interventions, and previous commitments. This gives support for this hypothesis. Because ward-level

characteristics are important predictors of the use of involuntary medication, interventions to reduce the use of coercive interventions should consider organizational factors. Furthermore, patient aggressiveness should not only be considered as an individual state or trait of the patient, but as a result of interaction between patient and staff or other patients. "Experienced-based practices" or "learning by doing" as it is also called are maybe not "linked" to the staffs conscious attitudes and opinions. This may explain the missing link between staff attitudes and actual use of coercion on wards.

Roles and interaction. The famous Stanford Prison Experiments of 1971, led by Philip Zimbardo of Stanford University, are an unforgettable investigation into human nature. This highly interesting study probably has lessons for all closed ward institutions. The experience showed that in dividing student participants into different roles in a fictitious prison, the participants started to behave according to their roles as "prison-guards" or "inmates". The roles were randomly assigned. After a few days, the "inmates" accepted physical and psychological abuse and the "prison-guards" became more authoritarian and engaged in torture-like treatment towards the "inmates". About one-third of the "guards" were judged to have shown "genuine sadistic tendencies", and many "inmates" were emotionally traumatized; five of them had to be removed from the experiment early. The experiment was stopped after a few days, but is never to be forgotten as a thought-provoking illustration of how fragile humans' roles, behaviours, interactions and morals are. It also indicates that our behaviour is influenced, largely, by the different roles, situations and contexts we engage in, and not merely by personal characteristics and traits. Many of the involved students, said in retrospect they had acted incongruent with their moral values. This was disturbing for them and they questioned themselves about how this could have happened (Zimbardo, 1973).

The significance of working models. The interaction between staff and patients may also be influenced by other factors, such as the personal characteristics and paternalism of the staff. Paternalism may also be part of a broader local culture. Disputes about house-rules in daily life on wards are seen as being one of the reasons

to use shielding (Norvoll, 2007). Paternalism may lead to more conflicts and power struggles between staff and patients, than more democratic ways of interacting with patients. Strong paternalism and authoritarian behaviour also contradict modern ways of thinking about the empowerment of patients and user participation. Paternalism in contrast to user-participating and empowerment may also be part of the working models staff use on how to treat and interact with patients. This kind of interaction and attitudes may heighten use of coercion on wards. One of the alternative views on helping people who struggle with confusion and psychosis are the one described be the Finnish psychologist Jacco Seikkula. In this theory/ working model, meeting patients existential needs, not to be an expert on other peoples life's but treating their problems with humility and astonishment are essential (Seikkula, 2000).

4.3 Human rights in mental health care

Some will perhaps question the last article about the relevance of HR to this project. I will strongly argue for its relevance. In my opinion, a discussion of ethical aspects is a relevant and important supplement to empirical studies on MHC, as it is to health care in general. The use of coercive practices in MHC is not merely an empirical question, but also an ethical question.

The documented history of MHC and psychiatric institutions shows a striking lack of ethical concern (Haave, 2008; Shorter 1997). It gives examples of treatment methods with such profoundly negative effects on patients that it ended up having an abusive and harmful effect on the patients. In some circumstances, such as in the case of lobotomy, patients even died (Shorter, 1997). The Stanford Prison Experiments should not be forgotten either, as they demonstrate the fragility of the goodness of human nature.

Paper IV argues for the view that the use of coercive interventions in MHC is a potential threat to patients' human rights. That is why a consistent and strong focus on reducing the use is so important. Leaders and staff should reflect on, and reject, the notion that the use of coercion is necessary, and consider its use as treatment failure. Coercion should be used only as an absolute last resort, after everything else

has been tried, and only for protection and security reasons. With the development of this thought, alternatives will emerge, including co-operation, dialogue and user involvement. There are working models in MHC that are based on these principles. These include recovery, dialogue, network and empowerment-oriented models, which will presumably lead to a reduction in coercive interventions (Askheim, 2007; Bøe & Thomassen, 2003; Bøe & Thomassen, 2007; Borg & Topor, 2007; Mosher & Hendrix, 2004; Seikkula, 2000). The differences in the use of coercive interventions between comparable wards as shown in paper III indicate that there is room for a reduction in use. Several national and international projects show that reduction in use is possible (Føyn & Mathisen, 2002; Norvoll, Hatling, & Hem, 2008; Visalli & McNasser, 1997; Visalli et al., 1997; Visalli & McNasser, 2000). The Norwegian study, "Breakthrough project in psychiatry: Use of coercion", showed that with relatively simple interventions, a reduction of 30–50% in different kinds of coercive intervention was achieved (Føyn & Mathisen, 2002). The most important interventions in this project were probably the determination and dedication to reach the goal to reduce use of coercion.

As presented in paper III, we fund no relationship between staff attitudes towards use of coercion and actual use of coercive measures as hypothesized. The concern about HR issues are reflected in the items in SACS, especially in the *coercion as offending subscale*. An example on this is: "Coercion violates patients' integrity" and "Too much coercion is used in treatment". That we did not find a significant relationship between staff attitudes and actual use of coercion may suggest that there is a lack of ethical concern and consciousness on the wards, and that staff maybe have little awareness about HM right issues. Use of coercion may be a practice that is taken for granted in daily work on wards. This is further discussed in the previous section. In this way the empirical findings in paper II and III are connected to the ethical issues is paper IV.

Staffs awareness of HR, the will to change, and dedication are probably the most important ingredients in reducing use of coercion. In practice, good leadership, staff training, supervision and user involvement are important ingredients in

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achieving change. Further, staff members need to accept that patients experience humiliation, without defence. Only then will we be able to prevent the use of coercive intervention and reduce the damage.

5 Conclusions and implications for further research

The aim of this project was to investigate staff attitudes towards the use of coercion in MHC, investigate use of shielding, restraints and involuntary medication and whether staff attitudes, ward or patient characteristics influenced on the use of coercive measures in acute psychiatric wards in Norway. It was also an aim to discuss the potential ethical consequences of use of coercion in MHC in a patients human right perspective. To do this, a 15-item questionnaire, the SACS, was developed to measure staff attitudes to coercion. The questionnaire has shown good reliability, validity and feasibility. The questionnaire was tested in two different samples, showing good, stable psychometric abilities. In conclusion, the SACS is considered a feasible questionnaire for use in mental health wards that use coercive interventions. Future research may prove that the questionnaire may contribute to a better understanding of the dynamics of the use of coercion, and be a useful instrument to help reduce the use of coercion in MHC. The questionnaire may also be used in clinical settings for ethical training and supervision of staff.

The study showed that there was substantial and statistically significant variance in staff attitudes towards the use of coercion between wards. Three subgroups of attitudes were identified: *Coercion as offending, Coercion as care and security* and *Coercion as treatment*. The results of this study indicate that differences in staff attitudes about the use of coercion can be explained by both individual and group processes, but mainly by individual staff member factors. However only a small amount of the variation in staff attitudes could be explained by the variables in this study, which indicate that other variables than the ones in the present study influence on staff attitudes towards coercion. The SACS questionnaire has demonstrated to be a meaningful way of measuring staff attitudes towards the use of coercion. Researches from all over the word has contacted the main author and asked for permission to use the SACS. This indicates that the theme of the questionnaire are of great present interest and that also other researchers find it useful and meaningful.

This cross-sectional observational national study also showed substantial differences between Norwegian acute psychiatric wards in the use of shielding, restraint and involuntary medication. The variation was influenced to some extent by differences in patient characteristics across wards, especially for the use of involuntary medication. There was, however, substantial between-ward variance, even when patients' individual psychopathology was adjusted for. The between-ward variance was statistically significant for shielding and involuntary medication.

Wards located in urban areas used significantly more shielding and restraint than wards in smaller towns and rural areas. There was also a positive association between patients perceived by staff as aggressive/overactive, as threatening self-injury/being suicidal, and being shielded and restrained. There was a significant association between patients showing hallucinations/delusional symptoms and shielding.

Patients diagnosed with schizophrenia-spectrum disorders were more often involuntarily medicated, than patients in other diagnostic categories. Patients previously known to referring agencies were more often involuntarily medicated than patients previously unknown to the referring agencies.

Like several previous studies, this study has shown substantial differences between treatment units in the use of coercion. The difference was statistically significant for the use of seclusion and involuntary medication. This is the first study we have seen using a multilevel approach, showing whether ward or patient characteristics can explain the differences in the use of coercive measures. The findings that ward-level variables influence the use of shielding and involuntary medication indicate that interventions on the use of coercive measures should consider organizational factors. Thus, interventions to reduce patient aggressiveness and reduce conflict in staff—patient interactions should include interventions that address organizational factors. Organizational factors may include strengthening leadership on wards, improved staff training and supervision, reducing house rules on wards, individualizing treatment, improving the physical environment of wards and improving service users' empowerment and involvement.

This study did not as hypothesised find a relationship between staff attitudes towards coercion and actual use. The missing link between staff attitudes and actual use of coercion may indicate that staff consciousness and knowledge about ethics and human rights are to low and could be improved to further reduce use of coercion and to general improve the quality of care.

Reducing the use of coercion during hospitalization in MHC should be of high priority, and human rights should be considered in the treatment of people with mental difficulties. To safeguard the human rights of patients, professionals in MHC services need education about human rights. The results also indicate that to reduce the use of coercion, one should focus on interventions that reduce patients' aggressiveness, and address the special circumstances and needs of wards located in urban areas. Interventions to reduce patients' aggressiveness may include increased empowerment to service users and user involvement. Staff training in ethical reflection, communication and dialogue skills may also be effective as programmes to reduce conflict and moderate aggression.

Further research effort should be done to understand more about the variation between wards in use of coercive measures, to better be able to reduce the use. Future research should focus on staff–patient interactions, reasons for patients' aggressiveness, how to meet patients' needs to avoid aggressive reactions and organization of interventions to reduce the use of coercion. To understand more about staff attitude formation and to reduce the use of coercion in MHC, these processes should be more thoroughly investigated. Further use of the SACS questionnaire can be investigated in future studies, as a device both in daily clinical work and in the supervision of staff. Other ways of analysing the items should be considered. Studies on differences in staff attitudes towards the use of coercive measures in comparative international and national studies are needed.

6 Synopsis of main findings

Staff attitudes towards use of coercion

Staff Attitudes towards coercion. A questionnaire was developed to measure staff attitudes towards the use of coercion in MHC. A model with three different subscales of attitudes was developed, based on principal component analysis, validity testing and clinical considerations. The three subscales were named: Coercion as offending, which comprises the view that the use of coercion may be potentially harmful and offensive to patients; Coercion as care and security (pragmatic attitude), which is the view that coercion is required for care and security reasons; and Coercion as treatment (positive attitude), the view of coercion as a treatment intervention. The questionnaire was named the Staff Attitude towards Coercion Scale and is considered a feasible instrument for the purpose. Multilevel analysis showed that there was significant variance across different wards, estimated to contribute about 8–11% of the total variance on the three scales.

Staff-level variables. The study showed that staff older than 40 years agreed significantly more with the *Coercion as offending* subscale than younger staff. This agreement increased with higher age, and indicates that older staff members were more concerned with the potentially harmful effects of using coercion in MHC.

On the other hand, experienced staff seemed to have lower scores on the *Coercion as offending* subscale. This indicates that experienced staff are less likely to consider the use of coercion to be offensive to patients.

Women had a marginal but significantly lower score on the *Coercion as treatment* subscale.

Staff with higher education levels (MD and psychologists) were significantly less likely to agree with the *Coercion as offending* subscale than nurses.

Staff with a speciality in MHC had a significantly lower score on the *Coercion* as treatment subscale. This finding indicates that staff members who have gone

through a speciality programme believe less in the use of coercion as a treatment intervention.

Compared with day workers, night and shift workers reported higher scores on the *Coercion as treatment* subscale. This indicates that staff who work nights or shifts have a higher belief in the use of coercion as treatment.

Ward-level variables. Staff on wards with patients with a higher severity of mental health problems showed higher agreement with items in the Coercion as offending subscale. This may indicate that staff members working with more severely disturbed patients are more concerned about the possible negative effect the use of coercion may have on patients.

The independent variables could explain the variance in the dependent variables to only a small degree, and mostly by individual variables. Hence, there are other variables that mostly explain the differences in staff attitudes than the one in the present study.

Actual use of coercive measures

Incident and variation in coercive measures across wards. The total number of involuntarily admitted patients in this sample was 1214 (35% of the admitted patients). The percentage of patients exposed to shielding, restraints or involuntary depot medication was in the range of 0–88% across wards. Of the involuntarily admitted patients, 424 (35%) had been shielded, 117 (10%) had been restrained, and 113 (9%) had received involuntary depot medication at discharge.

Patients, staff and ward characteristics associated with coercive measures

Data from 1016 patients were able to be linked in the multilevel analysis. There was a substantial between-ward variance in the use of coercive measures; however, this was influenced to some extent by compositional differences across wards, especially for the use of restraint. When adjusted for other variables, the difference between wards in the use of shielding and involuntary medication was statistically significant. The staff attitude towards coercion variables which was aggregated as

ward-means was not fund to be significant associated with the differences in actual use of coercive measures.

Shielding. Wards located in urban areas used significantly more shielding than wards in smaller towns and rural areas. There was also a positive association between aggressive/overactive, self-injury/suicidal and hallucinations/delusional symptoms and being shielded.

Restraints. Wards in urban areas used restraint more often than wards in smaller towns and rural areas. There was a positive association between aggressive/overactive and self-injury/suicidal symptoms and being restrained.

Involuntary medication. Patients diagnosed with schizophrenia were involuntarily medicated more often than patients in other diagnostic categories. Patients known to referring agencies were more often involuntarily medicated than patients who were previously unknown.

An ethical discussion on use of coercion

Human rights in mental health care. Paper IV argue for the view that use of coercion in mental health care may threaten patients' human rights. Thus, to reduce use of coercion in mental health care to an absolute minimum are also a human right matter, besides a question of quality on care. The missing link between staff attitudes and actual use of coercion may indicate that staff consciousness and knowledge about ethics and human rights could be improved to further reduce use of coercion and in general improvement of the quality of care. To quality insure this; all staff working with potentially vulnerable individuals should undergo training in human rights issues and medical ethics in general.

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Appendix

- Paper I
- Paper II
- Paper III
- Paper IV
- Norwegian SACS
- English SACS
- MAP questionnaire
- Staff questionnaire



RESEARCH ARTICLE

Open Access

A cross-sectional prospective study of seclusion, restraint and involuntary medication in acute psychiatric wards: patient, staff and ward characteristics

Tonje Lossius Husum^{1*}, Johan Håkon Bjørngaard^{2,1}, Arnstein Finset³, Torleif Ruud^{4,5}

Abstract

Background: Previous research on mental health care has shown considerable differences in use of seclusion, restraint and involuntary medication among different wards and geographical areas. This study investigates to what extent use of seclusion, restraint and involuntary medication for involuntary admitted patients in Norwegian acute psychiatric wards is associated with patient, staff and ward characteristics. The study includes data from 32 acute psychiatric wards.

Methods: Multilevel logistic regression using Stata was applied with data from 1016 involuntary admitted patients that were linked to data about wards. The sample comprised two hierarchical levels (patients and wards) and the dependent variables had two values (0 = no use and 1 = use). Coercive measures were defined as use of seclusion, restraint and involuntary depot medication during hospitalization.

Results: The total number of involuntary admitted patients was 1214 (35% of total sample). The percentage of patients who were exposed to coercive measures ranged from 0-88% across wards. Of the involuntary admitted patients, 424 (35%) had been secluded, 117 (10%) had been restrained and 113 (9%) had received involuntary depot medication at discharge. Data from 1016 patients could be linked in the multilevel analysis. There was a substantial between-ward variance in the use of coercive measures; however, this was influenced to some extent by compositional differences across wards, especially for the use of restraint.

Conclusions: The substantial between-ward variance, even when adjusting for patients' individual psychopathology, indicates that ward factors influence the use of seclusion, restraint and involuntary medication and that some wards have the potential for quality improvement. Hence, interventions to reduce the use of seclusion, restraint and involuntary medication should take into account organizational and environmental factors.

Background

Use of coercion in treatment is controversial [1-5], and reducing use of coercion in psychiatric services is a priority health political issue in Western countries [6-8]. Too much use of coercion in mental health care may be a threat to the quality of care, as well as to patients' human rights. It is of crucial importance to develop a better understanding of the processes and factors involved to reduce the use of coercion. There is evidence of considerable variation in the extent to which

coercive measures are used. This is shown in international comparative studies [9-11], and among wards and geographical areas in the same country [12-21]. A recent literature review of the incidence of seclusion and restraint comparing data from 12 countries concludes that available data suggest there are major differences among them in the percentage of patients subjected to coercion and the duration of coercive interventions [22]. Several hypotheses are put forward on factors that may explain differences in coercion. These factors can be divided into four groups [23]. The list is not exhaustive and some factors may belong to several categories.

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Structural factors

Physical characteristics of ward, size of ward, double or single rooms, crowding and patient turnover [12,13,18,21,24-26].

Staff-related factors

Staff/patient ratio, age and sex of staff, experience of staff, proportion of unqualified staff, level of qualifications, de-escalation training, staff turnover, attitudes of staff and administrators [12,13,16,27-39].

Patient-related factors

Diagnoses, level of aggression, symptoms, age and sex, ethnicity, time of day, season [12,18,20,21,32,40].

Treatment-related factors

Pharmacological treatment, use of psychotherapy, treatment by staff including limit setting, activities for patients, ward atmosphere, treatment philosophy and ideology, regulations and guidelines on use of restraint and seclusion, transitions in ward routines [1,12,28,29,34,35,37].

Taken together, the results from studies on differences in the use of coercive measures are not conclusive. Studies tend to be small, and there are few larger comparative studies. A key question is whether differences in the use of coercion among wards may be attributed mainly to composite differences in patient characteristics or to contextual effects such as ward culture, organization or staff attitudes. Our study investigates both patient and ward factors as possible predictors of differences in the use of coercion, and it is to our knowledge the first such study using a statistical multilevel approach.

The aims of the study are to:

(i) investigate frequency and variance in the use of coercive measures in acute psychiatric wards in Norway, and (ii) identify predictors of the use of coercion for involuntary admitted patients, with emphasis on patient, staff and ward characteristics, investigating especially whether mean ward-level staff attitudes to coercion influence the use of coercion.

Methods

Design and sample

The study was part of the Multicenter study of Acute Psychiatry (MAP) in Norway in 2005-2006, which was carried out by an acute mental health services research network as a cross-sectional prospective study [41]. It was possible to link data about wards with data about patients from 32 acute psychiatric wards located in 17 of the 23 acute psychiatric departments across all 5 health regions in Norway. The sample is considered to be representative of Norwegian acute psychiatric wards. Patients were included in the study over a period of 3

months, and data were collected at admission, during hospitalization and at discharge. Data collection was ended after 2 months if the patient had not been discharged during that time. Most patients were, however, discharged before this. Very few patients may have had more than one admission in the 3-month inclusion period. At ward level, data were collected on number of beds, staffing, staff characteristics and attitudes towards coercion. The research institute SINTEF Health Research in Norway organized the network and coordinated the study with support from the Norwegian Directorate of Health and Social Affairs. The study was approved by the Regional Committee for Ethics in Medical Research and by the Privacy Ombudsman on behalf of the Data Inspectorate. The Regional Committee for Ethics in Medial Research approved the study without requiring consent from the patients; thus, data were restricted to chart data only. The sample consisted of 3572 patients and we estimate this to be approximately 95% of patients admitted in the 3-month inclusion period. Of these, 1214 patients were admitted involuntarily. Coercive measures are used almost exclusively with involuntary admitted patients. Hence, voluntary admitted patients were excluded from the multilevel analyses. For the multilevel analysis, it was possible to link data on patients and wards for 1016 involuntary admitted patients.

Definition of seclusion, restraint and involuntary medication (dependent variables)

Different national legislation and practices in use of coercive measures during treatment are challenges in comparative studies [13,28,42]. Coercive measures during hospitalization in this study are defined as seclusion, restraint and involuntary medication. Data about coercive measures were recorded on registration forms by clinicians and experienced psychiatric nurses in the teams treating patients. This was done at the end of the stay when the treatment and use of coercion throughout the whole stay was known. At discharge, staff recorded whether the patient had been subjected to any of these measures during the admission. Use of coercive measures was recorded only with yes or no and not with number of times or duration. The use of a coercive measure requires specific decisions that are written in patient records. These records were considered to be highly accurate data that did not require additional tests of validity or reliability.

Seclusion

The practice of seclusion in Norway resembles the concepts of "open area seclusion", "segregation nursing", "segregation area", "quiet rooms" or "sheltered area" in international literature (28). The word "shielding" has also been used. However, there is some variation in the

Norwegian use of the concept. The seclusion area can range from a single room to small, separate units or areas inside wards [43]. Norwegian mental health law requires that patients in seclusion should not be left alone and should be accompanied by staff. However, research in Norway on seclusion has shown that patients may experience this practice as resembling the more common international use of seclusion, which in Norway is called isolation [43]. For this reason, we have chosen to use the term "seclusion" in this article, and we define it as confining a patient in a single room or in a separate unit or area inside the ward, accompanied by staff.

Restraint

Restraint is defined as strapping a patient to a bed with mechanical devices (belts). In Norway, bed belts with 5-point restraints are used. This is a bed with belts over the patient's arms, legs and torso. Not all belts need to be used at all times.

Involuntary medication

In Norway, legislation differentiates between the involuntary admission itself and involuntary treatment during the stay, which is not the case in many other countries. There is also a distinction between involuntary medication as a treatment intervention and involuntary medication as an acute intervention in crisis. In this study, we used a variable to indicate whether the patient was involuntarily treated with depot medication at discharge. Depot medication is used at this point as treatment and not as a chemical restraint in an acute crisis, which seldom happens in Norway and is not included in this study. Not all countries have this distinction, which may make comparison across studies difficult.

Patient level variables

Patients diagnosed with schizophrenia or psychosis (F20-F29 in ICD-10) [44] were compared with patients with other diagnoses. The severity of mental health problems was measured at admission using the Health of the Nation Outcome Scales (HoNOS), with 12 items covering various key problem areas for patients with severe mental illness [45], and also clinical and social functioning. Each problem area is rated on a scale from 0 to 4, with higher ratings for more severe problems. The scoring of HoNOS was done by clinicians and experienced psychiatric nurses on the team treating the patient. The raters were trained in HoNOS in a half-day session with instruction about HoNOS, discussion of each scale and training on cases followed by discussion of differences in ratings. The design of the training was based on the training model used in the United Kingdom (UK), after a visit from the person in charge of the UK national training programme. Testing of interrater reliability was not done, as it was difficult to engage all clinicians in such procedures, in addition to data

collection for the study together with the pressure of their daily clinical work in the acute wards. However, testing of interrater reliability in Norway after similar training has shown acceptable interrater reliability for all HoNOS scales except 8, 11 and 12. This is in agreement with reviews of interrater reliability of HoNOS [46]. The first 7 problem areas were chosen for analyses in this paper: overactive or aggressive behaviour (HoNOS 1), non-accidental self-injury and suicide attempt (HoNOS 2), problem drinking or drug taking (HoNOS 3), cognitive problems (HoNOS 4), physical illness or disability problems (HoNOS 5), hallucinations and delusions (HoNOS 6) and depressed mood (HoNOS 7). Patient characteristics for the whole sample and for involuntary admitted patients are presented in Table 1.

Ward level variables

The sample consisted of multidisciplinary staff groups in 37 psychiatric acute wards. Because of problems with linking data from 5 wards, 32 wards were included in the multilevel analyses. Four of the wards were categorized as "admission wards". They were organized as short-term admission and assessment wards with stays

Table 1 Sample characteristics of total sample and involuntary admitted patients

Patient variables:	Total sample: 3462 (100%)	Involuntary adm: 1214 (35%)
Mean age (SD)	40 (SD = 15.5)	40 (SD = 16.7)
Sex (female/male) % in brackets	1710/1752 (49/ 50)	587/625 (48/52)
Norwegian background	3077 (89%)	1053 (88%)
Not Norwegian background	350 (10%)	144 (12%)
Not having own home	715 (21%)	305 (25%)
Previous contact with MH services	2572 (74%)	864 (72%)
GAFS at admission (mean, SD) ^a	36 (12)	31 (11)
GAFF at admission (mean, SD) ^a	38 (11)	34 (11)
F 20-29 diagnosis (ICD-10)	831 (24%)	460 (41%)
Health of the Nation Outcome Scales	mean (SD)	mean (SD)
HoNOS 1 (overactive & aggressive)	.96 (1.23)	1.47 (1.37)
HoNOS 2 (self-injury & suicidal)	.96 (1.35)	.77 (1.30)
HoNOS 3 (drinking & drugs)	1.09 (1.45)	1.02 (1.45)
HoNOS 4 (cognitive problems)	.91 (1.13)	1.24 (1.29)
HoNOS 5 (physical illness & disability)	.67 (1.08)	.65 (1.07)
HoNOS 6 (hallucinations & delusions)	1.35 (1.44)	2.02 (1.47)
HoNOS 7 (depressed mood)	1.65 (1.23)	1.25 (1.26)

 $^{^{\}rm a}$ Global Assessment of Function, Scale from 0 to 100 with lower ratings for more severe problems

bScale from 0 to 4 with higher ratings for more severe problems

limited to 1-2 days. The other wards were traditional acute wards. Mean ward values from 529 individual staff members' attitudes to coercion are included, with a median of 22 staff members (range 3-66) per ward. Estimates based on staff full-time equivalents indicate that approximately 60% of staff members completed questionnaires. More information about the staff groups is presented in a previous article (Husum, Bjørngaard, Finset & Ruud, Staff attitudes and thoughts about the use of coercion in psychiatric acute wards, submitted). Ward variables consist of data about the organization, staff attitudes to coercion, staff to bed ratio and whether the ward was in an urban or rural setting. Ward level variables are shown in Table 2.

Staff Attitude to Coercion Scale (SACS)

The Staff Attitude to Coercion Scale is a questionnaire developed to measure staff attitudes and thoughts about the use of coercion in mental health care. The questionnaire was previously tested in two different samples, showing fairly good and stable psychometric properties. The internal consistency (Cronbach's alpha) of the subscales is 0.69-0.73. Additional psychometric properties were presented in a previous study [47]. The 15-item questionnaire is scored on a 5-point Likert scale. Mean values for SACS scores in this sample are shown in Table 2. The three subscales represent three different clusters of staff attitudes and are named as follows.

I. Coercion as offensive (critical attitude)

This view sees coercion as offensive towards patients. The dimension consists of six items reflecting the most critical attitudes to the use of coercion and focuses on a wish to reduce the use of coercion. Other aspects include that coercion is potentially harmful and offensive towards patients and can violate the relationship between caregiver and patient.

Table 2 Sample characteristics, ward variables

Ward variables:	
Acute wards	28
Admission wards	4
Mean number of beds	11 (SD = 3.5)
Mean staff to bed ratio	3.5 (SD = 0.8)
Wards in urban area ^a	8
Wards in rural area	24
Staff Attitude to Coercion Scale ^b	
Coercion as offending (mean, SD)	2.86 (SD = .24)
Coercion as care & security (mean, SD)	4.21 (SD = 1.6)
Coercion as treatment (mean, SD)	2.45 (SD = .21)

^aWard in city with more than 100 000 inhabitants

II. Coercion as care and security (pragmatic attitude)

This view sees coercion as needed for care and security. The dimension consists of six items that focus on the use of coercion for security reasons, and the opinion that using coercion is perceived as giving care. This attitude can be considered as being a middle position and has a pragmatic view on the use of coercion.

III. Coercion as treatment (positive attitude)

This view sees coercion as a treatment intervention. The dimension consists of three items reflecting the most positive view on the use of coercion. These items claim that the use of coercion is needed when patients lack insight into their own illness and that more coercion should be used.

Statistical analysis

Health services research regularly involves questions where individual outcomes are influenced by contextual factors, such as that patient outcomes may be influenced by ward characteristics. Hence, explanatory variables may be defined at both the individual and contextual levels. Analytically, this raises some important methodological challenges. Standard statistical tests lean on the assumption of independence between observations, which is obviously not true if the context is an important factor. If this assumption is violated, estimates of the standard errors may be too narrow. Further on, the causal process affecting the probability of the outcome is likely to be affected both by individual and shared contextual factors such as patients within wards. The multilevel framework allows for simultaneous analysis of both individual and contextual variables and also takes into account the clustering structure of data [48].

The sample comprised two hierarchical levels (patients and wards), and the dependent variables had two values (0 = no use and 1 = use). Multilevel logistic regression in Stata was applied [48]. For the present analysis, this framework allowed the estimation of the relationship between coercion use and patient and ward level characteristics (fixed parameters), and the estimation of variance in coercion probability between wards that was not accounted for by individual and ward level factors (random parameters). The variance attributable to the ward level was estimated with the *intraclass correlation coefficient* (ICC). The ICC in multilevel logistic regression was estimated by the procedure presented by Snijders and Boskers [49], where U_j in the equation is the between-ward variance:

$$ICC = \frac{U_j}{U_j + \pi^2/3}$$

Because the patients have been at risk of coercion for different lengths of time, the multivariable analysis is

^bScale from 1 to 5 with higher ratings for greater agreement with attitude (mean score for wards)

adjusted for patients' length of stay on ward (LOS) and ${\rm LOS}^2$ to take nonlinearity into account.

Results

Differences in use of seclusion, restraint and involuntary medication among wards

The total number of involuntary admitted patients was 1214 (35% of the total sample). The percentage of patients who were exposed to coercion ranged from 0-88% across wards. Of these patients, 424 (35%) had been secluded, 117 (10%) had been restrained and 113 (9%) patients had received involuntary depot medication at discharge. A total of 106 (9%) patients had been exposed to seclusion and restraint, 47 (4%) patients to seclusion and involuntary depot medication at discharge and 14 (1%) of patients to restraint and involuntary depot medication. A total of 13 (1%) patients had been exposed to all three forms of coercion. A diagram of the differences among the 32 wards in the use of the three coercive measures is shown in Figure 1.

There were data on all independent variables for 1016 patients and these were included in the multilevel logistic regression analysis (Additional file 1: Table S1).

Seclusion

In a model adjusting only for LOS and LOS2, the ICC for the use of seclusion was 0.22. After adjustment for patient and ward level variables, the ICC for seclusion was reduced to 0.09 (P < .01). There was no statistically significant difference between male and female patients in the use of seclusion. There was a positive association between the risk of being secluded and aggressive/overactive, self-injury/suicidal and hallucinations/delusional symptoms, and there was a negative association between depressed mood and seclusion. There were no statistically significant associations between seclusion and drinking/drug problems, cognitive problems and physical illness. The differences in the risk of being secluded were small and not statistically significant among patients who were homeless or not, well known to referring agency or not, being intoxicated at admission or not and Norwegian or not. Wards in urban areas used seclusion more often (OR = 7.65) than wards in smaller towns and rural areas. There was a substantially lower level of patient seclusion in admission wards (OR = 0.19) compared with other ward types. The staff to bed ratio was not substantially associated with the use of seclusion, neither were ward means on the 3 SACS subscales.

Restraint

For restraint, in a model adjusting only for LOS and LOS^2 , the ICC was 0.11 and statistically significant (P < .01). After adjustment for patient and ward level

variables, the between-ward variance was reduced and not statistically significant. There was no substantial difference between male and female patients in the use of restraint. Based on assessment of psychiatric problems (HoNOS), there was a positive association between the risk of being restrained and aggressive/overactive and self-injury/suicidal symptoms. The other HoNOS variables were marginally associated with the risk of being restrained and not statistically significant. Patients from ethnic groups other than Norwegian had a lower risk of being restrained (OR = 0.39). The differences in the risk of being restrained were small and not statistically significant among patients being homeless or not and under the influence of drugs at admission or not. Wards in urban areas used restraint more often (OR = 3.58) than wards in smaller towns and rural areas. Admission wards were not statistically different from other wards in the use of restraint, neither did staff to bed ratio show any substantial influence. The associations among ward means for the 3 SACS scales and the use of restraint were not statistically significant.

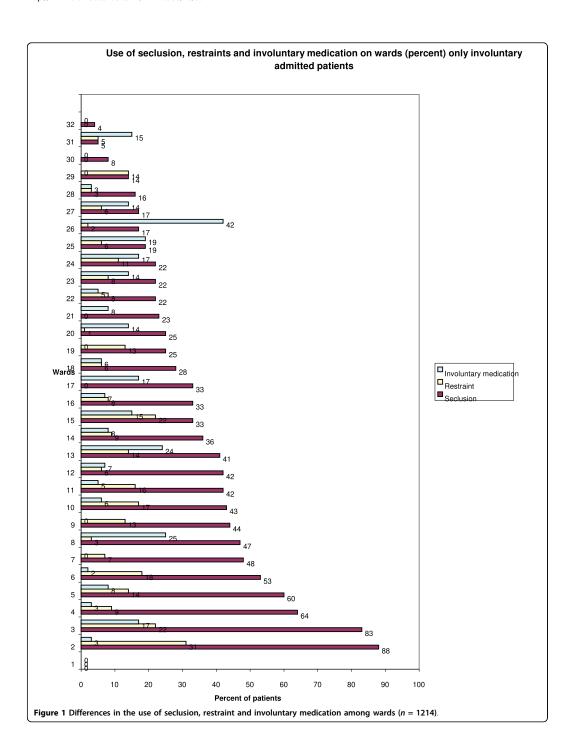
Involuntary medication

In a model adjusting only for LOS and LOS2, the ICC for use of involuntary medication was 0.20. Adjustment for individual and ward level variables reduced the ICC to 0.17 (P < .01). There was no substantial difference between male and female patients in the use of involuntary medication. Patients diagnosed with schizophrenia had a higher risk of being given involuntary medication (OR = 10.85) compared with patients in other diagnostic categories. None of the HoNOS variables was substantially associated with the risk of being medicated involuntarily. Patients known to the referring agency had a higher risk of being involuntarily medicated (OR = 3.27) compared with less known patients. Differences in the risk of being involuntarily medicated were small and not statistically significant among patients who were homeless or not, under the influence of drugs at admission or not and Norwegian or not. None of the ward variables was associated with the involuntary use of medication.

Discussion

Differences among wards in use of seclusion, restraint and involuntary medication

This cross-sectional observational national study showed substantial differences between Norwegian acute psychiatric wards concerning the use of seclusion, restraint and involuntary medication; however, this was influenced to some extent by compositional differences across wards, especially for the use of restraint. Several previous studies have reported substantial differences between treatment units regarding the use of coercion [12-14,18,19,21,22,50-53]. Nevertheless, this is the first



study we have seen using a multi level approach analyzing both ward and patient characteristics as risk factors for the use of seclusion, restraint and involuntary medication.

Patient characteristics

Patients with a diagnosis of schizophrenia or other psychosis have a substantially higher risk of being involuntarily medicated. This may be because this group of patients is the main group treated with involuntary medication. Some patients receiving involuntary treatment in the community are admitted to the hospital for the purpose of reinstalling depot medication after they have stopped taking the medication. A previous study showed that having received a diagnosis of schizophrenia, involuntary legal status and having been committed previously for treatment predicted the use of involuntary medication [16]. Patients who are overactive and aggressive, experiencing hallucinations and delusions, executing self-injury or at risk of suicide have a higher risk of being secluded and restrained than patients not showing such behaviour. The finding that overactivity and aggressiveness in patients most strongly predicts the use of seclusion and restraint indicates that this behaviour is a challenge for staff and often the reason for using coercive interventions. Patient aggressiveness as a main reason for using seclusion has also been found in other studies [52,54-56]. Reasons for patients' aggression and patient-staff interactions should be analysed and targeted for intervention to reduce the use of seclusion on wards [55,57]. A study by Keski-Valkama et al. found that of all of the patient characteristics they investigated, only main diagnosis and phase of stay were independent risk factors for restraint and seclusion [58]. They also concluded that to reduce the use of seclusion and restraint, resources should be targeted especially towards the most disturbed patients.

Ward characteristics

Wards located in urban areas showed higher levels of seclusion and restraint compared with wards in rural areas and smaller towns. This may indicate that patients in urban areas have a greater number and range of problems. Furthermore, there may be more problems with drug use, homelessness and lack of social networks. Another possible explanation is that in hospitals in urban areas, patients are less well known to referring agencies.

A substantial portion of the differences in the use of coercive measures can be attributed to the ward level. To estimate the variance attributable to the ward level, we computed intraclass correlation coefficients (ICC) as a measure of how similar the wards were in their use of coercive measures. In a logistic regression analysis, we do not have information about the residuals in the same

way as in a linear regression. Therefore, a calculation of explained variance is not available. However, the ICC as applied here may be understood as an estimate of the relative proportion of the variance represented by the ward level. The ICC value is largest for the use of involuntary medication. However, none of the ward variables that we entered in the equation predicted the use of involuntary medication. This finding indicates that there are ward characteristics other than those measured in our study that represent ward effects on the dependent variables (or that we did not assess ward-specific characteristics well enough). Future research should attempt to identify these characteristics. The fact that the ward level is an important influence on both the use of seclusion and involuntary medication may indicate that interventions regarding the use of coercive measures should take into account organizational factors. Furthermore, patient aggressiveness should be considered to be a product of staff-patient interaction and not only a trait or state of the patient. A review of the literature on interventions to reduce the use of seclusion gives support for complex interventions involving change to several aspects of the organization [59]. Another study also found that being in a hospital with high rates of seclusion and restraint resulted in higher risks of being secluded or restrained again [21].

Staff attitudes and thoughts about use of coercion in mental health care

The three dimensions of staff attitudes towards the use of coercion were not substantially associated with the use of coercion in this study, contrary to the hypothesis. An explanation for this finding may be that staff attitudes do not predict differences in the use of coercion. That is, coercion is used regardless of staff attitudes. However, in this study, staff attitudes were aggregated on the ward level and expressed as staff group means. It could be that individual differences in attitudes influence the use of coercion, but that these individual differences are masked (hidden) when using group means for the staff. The staff groups may also be influenced by leaders or other persons acting as role models [60]. A third possible explanation could be methodological weaknesses with the instrument in the sense that the SACS scale might be unsuccessful in capturing relevant staff attitudes. Differences in ward culture and staff attitudes are still among the factors often mentioned as possible explanations for differences in the use of coercion [12,12,16,21,28,43], and should be investigated more thoroughly.

Conclusions

The substantial between-ward variance even when adjusting for patients' individual psychopathology indicates a potential for quality improvement regarding the use of coercion. Hence, interventions to reduce coercion should take into account organizational and environmental factors and not only factors at the individual level. The results also indicate that to reduce the use of coercion, there should be a focus on interventions to reduce patients' aggressiveness and on addressing the special circumstances and needs of wards in urban areas. Interventions to reduce patients' aggressiveness may include increased empowerment for service users and user involvement. Staff training in communication and dialogue skills may also be effective in reducing conflict and moderating aggression. Future research should focus on staff-patient interaction, reasons for patient aggressiveness, how to meet patients' needs to avoid aggressive reactions and interventions to reduce the use of coercion in mental health care.

Additional file 1: Table S1: Multilevel logistic regression (Odds Ratio), only involuntary admitted patients in the analysis. Results of the multilevel logistic regression analysis (patient and ward variables).

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Authors' contributions

TLH have made the questionnaire about the staff attitudes and thought about the use of coercive measures in mental health care (SACS) which is basis for some of these results, is main author for this manuscript and have performed descriptive statistics. JHB has performed the multilevel analysis and have participated in analysing and written out the results of the analysis. AF has been supervisor in the project and has participated in making the SACS questionnaire and in analyzing the results. TR has been head supervisor and project leader of the Multicenter study of Acute Psychiatry (MAP) and have participated in analyzing the results. All authors have read and approved the final manuscript.

Competing interests

The authors declare that they have no competing interests.

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	Seclusion		Restraint		Involuntary medication	medication
	Odds Ratio	95% Conf.	Odds Ratio	95% Conf.	Odds Ratio	95% Conf.
Patient variables		Int.		Int.		Int.
Sex (female)	1.29	.92-1.79	.67	.39–1.13	86	.57–1.67
Other than Norwegian	1.15	.70–1.88	.39*	.16–.96	.50	.20 - 1.24
Not having own home	1.85	.89–3.81	1.34	.49–3.64	.44	.09-2.13
Patient known to referring agency	08.	.57–1.13	.57	.32-1.02	3.27***	1.87–5.71
F 20–29 diagnosis (ICD–10)	1.04	.71–1.51	1.76	.99–3.14	10.85***	5.32-22.13
Intoxicated at admission	1.48	.85–2.56	1.43	.65–3.12	62.	.30–2.08
HoNOS 1 (overactive & aggressive)	1.88***	1.65-2.15	2.38***	1.91–2.98	1.07	.86 - 1.33
HoNOS 2 (self-injury & suicidal)	1.18*	1.02-1.37	1.39**	1.12–1.73	1.02	.75–1.39
HoNOS 3 (drinking & drugs)	68.	.76-1.04	96.	.76–1.21	86	.75–1.27
HoNOS 4 (cognitive problems)	1.11	.97–1.27	76.	.78-1.20	1.02	.81-1.29
HoNOS 5 (physical illness & disability)	.94	.80-1.10	.95	.73 - 1.24	88.	.68-1.15
HoNOS 6 (hallucinations & delusions)	1.17*	1.02 - 1.33	1.00	.81 - 1.24	96	.76-1.20
HoNOS 7 (depressed mood)	.83*	.71–.98	1.05	.81 - 1.35	.82	.62-1.07
Ward variables						
Admission ward	.19***	.08–.46	.53	.26–1.16	.80	.16–4.03
Staff to bed ratio	1.37	.91-2.07	1.58	1.07–2.66	1.14	.59–2.20
Ward in urban area	7.65***	3.36–17.49	3.58**	1.28-4.86	.48	.11-2.03
SACS: Offending staff attitude (mean)	1.23	.36–4.20	.35	.11–1.16	4.04	.47–34.63
SACS: Security staff attitude (mean)	4.04	.72–22.83	66.	.07-3.11	1.11	.06-20.48
SACS: Treatment staff attitude (mean)	1.14	.30–4.35	1.93	.46-11.48	98.	.08-9.53
Between-ward variance	.32***	.11–.88	.04	.00-30.50	***89	.24-1.91
ICC	60.		.01		.17	
u	1016		1016		1016	
*P<.05						

^{**}P < .01 ***P < .000



Tonje Lossius Husum Haldis Hjort SINTEF Helsetjenesteforskning

Menneskerettigheter i psykisk helsevern

Menneskerettighetene angår helsepersonell i psykisk helsevern. Derfor trenger vi opplæring i menneskerettigheter. Selv om forståelse og tolkning av menneskerettighetene i utgangspunktet er et juridisk anliggende, mener vi at også andre kunnskapsfelt kan kaste lys over feltet.

Bruk av tvang og restriksjoner overfor personer med psykiske vansker øker faren for krenkelser, og kan være brudd på menneskerettigheter (MR). Internasjonalt og nasjonalt øker oppmerksomheten på MR, demokratisering av psykiske helsetjenester, pasientrettigheter, brukermedvirkning og «empowerment» (Breeding, 2006; Dyer, 2003; Prior, 2001; Richardson, 2008; Syse, 2006). Vi vil konsentrere oss om institusjonsbehandling der risikoen for MR-krenkelser muligens er størst. Psykologer forvalter definisjonsrett til mange av de begrepene som er relevante i menneskerettighetsperspektiv, begreper som sinnslidelse, selvinnsikt, farlighet, nødvendighet og diagnoser. Siden 2001 har psykologer i tillegg kunnet stå ansvarlig for å fatte vedtak om bruk av tvang innenfor psykisk helsevern, noe som gir nye etiske utfordringer for profesjonen. Forståelse og tolkning av menneskerettighetene er i utgangspunktet et juridisk anliggende, men vi mener at også andre kunnskapsfelt og profesjoner kan kaste lvs over MR.

Vi vil se på dagens situasjon og ikke psykiatriens historie. Slik ønsker vi å lage sterkere forbindelse mellom MR og dagens praksis. Innledningsvis beskriver vi allmenne sider ved MR-konvensjonene som er av særlig betydning for psykisk helsevern, før vi ser på kliniske kontra juridiske perspektiver på MR. Vi beskriver videre fire artikler i Den europeiske menneskerettighetskonvensjonen (EMK) som er viktige for å vurdere risiko for MR-brudd i institusjonsbehandling, og drøfter om det er rom for reduksjon av tvangsbruk. Avslutningsvis ser vi på hvordan MR kan styrkes i psykisk helsevern.

Konvensjoner av særlig betydning

Norge har ratifisert både FNs to hovedkonvensjoner om menneskerettigheter av 1966 og Europarådets menneskerettskonvensjon av 1950 (EMK). Disse konvensjonene er nedfelt i menneskerettighetsloven av 1999, som står over den norske Grunnloven. Det mest grunnleggende i konvensjonene er prinsippet om menneskers absolutte og universelle ukrenkelighet. Alle mennesker har rett til beskyttelse mot overgrep, ydmykelser og uverdig behandling, og rett til likeverdighet, trygghet, respekt for privatliv og ytringsfrihet. Disse forpliktelsene sikres ved at de MR-konvensjonene Norge har ratifisert, harmonerer med norske lover, klageadgang og rettsapparat. Gjennomgang av MR-dokumenter som er aktuelle innenfor psykisk helsefeltet, finner vi hos Parker (2007) og Thune (2008), og i forarbeidene til lov av 2. juli

1999 nr. 62 om etablering og gjennomføring av psykisk helsevern (psykisk helsevernloven) ble betydningen av å beskytte menneskerettighetene til personer med psykiske vansker understreket (odelstingsproposisjon nr. 11, 1998–1999).

Det juridiske og det kliniske perspektivet

Juridisk sett er ikke alle typer krenkelser brudd på menneskerettigheter. Hvis helsepersonell skader eller krenker en pasient psykisk, fysisk eller seksuelt, er det overgrep og lovstridig, men ikke nødvendigvis et MR-brudd. Det er staten som har forpliktet seg til å ivareta borgernes menneskerettigheter, og det er når staten ikke ivaretar disse forpliktelsene at det er snakk om et menneskerettsbrudd. Videre kan veien være lang fra jussen til individets opplevde, subjektive følelse av krenkelse. Men pasienters, pårørendes og fagfolks fortellinger om ydmykelse og negative opplevelser i møte med psykisk helsevern har i de senere år blitt mange (Blesvik et al., 2006; Thune, 2008; Vaaland, 2007). Dommer hvor personer har fått medhold i at deres rettigheter har blitt krenket ved tvangsinnleggelse og tvangsmedisinering bekrefter at det ikke bare handler om subjektivt opplevde krenkelser (Klassekampen, 2007; Larvik tingDet hadde vært berikende for helsefagene hvis pasientenes meddelelser om å føle seg utsatt for uverdighet, ydmykelser eller respektløshet snarere ble tatt imot positivt som innspill til metode- og fagutvikling enn som kritikk

rett, 2004). Grunnen til denne utviklingen er nok ikke flere krenkelser enn før, men et sterkere fokus på det demokratiske underskuddet i feltet.

De fleste som arbeider i psykisk helsetjeneste, gjør sitt beste og er oppriktig opptatt av å hjelpe. Derfor er det kanskje heller systemene og arbeidsmodellene som fører til krenkelser. Likevel bør helsepersonell ta innover seg at handlinger gjort i den beste hensikt kan oppleves negativt av dem som blir utsatt for dem. Det hadde vært berikende for helsefagene hvis pasientenes meddelelser om å føle seg utsatt for uverdighet, ydmykelser eller respektløshet snarere ble tatt imot positivt som innspill til metode- og fagutvikling enn som kritikk (Hjort, P., 2007). En slik åpenhet er spesielt viktig i de delene av helsetjenesten som arbeider med ulike former for tvangsintervensjoner.

Menneskerettighetskonvensjonen og institusjonen

Det er spesielt fire artikler i Den europeiske menneskerettskonvensjonen som bør vurderes under behandling i institusjon:

- Artikkel 3: Forbud mot tortur og inhuman behandling
- Artikkel 5: Rett til personlig frihet
- Artikkel 8: Rett til respekt for privat- og familieliv, hjem og korrespondanse
- Artikkel 9: Rett til tanke-, samvittighets- og religionsfrihet

Vi vil i det følgende gi eksempler på hvordan disse artiklene kan være truet, og hvordan de utgjør en utfordring i psykisk helsevern.

Artikkel 3: Forbud mot tortur og inhuman behandling

Forbudet er absolutt, og EMK åpner ikke for unntak. Få mener nok at det forekommer tortur eller inhuman behandling i psykisk helsevern i Norge i dag, men ser man på psykiatriens historie, vil mange si seg enige: Lobotomi, sentrifugering, kalde bad, påførte insulinsjokk og malaria, fjerning av tenner og deler av munnhulen er bare noen

eksempler (Blomberg, 2002; Hermundstad, 1999; Haave, 2008). Selv om forholdene i Norge i vår tid er bedre enn i mange andre land, har også vi et forbedringspotensial. Den europeiske torturkomité (CPT) har under besøk i Norge identifisert flere situasjoner i psykisk helsevern som truer pasienters menneskerettigheter og som beskrives i rapporter (CPT, 2005; Niveau, 2004). Det handler om utstrakt bruk av skjerming og isolasjon, langvarig bruk av belter og nedverdigende polititransport med bruk av håndjern og fotbelter. ECTbehandling gitt med tvang er også et meget inngripende tiltak som kan anses som inhuman behandling (Blesvik et al., 2006; Helsetilsynet, 2001).

Skjerming og isolasjon

Skjerming og isolasjon er en utfordring i MR-sammenheng, og langvarig bruk av skjerming er blant annet det Norge har fått kritikk for av CPT (2005). For en beskrivelse av metodene viser vi til lov om psykisk helsevern. Ettersom isolasjon svært sjelden brukes i Norge i dag, vektlegger vi bruken av skjerming (Pedersen, Hatling & Røhme, 2007). Skjermingsrom er ofte sparsomt møblert eller helt tømt for møbler, med nakne vegger. Målet med både skjerming og isolasjon er å roe personen, redusere stimuli-intensiteten og atskille den skjermede fra de andre pasientene på avdelingen. Ved isolasjon kan hensikten i tillegg være å hindre skade av andre eller personen selv. De få studiene av pasienters subjektive opplevelse av skjerming viser at noen opplever skjerming som positivt og beroligende, mens andre opplever ubehag. De føler seg innestengte, redde og ensomme (Holte, 2003; Norvoll, 2006). Skjerming er dessuten en av de faktorene som bidrar til pasientenes opplevelse av å ha blitt utsatt for tvang, hevder Føyn og Mathiesen (2002) og Sørgaard (2004). Ved isolering vekkes en rekke negative emosjoner, og det er hevdet at isolering kan virke psykisk nedbrytende og føre til blant annet depresjon, apati, angst og tankeforstyrrelse, samt sanseendringer (Dalgard, 1983).

Mekaniske tvangsmidler

Også bruk av mekaniske tvangsmidler som belteseng og transportbelter utgjør en fare for MR-brudd. Noen pasienter forteller at de får minner om tidligere overgrepserfaringer, altså en mulig retraumatisering (Wynn, 2004). Det finnes også studier som viser at bruk av belter kan gi opplevelse av avmakt, invadering, psykiske og fysiske skader, til og med dødsfall (Huckshorn, 2006; Laursen, Jensen, Bolwig & Olsen, 2005; Mohr, 2006; Mohr & Mohr, 2003). Det er paradoksalt at man i en dyp psykisk krise kan bli utsatt for handlinger som ellers hadde vært ansett som invaderende og ydmykende, og man kan spørre om menneskerettighetene derfor i tilstrekkelig grad beskytter mennesker som oppfattes som sinnslidende (Richardson, 2008).

Tvangsmedisinering

Også tvangsmedisinering problematiseres i artikkel 3. Å bli påtvunget medisiner med bivirkninger kan oppleves som overgrep. Og mens vi ved lidelser av somatisk art selv bestemmer hva som tilføres vår egen kropp, settes denne retten til side ved en psykisk krise. Begrunnelsen for at pasientens autonomi, integritet og menneskerettigheter blir tilsidesatt, er at vedkommende mangler «sykdomsinnsikt», et begrep som gjerne benyttes for å rettferdiggjøre tvang. Et motargument i denne debatten er at pasienter generelt har bedre innsikt og større evne til å delta aktivt i behandlingen enn det behandlere antar (Hamilton & Roper, 2006; Ulvestad, Henriksen, Tuseth & Fjeldstad, 2007).

À bli hentet av politi

En gjenganger blant de negative erfaringene med psykisk helsevern er henting av politi, kanskje med håndjern og transportbelter som en del av opplevelsen. Mennesker som har vært innlagt og deres pårørende, forteller om hvor skremmende og stigmatiserende det kan oppleves å bli hentet som om man var en kriminell, når man er i psykisk krise (Pedersen, 2006; Thune, 2008). Helse Bergen startet i 2005 et prosjekt med «psykebilen», en egen transport-

tjeneste for pasienter i psykisk helsevern som henter pasienten på en diskré og human måte. I en bil som ikke kan skilles fra en ordinær ambulanse, blir pasienten hentet av personer med psykiatrifaglig bakgrunn fremfor politi. Tiltaket har vært en suksess: Mens det i Oslo og Trondheim var et økende antall politiassisterte transporttjenester i 2005 og ett tusen personer med psykiske vansker i Norge havnet på glattcelle, var trenden i Bergen motsatt (Skårderud. 2007).

ECT-behandling med tvang

Det er ifølge lov om psykisk helsevern ikke anledning til å gi ECT-behandling (elektrokonvulsiv terapi) med tvang, nettopp på grunn av behandlingens inngripende karakter. Det er i tillegg en behandlingsmetode hvor man er i tvil om effekten og om omfanget av bivirkningene (Poverud, 2009; Read, Mosher & Bentall, 2004; Rose, Wykes, Bindeman & Fleischmann, 2005). Selv om behandlingen i utgangspunktet kun skal gis etter informert samtykke, forekommer det likevel at den utføres med tvang med begrunnelse i nødrett (Statens Helsetilsyn, 2001)

Artikkel 5: Rett til personlig frihet

Artikkel 5 i EMK gir alle mennesker rett til vern av sin personlige frihet, men dette er ingen absolutt rettighet på samme vis som i artikkel 3 om tortur og inhuman behandling, og EMK åpner for en del unntak. Lovlig frihetsberøvelse av personer med sinnslidelse (unsound mind) er et slikt unntak. «Sinnslidelse» er ingen klart definert og avgrenset kategori, men innebærer en stor grad av klinisk skjønn og er også historisk og kulturelt betinget (Blomberg, 2002; Aaslestad, 1997). Begrepet defineres oftest som en psykosediagnose, men også andre typer diagnoser inkluderes i denne kategorien, slik som alvorlige personlighetsforstyrrelser og medfødte utviklingsforstyrrelser som Asperger-syndrom og ADHD. Men diagnose er ikke nok. For å kunne innordnes tvungent psykisk helsevern må også ett av de to tilleggskriteriene være oppfylt i tillegg til hovedkriteriet om alvorlig sinnslidelse, de såkalte fare- og behandlingskriteriene. Å benytte tvang overfor en person av hensyn til vedkommendes egen og/eller andres sikkerhet er enklere å forsvare etisk

enn bruk av behandlingskriteriet, som jo forutsetter at pasienten sannsynligvis vil profittere på behandlingen. Dette er et problematisk felt ettersom mange pasienter hevder at de ikke blir bedre, men snarere påføres nye krenkelser etter tvangsbehandling (Finnøy, 2000; Thune, 2008). Det finnes foreløpig ingen god forskning som viser at bruk av tvang ved innleggelse og i behandling har positiv behandlingsmessig effekt (Wynn, 2006; Helsetilsynet, 2009; Høyer, 2008). Likevel var 68 prosent av tvangsinnleggelsene begrunnet kun med behandlingskriteriet i 2006 (Pedersen et al., 2007).

Arbeidet til pasient- og pårørendeforeninger innenfor psykisk helse for å fjerne muligheten til bruk av tvang i behandlingsøyemed resulterte i at Helse- og omsorgsdepartementet i 2008 nedsatte en arbeidsgruppe som har evaluert behandlingskriteriet som grunnlag for bruk av tvang. Arbeidsgruppens flertall anbefalte at det nedsettes et lovutvalg for å vurdere etiske, faglige og rettslige sider av dagens regler og praksis, særlig sett i forhold til pasientrettighetsloven og menneskerettighetsforpliktelser (Helsedirektoratet, 2009). Et viktig spørsmål blir da om det kan dokumenteres at tvangsbruk kan ha positiv effekt for pasienter på sikt, i motsetning til hvis det ikke hadde blitt brukt tvang. Erfaringer med alternativer til tvang og studier av forskjeller i mengde tvang mellom institusjoner blir også viktige momenter.

Artikkel 8: Rett til respekt for privat- og familieliv, hjem og korrespondanse

Artikkel 8 fastslår at alle mennesker har rett til respekt for sin fysiske og psykiske integritet. Men mange tiltak som iverksettes overfor pasienter i institusjon, kan problematiseres ut fra denne artikkelen, og sannsynligvis er dette den artikkelen som brytes oftest ved behandling i institusjon. Ifølge lov om psykisk helsevern (2001) kan en institusjon vedta husordensregler. Disse reglene må ha tydelig avgrensning, være rimelige og ikke stride mot andre lovverk slik som menneskerettighetsloven. Det er tre kriterier for vurdering av om en restriksjon er akseptabel i forhold til artikkel 8 (Thune, 2008). Det må foreligge en lovhjemmel (legalitetsprinsippet), formålet med restriksjonen eller inngrepet må være

ABSTRACT.

Human rights perspectives related to treatment in mental health institutions

The human rights perspective in mental health care is of relatively new interest in Norway as in the rest of Europe. The heightened focus on user perspectives and empowerment has influenced on this development. The aim of this inquiry is to discuss human rights perspectives and to argument that it is a crucial issue in mental health care institutions. Four articles in the European Convention of Human Rights of special relevancy are discussed. The authors argue for a more restrictive use of coercion and for considering human rights in the treatment of people with mental difficulties. To safeguard the human rights of patients, the professionals in mental health care services need education about human rights.

Keywords: Human Rights, Mental Health,

akseptabelt, og restriksjonen må anses som et rimelig inngrep i et demokratisk samfunn (proporsjonalitetprinsippet). Eksempler på restriksjoner som kan true personers MR, er langvarig eller grunnløs begrensning av kontakt med omverdenen og liten mulighet til å treffe barn og familie under innleggelse. Krav fra personalet om at pasienter skal dusje regelmessig, klippe håret og lignende er også problematisk. Oslo kommune ble i 2008 dømt for å ha krenket en person ved å dusje ham med tvang (Nettavisen, 2008). Disse eksemplene på restriksjoner er ikke nødvendigvis MR-brudd, men utgjør likevel risikoområder. Personalet i institusjonene bør derfor ha kunnskap om menneskerettigheter når de fastsetter husordensregler. Så lenge man ikke har god kunnskap om MR, kan man til tross for de beste intensjoner formulere ulovlige restriksjoner og begrensninger. Mennesker som sliter psykisk, er i en sårbar og utsatt livssituasjon, prisgitt institusjonens personale og deres etiske standard. Ved mer kunnskap kan både MR-brudd og overgrep reduseres.

Artikkel 9: Rett til tanke-, samvittighets- og religionsfrihet

Artikkel 9 i EMK er kanskje den mest utfordrende når det gjelder å vurdere MRbrudd. Hvem skal definere hva som er «normale» religiøse forestillinger og hva som er religiøse «vrangforestillinger»? Hvor avviDet finnes ingen god forskning som viser at bruk av tvang ved innleggelse og i behandling har positiv behandlingsmessig effekt. Likevel var 68 prosent av tvangsinnleggelsene begrunnet kun med behandlingskriteriet i 2006

kende og annerledes er det akseptabelt at man lever, tenker og utrykker seg? Må «stemmer» som en person hører, nødvendigvis behandles bort? Ifølge det internasjonale nettverket «Hearing Voices Network» har mange av dem som hører stemmer, aldri vært i kontakt med psykisk helsevern, men lever fint med sine stemmer (http:// www.hearingvoices.no/). Tvangsmedisinering som påvirker tenkning og persepsjon, anses av noen som MR-brudd, spesielt hvis det har skjedd over lang tid med begrunnelse i behandlingskriteriet og pasienten ikke selv opplever bedring, men en rekke bivirkninger (Gosden, 1997). I dag er det nærmest opplest og vedtatt av det er helt nødvendig å bruke nevroleptika ved psykose. Men det finnes både terapeutiske metoder, modeller og kliniske eksempler på at det er mulig å komme ut av psykoser og å mestre å leve med stemmer uten å bruke nevroleptika (Berge & Repål, 2008; Finnøy, 2002; Mosher & Hendrix, 2004; Seikkula, 2000). Det er etisk problematisk å argumentere for å bruke tvang i behandling så lenge det finnes alternativer.

Rom for reduksjon av tvang?

Bruk av tvang er en utfordring i et MR-perspektiv, og det er et uttalt helsepolitisk mål å redusere bruken (Sosial- og helsedirektoratet, 2006). Et gjentagende funn er at det er stor geografisk variasjon i frekvensen av alle typer tvang både nasjonalt (Helsetilsynet, 2006) og internasjonalt (Salize & Dressing, 2004). Hvilke tvangsmiddelmetoder som benyttes, varierer også mellom ulike land (Bowers et al., 2007). Storbritannia har for eksempel sluttet å bruke belteseng (Bowers, Alexander, Simpson, Ryan & Carr-Walker, 2004). Vi ser altså at mengde og type tvang påvirkes av lokal kultur. Begrepet kultur rommer i denne sammenhengen forskjeller i tradisjon, behandlingsideologi, holdninger, rutiner, kutyme og organiseringen av de psykiske helsetjenestene. En interessant problemstilling er hva som kjennetegner institusjoner og avdelinger som benytter lite tvang i behandling versus de som benytter mye. Her trengs det

mye forskning! Trapper institusjoner som har høyt nivå av tvang opp konflikter, frustrasjon og aggressivitet? Fremmer noen fremgangsmåter kronifiserende forløp etter psykiske kriser? Og tilsvarende: Har institusjoner med lavt tvangsbruk høyere grad av brukermedvirkning, og skaper dermed et mer MR-vennlig behandlingstilbud?

Rapporten fra Helsetilsynet (2006) viste en tendens til at sosioøkonomisk sårbare samfunnsgrupper har størst risiko for å bli tvangsinnlagt. De som var tvangsinnlagt, var stort sett uføretrygdet, enslige og med lite utdanning etter grunnskolen. Mange var i tillegg bostedsløse. Hvor mange som blir tvangsinnlagt, og hvordan de generelt blir behandlet i et geografisk område, kan også ha sammenheng med lokale synspunkter på avvik, rusmisbruk og fattigdom. Å arbeide for et inkluderende samfunn, gode livsvilkår for alle, mot stigmatisering og diskriminering, vil sannsynligvis ha positiv effekt på hvor mye tvang som benyttes.

Riksrevisjonens rapport om tilbudet til voksne med psykiske lidelser (2008–2009) konkluderte med at helseforetakene praktiserte prioriteringsforskriften svært ulikt, og at det ikke var noen sammenheng mellom diagnose og prioritering av pasientene, eller mellom diagnose og frist for behandling. Dette bryter med intensjonen om å gi pasientene lik rett til helsehjelp, og antyder også at det er store geografiske forskjeller i praksis og kultur.

Muligheter for forbedring i psykisk helsevern

Vi mener på bakgrunn av det vi har beskrevet, at helsepersonell bør reflektere over og avvise «doktrinen» om tvang som nødvendig i behandlingen av pasienter med alvorlige psykiske lidelser, og at de heller bør se bruk av tvang som et mulig tegn på behandlingssvikt. Tvang bør kun brukes som aller siste løsning etter at alt annet er forsøkt, og for å verne om liv og sikkerhet. Når denne tenkningen utvikles, oppstår alternativer som handler om samarbeid, dialog og medvirkning. Det finnes arbeidsmodel-

ler som «recovery»-, nettverks-, dialog- og «empowerment»-orienterte fremgangsmåter som fører til mindre bruk av tvang (Borg & Topor, 2003; Bøe & Thomassen, 2007; Mosher & Hendrix, 2004; Seikkula & Arnkil, 2007). Gjennombruddsprosjektene til Legeforeningen viste at man med relativt enkle midler reduserte bruk av ulike typer tvang med 30 til 50 prosent (Føyn & Mathisen, 2002). Dette viser at reduksjon av tvang til dels handler om vilje og prioritering, og den store geografiske variasjonen i bruk av tvang tyder videre på at det mange steder i landet er rom for reduksjon.

I de siste årene av Opptrappingsplanen har det vært påpekt fra flere hold at det er nødvendig å ikke bare fokusere på kvantitative sider ved tjenestene, men også på innhold og kvalitet. Oppmerksomhet på pasientrettigheter, brukermedvirkning og ikke minst menneskerettigheter tror vi er én vei til bedre kvalitet. Det er en utfordring for hjelpeapparatet at ikke alle som kanskje trenger hjelp, ønsker hjelp, eller de ønsker hjelp, men ikke den hjelpen de blir tilbudt. Det bør utvikles et frivillig og variert behandlingstilbud, og flere alternative måter å hjelpe mennesker på som blir oppfattet som hjelptrengende, men som ikke ønsker hjelp selv. Institusjonssteder med lavt tvangsnivå bør studeres og kan tilføre erfaring til steder med høyt nivå.

Ansatte i helsetjeneste må videre ta inn over seg pasientenes opplevelse av å ha blitt krenket, uten å gå i forsvar. Den enkelte helsearbeider kan i sitt møte med den enkelte pasient utføre handlinger som truer vedkommendes menneskerettigheter. Først når vi erkjenner det, kan vi forebygge og lindre skadene ved overgrep.

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Version I.0 2006

Institusjon:	Avdeling:	Post/ team:	Dato:	_

Spørreskjema om bruk av tvang

Dette skjemaet inneholder utsagn om bruk av tvang, hva en tenker om det og hvordan en mener tvang bør brukes eller ikke brukes. Svar på spørsmålene ut fra hva du opplever at dere tenker og mener ved posten/teamet der du arbeider.

Dette vil trolig avhenge mye av den situasjonen dere arbeider i og av hvilke pasientgrupper dere mottar til behandling. Det er derfor neppe noe som er rett eller galt svar under alle forhold.

Spørreskjemaet brukes til å gi et bilde av posten/teamet slik den oppfattes av de ansatte som en gruppe. Dine individuelle svar vil bli behandlet konfidensielt, og bare gjennomsnittskåringene for hele posten/ teamet vil bli brukt.

Les hvert utsagn og sett kryss for ett av disse svaralternativene:

1 Svært uenig	2 Uenig	3 Nøytral	4 Enig	5 Svært enig

Hvis et utsagn ikke passer i det hele tatt for posten/teamet, setter du kryss for "Svært uenig" i rute 1. Hvis du ikke kan avgjøre om det passer eller ikke, setter du kryss for "Nøytral" i rute 3.

	1 2 3 4 5			1 2 3 4 5
Bruk av tvang er nødvendig som beskyttelse ved farlige situasjoner		9	For dårlige pasienter kan tvang være trygt	
2 Av sikkerhetsgrunner må det av og til brukes tvang		10	Pasienter uten sykdomsinnsikt trenger tvang	
Tvang kan ødelegge behandlingsrelasjonen		11	Bruk av tvang er nødvendig ovenfor farlige og utagerende pasienter	
Tvangsbruk er en fallitterklæring fra psykisk helsevern		12	Regressive pasienter trenger tvang	
5 Tvang kan være omsorg og ivaretagelse		13	Det brukes for mye tvang i behandlingen	
Det burde brukes mer tvang i behandlingen		14	Knappe ressurser fører til mer bruk av tvang	
7 Tvang kan forebygge at det utvikles en farlig situasjon		15	Mye tvangsbruk kunne vært unngått med mer tid og samtaler	
8 Tvang gir pasientene nye krenkelser				
			ligst kontroller at du har besvart du har kommentarer kan de skri	
		Takk	for at du fyller ut skjemaet!	

Questionnaire on the use of coercion

Institution: ______ Ward: _____ Team: _____ Date: _____

			f coercion, how one think above i representative for how one think	
	will probably differ and depend on right or wrong answers under		ne kind of patient group you are v	vorking with. Thus there
The grou used	p. Your individual answer will be	a picture of how the treated confidentialit	ward or team is experienced by the y, and only average values for the	ne staff members as a e whole team will be
Read	d each statement and mark <u>one</u> l	oox for each stateme	nt:	
	1 Disagree strongly	2 Disagree	3 Neutral 4 Agree	5 Agree strongly
If a s ansv	statement is not applicable to you ver about your ward or team, ma	ır ward/ team, mark " rk "Neutral" in box 3.	Disagree strongly" in box 1. If yoເ	u can't decide what to
		1 2 3 4 5		1 2 3 4 5
1	Use of coercion is necessary as protection in dangerous situations		9 For severely ill patients coercion may represent s	afety \square \square \square \square
2	For security reasons coercion must sometimes be used		10 Patients without insight require use of coercion	
3	Use of coercion can harm the therapeutic relationship		11 Use of coercion is necess towards dangerous and aggressive patients	eary 🔲 🗎 🗎 🗎
4	Use of coercion is a declaration of failure on the		12 Regressive patients requi use of coercion	re 🗌 🗎 🗎 🗎
	part of the mental health services		13 Too much coercion is use treatment	ed in
5	Coercion may represent care and protection		14 Scarce resources lead to more use of coercion	
6	More coercion should be used in treatment		15 Coercion could have been	
7	Coercion may prevent the development of a dangerous situation		much reduced, giving mo time and personal contac	re t
8	Coercion violates the patients integrity		Please check that you have rat If you have comments you can of the questionnaire.	
			Thank you for answering!	



Registrering av opphold i akuttavdeling i psykisk helsevern for voksne

Utfyllingstidspunkt Skjemaet er utformet slik at side 1-2 (A-D) vanligvis kan fylles ut i forbindelse med innleggelse, og side 3-4 (E-H) i forbindelse med utskrivning. Vurderinger under D og G gjøres for anført tidspunkt. Resten kan fylles ut når informasjonen er tilgjengelig. Det brukes egne skjema for akutteam og avdelinger for ungdom.	Prosjekt nr Institusjon Avdeling Kodenummer for pasienten Kodenummer for oppholdet
A Henvisning og innleggelse	B Opplysninger om pasienten
A01 Henvisning mottatt ddmmåå A02 Innleggelsesdato ddmmåå A03 Innleggelse klokkeslett tt A04 Inntak som øyeblikkelig hjelp (innen 24 t)	B01 Fødselsår B02 Kjønn
 ☐ 3 Allmenn legevakt ☐ 4 Psykiatritjeneste i kommunen ☐ 5 Psykiatrisk legevakt ☐ 6 Somatisk poliklinikk / avdeling 	B05 Pasientens etniske bakgrunn (se veiledningen)
☐ 7 Poliklinikk / dagtilbud ved DPS ☐ 8 Døgnavdeling ved DPS ☐ 9 Psykiatrisk poliklinikk / dagtilbud ved sykehus	☐ 1 Norsk ☐ 2 Annen:
□ 10 Psykiatrisk døgnavdeling ved sykehus □ 11 Privatpraktiserende psykiater/psykolog □ 12 Politilege / tilsynslege i fengsel / rettsvesen □ 13 Annet:	B06 Dersom ikke norsk 1 Ja 2 Nei 3 Ukjent 1 Nødvendig med tolk i samtaler 2 Asylsøker, søknad behandles 3 Asylsøker, søknad avslått 4 Har vært utsatt for krig/tortur
A06 Henvisningen er fra ☐ 1 Noen som kjenner og følger opp pasienten ☐ 2 Noen som har hatt liten/ingen kontakt med pasienten	B07 Pasienten har barn under 18 år
A07 Henvisningsformalitet (satt av henvisende instans) 1 Frivillig 2 Tvungen observasjon (§3-6) 3 Tvungent psykisk helsevern (§3-7) 4 Dømt til tvungent psykisk helsevern 5 Barnevernsloven	B08 Om pasienten har omsorg for barn 1 Pasienten har ikke omsorg for barn 2 Pasienten har deltids omsorg for barn 3 Pasienten har heltids omsorg for barn B09 Hjelp/tiltak til barn som pasienten har deltids eller heltids omsorg for 1 Barna har ikke behov for hjelp/tiltak
 ☐ 6 Sosialtjenesteloven A08 Inntaksformalitet ved spesialistvedtak (paragrafvurd.) ☐ 1 Frivillig (§2-1.1) ☐ 2 Kontrakt (§2-2.1) 	2 Barna får hjelp/tiltak 3 Barna trenger hjelp/tiltak, men får det ikke 4 Kjenner ikke til om barna trenger hjelp/tiltak
□ 3 Tvungen observasjon uten døgnopphold (§3-8.2) □ 4 Tvungen observasjon med døgnopphold (§3-8.1) □ 5 Tvungent psykisk helsev. uten døgnopph (§3-1.2) □ 6 Tvungent psykisk helsev. med døgnopph (§3-1.1) □ 7 Dømt til tvungent psykisk helsevern (§5-3.1) □ 8 Barnevernsloven □ 9 Sosialtjenesteloven	B10 Bolig 1 Leilighet/bolig 2 Servicebolig uten tilsyn 3 Omsorgsbolig m. noe tilsyn 4 Omsorgsbolig, heldøgnstils. 5 Bor i institusjon 6 Bor hos foreldre/andre 7 Hospits eller lignende 8 Ingen bolig/ bostedsløs 9 Asylmottak 10 Fengsel 11 Ukjent
A09 Pasienten ble fulgt til innleggelsen av politi ☐ 1 Ja ☐ 2 Nei ☐ 3 Ukjent	B11 Hovedinntektskilde ☐ 1 Lønnet arbeid/næringsdriv. ☐ 7 Uførepensjon ☐ 2 Forsørget ☐ 8 Alderspensjon
A10 Pasienten ønsket selv innleggelse ☐ 1 Ja ☐ 2 Nei ☐ 3 Ukjent	□ 3 Studielån □ 9 Sosial stønad □ 4 Arbeidsledighetstrygd □ 10 Annet: □ 5 Syke / rehabiliteringspenger □ 11 Ukjent
A11 Har pasienten tidligere hatt kontakt med psykisk helsevern? Gjelder helse psykisk helsevern samlet sett. ☐ 1 Ja (polikl. eller døgnopph.) ☐ 2 Nei ☐ 3 Ukjent	B12 Status for nåværende psykiske lidelse
Om innlagt på nytt innen ett år fra forrige utskrivning: A12 Siste utskrivning var fra 1 Psykiatrisk akuttavdeling ved sykehus 2 Annen psykiatrisk avdeling ved sykehus	1 Psykisk lidelse som har debutert i løpet av siste 12 mndr 2 Ny sykdomsperiode etter periode uten sykdom 3 Forverrelse av langvarig vedvarende psykisk lidelse 4 Ukjent / annet:
☐ 3 Døgnavdeling ved DPS A13 Dato siste utskrivn. ddmmåå ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	B 13 Høyeste fullført utdanning ☐ 1 Grunnskole ☐ 2 Videreg. skole ☐ 3 Høgsk./Universite
A14 Denne reinnleggelsen var planlagt 🗌 1 Ja 🔲 2 Nei	D03 GAF siste uke alvorligste Sympt Funk

C Tjenester mottatt i tiden før innleggelsen

C01 Bruk av psykisk helsevern			D01 HoNOS Se veiledningen. Skåret ved:
(inkl. DPS og sykehus) siste 12	Poliklinisk/	Døgn-	Ved ukjent settes det ikke noe kryss 0 1 2 3 4
måneder Sett ett kryss i hver kolonne 1 Ikke noe 2 En kortere periode	ambulant	opphold	1 Overaktiv eller aggressiv atferd 2 Selvskade som ikke skyldes uhell 3 Drikking eller bruk av stoff
3 Flere kortere perioder			4 Kognitive problem
Lengre periode(r) eller vedvarende Ukjent			5 Fysisk sykdom / funksjonshemming 6 Hallusinasjoner og vrangforestillinger 7 Senket stemningsleie 8 Andre psykiske plager (merk 1 bokstav)
C02 Grad av oppfølging siste 3 mndr. før innleggelsen	#	Avbrutt før innl.	A fobisk F somatoforme B angst G spiseproblem C tvangsproblem H søvnproblem D stress/spenninger I seksuelle pr.
Ett kryss innen de tre første kolonner på hver linje, samt eventuelt i kolonne 4	Ja Nei Ukjer	wbru	E dissossiative J andre probl.
Stod på venteliste ved poliklinikk Poliklinisk behandling DPS/sykehus Dagbehandling DPS/sykehus	ie y Seight	4	9 Problem med forhold til andre 10 Problem med dagliglivets aktiviteter 11 Problem med boligforhold 12 Problem med yrke og aktiviteter
4 Ambulant team DPS/sykehus 5 Behandling ved rusteam			D02 Bruk av alkohol og stoff Se veiledn. 1 2 3 4 5 1 Bruk av alkohol
6 Fastlege eller annen primærlege 7 Psykiatriteam/sykepleie i kommunen 8 Fagperson ved sosiale tjenester			(GAF-skåringer skrives på side 1, ved "minste basis datasett"
9 Hjemmetjenester 10 Kommunalt dagtilbud C03 Kontakt og støtte siste 48 timer fø	r innleggelsen		D04 Om pasienten var ruset ved innleggelsen ☐ 1 Ingen mistanke om pasienten var ruset ☐ 2 Mistanke om pasienten var ruset ☐ 3 Pasienten var åpenbart ruset
2 Legevakt 8 Somati 3 Fagpers. i kommune 9 Støtte 1 4 Psyk. poliklinikk 10 Støtte 1	eng/lavterskel sk poliklinikk/av fra pårørende fra venner t med politiet	/d.	D05 Prøver på rusmiddelmisbruk Alkohol Stoff 1 Ikke funnet grunn til å ta prøve 2 Ikke tatt prøve fordi pasienten nektet 3 Prøve tatt og var negativ 4 Prøve tatt og var positiv (påvist)
C04 Psykofarmaka pasienten stod på f Se veiledningen når det gjelder andre me Kryss på C07 om pasienten ikke bruker n	dikamenter	gelsen	D06 Selvmordsfare i forkant av innleggelsen (oppgitt i henvising eller avdekket under samtaler ved innleggelse) 1 Ingen selvmordstanker/planer 2 Passive dødsønsker, ikke aktive selvmordstanker
Medikamentnavn	mg /døgr	n	
			D07 Selvmordsfare i avdelingen (vurdert ved inntak) ☐ 1 Høy ☐ 2 Moderat
C05 Depotinjeksjon	døgn før	innl	☐ 3 Lav ☐ 4 Ingen ☐ 5 Usikkert
C06 ☐ 1 Frivillig ☐ 2 kraft av vedta	ak om tvangsbe	handling	D08 Hovedgrunn for innleggelsen slik teamet/avd. ser det
C06			Sett kryss på 1 - 3 linjer 1 Få gjennomført diagnostikk og utredning 2 Få etablert / bedret behandlingsrelasjon 3 Få satt igang / endret behandling 4 Få kontroll over destruktiv atferd overfor seg selv / andre 5 Ta vare på pasienten / beskytte / skjerme / avlaste 6 Få bedret pasientens kontakt / relasjoner med familie 7 Ha trygg ramme for bearbeiding av traumer / konflikter

D Vurdering ved innleggelsen

E Utredning og behandling under oppholdet

F Samarbeid og koordinering

E01 Undersøkelser som er gjort 1 Strukturert diagnostisk intervju * 2 Skåringsskalaer utfra intervju ** 3 Psykologisk testing 4 System.kartlegg. av livssituasjon 5 System.kartlegg. av sos.nettverk 6 Ekstra somatisk undersøkelse 7 Blodprøver, laboratorieprøver 8 Bildediagnostikk av hjernen 9 EEG *) I så fall strek under: SCID1, SCID2, MIN		F01 Hvem har teamet hatt kontakt med under pasientens behandling? Sett ett kryss på hver linje 1 Familie/pårørende 2 Venner av pasienten 3 Verne/kislenverse	Ikke aktuelt
**) I) så fall understrek: PANSS, BPRS,			
Se veiledning om samarbeid med andre or E02 Behandling og tiltak som er gitt under oppholdet Se veiledningen om Sett ett kryss på hver linje 1 Samt. psykiater/psykologspesialist 2 Samtaler m/ annen lege/psykolog 3 Samtaler med primærkontakt 4 Samtaler med sekundærkontakt 5 Samtale med sosionom	1	6 Sykepleier/fagpers. i kommunen 7 Sosialkontor 8 Dagsenter i kommunen 9 Kommunalt sykehjem/institusjon 10 Barnevernet / barnevernsinst.	
11 Samtalegruppe ved avdeling/team 12 Familie- / nettverkssamtaler 13 Møte i ansvarsgruppe i kommunen 14 Andre samarbeidsmøter 21 Med på aktiviteter i gruppe 22 Individuelt tilrettelagte aktiviteter		18 Arbeidsgiver 19 Skole/utdanningssted 20 Aetat 21 Trygdekontor 22 Politi, fengsel, krim.omsorg i frihet 23 Sykehusprest 24 Annen instans:	
-	Ja Nei	F02 Tilbud pasienten har fra før, - eller har fått nå under oppholdet	Hadde fra før Fått under opph. Ikke blitt tilbudt Pas ønsker ikke Ukjent
		Sett ett kryss på hver linje 1 Fastlege 2 Behandlingsplan i psyk. helsevern 3 Individuell plan i følge loven 4 Kriseplan (del av individuell plan) 5 Hovedbehandler i psyk. helsevern 6 Koordinator i kommunen 7 Ansvarsgruppe i kommunen 8 Kontaktperson i kommunen	1 2 3 4 5
E03 Eventuelle endringer og vedtak 1 Omgjort observasjon til tvungent psyk.h. 2 Opphevet vedtak om tvangsinnleggelse 3 Vedtak om tvangsbehandling 4 Tvangsbehandling iverksatt 5 Vedtak om skjerming 6 Vedtak angående kontakt med omverde		F03 Pasienten har ut fra vår vurderin plan	☐ 3 Usikkert har individuell plan. delingsoppholdet post *
E04 Eventuelle klagesaker og utfall 1 Pasienten klaget på tvangsinnleggelser 2 Pasienten klaget på tvangshehandlinge		lei	ed akutteam eller annet
3 Pasienten klaget på tvangsbehandlinge4 Pasienten fikk medhold på klagen		samt om pasienten i en periode har væ	

G Vurdering ved utskrivning / avslutning H Utskrivning/overflytting eller avslutning H01 Denne delen H fylles ut ved følgende situasjon G01 HoNOS Se veiledning. Skåret ved: 1 Utskrivning (inkl overflytting) fra akuttavdelingen Ved ukjent settes det ikke noe kryss 0 1 2 3 4 2 Pasienten er fortsatt i avd. 2 måneder etter innleggelse, og akuttbehandlingen regnes da i prosjektet som avsluttet. 1 Overaktiv eller aggressiv atferd 2 Selvskade som ikke skyldes uhell 3 Drikking eller bruk av stoff Dato for utskrivning eller dato for avslutning av akuttbehandling: 4 Kognitive problem H02 Utskrivningsdato ddmmåå 5 Fysisk sykdom / funksjonshemming H03 Utskrivning klokkeslett tt 6 Hallusinasjoner og vrangforestillinger H04 Avslutningsdato * ddmmåå 7 Senket stemningsleie 8 Andre psykiske plager (merk 1 bokstav) \square \square \square H05 Hvem som skal gi tilbud videre til pasienten F somatoforme A fobisk Det kan settes flere kryss. Strek i så fall under hovedkontakt. B angst G spiseproblem 1 Pasienten ønsket ikke oppfølging C tvangsproblem H søvnproblem 2 Fastlege / annen primærlege D stress/spenninger I seksuelle pr. 3 Psykiatritjenester i kommunen E dissossiative J andre probl. 4 Sosiale tjenester / sosialkontor 5 Dagsenter i kommunen 9 Problem med forhold til andre 6 Kommunalt sykehjem / institusjon 10 Problem med dagliglivets aktiviteter 7 Poliklinikk 11 Problem med boligforhold 8 Dagavdeling 12 Problem med yrke og aktiviteter 9 Ambulant team ☐ 10 Akuttavdeling ved DPS G02 GAF (alvorligste, se veil.) Sympt Funk ☐ 11 Annen døgnavdeling ved DPS Se veiledning om utskrivning skjer på innleggelsesdagen. 12 Psykiatrisk akuttavdeling ved sykehus 13 Annen psykiatrisk døgnavdeling ved sykehus G03 Diagnose (ICD-10) 14 Privatpraktiserende psykiater / psykolog ☐ 15 Somatisk poliklinikk / avdeling Diagnose (ICD-10) ☐ 16 Rusteam / rusinstitusion 17 Barnevernet / barnevernsinsitusjon Diagnose (ICD-10) ☐ 18 Asylmottak ____ noyimott ☐ 19 Fengsel ☐ 20 Paliti G04 Selvskading og vold under 1 Ja 2 Nei 3 Ukjent 20 Politilege / tilsynslege i fengsel / kriminalomsorg i frihet opphold/akuttbehandlingen 1 Selvmordsforsøk H06 Om pasienten skal følges opp ved annen instans, hva 2 Selvskading har vært gjennomført av kontakt før overføringen? 3 Fysisk angrep på andre Det kan settes flere kryss 4 Utsatt for fysisk angrep fra andre 1 Henvisningsbrev er sendt 2 Telefonkontakt med dem som skal følge opp ☐ 1 Utskrives tidligere enn planlagt for å frigjøre plass ☐ 2 Utskrives tidligere enn starten i de frigjøre plass G05 Vurdering av tidspunkt for utskrivning 3 Møte med dem som skal følge opp 4 Pasienten har fått time / tid ved ny enhet 2 Utskrives tidligere enn planlagt av annen grunn 5 Pasienten har fått tildelt ny behandler (navngitt) ☐ 3 Utskrives på planlagt tidspunkt 6 Pasienten besøkt ny enhet / møtt ny behandler 4 Utskrives seinere enn planlagt pga ventet på tilbud 5 Utskrives seinere enn planlagt av annen grunn H07 Hvordan utskrivning skjer ☐ 1 Pasienten utskrevet etter avtale G06 Boligsituasjon ved utskrivning 2 Pasienten utskrevet uten avtale (f eks avbrøt behandl.) 1 Ingen bolig 3 Pasienten tok livet sitt 4 Pasienten døde av annen årsak 2 Samme bolig som før innleggelsen 3 Har fått bolig under oppholdet H08 Psykofarmaka pasienten står på Står ikke på noen psykofarmaka ved utskrivning/avslutn. G08 Er det trolig at innleggelsen kunne ha vært unngått Se veiledningen når det gjelder andre medikamenter. dersom alternative tilbud hadde vært tilgjengelig? Medikamentnavn mg /døgn 1 Nei, innleggelsen kunne neppe ha vært unngått ☐ 2 Ja, dersom følgende hadde vært gjort (skriv stikkord): Bare for internt bruk (Registreres ikke elektronisk) Behandlende lege her: Fastlege for pasienten: H09 Depotinjeksjon døgn før utskr **H10** ☐ Frivillig ☐ 2 I kraft av vedtak om tvangsbehandling H11 Utskrivningsparagraf 1 Frivillig utskrivning (§ 2-1.1) 2 Tvungent psykisk helsevern uten døgnopphold (§ 3-1.2) 3 Overføring til videre tvungent psykisk helsevern (§ 4.10)

Multisenterstudie av akuttpsykiatri (MAP)

SINTEF Helse, Postboks 124 Blindern, 0314 Oslo

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Oslo 3.oktober 2005

Informasjon om spørreskjema til personalet ved akuttpsykiatriske tilbud

Vedlagte spørreskjema er en del av Multisenterstudie av akuttpsykiatri (MAP) som gjennomføres ved ulike typer akuttpsykiatriske tilbud rundt i landet i 2005 og begynnelsen av 2006.

Studien skal gi økt kunnskap om akuttpsykiatriske tilbud og akuttpsykiatriske behandlingsforløp. Undersøkelsen gjøres ved at det registreres opplysninger om alle pasienter som tas i mot i en periode.

I tillegg samles det i oktober 2005 inn opplysninger om de enkelte avdelinger/poster/team fra ledelsen for disse, og ved de vedlagte spørreskjema fra personalet som deltar i utredning og behandling.

Studien ledes av SINTEF Helse etter oppdrag fra Sosial- og helsedirektoratet, og den gjennomføres som et ledd i samarbeidet i et Nettverk for evaluering av akuttpsykiatriske tilbud. Den er godkjent av de instanser som skal godkjenne slike undersøkelser: Regional etisk komite for forskning, NSD/Datatilsynet og Sosial- og helsedirektoratet (om innhenting av opplysninger).

Orientering om de to vedlagte spørreskjema:

<u>Spørreskjema C</u> gjelder den utdanning og kompetanse du har. Disse opplysningene vil bli brukt til å beskrive omfang og profil av kompetanse ved ulike typer avdelinger, poster og team. Det vil ikke bli analysert eller vist data om individer.

Spørreskjema D gjelder behandlingstenkning og hva som vektlegges i klinisk praksis ved posten eller teamet. Også data fra skjema D brukes til å se på profiler for ulike typer avdelinger, poster eller team. Til slutt i skjema D er det et ark med 15 tilleggsspørsmål som gjelder bruk av tvang. Det vil heller ikke for dette skjemaet bli analysert eller vist data om individer.

Resultatene fra undersøkelsen vil bli presentert ved avdelingen der du arbeider. Dere får også tilsendt alle rapporter og andre publikasjoner som kommer fra undersøkelsen, samt notater og presentasjoner som ikke offentliggjøres. Fagfolk fra avdelingen kan også bruke egne data eller delta i publikasjoner.

For at bildet av kompetanse og klinisk praksis skal bli mest mulig riktige ut fra disse opplysningene, er det av stor betydning at alt personalet som tar del i behandlingen fyller ut disse skjemaene.

Utfylte skjema leveres slik dere får beskjed om fra den lokale koordinatoren. Takk for at du bidrar til økt kunnskap om akuttpsykiatriske tilbud ved å fylle ut disse skjemaene!

Med vennlig hilsen

Torleif Rund
Prosjektleder

		700 9 9 9				
(1) SINTEF	Multisent SINTEF H	Skjema C 2005				
Prosjekt Kode for post	Utfylt dato (ddmm)					
Spørreskjema til personalet om utdanning og kompetanse						
Kjønn ☐ Kvinne ☐ Mann		Har du tatt spesialistutdanning i psykiatri for din faggruppe? ☐ Ja ☐ Nei	Hvor mange timer I av de siste tre mån			
Aldersgruppe: Under 20 20-29 30-39 40-49 50-59 60 eller mer Ansettelsesforhold Fast ansatt Midlertidig ansatt Hvor stor stillingsandel (%) du har ved denne posten/teamet? Stillingsandel (%) Arbeidstid Bare dag Dag og kveld Døgnturnus Bare natt Fagutdanning Lege Psykolog Sosionom Sykepleier Hjelpepleier Vernepleier Fysioterapeut Ergoterapeut Aktivitør Pedagog Annen: Ingen/ufaglært	Hva du har fullført av systematisk videreutdanning (<u>antall år</u> med fullverdig utdanningsopplegg) Psykoanalytisk utdanning	Fått intern undervisning Fått individuell veiledning Fått veiledning i gruppe Vært på kurs andre steder				
	Psykodynamisk psykoterapi Kognitiv psykoterapi Annen individualterapi	Din arbeidserfaring 1. Samlet (alt arbeid	r			
	Analytisk gruppepsykoterapi	2. Innen psykisk hels	severn			
	Annen gruppeterapi Psykisk helsearbeid (høgskole)	3. Ved denne institut4. Ved denne enhete				
	Familieterapi (systemisk, annet) Familiearbeid (psyko-edukativ)	Hvor mange år regimed å arbeide i 1. Denne jobben				
	SEPREPs psykoterapi v/psykose SEPREPs tverrfaglige utdanning	en]				
		Utdanning ved Voksne for barn Annen omfattende utdanning	3. Psykisk helsevern Koder for post/team			
	Spesifiser med stikkord om avkryssing "annen":	Kode Basisenhe	et			
	Annen videreutdanning:					
		Er du godkjent veileder for din faggruppe? Ja				
		Hvor mange timer har du de siste tre månedene gitt slik veiledning 1. Ved denne institusjonen				

2. Utenom institusjonen