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The Staff Attitude to Coercion Scale (SACS): Reliability, validity and feasibility

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ABSTRACT

Objectives: Staff attitudes to the use of coercion are assumed to be a predictive factor for how much coercion is used in mental health care. The aim of this project has been to develop a questionnaire to measure staff attitudes to coercion. The development of the questionnaire is part of a broader project to investigate if staff attitudes to coercion influence how much coercion is actually used in mental health care.

Method: A 15-item questionnaire has been developed through a process that included item constructing and sampling, a pilot study and testing reliability and validity. The questionnaire has been tested on a sample of 215 staff members from 15 acute and sub-acute psychiatric wards in Norway. Descriptive statistics and Cronbach Alpha were used to examine the psychometric properties of the items, and principal component analysis was used to analyse the dimensional structure.

Results: A model with three attitudes was found based on principal component analysis and clinical considerations. The three attitudes have been named: Coercion as offending (critical attitude) — the view of coercion as offensive towards patients; Coercion as care and security (pragmatic attitude) — the view of coercion as needed for care and security, and Coercion as treatment (positive attitude) — the view of coercion as a treatment intervention.

Conclusion: A 15-item questionnaire to measure staff attitudes to coercion has been developed and named the Staff Attitude to Coercion Scale (SACS). The questionnaire has shown good reliability, validity and feasibility.

1. Introduction

The use of coercion in mental health care remains a controversial and understudied topic. However, increasing focus on patients' rights and consumers' perspectives has contributed to generating more concern about and research into the use of coercion in mental health care (Council of Europe, 2000; Nilstun & Syse, 2000). A consistent discovery is the significant variation in the use of coercion (Kallert et al., 2005; Salize & Dressing, 2004; Seilas & Fenton, 2003). This variation is found both within and between countries and has not yet been fully explained (Husum, Pedersen & Hatling, 2005; Pedersen, Hatling, Røhme, 2007; Riecher-Rössler & Rössler, 1993; Martin, Bernhardsgrutter, Goebel & Steinert, 2007). To be able to reduce the amount of coercion (Pollack, 2004), we need a better understanding of the predictors for the use of coercion and the factors involved. A common assumption is that local culture and staff attitudes to coercion influence staff behaviour (Bohner & Wänke, 2002; Klinge, 1994; Kullgren, Jacobsson, Lynöe, Kohn & Levav, 1996; Wynn & Bratlid, 1998; Zinkler & Priebe, 2002).

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The aim of this project has been to develop a questionnaire to measure staff attitudes to the use of coercion in mental health care. This questionnaire can be used to investigate if staff attitudes influence on how much coercion is actually used in mental health care.

Literature search revealed that research conducted on staff attitudes to coercion is sparse. Three questionnaires are found that cover partly similar topics. Wynn (2003) developed a questionnaire that asks staff about their experience and thoughts on the use of coercive measures on wards. In Norway this include; restraints, medication and isolation. The respondents are asked how often they have participated in the different interventions during the past year, what their opinion about the current use, reasons why the coercive measure is used, and what effect it has. Furthermore, the staff is asked to give their opinion on the type of intervention that was preferred by staff and patients, and what could be done to reduce the use. Klinge (1994) studied staff opinion about seclusion and restraint in a state forensic hospital in USA. The purpose of the study was to investigate staff opinions on the use of seclusion and restraint with acutely psychotic patients in a forensic hospital. A 40-item questionnaire was distributed to 129 staff members who routinely used these techniques. Alem, Jacobsson, Lynöe, Kohn and Kullgren (2002) studied cultural differences in attitudes and practices regarding compulsory treatment among Ethiopian health care professionals. A questionnaire similar to the one used in a previous study in Spain, South Africa, Sweden and the United States was distributed to Ethiopian psychiatrists and nurses. The objective of the questionnaire was to examine how issues of involuntary hospitalization, informed consent, restraint, seclusion, ETC, sterilization, abortion and confidentiality are perceived by nurses and doctors in psychiatric services in different countries. This questionnaire contains vignettes with ethical issues and a section with 20 statements about ethical issues that the respondents rated from ethical to unethical on a five-point scale. The questionnaire also consists of a third part who asks staff about their experience concerning the different kinds of abuse of patients.

However, the questionnaire developed by Wynn (2003) covers staff experience and attitude towards the use of different coercive measures on wards. The questionnaire developed by Klinge (1994) also asks only about the use of seclusion and restraints on wards and not about attitudes to the use of coercion in general. These two questionnaires have a more narrow perspective than the one we wanted to develop; since they deal with actual use of coercive interventions on wards and not primarily with staff attitudes to the use of coercion per se. The aims of our project were to measure the attitudes to the use of coercion in a broader sense, and deal with attitudes to coercion as an ethical and principal issue.

The questionnaire that is most similar to the one made in this study is the one made by Alem et al. (2002). Six of the statements in the statement part of the questionnaire ask about ethical issues concerning the use of coercion and resemble those made for the present project. The questionnaire as a whole has a broader perspective on ethical issues relevant for care of patients in mental health care and not merely staff attitudes to the use of coercion. This questionnaire is therefore not considered to cover the same topic as the present questionnaire. The conclusion of this survey is that we have not found any questionnaire that measures the general attitudes to the use of coercion we wanted to study, and that there is a need for an instrument that measures these. The questionnaire developed in this study is also shorter and quicker to use with its only 15 items.

In search for relevant theory for the content of a questionnaire, three contributions were selected. Alty and Mason (1994) show that theory about the reasons for using seclusion can be divided into three groups: the view of the use of seclusion as therapy, as containment or as punishment. Vatne (2003) found in her study that the nurse's reasons for setting boundaries for patients could be divided into three on a continuum from weak to strong application of power. These three groups of arguments are named as giving care, as giving parenting and as being a guard. The groups of giving care and parenting seem to overlap each other. Another source used as inspiration in item construction is the study by Alem et al. (2002) that also finds that attitudes to using coercion can be divided into three. These three attitudes can also be placed on a continuum from ethical through neutral to an unethical view of using coercion in mental health care.

2. Method

2.1. Item selection and construction

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 covered different reasons for using coercion in mental health care and different attitudes to using coercion. The work was based on theory and studies considered to be relevant to staff reasons for using coercion, seclusion and boundary-setting in mental health care. The group also contained a user involved in research to facilitate the user perspective. The research group's own clinical experience was that the reason for using coercion was either for security reasons, to give care or as treatment. This was congruent with the literature previously mentioned. The aim of the item construction was to ensure that the items covered this diversity of reasons for using coercion. The items were then sent to other service users, mental health clinicians and researchers for comments. The initial questionnaire at the end of this process contained 22 items.

2.2. Pilot study and revision of the initial questionnaire

In June 2005 the questionnaire with the initial 22 items was sent to ten mental health psychiatric acute inpatient departments consisting of 17 acute or sub-acute wards. The questionnaire asked how the individual mental health worker perceived the attitudes of the staff as a group. The respondents were asked to rate on a five-point Likert scale how much they agreed or disagreed with each of the 22 statements. The sample consisted of 137 staff members. Staff groups in mental health wards in Norway consist mainly of psychiatric nurses, enrolled nurses, psychologists, psychiatrists, social workers and physiotherapists.

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. Both five-dimension and three-dimension models were used as working models. The five-dimension model was eventually rejected in favour for the three-dimension model with an Eigenvalue over 1.8, who was considered to be statistically and clinically meaningful. A three-dimension model also harmonizes with the theoretical models and previous studies that were used as working hypothesis when constructing the items. In this process the questionnaire was reduced from 22 to 15 items. The items with dimension loading less than 0.40 were left out, as were items that gave higher Cronbach Alpha for a dimension when taken out. As a conclusion, 15 items and the three-dimension model was chosen for the final questionnaire, which was called Staff Attitude to Coercion Scale (SACS). The questionnaire is given in the appendix.

The three attitudes found in the pilot study were:

1. Coercion as offending (critical attitude) — 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 offending towards patients and can violate the relationship between caregiver and patient. It also contains statements claiming that the use of coercion could be reduced if staff had more time available to be with the patients and talk with them.
2. Coercion as care and security (pragmatic attitude) — the view of coercion as needed 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 as being in a middle position and represents a pragmatic view of the use of coercion. In this position 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 paternalism, and the paternalism is considered as taking care of someone.
3. Coercion as treatment (positive attitude) — 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 mental health care. The two other items in this dimension are the ones that claim the necessity to use coercion towards patients who are regressive and who lack insight. This is a common assumption in mental health nursing literature. This position represents a strong element of paternalism, and paternalism is regarded as a treatment intervention.

2.3. Main sample for testing the revised questionnaire

In 2006 the 15-item questionnaire was sent out to six psychiatric departments consisting of 15 acute and sub-acute wards. A total of 215 questionnaires were returned from the 15 multidisciplinary staff groups. Confirmatory principal component analysis was done to analyse whether the factors or dimensions from the pilot study were also found in the main sample.

2.4. Testing of construct validity

The dimensional structure was validated by a group of clinicians, mental health researchers and users who were considered to be experts in the field. The validation study was performed by making a questionnaire which was sent to the experts. They were

Table 1
Staff Attitude to Coercion Scale (SACS) : Principal component analysis (n=215)

Subscales and items	Loadings on subscale (those above .40 in bold)		
I Coercion as offending subscale			
15. Coercion could have been much reduced, giving more time and personal contact	**.78**	.07	−.13
14. Scarce resources lead to more use of coercion	**.69**	.13	−.10
8. Coercion violates the patients integrity	**.61**	−.24	−.10
13. Too much coercion is used in treatment	**.58**	−.23	−.09
3. Use of coercion can harm the therapeutic relationship	**.50**	−.08	−.18
4. Use of coercion is a declaration of failure on the part of the mental health services	**.50**	−.37	.16
II Coercion as care and security subscale			
2. For security reasons coercion must sometimes be used	.16	**.76**	.08
5. Coercion may represent care and protection	−.31	**.67**	−.17
1. Use of coercion is necessary as protection in dangerous situations	−.07	**.64**	.04
9. For severely ill patients coercion may represent safety	−.22	**.59**	.19
7. Coercion may prevent the development of a dangerous situation	−.12	**.56**	.21
11. Use of coercion is necessary towards dangerous and aggressive patients	.04	**.48**	.44
III Coercion as treatment subscale			
10. Patients without insight require use of coercion	−.20	.12	**.81**
12. Regressive patients require use of coercion	−.04	.05	**.81**
6. More coercion should be used in treatment	−.35	.09	**.55**

Rotated component matrix, Varimax solution (n=215).

Table 2
Staff Attitude to Coercion Scale (SACS) : Descriptive statistics of items and reliability of subscales (n=215)

Subscales and items	Mean	SD	Skewness	Cronbach Alpha
I Coercion as offending subscale				.70
15. Coercion could have been much reduced, giving more time and personal contact	3.41	.95	−.03	
14. Scarce resources lead to more use of coercion	3.22	1.09	−.25	
8. Coercion violates the patients integrity	3.24	.92	−.20	
13. To much coercion is used in treatment	2.54	.91	.46	
3. Use of coercion can harm the therapeutic relationship	3.31	1.04	−.47	
4. Use of coercion is a declaration of failure on the part of the mental health services	1.95	.84	.68	
II Coercion as care and security subscale				.73
2. For security reasons coercion must sometimes be used	4.41	.69	−1.62	
5. Coercion may represent care and protection	4.21	.65	−.54	
1. Use of coercion is necessary as protection in dangerous situations	4.34	.70	−1.49	
9. For severely ill patients coercion may represent safety	4.00	.64	−.75	
7. Coercion may prevent the development of a dangerous situation	3.92	.82	−.86	
11. Use of coercion is necessary towards dangerous and aggressive patients	4.06	.84	−.88	
III Coercion as treatment subscale				.69
10. Patients without insight require use of coercion	2.64	1.08	.28	
12. Regressive patients require use of coercion	2.33	.93	.29	
6. More coercion should be used in treatment	2.23	.81	.32	

asked to sort the 15 items into the five dimensions which was first used as working model. Altogether 18 questionnaires were returned.

3. Results

3.1. Confirmatory principal component analysis

Confirmatory principal component analyses with Varimax rotation showed that the three-dimension model from the pilot study was replicated in the main sample with an Eigenvalue above 1.6 and explains 49% of the variation. Results from the principal component analysis are presented in Table 1. The three attitudes have the contents as previously explained and have been named: 1. Coercion as offending (critical attitude) — the view of coercion as offensive towards patients. 2. Coercion as care and security (pragmatic attitude) — the view of coercion as needed for care and security. 3. Coercion as treatment (positive attitude) — the view of coercion as a treatment intervention.

3.2. Reliability

As shown in Table 1, the internal consistency (Cronbach's Alpha) of the subscales is 0.69–0.73. Descriptive statistics of items and internal consistency of subscales are presented in Table 2.

The scale also gives a meaningful solution when used as one dimension. Cronbach Alpha for the total Staff Attitudes to Coercion Scale using all 15 items was 0.78. Items in the Coercion as offending attitude are reversed when used as one dimension.

Table 3
Staff Attitude to Coercion Scale (SACS) : Construct validity

Subscales and items	Distribution of items (%) on the subscales in sorting		
I Coercion as offending subscale			
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**	6	0
13. To much coercion is used in treatment	**100**	0	0
3. Use of coercion can harm the therapeutic relationship	**78**	6	16
4. Use of coercion is a declaration of failure on the part of the mental health services	**94**	6	0
II Coercion as care and security subscale			
2. For security reasons coercion must sometimes be used	6	**94**	0
5. Coercion may represent care and protection	6	**88**	6
1. Use of coercion is necessary as protection in dangerous situations	0	**93**	7
9. For severely ill patients coercion may represent safety	0	**89**	11
7. Coercion may prevent the development of a dangerous situation	6	**94**	0
11. Use of coercion is necessary towards dangerous and aggressive patients	0	**94**	6
III Coercion as treatment subscale			
10. Patients without insight require use of coercion	13	18	**69**
12. Regressive patients require use of coercion	19	31	**50**
6. More coercion should be used in treatment	19	6	**75**

Loadings on subscale (those above .40 in bold).

3.3. Construct validity

The respondents generally placed the items in the correct dimension. For 11 of the items the correct placement of the item was above 80%. The results of the validity test are presented in Table 3. Based on the validity test, psychometrics, clinical experience and theory the five-dimension model was left and the three-dimension model was chosen to be followed.

3.4. Feasibility

An important question in the development of a questionnaire is the feasibility of the questionnaire. The Staff Attitude to Coercion Scale is considered to be easy to administrate, quick to complete and easy to understand. As 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.

4. Discussion

The aim of this study was to create an instrument that captured the different attitudes among psychiatric staff members towards using coercion in mental health care. We found three clinically meaningful subscales that were internally consistent and seem relevant for use in further research and in a clinical context. The three attitudes were that coercion is offending towards patients; that it is needed as care and security, or that it can be viewed as a treatment intervention. The scale can also be used as one dimension by estimating a total score for staff attitudes to coercion.

The psychometric properties of the questionnaire are considered to be acceptable. The three subscales in this study have an Cronbach Alpha coefficient of 0.70, 0.73. and 0.69. Considering the sample size, De Vellis (2003) suggests a ratio of at least five to ten subjects per item with up to about 300 subjects. A sample size of 215 subjects should therefore be considered adequate. De Vellis (2003) also claims that there are no absolute rules for what is considered to be the right or good enough Cronbach Alpha coefficient. Cronbach Alpha of 0.70 is often suggested as a lower acceptable limit. As attitudes are a type of "soft" variable, Cronbach Alpha of 0.70 is considered acceptable. However, even if the sample is considered to be large enough, it is important to test the questionnaire on other samples and on larger samples. Item loadings in the three dimensions are between 0.48 and 0.81 and are also considered to be good. Loadings on the other two attitudes are very low, and this supports the existence of three conceptually different attitudes. Cronbach Alpha is 0.78 for the total scale including all 15 items. This is good, and it indicates that the total scale also is a statistically and clinically meaningful dimension.

The three subscales fit well with earlier studies and theory. Both Vatne (2003) and Alem et al. (2002) found that attitudes to the use of coercion can be divided into three dimensions. Vatne (2003) has named the dimensions: the view of coercion as giving care, as giving parenting or as being like a watchman. Vatne (2003) also categorizes the dimensions on a continuum from weak to strong application of power. Alem et al. (2002) found the same pattern in different kinds of attitudes and name them on a continuum from ethical, through neutral to an unethical view on the use of coercion. The consistency of this categorization across studies supports the validity of the dimensions and confirms that these three concepts are meaningful.

The results also supports that all the 15 items together may be interpreted as one single dimension from "positive" to "negative" attitudes towards the use of coercion (Alem et al., 2002) and that the questionnaire may be used to measure this dimension. Also the use of the whole scale as one dimension is in agreement with earlier studies, as the three dimensions is seen as different parts of a continuous dimension. When used both as one dimension and as three subscales one capture more of the different aspects in attitudes to the use of coercion, and not only if attitude is "negative" or "positive" to coercion.

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 are in need of coercion. The assumption that psychotic patients are regressive in terms of psychological development and that people with serious mental problems lack insight into their own illness is widespread in mental health services. This discovery can indicate that these assumptions also promote the use of coercion. There are alternative views upon the psychotic and agitated patient that may be more constructive in reducing the use of coercion. This indicates the need for further investigation of the relationship between staff attitude, treatment ideology and the use of coercion.

5. Conclusion

The aim of this project was to develop a questionnaire that could measure the diversity in staff attitudes to the use of coercion in mental health care. A questionnaire consisting of 15 items was developed and named Staff Attitude to Coercion Scale (SACS). The questionnaire has been tested in two different samples, showing good and stable psychometric abilities. A test of construct validity has also been performed and confirmed the dimensional structure. As a conclusion, the SACS is considered to be a feasible questionnaire for use in mental health wards that practise coercion on patients. Future research may prove that the questionnaire may contribute to a better understanding of the dynamics in the use of coercion, and as a tool in the work to reduce the use of coercion in mental health services.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.ijlp.2008.08.002.

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