The Staff Attitude to Coercion Scale (SACS) – Polish adaptation

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Summary

Aim. The aim of the study was to prepare the Polish adaptation of the SACS. The scale is a self-assessment tool designed to measure staff attitudes towards direct coercion of psychiatric wards patients.

Methods. The sample consisted of 120 adults, staff from 7 psychiatric wards. The SACS is a tool created in Norway by Tonje Husum, comprising of 15 items describing psychiatric healthcare professionals attitudes towards direct coercion. The validation procedure incorporated three basic methods to be applied in the reliability analysis – the comparison of double tests with the same method, the analysis of statistical properties of test items as well as analysis of the relation of test items and subscales with the general test result.

Results. After a 'think aloud' type pilot study and a language validation, the internal consistency was assessed. The Cronbach's alpha ranged from 0.57 to 0.81 in the subscales, and it was 0.82 for the total score. The best solution obtained in exploratory factor analysis was a three-factor model, almost identical to the original one, confirming the division into three subscales: coercion as offending (critical attitude), as care and security (pragmatic attitude) and as treatment (positive attitude).

Conclusions. The psychometric characteristics of the Polish adaptation of the SACS are similar to those reported in the original version. The results allow to recommend the method for scientific research. However, further analyses are necessary to assess validity and discriminative power in larger settings.

Key words: coercion, staff attitude scale, SACS

Introduction

The use of coercive measures in psychiatry is a complex and controversial issue, when on the one hand there is the necessity to provide the patient with the best therapeutic methods, while on the other hand to ensure abiding by the basic human rights. At the same time, however, this difficult dilemma is an everyday reality for the mental healthcare personnel. In the second half of the 20th century, when documents such as the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, the European Social Charter or the Charter of Fundamental Rights of the European Union were proclaimed, guaranteeing human rights and freedoms, the issue of coercion towards people with mental disorders became a sensitive matter at the intersection of medicine, ethics and law. It has become necessary to provide statutory control over procedures such as holding, forced medication, mechanical restraint, and isolation.

Legal regulations regarding the use of coercion differ between countries, however, steps have been taken to define the legal frameworks for coercion and the scope of basic rights that should be enjoyed by people with mental disorders. In 2000, the Council of Europe Steering Committee on Bioethics (CDBI) presented a white paper "on the protection of the human rights and dignity of people suffering from mental disorder, especially those placed as involuntary patients in a psychiatric establishment" [1, p. 2]. Guidelines on the use of mechanical restraint and isolation have been outlined in the paper, among others. In Poland, this issue is regulated by the Mental Health Protection Act of 19 August 1994, as amended [2]. It indicates the need to record each case of the use of coercion in the medical records, as well as to notify the head of the healthcare entity about it.

Even though the use of coercive measures is a common practice, this procedure is widely criticized by various institutions and organizations [3]. It resulted in the necessity to carry out detailed studies on coercion, including the identification of factors that increase the likelihood of its use. However, the problem that has not been studied so far is the so-called hidden coercion, i.e., unrecorded and inconsistent with legal regulations cases of its use [4].

At the beginning of the 21st century (2003–2005), a multi-center study *European Evaluation of Coercion in Psychiatry and Harmonization of Best Clinical Practice* (EUNOMIA) was carried out to assess the extent of the use of coercion in psychiatry [5]. It showed considerable diversification in the use of coercion between European countries due to socio-cultural and legislative reasons, among others. Subsequent studies [3, 6–13] showed differences in the frequency of use of coercive measures not only between respective countries, but also between institutions or departments, while factors increasing the risk of coercion were divided into three independent groups: characterizing the patient, treatment center and staff. It was noted that the quality of work and the atmosphere in the ward, the relationship between patients and staff, and the experience of medical personnel are important factors affecting the frequency of the use of coercion.

One of the first tools used to explore this phenomenon was a 40-item questionnaire by Klinge from 1994, investigating the attitude and opinions of the staff regarding the

physical restraint and isolation of patients [14]. It was assessed that medical staff mostly prefers to use involuntary treatment to calm the patient rather than to use restraint or isolation, while as a second measure prefers physical restraint [14]. In 2002, Alem et al. demonstrated differences in the use of coercion between medical staff from culturally different countries using a complex questionnaire, containing case reports and questions about treatment against patient's will, ethical issues and abuse in psychiatry, among other things [15]. A year later, the results of a study carried out using a questionnaire containing questions about the frequency of participation in the use of restraint and isolation in the last year, opinions on these procedures, their causes and expected effects, were published by Wynn [16]. He showed that among people expressing the common belief about the beneficial effects of physical restraint and isolation on the calming of patients, almost 70% suffered physical aggression associated with the implementation of these measures of coercion.

Further research on this issue was conducted by Husum et al., who developed *the Staff Attitude to Coercion Scale* (SACS): a 15-item tool aimed at assessing the attitudes of psychiatric institution personnel towards the means of coercion [7, 17]. This questionnaire was used in a multi-center, prospective study on coercive measures carried out in 2005–2006 in Norway. Analysis of the results confirmed good and stable psychometric properties of this scale [18, 19]. It has been proven that the use of coercion is influenced by four factors: (1) the cultural factor (depending, among other things, on statutory regulations, but also culture prevailing in each medical unit), (2) the factor resulting from the functioning of the ward (e.g., the attitude of the head of a ward towards the use of coercion, or applicable treatment standards), (3) the individual factor dependent on the employee (experience, personality and professed values), and (4) the factor dependent on the patient (behavior, clinical diagnosis, psychopathological symptoms, personality) – whereas the second and third factor seem to play the most important role in the use of coercion.

The use of the SACS questionnaire in research may provide a better understanding of the issue of coercion in local socio-cultural environment, giving the opportunity to reduce the frequency of the use of this procedure, which in recent years has been one of the priorities for the development of psychiatry in the world. The current 'psychiatric policy' indicates the use of direct coercion as a last resort, considering it may evoke psychological pain and trauma, decrease the patients' satisfaction with the treatment, as well as cause somatic complications that may occur in the course of prolonged restraint [20–27]. At the same time, the reduction of the use of coercion could decrease the degree of social stigmatization of people with mental disorders. For these reasons, it was important to develop a Polish adaptation of the SACS and to utilize this tool in a study conducted in Poland.

Material and method

In our research we have used the adapted method, *the Staff Attitude to Coercion Scale* (SACS), developed by the Norwegian team: Tonje Lossius Husum, Arstein Finset and Torleif Ruud. Due to its specificity, the research involved a relatively small group

of 120 people – employees of seven psychiatric departments: 46 doctors, 39 nurses, 18 therapists, and 17 psychologists. The hospital staff examination was repeated after three weeks to determine the absolute stability of the questionnaire.

The questionnaire in its original English version consists of 15 test items, and the answers are marked on a 5-point Likert scale: 1 -"I strongly disagree"; 2 -"I do not agree"; 3 -"neutral"; 4 -"I agree"; 5 -"I strongly agree". In the original version and in the adaptation, the subject is asked what he/she thinks about coercion in treatment, then he/she is ensured that there are no bad or no good answers and that the research is anonymous.

On the original scale, apart from the general attitude towards institutional coercion score, we can distinguish three factors corresponding to three types of attitudes:

- Coercion as offending to the patient (critical attitude) the view that coercion violates the patient's subjectivity. The questions included in this subscale are: 3, 4, 8, 13, 14, 15 all reversed.
- Coercion as a care and security (pragmatic attitude) the view that coercion is an element of care and safety. The questions included in this subscale are: 1, 2, 5, 7, 9, 11.
- Coercion as a form of treatment (positive attitude) the view that coercion may constitute a therapeutic intervention. The questions included in this subscale are: 6, 10, 12.

The original version has satisfactory psychometric properties. The reliability (Cronbach's alpha) is 0.78. Factor analysis allowed to identify 3 factors corresponding to three attitudes towards violence – critical (Cronbach's alpha 0.70), pragmatic (Cronbach's alpha 0.73) and positive, accepting violence as a form of treatment (Cronbach's alpha 0.69), explaining in total 61% of the variation.

Translation and linguistic validation of the Polish version of the SACS questionnaire

The linguistic validation procedure was carried out in accordance with the guidelines described in subject literature [28], first obtaining the official written consent of the author of the original questionnaire. Then the instruction and test items were translated into Polish by a fluent English-speaking psychiatrist. The result of his work was the development of the initial language version of the questionnaire, which was subjected to the retranslation procedure. The language version created that way has been checked and corrected by experts fluent in English and having expert knowledge – a psychiatrist, a psychologist and a linguist.

The introduced changes concerned items 4 and 12 and elements of the instruction. They resulted from difficulties in maintaining the fidelity of the translation while maintaining the semantic equivalence of theorems. Considering that the SACS questionnaire is intended for the study of a specific group of employees of psychiatric hospitals that is educated and knows the terminology used, the determination of the Gunning Fog Index was abandoned. After considering the experts' comments, the trial version of the questionnaire was used in a 'think aloud' pilot study [29] conducted among 18 students of psychology and 5 psychologists. These persons informed the investigators how they understand particular scale items. It allowed us to check the compatibility of the interpretation with the original meaning of the scale items, an official approval of the Polish language version of the questionnaire and subjecting it to a psychometric assessment process.

Results and discussion

Psychometric properties of the Polish adaptation of the SACS questionnaire

The recommended number of subjects is about 15 for each test item. However, the collection of such a group of respondents is difficult due to its specificity – the questionnaire is intended for the examination of staff attitudes towards coercion in psychiatric wards, it also contains specialized vocabulary not necessarily understood by lay people or early stage psychology students. The authors of the original version as well as the Polish adaptation had to face the problem of a relatively small sample. The sample of respondents in the original version included 214 staff members, while in the case of its Polish adaptation – 120 persons (psychiatric departments employees). For this reason, the first step was to check the adequacy of the sample. Both the Bartlett's sphericity test ($\chi^2 = 567.110$; df = 105; p < 0.001) and the Kaiser-Meyer-Olkin test (K-M-O = 0.774) indicated the adequacy of the matrix analyzed for the existence of common factors, and thus for an adequately selected sample.

Then an analysis of the discriminative power of the questionnaire items was made. The results are presented in Table 1.

Item	Item-total correlation	Cronbach's alpha after removing the item
item 1	0.472	0.803
item 2	0.509	0.802
item 3	0.479	0.802
item 4	0.446	0.805
item 5	0.551	0.797
item 6	0.395	0.808
item 7	0.505	0.802
item 8	0.452	0.805
item 9	0.562	0.797
item 10	0.090	0.827
item 11	0.523	0.800
item 12	0.207	0.823

Table 1. Discrimination rate of test items (N = 120)

table continued on the next page

item 13	0.515	0.800
item 14	0.354	0.812
item 15	0.457	0.804

The discriminatory power of most of the analyzed items is satisfactory: their correlation with the overall result varies from 0.09 for item 10 (p < 0.01) to 0.562 for item 9 (p < 0.01). To preserve the integrity of the questionnaire and its correspondence with the original, it was decided not to remove the item 10 that had a discrimination factor below 0.2 (its removal would improve the entire questionnaire's Cronbach's alpha only to a small extent).

In the Polish version of the SACS questionnaire, the Cronbach's alpha coefficient of reliability was comparable to the original questionnaire and amounted to 0.82, while the Cronbach's alpha reliability coefficients for subscales were 0.74 for the critical attitude, 0.81 for the pragmatic attitude and – a relatively low result – 0.57 for the positive attitude towards institutional coercion. They explained a total of 52.3% of the answers variance.

Next, in order to determine the validity and verify the internal structure of the scale, we performed the principal component analysis with unrestricted number of factors and orthogonal rotation (varimax). As in the original version of SACS, the scree plot indicated the possibility of distinguishing 3 or 5 factors. By analogy to the original version of the questionnaire, an analysis was carried out for three factors.

Factor loadings above 0.4 have been considered a prerequisite for recognizing the affiliation of an item to a given factor, with values lower than 0.4 on each of the other factors. This way, three factors were distinguished, which could suggest a structure identical to the original one (indeed, most claims have been reconstructed according to the original structure). The results are presented in Table 2.

Attitude	Component		
Attitude	Pragmatic	Critical	Positive
item 1	0.766		
Item 2	0.848		
item 3		0.689	
item 4	0.617		
item 5	0.674		
item 6			0.688
item 7	0.655		
item 8		0.610	
item 9	0.597		
item 10			0.775

table continued on the next page

item 11	0.441		
item 12			0.657
item 13		0.548	
item 14		0.746	
item 15		0.735	

Principal component analysis. Rotation solution - Varimax with Kaiser normalization^a

^aRotation converged in 4 iterations

The first factor, critical attitude towards coercion, includes, as on the original scale, items 3, 8. 13, 14, 15 – all items in this subscale were previously reversed. The second factor (pragmatic attitude) is loaded by items 1, 2, 5, 7, 9, 11. The third factor – positive attitude to coercion as a form of treatment – includes three items: 6, 10 and 12. However, the factual affinities of item 4 deviated from expected – in accordance with the results, it impresses the pragmatic attitude, which seems unjustified, because that particular item claims that the "use of coercion is a declaration of failure on the part of the mental health services". It would seem to suit best to the scale of critical attitude towards the coercion to which it was originally assigned in the English version of the SACS.

Therefore, a solution with 5 factors was tested, following the indications of the Cattell scree plot – it seems to suit better to the data as it explains 65.84% of the variance of answers, but gives a mixed structure of items that does not correspond to the original version of the SACS postulated by the author, who also tested a solution with 5 factors, but ultimately decided on a more theoretically well-grounded solution with three factors. This question should be clarified in the course of further testing using the questionnaire.

The result obtained using the Shapiro-Wilk test (d = 0.99; p > 0.05) indicated that the distribution of results is normal. It was also normal for the critical attitude scale. but not for the two other scales. We calculated correlation coefficients between the critical attitude scale and the pragmatic attitude scale (rho = 0.49; p < 0.01), the positive and pragmatic attitude scales (rho = 0.29; p < 0.05) and the critical and positive attitude scales (rho = 0.24; p < 0.05).

To determine the absolute stability coefficient of the tool, 51 employees of psychiatric wards were examined twice in an interval of 3 weeks. The correlation of the obtained results was relatively low: 0.57 (p < 0.01), which is a surprise and may indicate that the result is affected by the current situation in the ward.

Using the Kruskal-Wallis test due to non-parallel groups, it was found that the surveyed representatives of various professions did not differ statistically significantly in the level of acceptance of coercion in a psychiatric ward. It should be noted that the results of the hospital staff did not differ significantly from those obtained in the original SACS scale, which formed the basis of the doctoral thesis of its author [19], however, it took many years of research, which ultimately covered over 500 employees of psychiatric departments. Perhaps the next planned research on a larger

group of hospital employees will allow a more accurate comparison of attitudes in both countries.

Conclusions

The aim of the presented studies was the Polish adaptation of the SACS questionnaire, which allows measuring the attitudes of persons professionally associated with mental healthcare towards coercion used on psychiatric wards. The need to adapt the tool resulted from the will to investigate the approach to coercion among staff of psychiatric hospitals and to compare the results with those obtained abroad using the original version of the questionnaire. On the basis of all the performed analyses, it can be concluded that the Polish version does not differ significantly from the original one. It measures the general factor and various specific factors saturated with it, with varying but acceptable reliability. The planned studies on a larger group of psychiatric hospital employees will allow further verification of the factor structure of the tool and a more comprehensive reference of results to those obtained in the studies in the Norwegian hospitals. In summary, using the scale can be recommended, with the awareness of its limitations. At the same time, we would like to note that at the current stage of the analysis, due to the relatively small number of respondents, the obtained results should be treated as supporting rather than conclusive.

Annex: English version of the "Staff Attitude to Coercion Scale (SACS)"

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Annex

SACS – questionnaire on the use of coercion by Tonje Lossius Husum

Institution: _____ Team: ____ Ward: ____ Date: _____

This questionnaire consists of statements about the use of coercion, how one thinks about it and how one consider coercion should be used or not.

This will probably differ and depend on the situation and the kind of patient group you are working with. Thus there are no right or wrong answers under all circumstances.

The questionnaire will be used to give a picture of how the ward or team is experienced by the staff members as a group. Your individual answer will be treated confidentiality, and only average values for the whole team will be used.

Read each statement and mark one box for each statement:

1 Disagree strongly 2 Disagree 3 Neutral 4 Agree 5 Agree strongly

If a statement is not applicable to your ward/ team, mark "Disagree strongly" in box 1. If you can't decide what to answer about your ward or team, mark "Neutral" in box 3.

		1 2 3 4 5
1.	Use of coercion is necessary as protection in dangerous situations	
2.	For security reasons coercion must sometimes be used	
3.	Use of coercion can harm the therapeutic relationship	
4.	Use of coercion is a declaration of failure on the part of the mental health services	
5.	Coercion may represent care and protection	

	1 2 3 4 5
6. More coercion should be used in treatment	
7. Coercion may prevent the development of a dangerous situation	
8. Coercion violates the patients integrity	
9. For severely ill patients coercion may represent safety	
10. Patients without insight require use of coercion	
11. Use of coercion is necessary towards dangerous and aggressive patients	
12. Regressive patients require use of coercion	
13. Too much coercion is used in treatment	
14. Scarce resources lead to more use of coercion	
15. Coercion could have been much reduced, giving more time and personal contact	

Please check that you have rated all statements. If you have comments you can write them on the back of the questionnaire.

Thank you for answering!