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A Polish adaptation of Self-Stigma of Individuals with Criminal Records – SSICR

Abstract: This study presents the Polish version of the Self-Stigma of Individuals with Criminal Records (SSICR) and examines a theoretical model of self-stigma in which perceived stigma leads to stereotype agreement, internalized stigma, and then to anticipated stigma. The adaptation procedure was carried out in accordance with the standards for checking the equivalence of tests on a group of 186 criminal offenders aged 19 to 84 (M=36.4, SD=11.7). Reliability was estimated on the basis of Cronbach's α indices, factor validity was verified on the basis of confirmatory factor analysis. The validity of the tool was also tested. The obtained results allow to state that the SSICR is a tool with acceptable psychometric properties.
Key words: self-stigma, prisoners, questionnaire, criminals, adaptation.

Introduction

Theory of social stigmatization or labeling is one of the older ones pioneered by Tannenbaum (Kojder 1980) or Lemert and Becker (Krajewski 1983) and emphasizes the role of social response to criminal behavior and the very process of taking on the role of a deviant. At the core of this theory is the assumption of internalizing requirements that are associated with the role. Prisoners and persons released from prison are very often excluded from their own lives as well as from society as a whole, which shows no acceptance for criminals. Stigmatization is one of four consequences of prison isolation alongside standardization, degradation

and depersonalization. Public opinion surveys have shown that half of people agree with negative stereotypes about former prisoners (Hirschfield & Piquero 2010) and also support the sanctions applied to them (Dhami & Cruise 2013). In addition to experiencing the repercussions of court-ordered punishment, offenders must additionally deal with social exclusion. Employers are less likely to hire individuals with a criminal record (Pager 2003; Nilsson 2003). Former prisoners often have limited access to health care, social services (Agnew 1992). In addition to the grief caused by, for example, the loss of a job, social isolation can be the basis and source of adjustment disorders. Difficulties are caused by the reduction of the number and variety of sensory stimuli, minimization of direct interpersonal contacts, reduction of living space, deprivation of needs, fear for the fate of loved ones, a sense of loss of family ties, awareness of the harm done. The prisoner may suffer from a surge of negative mental states: malaise, impulsiveness, stress, anxiety, depression (Ciosek 1993). his phenomenon is often a strong predictor of poor functioning (Livingston & Boyd 2010). Sometimes an offender, especially a repeat offender, acquires various characteristics in the course of establishing oneself as a deviant. Although society does not know the exact characteristics of a particular criminal, guided by the image presented by the media, the stereotypical role of the criminal, and public opinion, it generalizes these characteristics to the individual as well. Other reasons for the negative reaction of the environment can be sought in the change in the identity of the deviant, a change in the attitude of the environment towards the stigmatized individual, as a result of which the deviant internalizes the behavioral patterns they are attributed with (Kojder 1980). These problems led researchers (Moore, Tangney & Stuewig 2016) to create a tool to identify the sense of social stigma among incarcerated persons and to determine what type of stigma is prevalent in them: whether it functions only in the area of perception, acceptance, or whether these values are internalized by the individual. Their results show a significant intermediate path: from perceived stigmatization to stereotypical assimilation and ultimately internalization of stigmatized values. Accordingly, stereotypes about criminal offenders can be incorporated into the self-concept, producing a phenomenon known as self-stigma. However, little is known about how this phenomenon arises and what it is associated with (Corrigan, Watson & Barr 2006).

Very few papers published in Poland consider the aspect of stigmatization from the perspective of the incarcerated person. A study by Dudek (2011) describes the operation of opinions (college and university students and randomly selected individuals aged 30–35 who have or have not had contact with a former prisoner) and stereotypes that stigmatize individuals leaving correctional facilities. Nowacki (2015) considered the role of stigma in the formulation of the prisoners' evaluation of the electronic monitoring system. For this purpose, he constructed his own original Electronic Monitoring System Evaluation Questionnaire, in which one of the factors was stigmatization, describing the convicted person's feeling of

being stigmatized by the fact of serving sentence in electronic monitoring system. Despite the non-custodial nature of the electronic monitoring system measure, the research revealed a difference in the evaluation of the system by the incarcerated persons and those who had never been convicted (a significantly higher sense of stigmatization was noted among convicts). In the Polish literature there are papers (Kieszkowska, 2018) that take into account the sense of exclusion and condemnation of the incarcerated person's family, who also often showcase resentment towards the offender, while feeling rejected and misunderstood by society. This affects the functioning of the incarcerated persons in various social roles (Pawlak, 2009) as well as the social, economic and internal situation of their families (Pawlak, 2008). The authors (Mrózek, 2014) focus on the difficulties and adversities incarcerated persons face in real life and point to the need for reforms that should occur not only in the structures of the state, but most importantly in the mindset of society.

The issue of the perceived impact of stigmatization on prisoners is also treated marginally in international studies, in which, however, the issues of perceiving and internalizing stigmatized content is much more prominent. Results (Moore, Stuewig & Tangney, 2014) showed that perceived levels of stigma are associated with poorer social adjustment after being released from prison. It is also possible to distinguish certain risk factors and protective factors throughout the process of self-stigmatization (Moore, Milam, Folk & Tangney, 2018). In turn, Cherney and Fitzgerald (2018) explored the range of coping strategies associated with stigma in the context of job market and indicated that inmates expect to be judged by a potential employer through the deviant label.

Given these theoretical considerations, the tool presented in this paper is based on the theoretical model of self-stigmatization, which consists of perceived stigma leading to a sense of conformity of one's behavior to stereotypes, the so-called stereotype agreement, and ultimately to internalized views present in stereotypes, the so-called internalized stigma.

Research objectives

The purpose of this article is to present the results of adaptation work on a questionnaire used to examine prisoners' sense of stigmatization. Several tools for assessing the sense of stigmatization can be found in the literature, however, these are mostly available in English (e.g., Perceived Stigmatization Questionnaire – PSQ; Lawrence et al., 2006) or dedicated to other, stigmatized social groups (e.g., the mentally ill, addicts, stuttering etc.; Corrigan et al. 2006). The lack of a tool of this type in Poland formed the basis for making the decision to work on a Polish adaptation of SSICR, authored by Moore, Tangney and Stuewig (2016).

Materials and methods

Subjects and procedure

The sample size was determined by random selection using a sample size calculator available online, taking into account: the size of the male prisoner population in the year of study initiation, i.e., 2019 (n = 71362; MS CZSW, 2020), the size of the fraction (fraction = 0.5), the confidence coefficient (p = 95%), and the maximum estimation error (8%). These analyses resulted in a sample size for the finite population of no less than 150 individuals (confidence interval of 42% – 58%).

The study conducted between November 2019 and August 2020 involved 186 men aged 19–84 years (M= 36.4 SD=11.7), first time offenders (47%) and repeat offenders (53%) incarcerated in five Polish penitentiary units (the pre-trial detention center in Katowice, the pre-trial detention center in Sosnowiec, the pre-trial detention center in Mysłowice, the Racibórz correctional facility and the Wojkowice correctional facility) for various types of offenses, mainly property crime (over 50%). The respondents represented various levels of education and declared their marital status as single (40%), married (23%), informal relationships (20%), widowed (3%) and divorced (14%). Most of the respondents were professionally active (81%). The study was conducted personally by the author and was anonymous and voluntary. Prior approval was obtained from the Director of the Regional Inspectorate of Prison Services in Katowice. It was decided not to apply to a research ethics committee as no ethical concerns about the research project arose during the study. Adult males voluntarily participated in the study after their consent was obtained and the conditions and purpose of the study were thoroughly explained.

Tools

The Beck Depression Inventory – BDI (Beck et al. 1961; Polish adaptation: Parnowski & Jernajczyk 1977), Rosenberg Self-Esteem Scale – RSES (Polish adaptation: Łaguna, Lachowicz-Tabaczek & Dzwonkowska 2008) and the State-Trait Anxiety Inventory – STAI (Sosnowski et al. 2011).

Depressive symptoms were measured using the Beck Depression Inventory (Beck et al. 1961; Polish adaptation: Parnowski & Jernajczyk 1977). The respondent was asked to respond twenty-one times to one of four provided statements (e.g., 0 – "I am happy with myself", 1 – "I am not happy with myself", 2 – "I resent myself", 3 – "I hate myself", or 0 – "I don't cry more often than usual", 1 – "I cry more often than I used to", 2 – "I feel like crying all the time", 3 – "I wish

I could cry but I can't") that best describes their feelings during the past seven days (scoring 0–3 points). The higher the total score obtained on the point scale, the greater the severity of depression. The reliability of the scale in the conducted study was α=*0*.864.

Self-esteem was measured using the Rosenberg Self-Esteem Scale (Polish adaptation: Łaguna, Lachowicz-Tabaczek & Dzwonkowska 2008). The scale presented here is a method of measuring global self-esteem. The scale consists of ten statements which the respondent assesses on a scale from 1 to 4 1 – "strongly agree"; 2 – "agree"; 3 – "disagree"; 4 – "strongly disagree"). The higher the total score obtained across the scale, the higher the self-esteem. The reliability of the scale in the conducted study was α=*0*.789.

To examine the sense of *anxiety* the State-Trait Anxiety Inventory was used (Polish adaptation Sosnowski et al. 2011). The questionnaire consists of two subscales (each consisting of twenty items), one (X-1) measuring anxiety as a state and the other (X-2) measuring anxiety as a trait, on which the respondent select one of four categorized responses (1 – "almost never"; 2 – "sometimes"; 3 – "often"; 4 – "almost always"). The reliability of the scale in the conducted study was α=*0*.922 for STAI X-1 and α=*0*.895 STAI X-2.

Statistical analysis methods

To estimate the parameters of the model's adjustment to the data, confirmatory factor analysis (CFA) was conducted using IBM SPSS Amos software. Internal consistency was estimated using Cronbach's α coefficient. Pearson correlation coefficient was used to assess theoretical relevance. The above analyses were conducted using the IBM SPSS Statistics program.

Polish adaptation of the method

Description of the original scale

The original version of Self-Stigma of Individuals with Criminal Records (SSICR) is the only scale designed to measure sense of stigmatization among prisoners (Moore et al. 2016). The tool is easy to use – the survey takes only a few minutes and is built from 27 items. The respondent was asked to indicate to what extent they agreed with each statement. They responded using a 4-point scale. The questionnaire measures three dimensions of sense of stigmatization:

— perceived stigma – SSICR-PS (α= 0.92);
— stereotype agreement – SSICR-SA (α= 0.84) and
— internalized stigma – SSICR-IS (α= 0.73).

SSICR was adapted by the authors (Moore et al. 2016) of scale based on the 40 item the Self-Stigma of Mental Illness Scale (SSMIS), which consisted of four scales: perceived stigma (α= 0.73–0.87); stereotype agreement (α= 0.72–0.79);

internalized stigma (α=0.22–0.74); and lowered self-esteem as a result of stigmatization (α=0.76–0.82) (Corrigan et al. 2006). The SSMIS scale adapted for the study of prisoners by removal of the fourth subscale – lowered self-esteem. In addition, authors Moore, Tangney and Stuewig (2016) removed one item from each subscale:

— in the first SSICR-PS – item 5: "The public believes most people with a criminal record";
— in the second SSICR-SA – item 5: "I think most people with a criminal record are to blame for their problems";
— in the third SSICR-IS – item 8: "Because I have a criminal record I am to blame for my problems";
— justifying it by the fact of increased internal scale consistency after item removal.

Adaptation into the Polish version

Work on the adaptation of the scale to Polish conditions began in 2018, after obtaining the consent of the authors of the questionnaire. The process of adaptation took place in several stages – in the process of translation and adaptation of the Polish version, the principles of translation of psychological tests (Drwal 1995) were used to create a version that would best reflect the meaning and content of the original version (Table 1). Independent translators translated the scale into Polish, then a common version was agreed upon with the next stage being back translation. The two versions were compared to verify the accuracy of the translation (Hornowska & Paluchowski 2004). The material thus obtained was subjected to validation tests, which were later used for reliability and validity analysis. Based on previous research (Moore et al. 2016), a three-factor scale structure was hypothesized. The SSICR inventory in the Polish adaptation consists of three scales with 10 statements each. The first refers to the perceived level of stigmatization (e.g., "I think the public believes most people with a criminal record cannot be trusted"), the second to stereotype agreement (e.g., "I think most people with a criminal record cannot be trusted"), and the third to internalized stigma (e.g., "Because I have a criminal record I cannot be trusted"). The questionnaire used a rating, identical to the original, on a 4-point Likert-type scale (1 = False, not at all true; 2 = Somewhat true; 3 = Mostly true; 4 = Completely true), asking the respondents to assess statements about society's or their own perceptions of the criminal past. The instruction remained unmodified and in the first subscale reads as follows: "There are quite a few differences in perceptions of the criminal past. We would like to know your opinion on how the majority of the public (most people) view this issue. Please answer the following questions using the 4-point scale described below"; second and third: "The following questions are about *YOU*R opinion. Please answer the questions using this 4-point scale."

Results were calculated separately for each of the three scales based on the average of all items from each scale:

— perceived stigma (SSICR-PS) is a scale that reflects the initiation of the stigmatization process by perceiving that others attribute undesirable characteristics to prisoners, reflecting previously formed stereotypes about this labeled social group;
— stereotype agreement (SSICR-SA) – perceived stigmatization is of particular importance for the creation of the structure of the self and may lead to a situation in which the prisoner agrees with the stereotypes heard about the social group to which they belong;
— internalized stigma (SSICR-IS) – this can lead to the internalization of negative stereotypes about oneself and cause prisoners to adopt a stigmatizing attitude towards themselves.

A score of 10 – 40 points can be obtained on each scale.

Table 1. Content of the original and Polish versions

Polish version	English version
Scale 1	
Moim zdaniem społeczeństwo sądzi, że…	**I think the public believes….**
1._____ większości osób z kryminalną przeszłością nie można ufać.	1._____ most people with a criminal record cannot be trusted.
2. _____ większość osób z kryminalną przeszłością jest odrażająca.	2. _____ most people with a criminal record are disgusting.
3. _____ większość osób z kryminalną przeszłością nie jest w stanie zdobyć bądź utrzymać stałej pracy.	3. _____ most people with a criminal record are unwilling to get or keep a regular job.
4. _____ większość osób z kryminalną przeszłością jest brudna i nieuczesana.	4. _____ most people with a criminal record are dirty and unkempt.
5. _____ większość osób z kryminalną przeszłością jest sama winna swoich problemów.	5. _____ most people with a criminal record are to blame for their problems.
6. _____ większość osób z kryminalną przeszłością ma iloraz inteligencji poniżej średniej.	6. _____ most people with a criminal record are below average in intelligence.
7. _____ większość osób z kryminalną przeszłością jest nieprzewidywalna.	7. _____ most people with a criminal record are unpredictable.
8. _____ większość osób z kryminalną przeszłością nie może powrócić do życia bez przestępstw.	8. _____most people with a criminal record cannot be rehabilitated.
9. _____ większość osób z kryminalną przeszłością jest niebezpieczna.	9. _____most people with a criminal record are dangerous.
10. _____ większość osób z kryminalną przeszłością to źli ludzie.	10. _____ most people with a criminal record are bad people.

Scale 2	
Moim zdaniem…	**I think…**
1. _____ większość osób z kryminalną przeszłością jest sama winna swoich problemów.	1. _____ most people with a criminal record are to blame for their problems.
2. _____ większość osób z kryminalną przeszłością jest nieprzewidywalna.	2. _____ most people with a criminal record are unpredictable.
3. _____ większość osób z kryminalną przeszłością ma iloraz inteligencji poniżej średniej.	3. _____ most people with a criminal record are below average in intelligence.
4. _____ większość osób z kryminalną przeszłością jest brudna i nieuczesana.	4._____ most people with a criminal record are dirty and unkempt.
5. _____ większości osób z kryminalną przeszłością nie można ufać.	5. _____most people with a criminal record cannot be trusted.
6. _____ większość osób z kryminalną przeszłością jest niebezpieczna.	6. _____most people with a criminal record are dangerous.
7. _____ większość osób z kryminalną przeszłością jest odrażająca.	7. _____most people with a criminal record are disgusting.
8. _____ większość osób z kryminalną przeszłością to źli ludzie.	8. _____most people with a criminal record are bad people.
9. _____ większość osób z kryminalną przeszłością nie jest w stanie zdobyć bądź utrzymać stałej pracy.	9. _____most people with a criminal record are unwilling to get or keep a regular job.
10. _____ większość osób z kryminalną przeszłością nie może powrócić do życia bez przestępstw.	10. _____most people with a criminal record cannot be rehabilitated.
Scale 3	
Z uwagi na to, że mam kryminalną przeszłość…	**Because I have a criminal record…**
1. _____nie można mi ufać.	1. _____I cannot be trusted.
2. _____ jestem złym człowiekiem.	2. _____ I am a bad person.
3. _____ jestem brudny/a i nieuczesany/a.	3. _____ I am dirty and unkempt.
4. _____ nie jestem zdolny/a zdobyć bądź utrzymać stałej pracy.	4. _____ I am unwilling to get or keep a regular job.
5. _____ nie mogę powrócić do życia bez przestępstw.	5. _____ I cannot be rehabilitated.
6. _____ mam iloraz inteligencji poniżej średniej.	6. _____ I am below average in intelligence.
7. _____ jestem odrażający/a.	7. _____ I am disgusting.
8. _____jestem winien/winna swoich problemów.	8. _____I am to blame for my problems.
9. _____ jestem niebezpieczny/a.	9. _____ I am dangerous.
10. _____ jestem nieprzewidywalny/a.	10. _____ I am unpredictable.

Results

In order to verify the psychometric properties of the Polish adaptation, we first assessed the fit of the obtained empirical data to the original theoretical three-factor model using confirmatory factor analysis (CFA). Subsequently, the reliability of the test and its discriminatory power were estimated. Finally, the external validity of the tool was assessed.

Factor relevance

In order to determine the internal structure of the Polish version of the SCICR scale, a confirmatory factor analysis was conducted. The analysis verified the fit to the data of five models: 2-factor and 3-factor in two variants – when latent variables were correlated or not. In one variant, analyses were conducted after removing three items whose factor loadings were less than 0.4 (two items were also found to be statistically insignificant). This was justified by the fact that authors Moore, Tangney and Stuewig (2016) removed one item from each subscale explaining this by the fact of increased internal consistency of the scale after item removal. The rationale for testing the two-factor model was the weakest values in the other analyses for the third subscale, and thus the third dimension of sense of stigmatization. The results of this analysis are presented in Tables 2 and 3.

Table 2. Results of confirmatory factor analysis of the Polish version. Summaries for models

Model		$\chi 2$ (df)	$\chi 2$ /df	CFI	RMSEA (90% CI)	PRATIO	CMIN/DF
1	2-factor with correlations	786.020 (169) **	4.65	0.707	0.141 (0.131–0.151)	0.805	4.651
2	2-factor without correlation	873.651 (170)**	5.14	0.666	0.15 (0.14–0.16)	0.81	5.139
3	3-factor with correlations	1404.640 (404) **	3.48	0.632	0.116 (0.109–0.123)	0.869	3.477
4	3-factor without correlation	1469.841 (405) **	3.63	0.609	0.12 (0.113–0.126)	0.871	3.629
5	3-factor with correlations after removal of 3 items	1147.367 (321) **	3.57	0.676	0.118 (0.111–0.126)	0.849	3.574

As Table 2 indicates, the fit of the models is similar, however, it should be noted that model 4 has a slightly better fit than the others. Besides, it reflects the

original scale structure, with 10 items for each subscale. Further analyses were performed on the three-factor model also because of the RMSEA value, which is closest to the acceptable value, i.e., 0.1. The RMSEA index was suggested because it has a built-in correction for model complexity and, therefore, at the stage of selecting the appropriate one from the four remaining alternative versions, its value proved to be the decisive criterion. Although on the basis of RMSEA alone we could assume that the postulated SEM model is completely different from the postulated theoretical assumptions, the choice of model 4 is additionally supported by the estimated values of parameters, which obtained on all paths in the model a high level of significance. Though the postulated model is not the best, it is also not the worst.

Table 3. Factor loadings of the Polish version of the statements, obtained using confirmatory factor analysis

SSICR-PS	Factor loadings	SSICR-AS	Factor loadings	SSICR-IS	Factor loadings
1	0.564**	1	0.544**	1	0.478**
2	0.673**	2	0.691**	2	0.464**
3	0.709**	3	0.723**	3	0.627**
4	0.611**	4	0.672**	4	0.379**
5	0.499**	5	0.479**	5	0.56**
6	0.699**	6	0.735**	6	0.246*
7	0.67**	7	0.563**	7	0.467**
8	0.782**	8	0.721**	8	0.306*
9	0.825**	9	0.738**	9	0.655**
10	0.808**	10	0.779**	10	0.737**

p for SSICR-IS 6 = 0.007; p for SSICR- IS 8 = 0.001; ** statistical significance of 0.01

The fit estimates were based on the ratios of the root-mean-square approximation error or the square root of that error (RMSEA), the comparative fit index or confirmatory fit index (CFI), the value of the FIMIN discrepancy function x (sample size N-1) divided by the number of degrees of freedom (CIMIN/df), and complexity-adjusted measures (PRATIO).

The value of χ^2/df, or the ratio of χ^2 to degrees of freedom, falls in the range of 2 – 3 (χ^2/df= 3.49) which indicates perhaps not a satisfactory but acceptable fit of the model. The PRATIO complexity-adjusted measures reach 0.85, indicating that the model is good. A simple correction for model complexity is to divide CIMIN by the number of degrees of freedom. Some researchers recommend rejecting models in which this ratio exceeds 2 (under less restrictive assumptions,

5 or even 10). The CIMIN/df value of 3.5 falls within the assumption that the limit of this ratio should not exceed 5. These measures in the Polish sample therefore indicate an acceptable fit. Although the RMSEA value is above the acceptable value (0.1), and is not within the acceptable or satisfactory fit interval (CFI), the other indices indicate an acceptable fit interval

Table 3 presents the factor loadings for each item. All coefficients were found to be statistically highly significant with $p < 0.001$ with the exception of two (p for SSICR36= 0.007; p for SSICR38= 0.001). These items take values very close to statistical significance, and since their removal did not improve the values of the model fit measures, it was decided to leave them in, thus preserving the original nature of the tool.

In conclusion, with the values of the other indices, the model proposed by the authors of the questionnaire can be accepted with great reserve. Also taking into account the theoretical basis and assumptions the authors made, the three-factor structure of the questionnaire (in the original version), it was decided to verify and maintain such a structure in the Polish version of the questionnaire.

Reliability of measurement

Reliability analysis was estimated based on internal consistency using Cronbach's α method. This statistic was calculated separately for the three selected subscales. Cronbach's α coefficients for the three scales comprising the SSICR questionnaire are presented in Table 4. They range from 0.87 to 0.93. The reliability of the measurement can therefore be assessed as very high – the α coefficient values are satisfactory. The value of the Cronbach's α coefficient for the first scale in the Polish version (0.91) was similar as for the original version (0.92). The values of the Cronbach's α coefficients relating to the other scales in the Polish version were higher (0.93 and 0.87) than those for the original version (0.84 and 0.73). Cronbach's α coefficients calculated in the studied sample testify to the high level of reliability of the questionnaire scales. Relatively lower reliability characterizes the internalized stigma scale. The estimation of the reliability of the scale was based only on the calculation of Cronbach's α coefficients, or internal consistency indices. This study did not examine the correlation between the results of two measurements obtained by using the test-retest method in an interval due to the specificity of the prisoner group. Contacting the group after a period of time would be difficult due to the possibility of the prisoner being transported to another correctional unit.

Table 4. Descriptive statistics, scale reliability, and intercorrelations between scales of the SSICR questionnaire in the entire study group (n=186)

	alpha	SSICR-PS	SSICR-SA	SSICR- IS	SSICR-general
M	-	19.2	16.18	12.14	47.37
SD	-	7.04	7.21	4.71	14.93
SSICR-PS	0.91		0.576**	0.254**	0.821**
SSICR-SA	0.93	0.576**		0.404**	0.872**
SSICR- IS	0.87	0.254**	0.404**		0.628**
SSICR-general	0.93	-	-	-	-

** Correlation is significant at the 0.01 level (2-tailed).

Discriminatory power

The discriminatory power of a test item indicates the extent to which it differentiates the examined population with respect to the feature measured. It is expressed by the correlation coefficient of individual test items with the subscale score of the test and the overall test score. All correlations obtained were statistically significant ($p<0.01$). The highest correlation coefficients of individual test items with subscale specific were for scale one (only two items with values slightly below 0.7) and scale two (0.619 to 0.73). The third scale has the lowest properties (0.321 to 0.498). Intercorrelation analysis between individual test items and the entire questionnaire is satisfactory (0.527 to 0.841). Detailed summary is presented in Table 4. This indicates good discriminatory power of the test (some doubts are raised by the third subscale of the tool).

Table 5. Discriminatory power based on intercorrelation analysis of scales – mean intercorrelation of items, internal consistency values after removal of items

item	Intercorrelation with subscale	Intercorrelation with overall score	Cronbach's alpha after removing items for total score	Cronbach's alpha after removing items for each scale
1	0.513**	0.673**	0.930	0.905
2	0.748**	0.626**	0.929	0.900
3	0.773**	0.576**	0.930	0.898
4	0.662**	0.527**	0.930	0.905
5	0.658**	0.573**	0.930	0.908
6	0.75**	0.553**	0.930	0.899
7	0.723**	0.63**	0.929	0.902
8	0.806**	0.652**	0.929	0.895

item	Intercorrelation with subscale	Intercorrelation with overall score	Cronbach's alpha after removing items for total score	Cronbach's alpha after removing items for each scale
9	0.842**	0.699**	0.928	0.893
10	0.809**	0.734**	0.927	0.895
11	0.672**	0.755**	0.928	0.924
12	0.677*	0.785**	0.928	0.922
13	0.727**	0.832**	0.927	0.920
14	0.658**	0.784**	0.929	0.923
15	0.619**	0.731**	0.929	0.929
16	0.730**	0.828**	0.927	0.920
17	0.623**	0.691**	0.929	0.929
18	0.722**	0.812**	0.928	0.921
19	0.715**	0.841**	0.928	0.919
20	0.711**	0.839**	0.928	0.919
21	0.466**	0.694**	0.931	0.857
22	0.489**	0.738**	0.931	0.854
23	0.437**	0.732**	0.931	0.856
24	0.321**	0.647**	0.932	0.863
25	0.453**	0.707**	0.931	0.856
26	0.407**	0.621**	0.931	0.863
27	0.444**	0.692**	0.931	0.859
28	0.482**	0.693**	0.932	0.879
29	0.443**	0.732**	0.931	0.854
30	0.463**	0.788**	0.931	0.848

** Correlation significant at the 0.01 level

Analysis of internal and external relevance

The carried-out analysis of intercorrelation between the individual subscales, as well as between each subscale and the total score, is presented in Table 4. Correlation between all subscales and the total score is high positive and very high positive (0.628 to 0.872). Whereas the correlations between the subscales are also positive, but can be considered low and average (0.254 to 0.576). The weakest positive correlation was observed between subscales one (perceived stigma) and three (internalized stigma). The analysis conducted indicates that the three constructs relating to the sense of stigmatization are close in meaning.

Another psychometric analysis looked at the external validity of the Polish version of the questionnaire. The criterion aspect of theoretical validity was determined by the associations of SSICR with instruments measuring variables that should theoretically correlate with stigma due to content similarity or because of the stigma functions assumed in the theory. In order to find out what other measures the sense of stigmatization correlates with, Pearson's r (Pearson correlation coefficient) was calculated between the SSICR questionnaire scores and:

— RSES questionnaire measuring self-esteem;
— the STAI questionnaire, which measures anxiety as a trait and state, and
— Beck Depression Inventory measuring depressive symptoms.

The above questionnaires were chosen because the relationships of the original version of the tool with these areas of human functioning have been previously demonstrated. As expected, results (Table 6) indicate that all scales of the SSICR questionnaire are positively correlated to depressive symptoms and anxiety symptoms and negatively correlated to self-esteem. In contrast, the correlations specific to each scale coincided with the assumed directions of the correlation and included:

— the positive correlation of perceived stigma, stereotype agreement, and internalized stigma and depressive symptoms;
— the positive correlation between the perceived stigma, stereotype agreement, and internalized stigma and symptoms of anxiety as a state and as a trait;
— the negative association of perceived stigma, stereotype agreement, and internalized stigma and self-esteem.

Of the above correlation, only one was found to be statistically significant – a negative correlation between internalized stigma and self-esteem, which was as expected and helps to confirm the validity of the tool.

Table 6. Correlation coefficient values between dimensions of sense of stigmatization and self-esteem, depression, and anxiety

	M	SD	SSICR scales			
			SSICR-general	SSICR-PS	SSICR-SA	SSICR- IS
RSES	29.6	4.88	-0.122	-0.058	-0.27	-0.263**
BECK	14.76	10.07	0.101	0.096	0.113	0.113
ANXIETY-TRAIT	43.39	10.83	0.06	0.085	0.089	0.063
ANXIETY-STATE	44.41	11.57	0.071	0.085	-0.032	0.072

** Correlation significant at the 0.01 level.

Summary

The concept of self-stigmatization based on the theoretical model by Corrigan, Watson and Barr (2006) assumes that it is a process consisting of perceived stigma leading to stereotype agreement and ultimately to internalized stigma. This model forms the basis of much contemporary research on the self-stigmatization of other vulnerable groups. Within this research, the Self-Stigma of Individuals with Criminal Records (SSICR) Scale developed by Moore, Tangney and Stuewig (2016) is used to characterize stigmatization.

The results presented here provide a preliminary psychometric characterization of the Polish version of the SSICR Scale and indicate that it can be considered a reliable tool for measuring the three aspects of stigmatization. The use of the scale is mainly scientific research, aimed at determining how people who receive the stigmatizing label of a "criminal" perceive the stereotype, whether they agree with it, and whether they believe they actually possess the negative traits attributed to them. This short and easy to apply method, which is presented in this paper, facilitates further research on this construct.

However, the presented research has its limitations, the elimination of which may be the subject of future research and analysis. Firstly, it would be worthwhile to empirically verify the structure of the scale in different age groups, with division into first-time offenders and repeat offenders, different types of crime, and also in the group of female prisoners. Secondly, it would be cognitively valuable to conduct a research project on the changes accompanying the prisoners in terms of the structure of stigmatization over the years of prison sentence served. Thirdly, cross-cultural research would be an interesting endeavor. Fourthly, more tools would need to be included in future studies to look more closely at convergent and discriminant validity. A certain disadvantage of the presented study is also the small sample size which resulted in the fact that all analyses were conducted on a single research sample. In addition, the present study was not a longitudinal study and therefore it was not possible to include in the analyses the values of absolute stability coefficients obtained by the test-retest method investigating the temporal stability of the tool.

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