A standardised tool for assessing needs in forensic psychiatric population: clinical validation of the Italian CANFOR, staff version

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Background. The Camberwell Assessment of Need – Forensic Version (CANFOR) is a standardised assessment tool specifically designed to assess needs for care in forensic psychiatric populations. The original English version of the instrument has shown good psychometric properties. The aim of this study was to validate the Italian version of the CANFOR-staff tool.

Method. After translation and back-translation, the Italian CANFOR tool was administered to a sample of 50 forensic psychiatric patients. Convergent validity was tested using the Brief Psychiatric Rating Scale (BPRS) and the Global Assessment of Functioning (GAF) by applying Kendall's tau-b. Inter-rater and test–retest reliabilities were measured by ICCs for need dimensions (total and unmet) and Cohen's kappa coefficients for individual need items.

Results. Regarding convergent validity, a higher number of needs (total and unmet) were associated with more severe psychiatric symptoms (BPRS). Higher numbers of unmet needs were also associated with lower levels of global functioning (GAF). ICCs for total and unmet needs scores indicated a good level of agreement for inter-rater reliability and a very good level for test–retest, respectively. Regarding the specific items, inter-rater Cohen's kappa was high (moderate to very good agreement) for 18 items in relation to the presence of a need and for 15 items in the rating of an unmet need, whereas Cohen's kappa for test–retest reliability was very high for all the items in the presence of a need and high for 18 of the unmet need domains.

Conclusions. The Italian version of CANFOR has adequate psychometric properties. It can be considered a promising instrument for the assessment of needs of forensic psychiatric patients.

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Introduction

Over the last 10 years Italian forensic psychiatry has undergone a number of rapid and profound changes, similar to that which occurred 3 decades ago with the closure of psychiatric hospitals (Basaglia, 1980). According to the Decree of the President of the Council of Ministers (DPCM 1.4.2008), health provision in Italian prisons has been devolved from the Prison Administration (Ministry of Justice) to the National Health Service (Ministry of Health). Indeed, a number of settings are involved by the reform process: prisons, forensic psychiatric hospitals (OPG, 'Ospedali Psichiatrici Giudiziari') and juvenile

correctional facilities. However, due to a number of practical and financial constraints, changes to date have been very slow, while the enforcement of the new legislation continues to be postponed. The Italian Government has set at April 2015 the closing of Italian forensic mental hospitals (Legg 30 maggio 2014, n. 81). It is proposed that offenders sentenced to detention in psychiatric care will be detained in small community residential facilities appointed by the National Health Service. Current forensic hospitals will be replaced by regional forensic units in network with public health services, social services, correctional facilities, courts, public safety bodies aimed to implement individualised caring programs to share with Mental Health Departments. This represents the final step of a legislative pathway started in 2008 and defined with Law Legg 17 febbraio 2012, n. 9, which prescribes the progressive discharge of the inpatient population across the six Italian Forensic Hospitals

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and their referral to the public community mental health services. One of the most significant limitations with regard to service planning and provision for this group of forensic psychiatric patients is that no recent and reliable information on their characteristics and needs for care is available. It has been argued that this is mainly attributable to the secondary interest on these issues in Italian psychiatric research (Fioritti *et al.* 2001; Cerboneschi *et al.* 2009), together with the lack of reliable assessment procedures.

Forensic psychiatric patients have a greater number of unmet needs compared with the general psychiatric population (Harty *et al.* 2003), with specific recommendations having been made regarding the need for a greater focus in the areas of substance abuse, violent behaviour and co-morbidity with personality disorders with this population (Shaw, 2002). Being able to assess these needs in a standardised way is imperative, both for the delivery of effective treatment interventions and for the development of tailored aftercare packages. However, the methods of assessing the individual needs of this group have, to some extent, been neglected, with the focus instead being much more on security and risk issues. A valid, reliable, standardised assessment tool specifically designed for assessing the health and social needs of forensic patients is the Camberwell Assessment of Need – Forensic version (CANFOR) (Thomas *et al.* 2008). The CANFOR has been found to be a useful tool in helping to identify individually tailored care pathways in the different functional security levels and settings, as well as assisting with evidence-based interventions (Long *et al.* 2008; Glorney *et al.* 2010).

The present study was undertaken to explore convergent validity, inter-rater and test-retest reliability of the Italian version of the CANFOR staff version, a standardised need assessment tool to assist Italian mental health professionals in both planning and providing mental health care to the forensic population in the critical transition process from forensic psychiatric hospitals to forthcoming residential community facilities.

Methods

Participants

The study was carried out within the high security forensic psychiatric hospital (OPG) of Castiglione delle Stiviere (Lombardy Region, North Italy) between February and June 2011. At the time of the sampling, 262 patients were present in the Forensic Hospital, 175 (66.8%) males and 87 (33.2%) females. The average age of the patient population was 42.1 (s.d. 11.9), with

males being slightly older than females [42.3 (s.d. 11.5) *v.* 41.4 (s.d. 12.7), $t = 0.576$, $p = 0.565$].

Exclusion criteria for participation included mental retardation ($n = 25$), drug abuse as the main diagnosis ($n = 7$) and other psychiatric disorders (neurotic disorders, $n = 1$).

The participants were assessed by the Italian translation of the CANFOR needs assessment (Thomas *et al.* 2003, 2008), together with the Italian versions of the Global Assessment of Functioning (GAF; American Psychiatric Association, 1994) and the Brief Psychiatric Rating Scale (BPRS; Ventura *et al.* 1993; Roncone *et al.* 1999). Written consent was provided by all participants. Since assessments were conducted within the framework of routine care by patients' treating key-clinicians, no specific ethics approval was requested.

The instrument

Developed from the Camberwell Assessment of Need (CAN) (Phelan *et al.* 1995), the CANFOR has maintained the same format as the CAN, with three new areas of evaluation (treatment, arson and sexual offending) added to the original 22 areas. In this study, we used the full clinical version of the instrument (CANFOR-C), staff-version. The interviewer first evaluates whether a need is present or not, and, if present, whether that need is met or unmet. A need is defined as being present when the interviewer indicates that there have been difficulties in a particular area over the last month. A met need is defined as an area of difficulty for which an appropriate intervention is currently being received from either formal or informal sources. An unmet need is defined as an area of difficulty for which no interventions are currently being provided by local services, or that interventions provided are not perceived as effective. If a need is not considered to be present, it can be scored as no need or, in certain instances, not applicable. The total need score is defined as the sum of the number of met needs and unmet needs.

Translation and back translation

Two of the authors (L.C. and A.L.) first translated the original CANFOR-C from the English; a back translation was then performed by an Italian-English professional translator (C.A.) and checked for consistency by the first author of the original version (S.T.). Finally, a focus group composed by eight mental health professionals working in the high security psychiatric hospital of Castiglione in Italy was asked to discuss the feasibility of using the translated assessment tool in the clinical setting. On the basis of the focus group

discussions, only minor changes were introduced. Specifically, the wording of two needs domains were slightly modified: 'Information on disease, treatment and rights' was changed to 'Information on disease, treatment and legal position', and 'Drugs' was renamed 'Substances of abuse'. Moreover, the term 'local services' (used in the items assessing the amount of help being provided) was renamed 'local forensic/general services'.

Convergent validity

In order to study the convergent validity, the GAF and the BPRS were administered to the same sample of patients. We used the GAF and the BPRS scores, as previous research conducted with both the CAN (see e.g., Issakidis & Teesson, 1999; Lasalvia et al. 2000) and the CANFOR (Thomas et al. 2003; Segal et al. 2010) found that the number of clinician-rated needs are highly correlated with measures of functional and clinical severity.

Inter-rater and test-retest reliability

Two raters (a psychiatrist, L.C. and a clinical psychologist, E.M.) were used to test inter-rater reliability, with data being collected using one active and one silent rater during the interview. Test-retest reliability was investigated by re-interviewing all participants three weeks after the first interview, led and rated by the same researcher.

Statistical analyses

The sample was randomly selected from a potential sample of 262 patients who were hospitalised in the institution on 30 December 2010 after having stratified by age (18–35 years, 36–50 years, >50 years), marital status (single, married, separated/divorced/widowed) and diagnostic group (non-affective psychosis, personality disorder, affective psychosis). In a test of agreement between two raters using the kappa statistic, a sample size of 50 subjects achieved at least 80% power to detect a true kappa value of 0.90 in a test where the null hypothesis was 0.40 with a significance level of 0.05, regardless of the value of the two categories' frequencies. The power study was performed by PASS 11 (Hintze, 2011; www.ncss.com).

Percentages or means were presented for sociodemographic, offending and clinical characteristics in the whole sample. Each CANFOR item was recoded into two domains: presence of a need (whether met or unmet) and rating of an unmet need. Consistent with Thomas et al. (2008), not applicable responses were considered 'no need' for the purposes of

analyses. Total needs were calculated as the number of items with the presence of a need (potential range 0–25) and total unmet needs as the number of items scored as an unmet need (potential range 0–25).

The association between total needs and total unmet needs, GAF and BPRS (total and dimensions) was assessed using Kendall's tau-b rank correlation coefficient.

Intra-class correlation coefficients (ICCs) were calculated, using a two-way mixed model defining absolute agreement, to assess both inter-rater and test-retest reliability for total needs and total unmet needs, as recommended by Leese et al. (2001).

Inter-rater and test-retest reliability for each CANFOR item (both presence of a need and rating and unmet need) was measured by Cohen's kappa coefficient, which compensates and corrects for the proportion of agreement that might occur by chance. The agreement indicated by the kappa coefficient can be poor (<0.21), fair (0.21–0.40), moderate (0.41–0.60), good (0.61–0.80) and very good (0.81–1.0) (Landis & Koch, 1977). Usually a value of kappa > 0.70 is considered to be adequate agreement. Due to the fact that kappa is affected by the presence of bias between observers or times, we applied a test of symmetry of the off-diagonal cells.

Analyses were carried out using Stata 11.1 for Windows.

Results

The characteristics of the sample are shown in Table 1.

Level of needs

Staff rated patients as having an average of 14.2 total needs (S.D. 2.3), with a range between 8 and 20. The average number of unmet needs was 5.6 (S.D. 2.4) with a range of 0–10.

The mean GAF score was 40.12 (S.D. 9.88) and BPRS mean scores were 2.01 (S.D. 0.56) for total, 2.42 (S.D. 0.53) for anxiety/depressive symptoms, 1.63 (S.D. 0.76) for negative symptoms, 2.33 (S.D. 1.07) for positive symptoms, 1.59 (S.D. 0.71) for manic symptoms, and 1.73 (S.D. 0.91) for cognitive symptoms (Table 1).

Convergent validity

As shown in Table 2, a higher number of needs was significantly associated with more severe psychiatric symptoms in the BPRS total mean score and in the dimensions anxiety/depression, manic and cognitive. A higher number of unmet needs was significantly associated with more severe psychiatric symptoms in

Table 1. Participants' sociodemographic, offending and clinical characteristics (N = 50)

Gender, n (%)	
Male	35 (70.0%)
Age (years), n (%)	
18–35	12 (24.0%)
36–50	29 (58.0%)
≥51	9 (18.0%)
Marital status, n (%)	
Single	36 (72.0%)
Married	8 (16.0%)
Separated/divorced/widowed	6 (12.0%)
Education, n (%)	
Without a degree/NC	10 (20.0%)
Elementary/junior high school	25 (50.0%)
Secondary school	14 (28.0%)
University degree	1 (2.0%)
Working status, n (%)	
Unemployed	38 (76.0%)
Employed	11 (22.0%)
Student	1 (2.0%)
Source of income, n (%)	
Retirement fund/state benefit	29 (58.0%)
Sustained by family	8 (16.0%)
Occupational therapy	5 (10.0%)
Earned income	4 (8.0%)
No income	4 (8.0%)
Ever being in prison before, n (%)	
Yes	15 (30.0%)
Type of crime, n (%)	
Serious offence	34 (68.0%)*
Misdemeanor	16 (32.0%)+
Ever admitted for psychiatric care, n (%)	
No	16 (32.0%)
Yes, voluntary	3 (6.0%)
Yes, compulsory	31 (62.0%)
Length of stay in OPG (months), mean (s.d.)	27.8 (46.1)
Diagnostic group, n (%)	
Non affective psychosis	26 (52.0%)
Personality disorder	23 (46.0%)
Affective psychosis	1 (2.0%)
GAF, mean (s.d.)	40.12 (9.88)
BPRS total, mean (s.d.)	2.01 (0.56)
Anxiety/depression symptoms, mean (s.d.)	2.42 (0.53)
Negative symptoms, mean (s.d.)	1.63 (0.76)
Positive symptoms, mean (s.d.)	2.33 (1.07)
Manic symptoms, mean (s.d.)	1.59 (0.71)
Cognitive symptoms, mean (s.d.)	1.73 (0.91)

*12 homicide, 2 sexual offence, 13 personal injury, 3 armed robbery, 2 kidnapping, 2 arson.

+6 theft, 4 damage, 6 violation of probation.

the BPRS total mean score and in the dimensions positive, manic, anxiety/depression and cognitive. Higher numbers of unmet needs were also significantly associated with lower levels of global functioning (GAF).

Inter-rater reliability

Intraclass correlation coefficients for total needs score (ICC = 0.74) and unmet needs score (ICC = 0.71) indicated a good level of agreement between raters for both dimensions.

Table 3 shows number and percentage of patients rated by the two assessors as presenting a need (regardless of whether it was met or unmet) and an unmet need for each of the 25 CANFOR items. According to both raters, food, information, daytime activities, psychotic symptoms, company, intimate relationships, sexual expression, psychological distress, money and treatment were the most frequently assessed needs (met or unmet), while social aspects (sexual expression, intimate relationships, company), psychological distress, daytime activities, accommodation and information were the most frequently rated unmet needs.

Cohen's kappa was calculated for each of the 25 CANFOR items in relation to overall agreement about the presence of a need. Agreement in the individual need domains was very good for 11 (44%) domains, good for 5 (20%) domains, moderate for 2 (8%) domains, fair for 3 (12%) domains and poor for 1 (4%) domain, namely information.

Cohen's kappa calculated for ratings of unmet needs showed that agreement was very good for 3 (12%), good for 6 (24%), moderate for 5 (20%), fair for 2 (8%) and poor for 4 (16%) domains, namely information, alcohol, drugs and arson.

Test-retest reliability

Intraclass correlation coefficients for total needs score (ICC = 0.97) and unmet needs score (ICC = 0.92) indicated a very good level of agreement between time 0 and time 1 for both dimensions.

Cohen's kappa calculated for each of the 25 CANFOR items showed a very good agreement in all the domains, with the only exception of safety to self, which showed a good level of agreement (see Table 4).

Cohen's kappa calculated for ratings of unmet needs showed a very good agreement for 12 out of 25 domains (48%), a good agreement for 5 (20%) domains, a moderate agreement for safety to others (4%) and a poor agreement for drugs (4%).

Discussion

Main findings

The Italian version of CANFOR-C, staff-version, has demonstrated adequate psychometric properties. Its convergent validity has been supported by the significant results comparing total and unmet needs scores

Table 2. Association [Kendall's tau-b rank correlation coefficient (95% CI), *p*-value] between CANFOR scores, GAF and BPRS scores (total and dimensions) (*N* = 50)

	Total needs (met + unmet)	Total unmet needs
GAF score	-0.199 (-0.374; 0.011), <i>p</i> = 0.057	-0.340 (-0.497; -0.162), <i>p</i> = 0.001
BPRS total	0.370 (0.195; 0.522), <i>p</i> < 0.001	0.416 (0.247; 0.561), <i>p</i> < 0.001
BPRS Anxiety/depression	0.271 (0.087; 0.437), <i>p</i> = 0.010	0.223 (0.036; 0.395), <i>p</i> = 0.035
BPRS Negative	0.083 (-0.107; 0.268), <i>p</i> = 0.449	0.209 (0.021; 0.383), <i>p</i> = 0.057
BPRS Positive	0.180 (-0.009; 0.357), <i>p</i> = 0.090	0.305 (0.123; 0.467), <i>p</i> = 0.004
BPRS Manic	0.517 (0.364; 0.643), <i>p</i> < 0.001	0.405 (0.234; 0.552), <i>p</i> < 0.001
BPRS Cognitive	0.220 (0.033; 0.392), <i>p</i> = 0.048	0.235 (0.048; 0.406), <i>p</i> = 0.034

Table 3. Inter-rater reliability of each CANFOR domain based on interviews with staff. Frequency of patients with needs, as reported by raters (*N* = 50)

CANFOR at <i>t</i> ₀	Inter-rater reliability							
	Presence of a need, whether met or unmet				Rating an unmet need			
	Rater 1 N (%)	Rater 2 N (%)	Agreement (%)	Kappa	Rater 1 N (%)	Rater 2 N (%)	Agreement (%)	Kappa
1. Accommodation	39 (78)	34 (68)	90	0.75*	28 (56)	25 (50)	82	0.64
2. Food	50 (100)	50 (100)	100	NA	0 (0)	0 (0)	100	NA
3. Living environment	12 (24)	15 (30)	94	0.85	0 (0)	0 (0)	100	NA
4. Self care	9 (18)	6 (12)	94	0.77	0 (0)	0 (0)	100	NA
5. Daytime activities	48 (96)	48 (96)	100	1.00	29 (58)	28 (56)	70	0.39
6. Physical health	23 (46)	23 (46%)	100	1.00	2 (4)	2 (4)	96	0.48
7. Psychotic symptoms	47 (94)	38 (76)	82	0.34*	10 (20)	10 (20)	92	0.75
8. Information	50 (100)	48 (96)	96	0.00	24 (48)	21 (42)	58	0.15
9. Psychological distress	42 (84)	42 (84)	92	0.70	27 (54)	30 (60)	74	0.47
10. Safety to self (self-harm)	15 (30)	17 (34)	76	0.45	1 (2)	2 (4)	98	0.66
11. Safety to others (violence)	29 (58)	23 (46)	84	0.68*	9 (18)	8 (16)	94	0.79
12. Alcohol	18 (36)	17 (34)	98	0.96	0 (0)	1 (2%)	98%	0.00
13. Drugs	21 (42)	20 (40)	98	0.96	1 (2)	0 (0%)	98%	0.00
14. Company	45 (90)	42 (84)	82	0.21	35 (70)	21 (42)	68	0.40*
15. Intimate relationships	44 (92)	38 (86)	88	0.38	38 (79)	31 (70)	81	0.51
16. Sexual expression	2 missing	6 missing	93	0.63	2 missing	6 missing	93	0.69
	43 (88)	37 (86)			42 (86)	36 (84)		
17. Childcare	1 missing	7 missing	98	0.94	1 missing	7 missing	100	1.00
	10 (20)	11 (22)			7 (14)	7 (14)		
18. Basic education	2 (4)	2 (4)	100	1.00	2 (4)	2 (4)	100	1.00
19. Telephone	50 (100)	50 (100)	100	NA	0 (0)	0 (0)	100	NA
20. Transport	0 (0)	0 (0)	100	NA	0 (0)	0 (0)	100	NA
21. Money	41 (82)	42 (84)	98	0.93	4 (8)	9 (18)	90	0.57
22. Benefits	21 (42)	21 (42)	100	1.00	12 (24)	12 (24)	100	1.00
23. Treatment	41 (82)	43 (86)	84	0.41	7 (14)	5 (10)	88	0.43
24. Sexual offences	5 (10)	4 (8)	98	0.88	2 (4)	1 (2)	98	0.66
25. Arson	5 (10)	5 (10)	100	1.00	1 (2)	1 (2)	96	-0.02

NA: not applicable test because all patients were classified in the same category by raters.

*Kappa affected by the presence of bias between raters (by checking the symmetry of the off diagonal cells).

Table 4. Test–retest reliability of each CANFOR domain based on interviews with staff. Frequency of patients with needs, as assessed at time 0 and time 1 (N = 50)

CANFOR domains	Test–retest reliability							
	Presence of a need, whether met or unmet				Rating an unmet need			
	Time 0 N (%)	Time 1 N (%)	Agreement (%)	Kappa	Time 0 N (%)	Time 1 N (%)	Agreement (%)	Kappa
1. Accommodation	39 (78)	39 (78)	100	1.00	28 (56)	30 (60)	96	0.92
2. Food	50 (100)	50 (100)	100	NA	0 (0)	0 (0)	100	NA
3. Living environment	12 (24)	12 (24)	100	1.00	0 (0)	0 (0)	100	NA
4. Self-care	9 (18)	9 (18)	100	1.00	0 (0)	0 (0)	100	NA
5. Daytime activities	48 (96)	48 (96)	100	1.00	29 (58)	26 (52)	94	0.88
6. Physical health	23 (46)	23 (46)	100	1.00	2 (4)	2 (4)	100	1.00
7. Psychotic symptoms	47 (94)	47 (94)	100	1.00	10 (20)	11 (22)	98	0.94
8. Information	50 (100)	50 (100)	100	NA	24 (48)	23 (46)	90	0.80
9. Psychological distress	42 (84)	42 (84)	96	0.85	27 (54)	19 (38)	80	0.61*
10. Safety to self (self-harm)	15 (30)	13 (26)	88	0.70	1 (2)	1 (2)	100	1.00
11. Safety to others (violence)	29 (58)	27 (54)	92	0.84	9 (18)	3 (6)	88	0.45*
12. Alcohol	18 (36)	17 (34)	98	0.96	0 (0)	0 (0)	100	NA
13. Drugs	21 (42)	22 (44)	98	0.96	1 (2)	0 (0)	98	0.00
14. Company	45 (90)	46 (92)	98	0.88	35 (70)	29 (58)	88	0.74*
15. Intimate relationships	44 (92)	44 (92)	100	1.00	38 (79)	39 (81)	94	0.80
16. Sexual expression	2 missing	2 missing			2 missing	2 missing		
	43 (88)	43 (88)	100	1.00	42 (86)	41 (84)	98	0.92
17. Childcare	1 missing	1 missing			1 missing	1 missing		
	10 (20)	11 (22)	98	0.94	7 (14)	7 (14)	100	1.00
18. Basic education	2 (4)	2 (4)	100	1.00	2 (4)	2 (4)	100	1.00
19. Telephone	50 (100)	50 (100)	100	NA	0 (0)	0 (0)	100	NA
20. Transport	0 (0)	0 (0)	100	NA	0 (0)	0 (0)	100	NA
21. Money	41 (82)	41 (82)	100	1.00	4 (8)	7 (14)	94	0.70
22. Benefits	21 (42)	22 (44)	98	0.96	12 (24)	11 (22)	98	0.94
23. Treatment	41 (82)	42 (84)	98	0.93	7 (14)	8 (16)	98	0.92
24. Sexual offences	5 (10)	5 (10)	100	1.00	2 (4)	2 (4)	100	1.00
25. Arson	5 (10)	5 (10)	100	1.00	1 (2)	1 (2)	100	1.00

NA, not applicable test because all patients were classified in the same category at times 0 and 1.

*Kappa affected by the presence of bias between time points (by checking the symmetry of the off diagonal cells).

on the CANFOR-C with BPRS and GAF scores. Unmet needs were significantly associated with BPRS total, positive and manic dimensions, which reflected the main diagnostic features of the participant population. The weaker association found here with respect to the cognitive dimension may be due of sampling procedures that excluded the more severe forms of mental impairment from this study. It should be noted that this study did not address other psychometric properties of the CANFOR, such as intra-rater reliability and sensitivity to change.

Findings against the background literature

Results of the reliability tests are consistent with previous validation studies conducted internationally in the

UK (Thomas *et al.* 2008), Spain (Romeva *et al.* 2010) and Portugal (Talina *et al.* 2013). The slightly lower agreement found in the inter-rater reliability test compared with other published studies may be due to differences in the professional backgrounds and conceptual frames of reference of the two raters, as similarly noted by Thomas *et al.* (2008).

We found a lower level of agreement in the more socially orientated need domains of company, intimate relationships, psychological distress and information. It is possible that this finding may reflect the long periods of institutionalisation experienced by many patients in the service, which leads to more challenges with the recognition, expression and interpretation of these needs. Furthermore, 46% of the sample were diagnosed with a personality disorder, which may

additionally account for uncertain expression of psychological needs and undesired and/or misunderstood information about their condition and treatment. With respect to the two need domains associated with moderate level of agreement, the different professional backgrounds of the two raters may be a partial explanation with respect to the physical health domain; the high clinical and criminological heterogeneity of the participants may also have contributed to the perceived need for different types and intensities of day-time activities required.

The test-retest reliability studies suggested high levels of agreement with ratings completed 3 weeks apart; these findings are again consistent with previous studies using the CAN tools (McCrone *et al.* 2000; Arvidsson, 2003). Future research should seek to explore issues around sensitivity to change of the CANFOR tools, especially with clinical populations who have different length of stays and access to different service pathways.

Conclusions

The Italian version of the CANFOR was found to be a valid and reliable instrument to be used for needs assessment across different forensic settings, from correctional institutes to current Ospedali Psichiatrici Giudiziari as well as in the forthcoming new regional forensic units. Mental health services are taking active role in the development of individualised care programs for forensic patients towards discharge as the transition process of reform of forensic psychiatric sector is now progressing across Italy. The introduction of specific assessment tools for this specific population will undoubtedly be an important step towards promoting an evidence-based approach to the development of individually tailored care pathways and service infrastructure. It will be especially important to capture and take into account the diversity and potentially changing health and social needs of this population as they transit into new services and, additionally, to help facilitate active patient involvement in identifying and prioritising care planning and support.

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Statement of Interest

All the authors declare that they have no competing interests.

Ethical Standards

The authors assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on human experimentation and with the Helsinki Declaration of 1975, as revised in 2008.

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