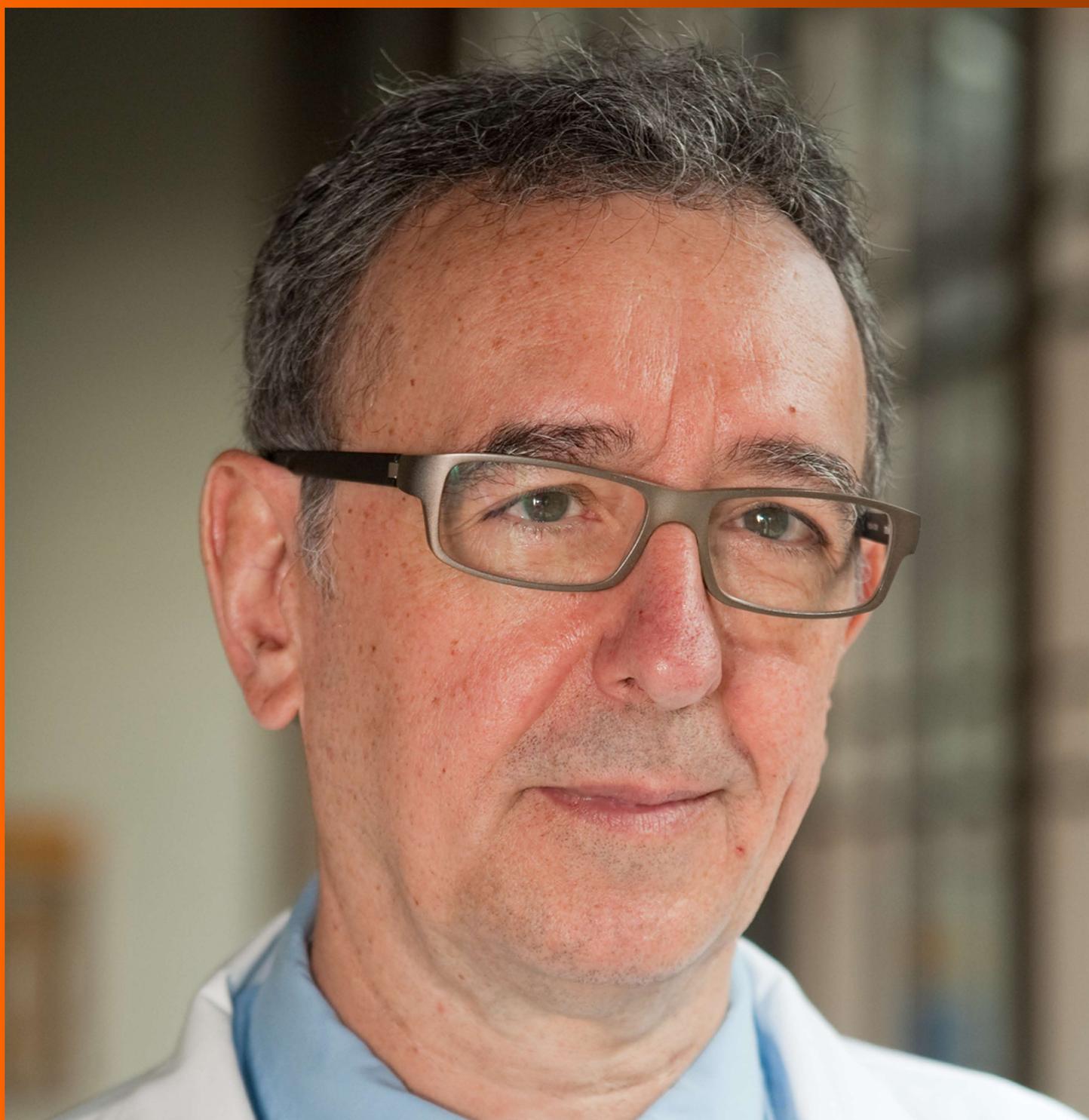


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*World Journal of Psychiatry* (*World J Psychiatr*, *WJP*, online ISSN 2220-3206, DOI: 10.5498) is a peer-reviewed open access academic journal that aims to guide clinical practice and improve diagnostic and therapeutic skills of clinicians.

*WJP* covers topics concerning behavior and behavior mechanisms, psychological phenomena and processes, mental disorders, behavioral disciplines and activities, adjustment disorders, anxiety disorders, delirium, dementia, amnesic disorders, cognitive disorders, dissociative disorders, eating disorders, factitious disorders, impulse control disorders, mental disorders diagnosed in childhood, mood disorders, neurotic disorders, personality disorders, schizophrenia and disorders with psychotic features, sexual and gender disorders, sleep disorders, somatoform disorders, and substance-related disorders. Priority publication will be given to articles concerning diagnosis and treatment of psychiatric diseases. The following aspects are covered: Clinical diagnosis, laboratory diagnosis, differential diagnosis, imaging tests, pathological diagnosis, molecular biological diagnosis, immunological diagnosis, genetic diagnosis, functional diagnostics, and physical diagnosis; and comprehensive therapy, drug therapy, surgical therapy, interventional treatment, minimally invasive therapy, and robot-assisted therapy.

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Basic Study

## Development of an instrument to measure patients' attitudes towards involuntary hospitalization

Adel Gabriel

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### Abstract

#### AIM

To construct and assess the psychometric properties of an instrument to measure patients' attitudes towards involuntary hospitalization.

#### METHODS

This is a two phase study. In the first phase, based on comprehensive literature review, a twenty one item scale to measure patients' attitudes to involuntary admission was constructed. Forensic and inpatient Psychiatrists, patients' advocates and legal experts ( $n = 15$ ) were invited to participate in the validation process of the written instrument, by formally rating each item of the instrument for its relevancy in measuring patients' attitudes to involuntary admission. In the second phase of the project, the instrument was administered to a sample of eighty consecutive patients, who were admitted involuntarily to an acute psychiatric unit of a teaching hospital. All patients completed the constructed attitudes towards involuntary admission scale, and the client satisfaction questionnaire.

#### RESULTS

Responses from psychiatry and advocacy experts provided evidence for face and content validity for the constructed instrument. The internal consistency reliability of the instrument is 0.84 (Chronbach' alpha), factor analysis resulted in three correlated, and theoretically meaningful factors. There was evidence for content, convergent, and concurrent validity.

## CONCLUSION

A reliable twenty one item instrument scale to measure patients' attitudes to involuntary admission was developed. The developed instrument has high reliability, there is strong evidence for validity, and it takes ten minutes to complete.

**Key words:** Scales; Measurements; Patients' attitudes; Involuntary admission; Psychiatric

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**Core tip:** Examining patients' attitudes towards involuntary hospitalization is crucial for making clinical decisions and is required to administer quality patient care. This project involved the development and psychometrical assessment of a reliable instrument with demonstrated evidence of validity, to measure patients' attitudes towards involuntary hospitalization. The developed instrument consists of a 21-item, 5-point Likert questionnaire. The internal consistency reliability of the instrument is 0.84 (Chronbach' alpha), and there is an evidence for content, convergent, and concurrent validity.

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## INTRODUCTION

Promoting for patient care is the most important objective of mental health. This should include both effective patient day to day care, and advocating for patients' rights. Involuntary admission is one of the most ethically challenging practices in medicine, which touches patient's rights and freedom. Yet we are only beginning to learn more about patient's perspective by utilizing a reliable instruments with evidence for validity. The prevalence of patients' involuntary hospitalization, factors associated with coercion, and patients' dissatisfactions were examined internationally especially Europe. In one large of Swiss inpatients study, about 25% were admitted on an involuntary basis and there were substantial number of patients were exposed to coercion. It was demonstrated that the severity of the psychiatric disorder was the main risk factor to predict applying force during admission<sup>[1]</sup>.

The prevalence of involuntary hospitalization significantly varies from country to country. For example, Zinkler and Priebe<sup>[2]</sup> (2002) found in a review that there were nearly 20-fold variations in involuntary admission rates in different European countries. However the criteria for detention of the mentally ill are broadly similar when it comes to patients at risk to themselves or others<sup>[2]</sup>.

Risk factors for involuntary admission are numerous. Results from research, suggested that the diagnoses and the intensity of psychiatric illnesses were the most important risk factors for being subjected to any form of coercion<sup>[2-4]</sup>.

In a cross-sectional survey, there were significant proportions among both voluntarily and involuntarily admitted patients who felt that they were forced to be hospitalized. However the majority felt that their admission was necessary<sup>[5]</sup>. Involuntary admissions were found to be associated with a history of previous hospitalizations<sup>[6]</sup>, presence of psychotic symptom<sup>[7]</sup>, lower levels of social functioning<sup>[8]</sup>, and linguistic communication problems<sup>[9]</sup>. However, those who were admitted involuntarily were more likely to report significantly more adverse circumstances around the admission procedures such as exposure to verbal or physical force<sup>[10-13]</sup>.

Both clinical outcomes and future adherence to treatment appear to be negatively affected by involuntary hospitalization or by the experience of coercion. For example, Katsakou *et al*<sup>[14]</sup> (2010), examined 778 involuntary psychiatric inpatients admissions. Perception of coercion was associated with less satisfaction with treatment. Also Swartz *et al*<sup>[15]</sup> (2003), reported that only 36% of consumers with chronic psychiatric disorders, reported fear of coerced treatment as a barrier to seeking help.

## Objectives of the present study

To the best of author's knowledge, there is no published reliable scale with evidence of validity that was developed to measure patients' perceptions towards involuntary hospitalization.

The objective of this study is to examine the reliability, and validity of an instrument that was constructed to measure patients' attitudes towards involuntary hospitalization.

## MATERIALS AND METHODS

### Participants

**Expert participants (psychiatrists, review panel, and patient advocate experts):** Fifteen experts from both males and females, volunteered to participate in the validation process of the scale. Among participants, there were nine psychiatrists affiliated with the University of Calgary, three provincial mental health advocacy staff, one lawyer, and two community mental health coordinators. Among psychiatrist experts, there were two at the rank of professor, four at the associate professor in the area of forensic psychiatry, and three at the level of assistant professor in general psychiatry. Table 1 describes the demographic details of patient participants.

Letters of invitations were delivered inviting experts to participate in the validation process. In addition to the formal validation, there was one-on-one discussion, and feedback, about each item of the proposed scale with regard its relevancy to sample attitudes of patients

**Table 1 Demographics of the participating experts (n = 15)**

Variable	mean (SD)
Age (yr)	52 (9.5)
Sex: Male/female	11/4
Years of experience as independent Psychiatrist, consultants, lawyers or advocate	22 (12.5)
Professorial experts' professions	n
Psychiatrists affiliated with the University of Calgary	9
Professors of psychiatry	2
Associate Clinical Professors (U of C)	4
Assistant Professors	3
Mental Health Advocacy Staff	3
Community order coordinators	2
Lawyers of the Mental health Review Panel	1

towards involuntary admission of psychiatric patients.

### Patient participants

Invited to participate in this study, consecutive sample of consenting patients, who were involuntarily admitted to an acute psychiatry teaching unit within the University of Calgary. Patients were included if they were admitted at least on one certificate under section 2 of the Alberta Mental Health Act (2010)<sup>[16]</sup>. Form one certificate of section 2 is completed by a physician allows detention of a patient up to 24 h. When a person is detained in a facility under a form one certificate, the detained person must be examined as soon as possible by a physician who is on staff, at the receiving facility. According to the Act, these two admission forms (certificates) are sufficient authority to detain and control the person in a facility for 30 d, to allow diagnosing, care for, observation, assessments, and treatments (section 7 of the Act). If a second admission certificate is not signed within 24 h of the person's arrival at the designated facility, the person can no longer be detained involuntarily and shall be released (section 5 of the Mental Health Act)<sup>[16]</sup>.

The researchers approached eligible, consenting patients and invited them to participate in the study. All patients who participated in this study were diagnosed with formal psychiatric disorders, and were deemed danger to themselves or others, on admission. Excluded from the study, patients who are mentally handicapped, the severely ill or aggressive patients, suicidal patients, and those who deemed unable to provide consent. For the purpose of this study, we excluded patients with a score > 50, on The Brief Psychiatric Rating Scale (BPRS) total maximum score<sup>[17]</sup>. The Mini-International Neuropsychiatric Interview (M.I.N.I. Screen 2001-2005) was utilized to confirm the diagnosis of each included patient<sup>[18]</sup>.

### Instruments administered to patients

In addition to the constructed attitudes towards involuntary admission (ATIA) scale Hospitalization scale ATIA (Table 2), all patients completed the following questionnaires: (1) The Client Satisfaction Questionnaire (CSQ)<sup>[19]</sup>. The CSQ is intended to measure satisfaction

with healthcare services. The scale consists of eight items, has a high levels of internal consistency, with alphas ranging from 0.86-0.94; and (2) The Brief Psychiatric Rating Scale (BPRS)<sup>[17]</sup>. The BPRS is an 18 - item scale that measures symptom severity of major psychiatric disorders, with ratings on a seven point scale (1 = not present, 7 = extremely severe). The rating is made on observations during a 15 to 30 min interview to assess attention, emotional withdrawal, psychomotor symptoms, anxiety, psychotic symptoms depressed mood, and hostility. All patients consented to the study, and provided their demographics including; age, education, occupation, if they were brought to hospital by police force, and if mechanical restraints were used.

### Procedure

The procedure of the project aimed at examining the psychometric properties of a developed scale to measure patients' perceptions towards involuntary admissions to acute psychiatric unit. The project was granted an approval by the Conjoint Health Research Ethics Board (CHREB), of the University of Calgary.

**Phase 1 of the study:** This phase of the study included the construction of the scale items, and the validity assessment by experts. Following literature review using PubMed, and MEDLINE, a table of specification with the initial items describing patients ATIA was prepared as a reference for writing the items of the newly developed scale. The literature was searched for recent evidence from published research projects and reviews to adequately cover the domain of patients' perceptions towards involuntary hospitalization. This was the first step of the project to improve content validity of the items selected. We were able to identify twenty one items that best describe patients' perceptions of involuntary admission<sup>[20]</sup>.

Measuring attitudes is always challenging because attitudes represent such subtle affective domain Applying a scale such as a 5-point likert scale best assesses this domain<sup>[20,21]</sup>. The twenty one item list of patients' attitudes to involuntary hospitalization were converted to a 21-item, 5-point Likert scale, resulting in the ATIA scale (Table 2).

### Administration to experts

Face validity, was assessed by inviting the experts to provide their views on the overall layout and the content of the instrument. Formal content validity was assessed by asking the volunteer panel of experts to review each items and to examine its relevancy and clarity. Investigators invited experts which included forensic and general psychiatrists, independent mental health advocacy specialists, community health coordinators, and lawyers, to assess each item of the scale for its relevance in measuring patients' attitudes to involuntary admission, on a five-point Likert scale (1 = extremely irrelevant, 2 = irrelevant, 3 = slightly relevant, 4 = relevant, and 5 =

**Table 2** The administered version of the constructed attitudes towards involuntary admission scale

	1	2	3	4	5
Instructions: Please rate your perception about the following statements in relation to your involuntary admission to hospital (1 = strongly disagree and 5 = strongly agree)					
I think that being detained as an involuntary patient has averted further harm to me					
I believe that I was offered the opportunity to recover in a safe place					
I could not recognize that I needed help when I was very ill					
I felt that I was pressured excessively					
My problem could have been managed without being pressured					
I think that my hospitalization was not necessary at all					
I think that my hospitalization was unfair					
I think that hospitalization was against my rights					
I felt that I was not heard					
Hospitalization against my will posed a permanent threat to my independence					
My problems might have been managed through a voluntary hospitalization					
My problems might have been managed through a shorter hospitalization					
This admission had a negative impact upon the relationship with my family					
My relationship with my psychiatrist was negatively impacted by this involuntary admission					
I felt that that my current or future job could be affected by being in hospital against my will					
I know my rights as an involuntary patient					
I was given passes and other privileges outside the unit when my doctors felt it was ok					
Admission to hospital was a humiliating experience					
I was given the chance to appeal my involuntary admission					
Overall, I was treated with respect					
I think my family should have been involved in the decision about my admission					

strongly relevant). All participating experts also provided their ratings on the clarity of each item, about absence of abrasive language and about the overall comprehensives of the instrument.

**Phase II of the study:** This phase of the study included the administration of the instrument (Table 2) to patients, data collection, and examining the psychometric properties of the scale. While administration to experts was utilized to assess face and content validity, the administration to patients aimed at establishing internal consistency reliability, and exploring evidence for validity. The scale was pilot tested with four patients. Patients were asked to comment on the clarity of each item, and the time that needed to complete the scale.

After patients' feedback and experts' reviews of each item, the constructed ATIA Scale (ATIA = 21 items), was administered to eighty consenting adult consecutive patients who were admitted involuntarily to a psychiatric teaching unit. Patients rated ATIA scale on a 5-point Likert type scale (from 1 = strongly disagree to 5 = strongly agree), their perceptions and experiences towards involuntary admission.

Table 3 shows the constructed scale after revision. Seven items scoring were reversed to avoid response patterns. All patients completed the ATIA scale, and the CSQ. A semi structured interview with patients was conducted to complete the BPRS to assess eligibility for inclusion in the study, and to confirm psychiatric diagnoses. Patients were also asked to provide their demographics including age, marital status, education, employment status and all patients were asked if force was used to bring patient to hospital, and if mechanical restraints were used to hold them during hospitalization.

## RESULTS

Participated in the study eighty patients who were admitted on an involuntary basis. There were fifty two males, and twenty eight females (M/F = 65%/35%), with mean age 38 (SD = 13.0). Twenty three patients (28.7%) suffered from schizophrenia and schizoaffective disorders, thirty three patients (4.3%) from mood disorders, fourteen patients (17.5%) suffered from alcohol and substance abuse, and ten patients (12.5%) were diagnosed with adjustment disorder. In eleven patients (13.8%), mechanical restraints were applied (Table 4) displays the details of patients' demographics.

The internal consistency reliability (Cronbach's alpha) was 0.84 for the 21 items of the ATIA. Between group differences were analyzed employing Analyses of Variance. There were no significant differences, between males and females, marital status, different age groups, occupational and diagnostic categories, or any difference between the mechanically restrained groups, in the attitudes mean scores of the instrument.

### Experts' responses

There were no significant differences ( $P < 0.08$ ) in ratings among experts based on their length of experience. Expert's ratings for all items on the scale ranged from 4.2/5 to 4.8/5. The mean rating the instrument' items was 4.5/5, which results in an overall 90% agreement of experts for the relevancy of the ATIA instrument as a measure for patients attitudes towards involuntary hospitalization (Tables 5 and 6).

### Patients' responses

Table 5 displays patients' attitudes mean scores on each

**Table 3** The Final version of the attitudes towards involuntary admission scale

	1	2	3	4	5
Please rate your perception about the following statements (1 = strongly disagree to 5 = strongly agree)					
I think that hospitalization was against my rights					
I felt that I was not heard					
Admission to hospital was humiliating experience					
I think that my hospitalization was unfair					
My relationship with my psychiatrist was negatively impacted by this involuntary admission					
This admission had a negative impact upon the relationship with my family					
I felt that my current or future job could be affected by being in hospital against my will					
My problem might have been managed through a shorter hospitalization					
My problem might have been managed through a voluntary hospitalization					
Hospitalization against my will posed a permanent threat to my independency					
My problem could have being managed without being pressured					
I felt that I was pressured excessively					
I think that my hospitalization was not necessary at all					
I think my family should have been involved in the decision about my admission					
Please rate your perception about the following statements (1 = strongly agree to 5 = strongly disagree)					
I know my rights as an involuntary patient					
I was given the chance to appeal my involuntary admission					
I think that being detained as an involuntary patient has averted further harm to me					
I could not recognize that I need help when I was very ill					
Overall, I was treated with respect					
I believe that I was offered the opportunity to recover in a safe place					
I was given passes and other privileges outside the unit when my doctors felt it was ok					

**Table 4** Demographics of patients (*n* = 80)

Categorical variables	Frequency (%)
Sex	
Male	52 (65)
Female	28 (35)
Marital status	
Single	48 (68)
Married	14 (17.5)
Divorced	17 (21.3)
Widow	1 (1.3)
Education	
Elementary	4 (5.0)
Junior high	3 (3.8)
High school	35 (43.8)
College	20 (25.0)
University degree	18 (22.5)
Occupation	
Unemployed	37 (46.3)
Own business	9 (11.3)
Non-skilled/temporary	3 (3.8)
Skilled	26 (32.5)
Professional	5 (6.3)
Brought to hospital by police	
Yes	35 (43.8)
No	45 (56.2)
Psychiatric diagnosis	
Mood disorders	33 (41.3)
Psychotic disorders	23 (28.7)
Alcohol and substance abuse	14 (17.5)
Adjustment disorder	10 (12.5)
Mechanical restraints	
Mechanical restraints used	11 (13.8)
Mechanical restraints not used	69 (86.2)
Continuous variables	M (SD)
Age	37.7 (13.0)
Number of psychiatric admission	3.4 (2.9)
Number of involuntarily admission	2.2 (2.0)

patients' perceptions about involuntary hospitalization. Overall, there was an average rating for all the instruments' items of 2.9/5. However, in the current study, there were some important items which received a favorable positive attitude scores ( $> 3/5$ ), including the following four items; "Being detained as an involuntary patient has prevented further harm to me", "I believe that I was offered the opportunity to recover in a safe place", "overall, I was treated with respect during this admission", and "I was given the chance to appeal my involuntary admission". In contrast, there were items that overall, received negative attitudes ( $< 3/5$ ) scores from patients such as the following items; "My hospitalization was unfair", "I think that the hospitalization was against my rights", "I felt that I was not heard", and "Hospitalization against my will posed a permanent threat to my independence" (Tables 5 and 6).

#### Factor analysis

Exploratory factor analyses were performed on the 21-item scale. Three-factors were extracted, accounting for 44% of the variance in responses related to patients' perceptions of involuntary hospitalization.

#### Factor 1: Violation of legal rights and autonomy:

This factor consists of thirteen items, has an internal consistency of 0.85, and explains 25.6% of the observed variance. It refers to the perceptions that involuntary admission violated legal rights, was not justified, and unfair. There were perceptions of threat to independency, feelings of humiliation, and of being stigmatized by others.

**Factor 2: Ambivalent perceptions:** This factor consists of six items, has an internal consistency of 0.68, and

item towards involuntary admission. There were mixed

**Table 5** Experts' ratings, and patient's responses to the items ( $n = 21$ ) of the attitudes towards involuntary admission scale

Items of the constructed list of specifications patients' and experts' ratings of the	Experts ratings for the relevancy of items <sup>a</sup>		Patients' responses <sup>b</sup>	
	Min-Max	mean (SD)	Min-Max	mean (SD)
I think that being detained as an involuntary patient has prevented further harm to me	3-5	4.6 (0.65)	1-5	3.1 (1.90)
I believe that I was offered the opportunity to recover in a safe place	3-5	4.5 (0.66)	1-5	3.9 (1.21)
I could not recognize that I needed help when I was very ill	4-5	4.8 (0.38)	1-5	2.7 (1.50)
I felt that I was pressured excessively	4-5	4.7 (0.44)	1-5	2.5 (1.46)
My problem could have been managed without being pressured	4-5	4.6 (0.65)	1-5	3.3 (1.38)
I think that my hospitalization was not necessary at all	4-5	4.5 (0.66)	1-5	2.4 (1.36)
I think that my hospitalization was unfair	3-5	4.4 (0.96)	1-5	2.4 (1.47)
I think that the hospitalization was against my rights	3-5	4.3 (0.63)	1-5	2.4 (1.45)
I felt that I was not heard	2-5	4.4 (0.96)	1-5	2.5 (1.45)
Hospitalization against my will posed a permanent threat to my independence	3-5	4.3 (0.63)	1-5	2.3 (1.50)
My problems might have been managed through a shorter hospitalization	2-5	4.3 (0.85)	1-5	3.6 (1.40)
My problems might have been managed through a voluntary hospitalization	3-5	4.6 (0.66)	1-5	2.9 (1.44)
This admission had a negative impact upon the relationship with my family	2-5	4.4 (0.96)	1-5	2.2 (1.41)
My relationship with my psychiatrist was negatively impacted by this involuntary admission	3-5	4.4 (0.65)	1-5	1.9 (1.29)
I felt that that my current or future job could be affected by being in hospital against my will	3-5	4.2 (1.2)	1-5	2.5 (1.48)
I know my rights as an involuntary patient	2-5	4.7 (0.48)	1-5	3.4 (1.51)
I was given passes and other privileges outside the unit when my doctors felt it was ok	3-5	4.5 (1.1)	1-5	4.3 (1.12)
Admission to hospital was a humiliating experience	1-5	4.3 (0.85)	1-5	2.6 (1.48)
I was given the chance to appeal my involuntary admission	4-5	4.5 (0.66)	1-5	3.2 (1.50)
Overall, I was treated with respect during this admission	2-5	4.6 (0.51)	1-5	3.9 (1.20)
I think my family should have been involved in the decision about my admission	1-5	4.6 (0.51)	1-5	3.2 (1.51)
Mean (SD) for the total samples	2.8-5	4.5 (0.70)	1-5	2.9 (1.2)

<sup>a</sup>Experts' responses: 1 = extremely irrelevant to 5 = very relevant; <sup>b</sup>Students' responses: 1 = strongly disagree to 5 = strongly agree.

**Table 6** Experts' ratings of the attitudes towards involuntary admission scale format

Experts' ratings ( $n = 15$ )	Min-Max	mean (SD)
Clarity of the items (1 = not clear, 5 = very clear)	4-5	4.4 (0.65)
Absence of abrasive language (1 = presence of abrasive, 5 = absence of abrasive language)	4-5	4.5 (0.52)
Comprehensiveness of the instrument (1 = not comprehensive, 5 = comprehensive)	4-5	4.5 (0.66)

explains 10% of the observed variance. This factor refers to mixed perceptions. Despite the recognition that there was a need for treatment and that the admission have averted further harm, patients felt that the admission could have been carried out on a voluntary basis and without pressure.

**Factor 3: Appreciating procedural justice:** This factor consists of five items has an internal consistency of 0.57 and explains 8.8% of the observed variance. It refers mainly to the positive attitudes that the admission was justified, and that there was appreciation for being treated with respect, for being provided the opportunity to appeal their involuntary admission, and for being allowed privileges outside the psychiatry unit when appropriate (Table 7).

There were significant correlation ( $P < 0.05-0.01$ ) between the three factor scores on the Pearson product moment correlations (Table 8), providing an evidence for convergent validity.

There was significantly negative correlations ( $r = -0.44, P < 0.01$ ) between the CSQ mean score, and ATIA factor 1 score, "violation of legal rights and autonomy". Also, there were negative correlations between the CSQ mean score, and the other two ATIA factor scores (Table 8).

## DISCUSSION

In the present study, patients' ATIA, were included in a 21-Likert-type item scale that have an overall reliability internal consistency of 0.84. There was 95% overall agreement among experts about the relevance of its contents to measure patients' perceptions towards involuntary admission, providing an evidence for content validity. The scale was administered in a timely manner, when patients were able to make fair judgement about their perceptions. This was guided by ensuring a low scores ( $< 50$ ) of the BPRS.

In the current study, patients who completed the ATIA scale, reported variable perceptions on the 21 item questionnaire administered. There is strong evidence from published research to support the same findings and to suggest that the negative attitude towards involuntary hospitalization changes over time. For example, in number of studies, authors found retrospectively that, between 33% and 81% of patients regarded the admission as justified and the treatment as beneficial. Also, patients with more marked clinical improvement had more positive retrospective judgments<sup>[22-24]</sup>.

It was demonstrated in the EUNOMIA prospective research project which included involuntary ( $n = 2326$ )

**Table 7 Rotated factor matrix, attitude towards involuntary hospitalization scale scores<sup>1</sup>**

Items perceptions of involuntary hospitalizations scale ( <i>n</i> = 21)			
Factors extracted	Factor loadings		
	F1	F2	F3
I think that my hospitalization was unfair	0.80		
I think that hospitalization was against my rights	0.71		
I think that my hospitalization was not necessary at all	0.70		
Hospitalization against my will posed a permanent threat to my independency	0.59		
I felt that I was not heard	0.60		
Admission to hospital was humiliating experience	0.58		
I believe that I was offered the opportunity to recover in a safe place	0.56		
This admission had a negative impact upon the relationship with my family	0.54		
My relationship with my psychiatrist was negatively impacted by this involuntary admission	0.51		
My problem might have been managed through a shorter hospitalization	0.51	0.46	
I felt that my current or future job could be affected by being in hospital against my will	0.51		
I think my family should have been involved in the decision about my admission	0.40		
My problem might have been managed through a voluntary hospitalization		0.74	
I could not recognize that I need help when I was very ill		0.65	
My problem could have been managed without being pressured	0.39	0.52	
I think that being detained as an involuntary patient has averted further harm to me		0.51	
I was given the chance to appeal my involuntary admission			0.67
I was given passes and other privileges outside the unit when my doctors felt it was ok			0.59
I know my rights as an involuntary patient		0.55	0.56
Overall, I was treated with respect			0.56
I felt that I was pressured excessively			0.48
Internal consistency (Cronbach's alpha) for each factor	0.85	0.68	0.57
Proportion of observed variance for each factor (%)	25.6	10.0	8.8

<sup>1</sup>Principal components extraction, Varimax rotation with Kaiser Normalization. Rotation converged in twelve iterations, factor loadings < 0.35 have been excluded. Factor 1: Violations of legal rights and autonomy; Factor 2: Ambivalent perceptions; Factor 3: Appreciating procedural justice.

**Table 8 Pearson product moment correlations between factor scores and client satisfaction questionnaire scores**

PIH factors	Factor 2	Factor 3	Client satisfaction questionnaire
Factor 1	0.48 <sup>2</sup>	0.27 <sup>1</sup>	-0.44 <sup>2</sup>
Factor 2		0.36 <sup>2</sup>	-0.07
Factor 3			-0.21

<sup>1</sup>Correlation is significant at the 0.05 level (2-tailed); <sup>2</sup>Correlation is significant at the 0.01 level (2-tailed).

patients that between 39% and 71% considered that their admission was justifiable after one month, and this positive attitude changed to 86% after three months<sup>[25]</sup>.

### Perceptions of coercion

In the current study, significant proportion of patients perceived being pressured to the admission, or perceived humiliation. These findings replicate findings from other studies. For example, it was demonstrated that negative experiences of being coerced such as by exposure to physical or verbal force during the admission process were more common among patients with involuntary admission. However, coercion was also observed among those who were voluntarily admitted<sup>[22,23,26]</sup>. Also, Kallert *et al.*<sup>[27]</sup> (2011), reported that perceptions of coercion were found to be significantly more prevalent (89%) among the involuntarily admitted patients, than among the voluntarily admitted patients (48%)<sup>[11,28]</sup>.

It was emphasized by other authors that minimizing patient's perception of coercion during hospital admission

may impact positively on the course and adherence to treatment. Authors emphasized that there is need, to minimize the patient's perception of coercion during hospital admission which may affect treatment course and adherence to it<sup>[28]</sup>.

The results from the current study, demonstrated that the Scale's items, on attitudes towards involuntary admission clustered into three constructs (*i.e.*, factors), which resulted in three components. The factors are theoretically meaningful and cohesive, as it was demonstrated by the significant correlations between their scores, supporting evidence for convergent validity.

The three extracted factors, factor 1, "violations of legal rights and autonomy", factor 2, "ambivalent perceptions", factor 3, and "appreciating procedural justice", are consistent with previous research, and theoretically provide a meaning to our hypotheses, which provide evidence for construct validity. Findings from the current study replicate the findings from other studies. For example, Katsakou *et al.*<sup>[29]</sup> (2011), identified three groups of patients with distinct views on their involuntary hospitalization: Those who believed that it was right, those who thought it was wrong and those with ambivalent views.

### Evidence for content validity

The evidence from the published literature leading to the development of a list of patients' ATIA, the cohesive construct of the scale items, and the formal input from experts, provide an evidence for content and construct validity of the scale.

### Evidence for concurrent validity

This was demonstrated by the negative correlations between the mean scores of the three factors, and the CSQ mean score. There was significantly ( $r = -0.44$ ,  $P < 0.01$ ) negative correlation between the mean score of factor 1, and the CSQ mean score. This negative relationship is meaningful and expected, and supports the findings that patients who had negative perceptions were significantly less likely to be satisfied with services.

### Limitations of the study

There was a small sample size, and all patients were recruited from the same psychiatric inpatient sitting.

### Conclusion

Advocating for patients should include both effective patient day to day care, and advocating for patients' rights. It is crucial to ensure that patients' rights during hospitalization is protected. In the current study, an instrument to measure patients' perceptions towards involuntary hospitalization was developed. The instrument has a strong reliability. Utilizing confirmatory factor analysis in future research, should be performed to explore the construct validity of the instrument. Also, future research should examine the relationship between involuntary admission risk factors and the clinical outcomes associated with involuntary hospitalization.

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## COMMENTS

### Background

This project explored the most prevalent perceptions of patients who were admitted to an acute psychiatric unit involuntarily. It aimed at the development and psychometric assessment of an instrument to reliably measure attitudes towards involuntary hospitalization.

### Research frontiers

In the first phase of the study, to ensure content validity of the instrument, all items were written carefully after a thorough literature review, and psychiatry experts provided a formal ratings on each item of the instrument with regard its relevancy in measuring patients' attitudes, before the instrument was administered to patients.

### Innovations and breakthroughs

To the best knowledge of the author, this is the first developed instrument with

acceptable reliability to systematically examine patients' attitudes to involuntary psychiatric hospitalization. Results from this study, might shed further light into providing better patient care while protecting patients' legal rights.

### Applications

Future researchers, should consider testing the reliability and validity of this instrument in larger sample of patients, from different cultures and in different inpatient settings. There are number of recommendations that could be made which might include the following; better understanding of patients attitudes towards involuntary hospitalization, emphasizing the need to providing psychoeducation to patients and their relatives about the reasons that led to hospitalization and its expected duration; protecting patients' rights during their hospital stay, and improving the communication between relatives and professional hospital staff.

### Peer-review

This is a highly relevant paper dealing with the assessment of patient satisfaction in the case of involuntary admission. The authors developed a reliable 21-item likert scale questionnaire with evidence of validity that seems well constructed.

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