



## RESEARCH ARTICLE

# Assessing clinicians' views: The development of the Bakirkoy Clinician Stance Questionnaire

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### ABSTRACT

**Objective:** Although there is a wide range of theoretical perspectives and clinical practices, there is no assessment tool that reveals these variations among clinicians. In this study, we presented the development process of a new measure for clinicians that assess their psychological flexibility levels, attitudes towards psychotherapy and inclination to the mechanistic approach.

**Method:** Participants included 167 psychiatrists and psychiatry residents from all over Turkey. They completed 29 items intended to form the basis for the Bakirkoy Clinician's Attitude Questionnaire (BCSQ). Item-total correlation and Cronbach's alpha correlation analyses were performed to determine internal consistency. The Acceptance and Action Questionnaire-II (AAQ-II) and the Mental Illness: Clinicians' Attitude Scale V.4 (MICA v4) were used to assess the convergent and concurrent validity of BCSQ.

**Results:** Principal component analyses with varimax rotation were conducted to ensure construct validity and to explore sub-dimensions. Finally, a three-dimensional version (Clinical inflexibility, Treatment preference, Mechanistic approach) of the scale with 20 items was created. The BCSQ demonstrated good internal consistency (Cronbach's alpha coefficient was 0.82) and transient stability. Convergent validity analyses showed that BCSQ subscales have significant relationships with higher psychological inflexibility and stigmatization levels.

**Conclusion:** BCSQ proves to be a valuable tool for assessing changes in the level of psychological flexibility of clinicians in clinical practice, their attitudes towards psychotherapy/psychopharmacology and their view of psychopathology.

**Keywords:** Clinician attitudes, mechanism, psychological flexibility, psychotherapy, treatment

## INTRODUCTION

The discipline of psychiatry and psychology has always had long-standing debates according to different

theoretical views, clinical practices and research methods (1-3). In recent decades, syndromal classifications such as Diagnostic and Statistical Manual of Mental Disorders (DSM) (4,5) and International

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Statistical Classification of Diseases (ICD) (6) have dominated the debate and led to widespread adoption of the 'disease model' (7,8) which is strongly associated with a mechanistic and deductive approach (9). For the mechanism, the truth criterion is 'predictive verification' and the root metaphor is 'the machine'. From a mechanistic view, an analysis is valid to the extent that a description of the interrelationships of machine parts matches the real-world examples of the phenomenon. A clinician with this view is much more likely to see people who have broken and look for symptoms to fix the broken parts (10).

Despite the large body of literature supporting the utility of contemporary classifications, the current applications of the mechanistic approach suffer from significant shortcomings (8,11,12). Beyond the poor reliability and validity of diagnostic systems, they have also been criticized for their inadequate performance in their utility, epistemology and humanity (13). This approach provides only little guidance for clinical practice (14,15) and even contributes less to treatment outcomes (16). Current developments in neuroscience and genetics also undermine most of its theoretical underpinnings (8). There seems to be no straightforward distinction between "mental health" and "mental illness" (17) and evidence suggests that psychiatric symptoms are on a continuum with the normal experiences (18).

As such, the mechanistic approach fails to deal with various problems effectively and has caused some undesirable side effects so far (11). Even the idea of mental illness may be particularly damaging (19); for many people, being identified or categorized as mentally ill causes more distress than their original problems (20). People who are seen as mentally ill are often exposed to discrimination, stigmatization and prejudice (21,22). In addition to public stigmatization, the current mechanistic approach also exacerbates the psychiatrists' stigmatizing attitudes (21,23,24) and may therefore constitute an obstacle to the management of care (25).

There is currently an artificial distinction between biological and psychosocial fields in psychiatry. In line with this, pharmacotherapy and psychotherapy have been separated from each other both in training and clinical practice (26). Since DSM and ICD are implicitly based on a symptom-based model and represent a biological model of mental illness (27), it is not surprising that psychiatrists are more likely to use pharmacotherapy although the enormous data support the evidence for the effectiveness of psychotherapy (28). However, psychiatric medication may not always be necessary (29,30). In fact, while the patients and general

public may be negatively affected by the medicalization of experiences, their actual or reported experience can be a variant of the normal rather than a disease (31).

Contextual behavioral science (CBS), an alternative perspective to mechanistic and syndromal approaches, is based on a pragmatic worldview known as functional contextualism that provides a unique philosophical, scientific and clinical attitude (32). From a functional contextualistic view, the criterion for accuracy is "successful working" and the goal is to predict and influence behavior with precision, scope and depth (32). Accordingly, a clinician with a functional contextual view assesses a particular behavior as a whole within a context and focuses on the function of behavior rather than trying to eliminate symptoms. Considering that the symptom-focused mechanistic approach is related to stigmatization (33); functional contextualism's emphasis on the function of the behavior may also help reduce stigmatization attitudes of clinicians.

Developed within the CBS framework, acceptance and commitment therapy (ACT) is a psychotherapy approach that includes evidence-based interventions and aims to expand the behavioral repertoire of patients in a particular context specifically called psychological flexibility (34). Psychological flexibility is defined as "the ability to contact the present moment fully as a conscious human being, and to change or persist in behavior when doing so serves valued ends." It has been associated with general psychological health, job satisfaction and performance, etc. (35). Studies within this framework have important implications on stigmatizing attitudes, burnout and psychological flexibility (36-38). Evidence suggests that receiving ACT training leads to less burnout and stigma in addiction counselors (36). In a similar study, investigating the impact of ACT training on the willingness of counselors to use evidence-based treatments for drug and alcohol use, the ACT group showed increased adoption of trained methods and greater psychological flexibility in follow-up compared to the control group (39). In another study, counselors who received ACT training were more likely to adopt newly learned principles and use new skills in clinical practice (40). It has been suggested that improvements in psychological flexibility of the psychotherapists may result in less burnout, less stigma, and more meaning and vitality at work (36,37). Accordingly, the importance of assessing and improving the psychological flexibility of clinicians is evident, but indirect measures have been used so far (41,42).

Based on all these, the current study aimed to develop a new measure for clinicians, trainees and students of the

relevant field, which aims to assess their psychological flexibility levels in clinical practice, attitudes towards psychotherapy and inclination levels to mechanistic approach directly in clinical practices. This scale may also allow us to observe alterations in these three dimensions throughout training. It also proves to be a useful tool for further research on the relationships between clinicians' theoretical approaches and attitudes in some other fields. With these considerations, this research aims to conduct the validity and reliability analyses of the Bakirkoy Clinician Stance Questionnaire (BCSQ) and to examine its utility in line with the expected goals.

## METHOD

### Participants

The study was conducted on 167 mental health professionals (107 female and 60 male, mean age=31.5, SD=6.8). Of these, 78 (46%) were psychiatrists and 89 (54%) were psychiatry residents. The random sampling method was used for selection. Residents who did not complete a month in their training were excluded from the study. Participants who were interviewed face to face (n=103) were selected from a training hospital for mental health. 6 of them refused since they did not have time; 2 residents who were in the first month of their residency training and 4 participants whose research questionnaires were incomplete were not included in the study. At the end of the study, 91 (54.5%) participants were interviewed face to face and 76 participants (45.5%) participated via an online survey. Those who joined online were selected from a listserv limited with psychiatrists and psychiatry residents from all over Turkey. All participants were informed about the study and their written or online consents were obtained and our research was approved through the decision of the local ethics committee.

### Item Development and Procedure

Items were generated by a panel consisting of the authors including psychiatrists, ACT trainers, researchers and practitioners in Turkey. Each item was worded to express a specific example of the three areas evaluated by the authors including mechanism; psychological inflexibility in clinical practice; attitudes towards the use of psychotherapy and a total of 56 items were generated. A sub-panel of four of the authors, who had also the cognitive-behavioral therapy training and practice, rated each item in terms of its clarity and how well it represented the three related domains. After this process; 31 items that received a modal rating of "moderately" or "highly" representative were retained in the first draft of the BCSQ.

For a pilot study, the first 31-item version of the BCSQ was given to ten psychiatrists with various clinical interests from theoretical perspectives, and feedback was provided to evaluate the clarity and readability of items. Based on this feedback, two items were removed because of the poor content clarity. Finally, the study was conducted with a 29-item version of the BCSQ.

### Measures

**Socio-Demographic Questionnaire:** It is a study-oriented questionnaire formulated by researchers, which includes questions about socio-demographic characteristics such as age, gender, duration of work experience, and the psychiatric history of the individual and their family.

**Acceptance and Action Questionnaire-II (AAQ-II):** AAQ-II is a seven-point seven-point Likert-type scale developed to evaluate the experiential avoidance and psychological flexibility levels of individuals. The internal consistency of the scale was reported to be high, with Cronbach's alpha coefficients of 0.84 (41). Higher scores indicate higher levels of experiential avoidance and psychological rigidity. The validity and reliability study of the Turkish AAQ-II was made by Yavuz et al. (43).

**The Mental Illness: Clinicians' Attitude Scale V.4 (MICA v4):** The scale was developed by Gabbidon et al. (44) for evaluating clinicians' attitudes towards mental illness and it was found to have a good internal consistency ( $\alpha=0.72$ ). The scale has 16 items with a six-point Likert type (ranging from strongly agree to strongly disagree) and higher scores indicate a higher level of stigmatizing attitudes of clinicians. Since there is no study on Turkish validity and reliability of this scale, the internal consistency was assessed for this study. Cronbach alpha coefficient was 0.75.

**Bakirkoy Clinician Stance Questionnaire (BCSQ):** The BCSQ is designed for evaluating attitudes of clinicians on the different but also interrelated clinical issues called mechanistic approach, treatment preference, and clinical flexibility. It is a seven-point Likert-type scale and each sub-dimension will be evaluated separately instead of the total scale score. Higher scores means higher mechanistic, lower preference of psychotherapy, and higher clinical inflexibility. The validity and reliability analyses of BCSQ will be conducted in this study.

### Statistical Analysis

SPSS 20.0 version for Mac (SPSS Inc., Chicago, IL) was used for descriptive statistics and psychometric analysis. The data were tested for univariate and

multivariate normality, linearity, and homogeneity of sample variances. Internal consistency and item-total correlation were evaluated using Cronbach's alpha and Pearson's correlation coefficients. A split-half test was also conducted for reliability analysis. The analytical plan comprised the following steps. First, to investigate the factor structure of the BCSQ, scree plot and parallel analyses were performed (45). Subsequently, principal component analysis (PCA) with varimax rotation was conducted. Before performing PCA; the suitability of data for factor analysis was evaluated by Barlett's Test of Sphericity that requires significance at  $p < 0.05$  value (46), and Kaiser-Meyer-Olkin (KMO) sampling adequacy assessment that requires a value of 0.6 (47,48). In order to determine the convergent and concurrent validity of BCSQ, its relationship with AAQ-II and MICA v4 was examined using Pearson correlation analysis. The temporal stability of BCSQ was assessed with the test-retest method 30 days after baseline assessment. Finally, a one-way multivariate analysis of variance (MANOVA) was used to investigate how the total scores of BCSQ and subscales vary with work experience or presence of psychiatric history. Psychiatric residency duration was taken as the grouping criteria for work experience. Participants were divided into two groups by considering the 60-month period, when their specialty training was completed, as the separation point. Those with a working period of less than 60 months were considered junior, and those over 60 months were considered seniors.

## RESULTS

### Reliability

In order to determine the internal consistency of the BCSQ, item-total correlation and Cronbach's alpha correlation analyses were performed. While the alpha coefficient was found to be 0.770, the item-total correlation coefficients of 9 items were very low ( $< 0.3$ ) and these items were deleted from the scale. Items excluded from the scale with corrected item-total correlation values indicated in parentheses are as follows: "Psychotherapy is also used in medical problems other than psychiatry" (-0.062); "If the functionality of my patients has improved, I consider them as recovered even if their symptoms do not disappear." (-0.039); "I allow my emotions to be revealed while communicating with patients" (0.169); "Psychiatric disorders can be explained not by environmental and biological factors, but by the

person's reaction to these factors." (-0.125); "Psychotherapy is absolutely necessary in psychiatric treatment." (0.036); "Psychotherapy is an effective method in the treatment of all psychiatric disorders." (0.057); "The way my patients live the way they want depends on their functionality rather than their symptoms." (-0.179); "People with psychiatric disorders can continue their lives without social support" (0.041); "People with psychiatric disorders should be positively discriminated" (0.049).

Thus, BCSQ Cronbach's alpha coefficient of the BCSQ with the last 20 items was found to be 0.822. The item-total correlation values of the two items ("Mental disorders are caused by structural brain abnormalities" and "Clinicians with psychiatric problems cannot help others") were found below 0.3. Since deleting these two items lowers the alpha value, it was decided not to remove these items from the scale (Table 1).

To assess internal consistency, another reliability analysis- the split-half test- was used. The scale items were divided into two and the relationship between the test scores in each group was calculated. The reliability coefficient for one-half of the test was  $r = 0.64$ . This coefficient is considered to be the lower limit of the reliability of the whole test. The Spearman-Brown coefficient, which determines the reliability of the whole test, was found to be  $r = 0.74$ .

For evaluating transient stability, 16 participants completed the BCSQ a second time 30 days after the initial completion for test-retest reliability. Attitudes assessed with BCSQ subscales are not expected to change significantly within 30 days. The correlation coefficient between time 1 and 2 was  $r = 0.89$  ( $p < 0.001$ ) for the 'clinical inflexibility' subscale,  $r = 0.72$  ( $p < 0.001$ ) for 'treatment preference' subscale,  $r = 0.70$  ( $p < 0.001$ ) for 'mechanistic approach' subscale. These indicated that the BCSQ has a good transient stability between the two assessments.

### Construct Validity

PCA was carried out to determine the factor structure of the 20-item BCSQ. When the data were assessed in terms of suitability to perform PCA, the KMO index was found 0.778, and the Barlett's Test of Sphericity reached statistical significance ( $p < 0.001$ ; Barlett chi-square=806.386). Examination of the correlation matrix revealed the existence of many coefficients of 0.3 and above.

PCA revealed the presence of seven factors with eigenvalues exceeding 1. While the scree plot graph had a slight break after the fourth factor (Figure 1), in the

**Table 1: Item statistics of the 20-item BCSQ**

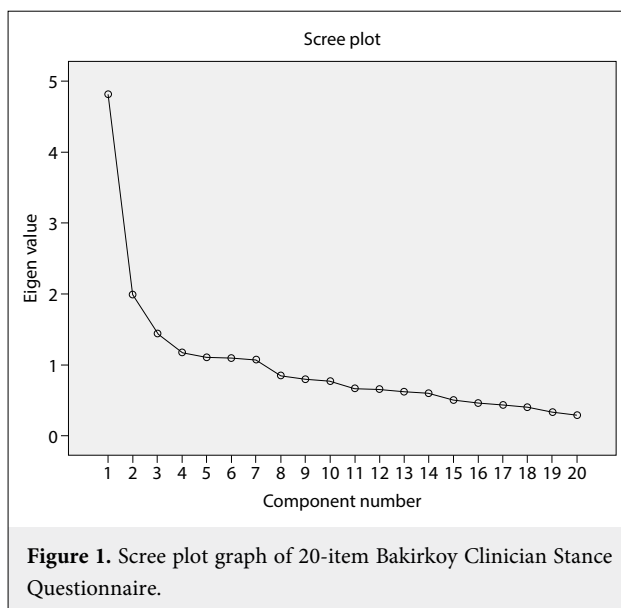
Item-total statistics	Scale mean when item is deleted	Scale variance when item is deleted	Adjusted item-total correlation	Cronbach's Alpha when the item is deleted
Item 1	63.22	177.945	0.409	0.813
Item 2	62.91	175.576	0.428	0.812
Item 3	60.04	179.414	0.305	0.817
Item 4	61.16	185.939	0.279	0.819
Item 5	61.63	170.946	0.373	0.817
Item 6	60.45	185.924	0.363	0.822
Item 7	63.11	181.591	0.478	0.815
Item 8	60.99	172.169	0.409	0.813
Item 9	63.26	184.024	0.360	0.816
Item 10	61.40	170.518	0.515	0.807
Item 11	62.51	177.805	0.417	0.812
Item 12	61.32	174.172	0.428	0.811
Item 13	62.93	172.585	0.565	0.806
Item 14	61.51	178.504	0.330	0.817
Item 15	62.34	173.899	0.457	0.810
Item 16	63.32	185.423	0.266	0.820
Item 17	60.29	172.546	0.331	0.819
Item 18	62.38	177.983	0.455	0.812
Item 19	62.53	174.709	0.427	0.812
Item 20	63.36	182.232	0.367	0.816

BCSQ: Bakirkoy Clinician Stance Questionnaire

parallel analysis only the eigenvalues of the three factors exceeded the values of the randomly generated data matrix (20 variables x 167 respondents). Thus, it was decided to keep only three factors of the scale, which explained 41.20 percent of the total variance. Based on this solution, Varimax rotation was used to interpret the three components. At the rotated component matrix table; item 2 ('Psikiyatrik bozukluğu olan insanlar tam olarak iyileşemezler.' in Turkish/Those with psychiatric disorders cannot fully recover.), that has relatively a higher load (0.418), was included in factor-2. After all these adjustments ; we obtained the 20-items version of the BCSQ with three-factors (Table 2). Descriptive values of the factors are shown in Table 3.

**Convergent and Concurrent Validities**

For assessing convergent validity, we used Pearson's product-moment correlation coefficient to investigate the relationships between the clinical inflexibility subscale of BCSQ and AAQ-II. Preliminary analysis was performed to ensure that the assumptions of normality, linearity and homoscedasticity were not violated. A moderately positive ( $r=0.403$ ,  $p<0.001$ ) correlation was found



**Figure 1.** Scree plot graph of 20-item Bakirkoy Clinician Stance Questionnaire.

between the total AAQ-II scores and the BCSQ clinical inflexibility subscale was found (Table 3).

An additional correlation analysis we conducted was to investigate concurrent validity to examine the predictive power of BCSQ subscales. Statistically

**Table 2: Factor loadings of the 20-item Bakirkoy Clinician Stance Questionnaire with Varimax rotational principal component analysis (PCA)**

Items and their content	Components		
	1. Mechanistic approach	2. Clinical inflexibility	3. Treatment preference
1. Psychiatric signs and symptoms are not seen in healthy people.	0.578		
8. People with severe mental disorders should not take important roles in society.	0.519		
10. People with psychiatric problems can live a high quality only life if they get rid of their symptoms.	0.565		
12. Psychiatric treatment is the elimination of signs and symptoms that cause the disorder.	0.540		
17. A healthy person is the one who has no physical, mental or social problem.	0.560		
3. I have to control over my feelings when interacting with patients.	0.582		
4. Mental disorders are caused by structural brain abnormalities.	0.434		
5. Psychotic signs and symptoms are not seen in healthy people.	0.590		
9. My thoughts and feelings prevent me being helpful to patients.		0.795	
11. Clinicians with psychiatric problems cannot be helpful to other people.		0.477	
13. People with severe mental disorders cannot live with other people.		0.548	
2. People with mental disorders never make a full recovery.		0.407	
16. I am not able to help people with serious mental disorders.		0.665	
18. Most of my colleagues are dealing with clinical problems better than I am.		0.550	
20. My negative experiences prevent me being a good clinician.		0.718	
7. Medication-resistant patients do not benefit from psychotherapy.			0.683
14. Medication is always necessary for the recovery of patients.			0.674
15. Patients with psychotic signs and symptoms do not benefit from psychotherapy.			0.606
19. Psychotherapy should only be used as an adjunct to medication.			0.713
6. I do not need psychotherapy in my clinical practice.			0.460

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 5 iterations

**Table 3: Descriptive values and correlations of variables with Pearson analyses (n=167)**

Variables	Working experience	BCSQ treatment preference	BCSQ mechanistic approach	BCSQ clinical inflexibility	AAQ-II	MICA v4
Working experience (month)	1					
BCSQ treatment preference	-0.078	1				
BCSQ mechanistic approach	-0.228**	0.362**	1			
BCSQ clinical inflexibility	-0.202**	0.445**	0.402**	1		
AAQ-II	-0.206**	0.084	0.063	0.403**	1	
MICA v4	-0.360**	0.205**	0.246**	0.447**	0.123	1
Min.	2	5	8	7	7	18
Max.	420	27	51	31	44	75
Mean	68.53	13.47	31.39	15.60	17.51	39.38
Standard deviation	80.528	4.74	7.30	5.37	6.28	8.76

\*\*Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed).

BCSQ: Bakirkoy Clinician Stance Questionnaire, MICA v4: Mental illness: clinician's attitudes scale V.4; AAQ-II: Acceptance and Action Questionnaire-II

significant correlations were found between total scores of MICA v4 (Mental illness: clinician's attitudes scale V.4) and BCSQ mechanistic approach ( $r=0.246$ ,  $p<0.001$ ), treatment preference ( $r=0.205$ ,  $p<0.001$ ) and clinical inflexibility ( $r=0.447$ ,  $p<0.001$ ) subscales. Statistically low and moderate significant relationships were also found between BCSQ subscales (Table 3).

### Effect of Psychiatric History

When the data assessed in terms of psychiatric history; 54 (32.3%) of the participants were found to have a history of psychiatric problems. MANOVA was performed to investigate the total score differences of the BCSQ subscales between groups with and without a psychiatric history. Three subscales of BCSQ (mechanistic approach, clinical inflexibility and treatment preference) were determined as dependent variables. The independent variable was psychiatric history. There was no statistically significant difference between the groups (with or without psychiatric history) in terms of combined dependent variables:  $F(3,163)=1.55$ ,  $p=0.204$ ; Wilks' Lambda=0.972; partial eta squared=0.028.

### Association with Working Experience

Participants' working experience as psychiatrists varied from 2 to 420 months ( $M=68.5$ ,  $SD=80.5$ ). In the assessment of the relationship between working experience and BCSQ; we found that working experience has weak-level significant relationships with BCSQ subscales; clinical inflexibility ( $r=-0.202$ ,  $p<0.001$ ) and mechanistic approach ( $r=-0.228$ ,  $p<0.001$ ) (Table 3).

We also investigated the possible differences in BCSQ subscales and MICA v4 levels between junior and senior psychiatrists with MANOVA. Four dependent variables were used: MICA v4, mechanistic approach, clinical inflexibility and treatment preference subscales of BCSQ. The independent variable was working experience. The preliminary assumption test was performed to check normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity, and no serious violations were found. There was statistically significant differences between groups ( $F[4,155]=9.41$ ,  $p<0.001$ ; Wilks' Lambda=0.80; partial eta squared=0.19). The new alpha level was accepted as 0.0125, after the Bonferroni adjustment. Statistically significant differences were found in some of subscales of BCSQ and total MICA v4 scores between the two groups of psychiatrists: clinical inflexibility ( $F[1,158]=12.09$ ,

$p<0.001$ , partial eta squared= 0.07), mechanistic approach [ $F(1,158)=14.75$ ,  $p<0.001$ , partial eta squared=0.08] and MICA v4 ( $F[1,158]=29.75$ ,  $p<0.001$ , partial eta squared=0.16). The mean scores of the groups indicated that junior psychiatrists (clinical inflexibility:  $M=16.76$ ,  $SD=0.53$ ; mechanistic approach:  $M=33.23$ ,  $SD=0.72$ ; MICA v4:  $M=41.67$ ,  $SD=0.77$ ) have higher scores of mechanistic approach, clinical inflexibility and MICA v4 than senior psychiatrists (clinical inflexibility:  $M=13.84$ ,  $SD=0.65$ ; mechanistic approach:  $M=28.82$ ,  $SD=0.88$ ; MICA v4:  $M=35.04$ ,  $SD=0.94$ ).

## DISCUSSION

Although various attitude scales about mental health have been developed, it is seen that most of these scales have been developed for the general population (49,50) or individuals with mental illness (51). The relatively few attitude scales developed for clinicians are limited in scope to a stigma (44) or a particular disease (52). BCSQ was developed to assess the theoretical perspectives, treatment options and psychological flexibility levels of clinicians in clinical practice. As far as we know, this scale is the first to collectively evaluate the theoretical perspectives of clinicians, which can vary considerably according to their training, and clinical attitudes. In this study, the psychometric properties of BCSQ have been assessed.

PCA indicates that BCSQ represents good construct validity and revealed a three-factor structure. The first subscale was comprised of items related to the assumption of healthy normality (e.g. A healthy person is the one who has no physical, mental and social problems') and labeled as 'mechanistic approach'. The second subscale included items that focused solely on clinicians' attitudes with their private issues such as emotions, thoughts and rules (e.g. 'My feelings and thoughts prevent me from being helpful to my patients') and were labeled as 'clinical inflexibility'. The third subscale included items related to the treatment orientation that of clinicians' beliefs that assess the extent to which psychotherapy/psychopharmacology will be useful in clinical practice (e.g. 'Psychotherapy should only be used as an adjunct to medication.') and was labeled as 'treatment preference'.

In conclusion, BCSQ consists of three subscales that evaluate the clinical inflexibility, treatment preference and mechanistic approach of mental health professionals. The 'clinical inflexibility' subscale assesses the response of the clinicians to their unwanted internal

experiences that occur during their interactions with their patients. The therapists' reluctance to stay in touch with their disturbing experiences may lead to their avoidance by altering the form or frequency of these private events and the contexts that reveal them, which are called experiential avoidance (EA) (7).

If the therapist has low clinical flexibility, this would result in the use of control strategies when unwanted internal experiences arise during the therapy session. With these strategies, the therapist cannot be aware of contextual cues and cannot engage in therapeutic interventions that are likely to be effective in helping the patient (53). In a similar manner, EA may also lead to the use of less effective psychotherapy approaches instead of evidence-based approaches.

In a study investigating the effect of less disturbing but also less effective talk therapy on exposure therapy preference of therapists' experiential escape, it was found that it is more preferable to exposure therapy by therapists with high EA (54). The same study also suggested that clinicians with a tendency to avoid unpleasant feelings may reduce the time taken to use exposure therapy (54). Another issue with clinical flexibility may be its impact on the training of psychotherapists. Unwillingness to experience unwanted thoughts and feelings may lead to avoiding learning psychotherapy approaches and interventions that are unfamiliar or may cause discomfort. Symptom-based psychiatric diagnosis systems and current treatments in mental health (8), the biological focus of training (55), the predominance of symptom-focused psychotherapy, the CBT, in psychiatric residency training in the last decade (56) may also affect clinicians' attitudes towards their internal events and it leads them to control and get rid of their unwanted emotions. Another subscale, 'treatment preferences', aims to assess the attitudes of clinicians regarding the effectiveness of psychopharmacology/psychotherapy in the treatment of mental disorders. The higher scores on the scale indicate that clinicians are more prone to pharmacological interventions rather than psychotherapeutic ones in their practice. Psychiatrists who learn both psychopharmacological and psychotherapeutic methods during their training often face the dilemma of using these methods appropriately in their clinical practice; sometimes focusing on one and neglecting the other. This may lead to diminished use of evidence-based clinical practice among psychiatrists and neglect of treatment efficacy (57).

The third subscale, 'mechanistic approach' assesses the view of clinicians both on their patients and mental

disorders in general. The higher scores in this subscale indicate the more mechanistic approach that clinicians have. This view can be outlined as mental disorders are associated with "problematic" private experiences (including thoughts, emotions and bodily sensations) and/or body parts of an individual, and there can be no improvement without changes in these parts (58).

The BCSQ was found to have acceptable internal consistency established by Cronbach's alpha correlation coefficient (0.82) and item-total correlations. Temporal stability of the scale conducted by test-retest reliability analysis 30 days after the baseline application. With correlation coefficient values of 0.89 (clinical inflexibility), 0.72 (treatment preferences) and 0.70 (mechanistic approach) between time 1 and 2; BCSQ subscales demonstrated good temporal stability.

In our study we found that 62.3 % of the participants had a history of psychiatric problems and that it was one of the variables that could affect the outcome, considering that their attitudes towards both their patients and to their own psychological experiences may be affected. However, contrary to expectations, no difference was found in the subscales of BCSQ between participants with and without a history of psychiatric problems. This finding supports the conclusion that our scale is reliable and indicates that BCSQ can be used safely with all mental health professionals, regardless of the psychiatric history.

In our current research, we also found that participants with longer working experience present higher clinical flexibility. Concordantly, participants with shorter working experience had lower clinical flexibility and a higher mechanistic view than senior psychiatrists. Higher levels of clinical flexibility in senior psychiatrists may be related to their increased exposure to their own internal experiences more than junior ones through their daily practice. Also, the higher likelihood of senior clinicians experience symptoms that are resistant to treatment or that do not meet a specific diagnostic criterion may explain the lower mechanistic view in this group. This experience of contacting internal events may potentially affect the clinicians' attitudes during the therapy session and reduce the use of control strategies even if they are not trained in acceptance-based therapeutic approaches. Another explanation for the difference in subscales may be related to mechanistic and symptom-based content of psychiatric training. This type of training strongly influences the attitudes of junior clinicians, especially in the absence of experience. Finally, acceptance-based experiential psychotherapy training



may have a positive effect on the clinical flexibility levels of junior psychiatrists without the need to gain experience over time.

In a study assessing the psychotherapy tendencies of psychotherapists in the USA, an inverse association was found between medication prescribing and providing psychotherapy, and this finding was attributed to differences in the clinical orientation (59). Similarly, Lebowitz and Ahn (60) found that biological explanations of psychopathology convince clinicians to choose more medication and believe that psychotherapy is less effective. One step ahead of these studies, we assessed the clinical approach of psychiatrists and found that a lower tendency to use psychotherapy is associated with lower clinical flexibility and a higher mechanistic approach. This may be due to the unwillingness of clinicians to experience discomfort and pain that may occur by contacting with their private events as well as their patients' during the psychotherapy session, and also through the effect of contemporary psychiatric training approach based on the biological model.

An additional finding in our study concerns the association between higher stigmatization attitudes with a lower tendency to use psychotherapy, a lower clinical flexibility and a higher mechanistic approach. This result is not surprising when we consider the exacerbating effect of DSM's diagnosis-based mechanistic approach on stigmatising attitudes (61) and reduced empathy (60,62). Besides the studies conducted, attention is drawn to the possible enhancing effects of biological explanation of mental illnesses on stigmatization (21,23). Many studies showed that a context-based psychotherapy approach, ACT, was effective for reducing stigmatization (38,63). Also in a study conducted on undergraduate college students, psychological flexibility was found to be negatively correlated with the mental health stigma (64) that supports both our findings and effectiveness of ACT interventions aimed at increasing psychological flexibility. Higher stigmatization attitudes were also found to be related to lower working experience that may be due to less training to combat stigma, less contact with patients and preferential exposure of more mechanistic/symptom-based psychiatry training content in junior clinicians.

A number of methodological limitations should be taken into consideration. The absence of a scale that assesses the theoretical approaches and attitudes of clinicians in clinical practice in the literature may be a limitation in finding an appropriate scale to measure convergent validity. However, the MICA v4 and AAQ-II substantially met the criteria of being a valid and reliable scale for assessing the clinicians' attitudes and

psychological flexibility. Another limitation of our study is the participation of some clinicians with Internet surveys, the use of self-report measures and the small sample size. Although the study consists of participants from all over the country, and was conducted only in Turkish in Turkey, and therefore there is a need to study the reliability and validity researches in another languages in the future.

In conclusion, the BCSQ appears to provide adequately reliable and valid data with respect to clinicians' theoretical perspectives and attitudes in clinical practice, despite some limitations. Above all, BCSQ may be a valuable tool in reflecting the changes in clinicians' psychological flexibility levels in clinical practice, their attitudes towards psychotherapy/ psychopharmacology, and the views of patients and mental disorders throughout their trainings. And this knowledge may provide a functional arrangement of training programs in the field of mental health. With the BCSQ, further investigation of the role of the mentioned dimensions in stigmatization, burnout and treatment efficacy and how psychiatry and psychotherapy trainings affect these areas may seem feasible and is recommended.

Contribution Categories		Author Initials
Category 1	Concept/Design	S.U., K.F.Y., H.S.B., A.N., M.T., S.I., F.B.E.
	Data acquisition	M.T., S.I., F.B.E.
	Data analysis/Interpretation	S.U., K.F.Y., H.S.B., A.N.
Category 2	Drafting manuscript	S.U., M.T., K.F.Y., A.N., H.S.B.
	Critical revision of manuscript	K.F.Y., S.U., A.N., F.B.E.
Category 3	Final approval and accountability	S.U., K.F.Y., H.S.B., A.N., M.T., S.I., F.B.E.
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