

DEVELOPMENT AND STANDARDIZATION OF MENTAL HEALTH PROBLEMS CHECKLIST

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Abstract: *The purpose of this study was to develop and standardize the Mental Health Problems checklist. National Cadet Corps and National service Scheme Volunteers (N=400) served as participants in this study. All participants were drawn from Aligarh Muslim University, Aligarh. At the initial stage, the scale consisted of 36 items. Item analysis and exploratory factor analysis was carried out and 24 items were retained in the final checklist. The reliability of this checklist was determined by internal consistency method; Cronbach's Alpha of the checklist was found to be 0.896 which confirmed excellent reliability (George & Mallery, 2003). Exploratory factor analysis confirmed four factors such as Negative Experiences, Personal and Family Facets, Socio-Cultural Determinants and Incongruous Conditions. Further, EFA explained 58.841 percent total variance which confirmed factorial validity of the check list as excellent and clearly established.*

Keyword: *Mental health Problems, Negative Experiences, Personal and Family Facets, Socio-Cultural Determinants and Incongruous Conditions.*

Introduction

Mental health is defined as 'a state of well-being in which an individual realizes his or her potential, can cope with normal stresses of life, can work productively and fruitfully, and is able to make contribution to his or her community' (Friedlie, 2009). The word mental health is commonly used to describe either a level of cognitive or emotional well-being or absence of mental disorder. The WHO (2005) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is also able to make contribution to his/her community." The concept of mental health includes subjective well-being, perceived self-efficacy, competence, autonomy, intergenerational dependence and recognition of the ability to realize one's intellectual and emotional potential. Mental health is a psychological state of well-being, which is characterized by self-acceptance, continuing personal growth, a sense of purpose in life and positive relations with others.

Mental health problems are defined and classified to enable professionals to refer people for proper care and treatment. But some diagnoses are controversial and there is much concern in the mental health field that people are too often treated according to or described by their label. This can have a profound effect on their quality of life. Nevertheless, diagnoses remain the most usual way of dividing and classifying symptoms into groups. Most mental health symptoms have traditionally been divided into two groups called either 'neurotic' or 'psychotic' symptoms. 'Neurotic' covers those symptoms which can be regarded as severe forms of 'normal' emotional experiences such as depression, anxiety or panic. Conditions formerly referred to as 'neuroses' are now more frequently called 'common mental health problems.' Less common are 'psychotic' symptoms, which interfere with a person's perception of reality, and may include hallucinations such as seeing, hearing, smelling and feeling things that no one else can. Mental health problems affect the one's thinking; feeling and behaving are very common. About a quarter of the population experience some kind of mental health problems in any one year. Anxiety and depression are the most common problems, with around 1 in 10 people is affected at any one time. Anxiety and depression can be severe and long-lasting and have a big impact on people's ability to get on with life.

The mental health problems are very crucial because it is related to the overall well-being of an individual, irrespective of one's status, age, gender, race or social background. With the pace of growth and development one of the biggest challenges a nation has to face is in dealing with health related problems of the countrymen.

The following few feelings or behaviors are the warnings of mental problems:

- Eating too much or too little
- Sleeping too much or too little
- Pulling away from people and routine activities
- Having low or no energy
- Having unexplained pains
- Feeling helpless and hopeless
- Using drugs more than usual
- Feeling unusually confused, forgetful, angry, upset, and worries
- Always fighting with family members and friends
- Having persistent thoughts and memories
- Thinking of harming oneself or others
- Inability to perform daily tasks

Current state of mental health among college students

Students may be at particular risk of mental ill-health, as several studies have noted significantly worse psychological health among this population than general population norms (Roberts et al., 1999). Recent research also indicates that there has been an increase in the absolute rate of mental ill-health and psychiatric disorders in children, adolescents and young adults (Connell, 2007). Mental health among college students represents not only a growing concern but also an opportunity, because of the large number of people who could be reached during an important period of life.

Mental health problems are highly prevalent among college students, according to several data sources. In particular, mental health problems are highly prevalent among college students. According to National College Health Assessment sponsored by the American College Health Association (ACHA-NCHA), more than one in three undergraduates reported with mental health issues. There are many signs of a mental health condition can be found among student. First of all, poor mental health will lead to low academic achievements. According to the National Institute of Mental Health, 20% of students may have undiagnosed mental health problems that cause difficulty with academic work. For an instant, poor attendance; particularly frequent absences for unclear physical health problems, may be related to underlying poor mental health. Further, difficulties with academic work, social integration, adjustment to school, behavior regulation, attention, and concentration may be other signs of existing mental health problems among students.

Methodology

Item Generation and Selection:

Items were designed to reflect a Grade-5 reading level. Judges (i.e., recognized researchers who have published in the area of positive psychology) evaluated the items to establish the content validity of the initial items of the measure. Studies have shown that five or more judges are required to determine the content and face validity of psychological major (Netemeyer, Bearden, & Sharma, 2003). Hence six judges including 4 males, 2 females were selected on the basis of their expertise in this area for determine content validity of the scale. The list of items and the definitions of dimensions of mental health problems were submitted to the judges who rated each item based on how well the items reflected to the intended dimensions of mental health problems. Items were rated on a 5-point Likert-type scale (*1 = very poor, 2 = poor, 3 = fair, 4 = good, and 5 = very good*).

The Validity Index (VI), a content validity coefficient (Aiken, 1996), was used for item selections. The VI provides an overall measure of content validity for *N* raters on a single scale for multiple items; the value of Validity coefficient ranges from 0.00 to 1.00, and tables determining the statistical significance of validity can be found in Aiken (1985). Items were retained if they were rated by all judges as highly reflecting dimensions of mental health problems ($V = .79, p = .029$). Applying this criterion, 36 items were retained.

For the retained mental health problems items, ratings for how well these items reflected the definition of 'negative experiences' ranged from 3.0 to 5.0, with a mean of 3.55, ratings for how well the items reflected the definition of 'personal and family facets' ranged from 2.0 to 5.0, with a mean of 3.0, ratings for how well the items reflected the definition of 'socio-cultural determinants' ranged from 2.0 to 5.0, with a mean of 3.33 and ratings for how well the items reflected the definition of "Incongruous Conditions" ranged from 3.0 to 5.0, with a mean of 3.50. Overall, findings suggest that expert judges found the items to be good representations of negative experiences, personal and family facets, socio-cultural determinants and Incongruous Conditions.

Factor Structure and Internal Consistency

Measures and Procedure: Out of 36 items 30 items were judged as contain valid by Judges. The remaining 6 items were rejected. After that these 30 items were administered on a group of National Cadet Corps and National Service Scheme Volunteers and they were asked to rate each items on 5-point Likert-rating scale (*1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree*) on the basis of their perception of mental health problems they faces. Given that 5-point Likert-type scale have been found to be most reliable (McKelvie, 1978).

Development of mental health problems checklist

The mental health problems checklist is based on Four hundred students (200 males, 200 females) who were enrolled in undergraduate and post-graduate courses and also join NCC and NSS at Aligarh Muslim University, served as participants in the present study. Reliability analysis and Inter correlation matrix was examined in order to overcome existence of multicollinearity and singularity in the scale. After analysis, 6 items having the multicollinearity and singularity were rejected and the final scale comprised 24 items.

Principal component analysis was applied in the present study. All 30 items were taken from the original scale. 06 items were discarded and only 24 items were selected on the basis of factor loading i.e., above .40

Draft of scale and Item analysis

Mental Health Problems Checklist (MHPC) consisted of 24 items which measures negative experiences, personal and family facets, socio-cultural determinants and Incongruous Conditions. Out of 24 items, 09 items measures negative experiences, 06 items measures personal family facets, 05 items measures socio-cultural determinants and 04 items measures Incongruous Conditions. Respondents rate each item on a 5-point rating scale: (*1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree*).

Table 1: Dimensions and No. of items

Dimensions	Items	No.of items
1. Negative Experiences	1,2,3,10,16,17,22,23,24	09
2. Personal and family facets	5, 6, 11, 12, 19, 21	06
3. Socio-cultural determinants	4, 8, 9, 15, 18	05
4. Incongruous Conditions	7, 13, 14, 20	04
Total		24

Reliability

The Cronbach alpha of the mental health problems of 24 items was found to be .896 which is significant at 0.01 level. The Internal Consistency of the scale is quite high and this gives a support that the scale has excellent reliability (George & Mallery, 2003). Whereas the Cronbach alpha for the factors negative experiences ($\alpha=.858$), personal and family facets ($\alpha=.845$), socio-cultural determinants ($\alpha=.797$) and Incongruous Conditions ($\alpha=.744$) has good reliability.

Table 2: Showing Reliability of the mental health problems checklist on four dimensions.

Dimensions	Items	No.	Cronbach α
1. Negative Experiences	1,2,3,10,16,17,22,23,24	09	.858
2. Personal and family facets	5, 6, 11, 12, 19, 21	06	.845
3. Socio-cultural determinants	4, 8, 9, 15, 18	05	.797
4. Incongruous Conditions	7, 13, 14, 20	04	.744
Total		24	.896

Inter- Factorial Validity

The inter-factorial validity of the scale was calculated to confirm all factors as correlated to each other and measuring the same construct. Inter-factorial correlations indicate that all the factors are significantly correlated with each other and measuring the same construct.

Table 3: Correlation Table

Dimensions	Negative Experiences	Personal and family facets	Socio-cultural determinants	Incongruous Conditions
Negative Experiences	1	.399**	.329**	.460**
Personal and family facets		1	.357**	.440**
Socio-cultural determinants			1	.531**
Incongruous Conditions				1
** Correlation coefficient are significant at the 0.01 level (2-tailed)				

Factor Analysis: Principal component factor analysis using varimax rotation was conducted to determine item selection. A varimax rotation method was chosen given that it allows the factors to correlate and can provide more meaningful theoretical factors (Netemeyer et al., 2003). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .830, and Bartlett's Test of Sphericity was significant. The restricted factor analysis produced four factor solutions with Eigen values greater than one, which recovered 58.841% of the sample variance. However, examination of Eigen values and the scree plot revealed a marked gap between the four factors (Factor 1 CPV = 31.915, Factor 2 CPV = 43.012, Factor 3 CPV = 52.230 and Factor 4 CPV = 58.841). Floyd and Widaman (1995) argue that the use of Eigen values greater than one can lead to an over estimation of the number of factors to retain, and that the scree plot may be more useful in identifying meaningful factors. Thus, based on scree plot results and consistent with theoretical predictions, the most interpretable solution was a four-factor model. A factor analysis (i.e., principal axis factoring) using a varimax rotation was conducted again, this time restricting the factor analysis to a four-factor solution. Since loadings above .40 may be considered "more significant" and .50 may be considered "very significant" (Hair, Anderson, Tatham, & Black, 1998). Therefore items with loadings of above .50 were retained; resulting in 24 items falling in the following four factors namely, negative experiences, personal and family facets, socio-cultural determinants and Incongruous Conditions.

Based on these analyses, items were eliminated to ensure that correlations remained within the recommended parameters (i.e., .15 to .50 according to Clark & Watson, 1995) and to retain a maximum of 10 items on each sub-scale, as 8 to 10 items per dimension has been suggested as an ideal scale length (Netemeyer et al., 2003). See Table for a list of the final 24 items, the factor loadings of each item for four subscales.

Table 4: Factor structure of the Mental Health Problems Checklist

Factors name			Factors			
	Item no.	Mental Health Problems	Factor	Factor	Factor	Factor
			1	2	3	4
Negative experiences	Item-3	Anxiety	.822			
	Item-10	Difficulties in adjustment	.789			
	Item-17	Unhealthy lifestyle	.778			
	Item-22	Competitiveness	.631			
	Item-24	Powerlessness	.627			
	Item-2	Helplessness	.565			
	Item-16	Academic stress	.554			
	Item-23	Inadequate stress coping skill	.507			
	Item-1	Emotional immaturity	.433			
Personal and family facets	Item-12	Family identity		.843		
	Item-5	Emotional abuse		.820		
	Item-21	Feeling of Insecurity		.782		
	Item-19	Family violence		.763		
	Item-11	Unemployment		.604		
	Item-6	Changing norms and values		.455		
Socio-cultural Determinants	Item-8	Peer pressures			.865	
	Item-4	Social identity			.736	
	Item-18	Lack of support			.644	
	Item-15	Socio-cultural values			.532	
	Item-9	Discrimination			.481	
Incongruous Conditions	Item-7	Adverse life circumstances				.760
	Item-20	Value conflicts				.751
	Item-13	Psychosocial stress				.614
	Item-14	Stigma				.410
Percent of Variance			31.915	11.097	9.218	6.611
Cum.Percent of Variance (CPV)			31.915	43.012	52.230	58.841

Factor analysis showed four factors of mental health problems as perceived by NCC and NSS students.

Mental Health Problems: In the context of the present study, mental health is defined in terms of identifying the traits of the individual which reflect his/her mental health related problems. The presence of mental health problems is considered as indicative of mental health.

The present investigator view mental health problems as a mental health phenomenon with four dimensions: (a) Negative experiences, (b) Personal and family facets, (c) Socio-cultural determinants (d) Incongruous Conditions.

Negative Experiences perceived by NCC and NSS students include anxiety, difficulties in adjustment, unhealthy lifestyle, competitiveness, powerlessness, helplessness, academic stress, inadequate stress coping skill and emotional immaturity. These are related to mental health problems. Based on above mentioned negative experiences it can be understood that students' involvement in negative thinking may lead to mental health problems.

Item no. 1, 2, 3, 10, 16, 17, 22, 23, 24

Personal and Family Facets: Family identity, emotional abuse, feeling of insecurity, family violence, unemployment and changing norms and values are the certain mental health problems as perceived by the NCC and NSS standards. When students are faced with negative life events, they start to perceive such dysfunctional attitudes about self, family and world.

Item nos: 5, 6, 11, 12, 19, 21

Socio-cultural Factors: This dimension includes peer pressures, social identity, lack of support, socio-cultural values and discrimination. These factors focus on NSS and NSS student's perception. The reason for this appears that, people who show mental health problems are supposedly make negative perception about the causes, consequences, and self-implications linked with socio-cultural values, and lack of support. Item nos: 4, 8, 9, 15, 18

Incongruous Conditions: Adverse life circumstances, value conflict, psychosocial stress and stigma, relate well with the mental health problems as perceived by NCC and NSS students. Incongruous conditions are influenced by the mental health state of the person. Students deduce that the adverse conditions originated through their present negative situation will persist in future also. Item no. 7, 13, 14, 20.

Uses of the Mental Health Problems Checklist (MHPC)

The uses of the MHPC are:

1. The checklist can be used for research and survey purposes.
2. This Mental Health Problems Checklist (MHPC) is useful to assess the students mental health related problems.
3. It is self-administering and does not require the service of highly trained testers.
4. It is suitable for group as well as individual testing.

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