

DEVELOPMENT OF AN INDIGENOUS SYMPTOM CHECKLIST FOR CONVERSION DISORDER

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ABSTRACT

Objective: The aim of the study was to develop an indigenous symptom checklist of conversion disorder which would be representative of the Pakistani population.

Research Design: The inductive approach for constructing psychological tools.

Sample and Method: A list of 127 presenting complaints of patients with conversion disorder was collected from 41 clinical psychologists and psychiatrists. This list was then administered on 635 patients with conversion disorder (542 females & 93 males) presenting at 14 psychiatric facilities in Lahore, Pakistan. For test-retest reliability 50 patients with conversion disorder were administered the checklist on 1st, 3rd and 14th day of their admissions in Department of Psychiatry, Services hospital, Lahore, Pakistan. For discriminant validity, a sample of 100 patients presenting at Department of Dermatology, Services Hospital was compared with 193 patients at Department of Psychiatry, Services Hospital, Lahore.

Results: Factor Analysis was run using varimax rotation and kaiser normalization which reduced the list into five factors and 75 items. The reliability coefficient ranged from .58 to .84 significant at $p < .01$. The independent samples t -test showed significant difference in both the groups significant at $p > .001$.

Conclusion: The present study has provided with a preliminary tool. However, more research needs to be done to conduct confirmatory factor analysis which would also enhance the psychometric properties of the checklist.

Key words: Conversion disorder; symptoms checklist; factor analysis

INTRODUCTION

Conversion disorder is the new name designated to hysteria¹. It has perhaps the longest recorded history among all psychiatric disorders, spread over 4000 years². The earliest explanations of conversion disorder focused on gynecological and neurological themes. Later Freud put forward a psychological etiology which was very different from the gynecological and neurological explanations^{3,4}. He outlined a psychological etiology in hysterical conversion originating from the conflicts of the unconscious mind. This psychological model also helped pave the path towards a new psychological approach in the treatment of conversion disorder⁵. So far the Freudian explanation of conversion disorder has been the most influential one⁶.

The other well documented accounts of conversion disorder have focused on behavioral and socio-cultural perspectives. For instance, the behavioral explanation focuses on the role of reinforcement in the maintenance of symptoms of conversion disorder⁷. The socio-cultural perspective focuses

¹ American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.). (DSM IV). Washington, DC: Author.

² Reed, J. L. (1971). Hysteria. *British Journal of Hospital Medicine*. 237-246.

³ Abse, D. W. (1987). *Hysteria and Related Mental Disorders: An Approach to Psychological Medicine* (2nded.). Great Britain: The Bath Press.

⁴ Mace, C. (2001). All in the mind? The history of hysterical conversion as a clinical concept. In P. W. Halligan, C. Bass, & J.C Marshall (Eds.), *Contemporary Approaches to the Study of Hysteria* (pp. 1 – 11). Oxford: Oxford University Press.

⁵ Breuer, J., & Freud, S. (1955). On the psychical mechanism of hysterical phenomena: preliminary communication. In *Studies on Hysteria* (rev. ed.), pp. 3 – 17. New York: The Hogarth Press.

⁶ Merskey, H. (1995). *The Analysis of Hysteria: Understanding Conversion and Dissociation* (2nded.). London: Bell & Bain.

⁷ Davison, G. C., & Neale, J. M. (2001). *Abnormal Psychology*. (8thed.). U.S.A: John Wiley & sons.

more on the milieu that prevails in societies and holds that accountable for the origin of conversion disorder^{8,9}. It has been observed that with an increase in psychological sophistication and professional advancements, symptoms of anxiety and depression have become acceptable ways of manifesting stress. On the other hand in developing countries such as Pakistan, the above mentioned symptoms can go unnoticed while a symptom of conversion disorder is likely to receive attention and serves as a cry for help^{10,11}.

Therefore, there is an evidence of higher rates of conversion disorder in developing countries and the incidence tends to decline with an increase in economic development^{12,13,14}. Conversion disorder is quite commonly seen in the psychiatry departments in Pakistan. For instance, it was found to be the fourth commonest disorder in a study conducted in Lahore¹⁵, while it emerged as the

⁸ Thorley, A., & Stern, R. (1979). Neurosis and Personality Disorder. In P.Hill., R. Murray., & A. Thorley (Eds). *Essentials of Postgraduate Psychiatry*, (pp. 179-237). London: Academic Press.

⁹ Kaplan, H. I., & Sadock, B. J. (1998). *Synopsis of Psychiatry Behavioral Sciences/ Clinical Psychiatry*. (8th ed.). Maryland: William & Wilkins.

¹⁰ Pu, Tinnyunt., Mohamed, E., Imam, K., Roey, A. M. (1986). One hundred cases of hysteria in eastern Libya a sociodemographic study. *British Journal of Psychiatry*, 148, 606 – 609.

¹¹ Bokharey, I. Z., & Rahman. N. K. (2007). A Study of Demographic Factors and Symptoms of Conversion Disorder in an Outpatient Population in Pakistan. *Pakistan Journal of Psychology*, 38 (2), 25 – 33.

¹² Okasha, A. (2004). Focus on psychiatry in Egypt. *The British Journal Psychiatry*, 185, 266 – 272.

¹³ Stefansson, J. G., Messina, J. A., & Meyerowitz, S. (1976). Hysterical neurosis, conversion type: clinical and epidemiological considerations. *ActaPsychiat. Scand*, 53, 119 – 138.

¹⁴ Lal, R., Biswas, C., & Chaudhery, K. (1991). The changing profile of hysteria. *Indian Journal of Psychiatry*, 33(2), 118 – 122.

¹⁵ Malik, S. B. & Bokharey, I. Z. (1999). Psychiatric admissions in a teaching hospital: a profile of 177 patients. *Journal of College of Physicians and Surgeons*, 9 (8), 359 – 361.

fifth commonest disorder in a study conducted in Rawalpindi¹⁶. Furthermore, in a review article, conversion disorder accounted for 10% of admissions in Pakistan¹⁷.

In view of the literature cited above, it is imperative that original research on conversion disorder in our specific socio-cultural context be carried out. One of the preliminary steps towards understanding a clinical population is to develop psychological tools to assess the phenomenon. On account of the paucity of indigenous assessment tools on conversion disorder, the present study was designed to develop a symptom checklist for conversion disorder based on the clinical presentations in our setting.

METHOD

Design

The research design employed was the Inductive Approach for constructing psychological tools¹⁸. The overall sampling strategy used was purposive.

Ethical Considerations

The procedure was approved by a higher board comprising of leading academic and research experts at the University of the Punjab Lahore, Pakistan. Written consent was sought from all heads of departments where data collection was conducted. Moreover, written consent was also taken from all the participants. Before the administration of the tool, the participants were briefed about the aims and objectives of the study and their right to withdraw at any stage of the study. No financial compensation was given. However, they were

¹⁶ Minhas, F. A., Farooq, S., Rahman, A., Hussain, N., & Mubbashar. M. H. (2001). Inpatient psychiatric morbidity in a tertiary care mental health facility: A study based on a psychiatric case register. *Journal of College of Physicians and Surgeons*, 11(4), 224 – 228.

¹⁷ Amir, S.(2005). Stressful life events in the onset of dissociative (conversion) disorders. *Journal of Pakistan Psychiatric Society*, 2(2), 65 – 68.

¹⁸ Aiken, L. R. (1996). *Rating Scales & Checklists Evaluating Behavior, Personality and Attitudes*. USA: John Wiley & Sons, Inc.

offered free psychotherapy services at the Department of Psychiatry, Services hospital, Lahore, if they so desired.

The development of symptom checklist comprised of four steps.

Procedure

Step One: Compiling List of Verbatim Presenting Complaints of Patients with Conversion Disorder

In the first step, 41 mental health professionals – including 25 clinical psychologists and 16 psychiatrists in Lahore, Pakistan – were asked to record the verbatim presenting complaints of every patient presenting with conversion disorder for a period of one month.

Inclusion criteria

- The patients fulfilled the diagnostic criteria of DSM-IV¹ for conversion disorder.
- The patients presenting with co-morbidity, in which conversion disorder was the primary diagnosis.

Exclusion criteria

The patients were excluded if they presented with co morbidity in which conversion disorder was the secondary diagnosis.

The total number of symptoms recorded was 127.

Step Two: Administration of the List of Presenting Complaints to 635 Patients with Conversion Disorder

In the second step, all the 127 items generated during the first step were arranged in the form of a checklist, with a four point Likert scale to measure the intensity level ranging from “not at all”, “very seldom”, “intermediate” and “very often”. The average administration time for the checklist was 25 – 30 minutes.

For a total of 127 items, it was decided to collect a sample of 635 patients, as five cases for each variable is the recommended criterion for running factor analysis¹⁹.

To accomplish step two, 11 field workers with at least a master's degree in psychology were hired. A two-day workshop was then conducted in which they were given a briefing about the background and symptomatology of conversion disorder. Moreover, they were also given a demonstration on the administration of the demographic form both in the form of role rehearsal and reversal, to equip them to carry out data collection at an optimum level.

The participants in the second step of phase two comprised of 635 patients of conversion disorder, with an age range of 13 years and above, presenting at nine hospitals in Lahore: Mayo Hospital, Services Hospital, Sir Ganga Ram Hospital, Jinnah Hospital, Punjab Institute of Mental Health, Fatima Memorial Hospital, Children Hospital, Ahbab Hospital and Combined Military Hospital. In addition, the total number of private clinics from where the data was collected comprised of: Parklane Clinic, Kalim Medical Centre, Combined Medical Centre, Baloch Clinic, and Mozang Clinic. The inclusion and exclusion criteria were the same as in step one.

The data was collected by the field workers, senior clinical psychologists and psychiatrists working at the respective hospitals and clinics. The data collection lasted from 27/10/2003 to 30/11/2004. The forms were collected from the hospitals and clinics on a weekly basis. At the end of the data collection, factor analysis program was run and the items were reduced to 75.

Step Three: Determining Reliability of the Symptom Checklist

To carry out step three, all consecutive patients with conversion disorder presenting at Psychiatry Department, Services Hospital, Lahore, during the time period between 18/5/2005 – 3/10/2005 were administered the checklist on the first, third and the fourteenth day of their admission by the researcher. The total time in administration took about 15-20 minutes. The total number of participants in this step was 50.

¹⁹ Tabachnik, B. G., & Fidell, L. S. (1989). *Using Multivariate Statistics* (2nd ed.). New York: Harper Collins Publishers, Inc.

Step four: Determining Validity of the Symptom Checklist

For step four, in order to determine discriminant validity, 100 consecutive patients presenting at the Department of Dermatology were administered the checklist. This sample was compared with the sample of 193 patients with conversion disorder collected from Department of Psychiatry, Services Hospital in step two. The gender ratio of the 193 patients was 89:11 for women and men respectively and the same ratio was maintained for the sample collected from Department of Dermatology in step four. It took about 15 minutes to administer the checklist to each patient. The data collection lasted from 10/5/05 to 14/6/05.

RESULTS***Step Two: Administration of the List of Presenting Complaints to 635 Patients with Conversion Disorder***

For the second step factor analysis was run on a sample of 635 patients with conversion disorder. The method of rotation employed was varimax with Kaiser Normalization. The factor loading used was .30 and the eigen value was 1. The factor analysis extracted 31 factors in total. However for the purpose of this study, the total number of factors was restricted to the first five factors: mixed depression and anxiety symptoms; motor symptoms; somatic symptoms; mixed symptoms and pseudo seizures. After the factor analysis the total number of items in the original symptom checklist comprising of 127 items was reduced to 75.

Table 1
The Five Factor Solution of the Conversion Disorder Symptom Checklist

Factor 1: Mixed Depression and Anxiety Symptoms			
S.No	Item	Correlation	Urdu Text of the Item
1	89	.82	سر کا بھاری ہونا
2	96	.79	دل گھٹنا
3	72	.77	گھبراہٹ ہونا
4	56	.75	دماغ کی نالیاں پھٹتی محسوس ہونا

5	66	.75	دل گھبراتا
6	77	.75	سردرد ہونا
7	102	.69	چکر آنا
8	95	.69	کمزوری محسوس ہونا
9	97	.65	مسلل پریشان رہنا
10	92	.64	اداس ہونا
11	54	.64	طبیعت کا گھنٹوں خراب ہونا
12	103	.63	شور سے گھبراہٹ ہونا
13	118	.60	سستی محسوس کرنا
14	90	.58	غٹودگی طاری ہونا
15	105	.58	جسم کے کسی حصے میں درد ہونا
16	18	.55	آنکھوں کی نالیوں کے پھٹنے کا احساس ہونا
17	88	.55	چڑچڑاہٹ طاری ہونا
18	85	.54	قوت برداشت میں کمی ہونا
19	21	.54	آنکھوں کے آگے اندھیرا آنا
20	87	.53	رونے کے دورے پڑنا
21	127	.53	توجہ میں کمی ہونا
22	69	.52	گلا خشک ہونا
23	34	.50	بستر پر لیٹے رہنا
24	101	.50	ہونٹ خشک ہونا
25	41	.46	شدید غصہ آنا
26	84	.46	نیند میں کمی ہونا
27	45	.45	توجہ حاصل کرنے کی کوشش کرنا
28	99	.45	دل کی دھڑکن تیز ہونا
29	100	.44	رنگ پیلا پڑنا
30	116	.44	جسم کے کسی حصے میں کھچاؤ ہونا

31	83	.44	بھوک میں کمی ہونا
32	36	.44	کوئی کام نہ کر سکتا
33	27	.41	سانس پھولنا
34	81	.40	دھندلا دکھائی دینا
35	24	.38	گلے میں سانس اٹکتا
36	55	.38	سر الگ ہونے کا احساس ہونا
37	68	.38	خوف محسوس ہونا
38	104	.36	اپنے آپ کو دوسروں سے کمتر سمجھنا
39	67	.35	پسینہ آنا
40	38	.35	چمچنا چلانا
41	74	.35	کسی کے سر پکڑنے کا احساس ہونا
42	17	.32	آنکھیں اوپر کھینچنا
43	25	.31	سانس لیتے وقت جبرے کھینچنا
44	44	.31	کسی کی موت کے بعد بار بار اس کے بارے میں سوچنا
45	86	.30	دوسروں کو الزام دینا
Factor 2: Motor Symptoms			
46	29	.86	سہارے سے چلنا
47	30	.86	ٹانگ کا وزن نہ اٹھا سکتا
48	31	.83	چل نہ سکتا
49	28	.81	چلتے وقت ٹانگوں کا لڑکھڑاتا
50	32	.72	اپنے سہارے پر نہ بیٹھ سکتا
51	22	.31	کچھ وقت کے لئے نظر آنا بند ہو جانا
52	33	.30	ہاتھ نہ کھول سکتا
Factor 3: Somatic Symptoms			
53	113	.70	جسم کے کسی حصے کا سو جانا

54	108	.68	جسم کا کوئی حصہ سن ہونا
55	114	.66	جسم کے کسی حصے میں سونیاں چھینا
56	112	.63	جسم کے کسی حصے کا بے جان ہو جانا
57	115	.48	جسم کے کسی حصے کا ٹھنڈا ہو جانا
58	106	.47	جسم کے کسی حصے میں جلن ہونا
59	110	.44	جسم کے کسی حصے کے پتھر ہو جانے کا احساس ہونا
60	37	.39	جسم کا کوئی حصہ مفلوج یا ناکارہ ہونا

Factor 4: Mixed Symptoms

61	93	.75	دوسروں سے بات چیت کرنے میں عدم دلچسپی ہونا
62	94	.74	کام میں عدم دلچسپی ہونا
63	53	.64	ماحول سے لاتعلقی ہونا
64	80	.39	یادداشت کم ہونا
65	52	.37	اپنی ذات سے باہر ہونے کا احساس ہونا
66	19	.37	آنکھ کا نہ کھلنا
67	35	.36	زمین پر لیٹنا
68	13	.30	گر جانا

Factor 5: Pseudo Seizures

69	1	.84	دورے پڑنا
70	2	.79	دورہ صرف دوسروں کی موجودگی میں پڑنا
71	3	.66	دورے کی حالت میں کسی کو پہچان نہ سکنا
72	6	.61	دورے کے دوران ارد گرد سے باخبر رہنا
73	7	.61	دورے کے دوران بول نہ سکنا
74	4	.53	روز ایک خاص وقت پر دورہ پڑنا
75	8	.40	بے ہوشی طاری ہونا

Note: The item list is from the 127 items generated in step 1.

Table 1 shows the details of the extracted factors. All the items loading on the five factors have been arranged in descending order. The first factor extracted comprised of 45 items and basically consisted of symptoms of anxiety and depression. Thus it was named mixed depression and anxiety symptoms. The second factor consisted of seven items and all except one symptom related to motor symptoms and deficits. Therefore, this factor was named motor symptoms. The third factor had a total of 8 items and comprised of symptoms related to body and was thus named somatic symptoms. Factor four had eight items and the type of symptoms was rather mixed. There were two motor symptoms, two histrionic symptoms, one symptom each of depersonalization, one of partial dissociative amnesia, one depressive and one pertaining to secondary gains. Therefore, this factor was named mixed symptoms. The final and the fifth factor comprised seven items related to seizures or convulsions and were thus named pseudo seizures.

Table 2
Eigenvalues and percentages of variance

Factor	Eigenvalue	% of Variance	Cum%of Variance
1	23.378	21.55	21.55
2	6.735	5.30	26.86
3	4.649	3.66	30.52
4	4.280	3.37	33.89
5	3.707	2.91	36.80

Note: cum = cumulative

Table 2 shows the Eigen values and the percentages of variance explained by the five extracted factors. The percentage of variance explained by the first factor is 21.55, whereas the cumulative percentage of variance explained by the five factors is 36.80.

Step Three: Determining Reliability of the Symptom Checklist

In the third step test retest reliability of the checklist was determined by Pearson's Product Moment Correlation method.

Table 3

Intercorrelations between the three Administrations of the Symptom Checklist on Patients with conversion disorder

No of administrations	Day 1	Day 3	Day 14
CD Patients (n = 50)			
Day1	–	.84**	.58**
Day 3	–	–	.73**
Day 14	–	–	–

Note: CD = Conversion Disorder; $p < 0.01^{}$ (2 - tailed)**

Table 3 gives a correlation matrix among the three administrations for determining the test retest reliability of the factor analyzed checklist. Results indicate moderate to high level of correlations among all the three administrations, which are also significant at $p < .01$ (2-tailed).

Step four: Determining Validity of the Symptom Checklist

For the fourth and final step of this phase the discriminant validity was calculated by conducting an independent samples t- test between the dermatology and conversion disorder patients.

Table 4

t test comparison between scores of CD and dermatology patients on symptom checklist

Group of pts	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Df</i>	<i>t</i>	<i>P</i>
CD	193	121.97	47.78	291	28.39	**
Dermatology	100	19.39	11.04			

Note: CD = Conversion Disorder; ** $p < 0.001$ (2 – tailed)

Pts = patients

The results given in table 4 clearly indicate a significant difference ($t = 28.39$; $df = 291$; $p < .001$) between patients with conversion disorder and dermatological disorders. Furthermore, the results also suggest that the patients with conversion disorder presented with more symptoms ($M = 121.97$) and scored higher on symptom checklist in comparison to dermatology patients ($M = 19.39$).

DISCUSSION

Step Two: Administration of the List of Presenting Complaints to 635 Patients with Conversion Disorder

The procedure of factor analysis revealed 31 factors. The reason for this could be that the total number of items were 127, and it has been pointed out that if the total number of items are more than 50, a lot of factors can be extracted²⁰.

However, for the purpose of the present study, the total number of factors was restricted to five. The factor loading of 0.30 was used, as it is considered large enough to indicate that the loading is significant²¹. Moreover, it seemed appropriate to keep .30 as the factor loading for the purpose of exploratory analysis because it covered almost all the presentations with which conversion disorder is presented in Pakistan and therefore, could form a meaningful tool for the assessment of conversion disorder in the third world countries. Using a more stringent cut-off would have eliminated clinically significant items.

Factor I: Mixed depression and anxiety symptoms

The first factor had a total of 45 items. It consisted of symptoms of depression and anxiety, and therefore, was named mixed anxiety and depression symptoms. The first factor in a factor analysis is usually the general factor²⁰.

This holds true for the factor analysis done in the current study, as symptoms of depression and anxiety are usually associated with conversion

²⁰ Child, D. (1970). *The Essentials of Factor Analysis*. London: Holt, Rinehart & Winston Ltd.

²¹ Kline, P. (1994). *An Easy Guide to Factor Analysis*. London: Routledge.

disorder, but they are not pathognomonic of it. The incidence of depression in the patients with conversion disorder was reported in a study conducted in Sweden²². Moreover, in a study carried out in Pakistan on patients with conversion disorder. The overall co-morbidity of anxiety and depressive symptoms with conversion disorder was 95%²³.

Factor II: Motor symptoms

The second factor consisted of a total number of seven items, comprising of a sensory and six motor symptoms and thus was given the name of motor symptoms. It was found in a study that motor symptoms were very frequently seen in Pakistan as 51% of their sample with conversion disorder presented with motor symptoms²³. Similarly, in a study carried out in Turkey, 25.3% of conversion disorder patients presented with motor symptoms or deficits²⁴. The specific motor symptoms clustering on factor two were reduced ability to sit, stand or walk. These symptoms are not only scary for the patients, but are also perceived as a trauma by the entire family and call for immediate attention.

Factor III: Somatic symptoms

The third factor comprising of eight items was named somatic as all of its symptoms consisted of complaints related to the body except item number 60 which was a motor symptom, but pertained to body as well. The reason for the somatic symptoms featuring in factor three can be understood in socio-cultural terms. Somatization serves to communicate feelings of somatic distress and such symptoms do not have an underlying physical pathology²⁵. Although, the phenomenon of somatization is reported across different cultures, it is more

²² Binzer, M., Andersen, P. M., & Kullgren, G. (1997). Clinical characteristics of patients with motor disability due to conversion disorder: a prospective control group study. *Journal of Neurology, Neurosurgery, and Psychiatry*, 63, 83 – 88.

²³ Khan, M. N. S., Ahmad, S., Arshad, N., Ullah, N., & Maqsood, N. (2005). Anxiety and depressive symptoms in patients with conversion disorder. *Journal of College of Physicians and Surgeons*, 15(8), 489 – 492.

²⁴ Guz, H., Doganay, Z., Ozkan, A., Colak, E., Tomac, A., & Sarisoy, G. (2004).

²⁵ Fink, P. (1995). Psychiatric illness in patients with persistent Somatization. *The British Journal of Psychiatry*, 166, 93 – 99.

common in the developing countries, especially among women and in people from lower educational background and poor psychological sophistication¹.

As conversion disorder is a diagnostic category grouped under somatoform disorders, the presence of a factor comprising of somatic symptoms only is not surprising. A study carried out on Saudi women concluded that somatic complaints served as expression of emotional problems which had no other outlet²⁶.

Both somatization and conversion disorder are problems prevalent in developing countries and in lower socioeconomic strata, where psychological sophistication is compromised. Somatic symptoms serve to communicate feelings of distress and helplessness much more than psychological symptoms, which are not considered as acceptable as the physical symptoms.

Factor IV: Mixed symptoms

Factor four had eight items in all. Item number 66 and 68 consisted of motor symptoms, item number 67 was a histrionic symptom, item number 65 a depersonalization symptom, and item number 63 reflected La belle indifference which is commonly found amongst patients with conversion disorder. Item number 64 was a symptom of partial dissociative amnesia, whereas, items 61 and 62 could be classified as both depressive symptoms, or symptoms characterizing secondary gains. Hence, this factor was a mixture of all kinds of symptoms and was given the name of mixed symptoms. Item number 68 is quite common among the patients with conversion disorder, as they often have a tendency to fall down comfortably during, before or after a pseudo-seizure. Occasionally, a patient also presents with the symptom of falling down. This fall is usually quite comfortable and there is also no injury sustained. Item number 66 is also commonly reported during or after a pseudo-seizure. This symptom is usually a sign of a pseudo-seizure and at times after the pseudo-seizure is over, the patient exhibits an inability to open their eyes for extended periods of time. Item number 65 depicts depersonalization, which is a dissociative phenomenon associated with depressive, obsessive and somatic symptoms¹. Item number 62 also points towards secondary gains, as most of the patients presenting with conversion disorder are considered very sick and are thus exempted from household

²⁶ Racy, J. (1980). Somatization in Saudi women: A therapeutic challenge. *British Journal of Psychiatry*, 212-216.

responsibilities. Consequently, the family reinforces their lack of interest in work.

Factor V: Pseudo seizures

Factor five comprising seven items relating to pseudo-seizures, was given the same name. Pseudoseizures are one of the most frequent clinical presentations of conversion disorder in Pakistan. This is the only factor in which a negative response to item number one would make all the other items redundant, except item number 75. Interestingly, some of the characteristic features of pseudoseizures demarcating them from organic seizures also formed a part of this factor. For instance, item number 70 is very specific of pseudo-seizures, as it basically thrives on social reinforcement. Thus, most of the time pseudo-seizures occur in the presence of others in order to get attention. Item number 74 also occurs in pseudo-seizures only. When a pseudo seizure is reported as occurring at the same time daily, it is because of particular stress factors related to that time of the day, such as an authoritarian father's time to come home. Similarly, item number 72 is also quite specific to conversion disorder, as most patients of pseudo-seizures report unconsciousness and usually report that they could hear and recognize voices of people around during the episode of attack. At times, patients can also talk during the pseudo-seizure. If their eyes remain open during the pseudo-seizure, patients with conversion disorder often retain the ability to see as well.

The fact that unconsciousness and pseudo-seizure were different items also needs discussion. All pseudo-seizures do not necessarily have unconsciousness as a symptom. Furthermore, at times the patients and their families differentiate between the two. For instance, an episode characterized by movements of the limbs or tensing of all the body muscles can be recognized as a pseudo-seizure. On the other hand, another episode characterized by loss of consciousness and none or few of the above mentioned symptoms can be called unconsciousness.

Step Three: Determining Reliability of the Symptom Checklist

The test retest reliability co-efficient for all three administrations were significant at $p < .01$. The correlation between day one and three was the highest: 0.84, which is quite understandable as most of the time conversion disorder does not remit within two days of admission. The correlation between day three and

day 14 was 0.73 which is again quite high, while the correlation between day one and day 14 was 0.58, which was also significant at $p < .01$. On the basis of the correlation matrix of the three administrations, the checklist has moderate to high test retest reliability.

Step four: Determining Validity of the Symptom Checklist

The discriminant validity was calculated by an independent samples t test. The value of the t test was 29.39, which was significant at $p < .001$. The comparison group was chosen from the Department of Dermatology, Services Hospital, Lahore. The reason for choosing dermatology patients was that the association between psychiatric and dermatological disorders has been found by various studies.

In a study on dermatology patients in Turkey, and reported that 15.3% had psychiatric problems. They concluded that psychiatric morbidity has an effect on the course of dermatological disorders²⁷. Therefore, psychiatric consultation should be sought by dermatology patients. However, the sample of dermatology patients in this study did not seem to have any psychiatric co-morbidity. The scores of these two populations came out to be radically different and the symptom checklist clearly differentiated between the two samples.

Conclusion

This study has taken an important step by developing an indigenous tool. However, more studies need to be done to develop cut offs and conducting confirmatory factor analysis in order to refine this checklist.

²⁷ Muammer, S., Tuba, A., Yelda, K., & Hamdi, O. (2006). Psychiatric morbidity in dermatology patients: frequency and results of consultations. *Indian Journal of Dermatology*, 18 – 22. Retrieved from [Acne vulgaris more than skin deep.html](#).