DEVELOPMENT AND PSYCHOMETRIC PROPERTIES OF PARENTAL EXPRESSED EMOTIONS SCALE

Shammem Akhtar, Zaqia Bano

University of Gujrat, Gujrat Pakistan

ABSTRACT

Objective: To construct a scale and psychometric properties for the assessment of Parental expressed emotions scale in Urdu language.

Study Design: Cross sectional study.

Place and Duration of Study: Department of Psychology, University of Gujrat, from Mar to Oct 2019.

Methodology: The initial item pool of 224 items was generated with the help of CFI (Camber well Family Interview description of parental expressed emotions scale, literature review and three focus groups with target population. Among the 124 expert evaluated items after pilot study 100 items were retained which included the five dimensions of parental expressed emotions scale including, Criticalcomments, Hostility, Emotional over involvement, Warmth and Positive remarks. Furthermore, in the final administration of this scales data were collected from 380 parents (both mothers & fathers) from the educational institutions and community of Gujrat using self-reported questionnaire. The exploratory factor analysis (EFA), confirmatory factor analysis (CFA) and reliability analysis were implied for data scrutiny.

Results: The final administration of 100 items was handed over to 380 participants. The model fit showed a *p*-value of 0.000 that established the structure validity and significance of the items to its subscales. At the final stage among the 100 items 31 were reliable for further use.

Conclusion: A scale to measure parental expressed emotions in Urdu language is competently established with 31 questions andfive sub-scales.

Keywords: Critical comments, Expressed emotions, Hostility, Emotional over involvement, Warmth, Positive remarks.

INTRODUCTION

In daily lives emotions play a very crucial role and human characteristics of expressing emotions are similar despite of differences in culture, language and ecology[1]. A number of different ways are used to express emotions, including verbal as well as non-verbal although facial expressions are one of the most important way that express emotions[2].

Expressed emotion is a term used in mental health to denote the intensity of expression of a range of emotions within the family context. Levels of expressed emotion may be high or low. This emotion may be considered 'negative or high' (for example hostility, critical comments & Emotional over involvement) and positive or low

expressed emotions (warmth and positive regards). In a family parents play very important role in the children growth as well as in personality development, in home environment parents can be assessed with high expressed emotions, and with low expressed emotions. To understand the origins of the concept "Expressed Emotion," one has to go back to the 1950s for the seminal works by George Brown who studied the relapse of schizophrenia. However, many of these patients were to be readmitted soon after discharge due to symptom relapse. To understand the basis for the symptom relapse they take interview from the family and find family expressed emotions are cause of symptoms relapse[3].

Parental Expressed emotions can be defined as hostility, emotional over-involvement, attitudes of high criticism, warmth, and positive regards of the care givers[4]. Mostly parents

Correspondence: Dr Shammem Akhtar, PhD Scholar, Psychology Department, University of Gujrat, Gujrat Pakistan

expressed their emotions through critical comments and can be assessed as an increased tone, volume, tempo that cause frustration. intentionally it become problems for others members in home and the caregivers fail to recognize that their attitude could be potential indicators of psychotic disorder in children. This shown in the fact that 70% of critical comments were found to be cause of negative symptoms of schizophrenia relatively than hallucinations and delusions[5].

Hostility is the second one element in parental expressed emotions, Caregivers state that client is a cause of problems, and they show act of shouting and anger. Critical comments rated as being present or absent during the assessment. Consequence of anger and annoyance followed via critical comments and denial of the client. Family attitude of general criticism and rejections attitude rated as hostility[6].

Third element of expressed emotions is the emotional over involvement. It reveals by excessive self-sacrifice over-identification, emotionally over involved and extreme over-protective conduct with the client. Caregivers take responsibility for everything, they think that all is their mistake, show pity, they don't want the client perform his own daily activities. They show self-ignoring behavior and give less importance to themselves[7].

Further, warmth measured on the basis of kindness, caregiver expressed empathy and concern regarding client. It depends greatly on verbal qualities with pleased and common complement, which mostly express an empathic attitude by the care givers. While Positive regard consist of statements that shows support and appreciation or for client's behavior and verbal as well as nonverbal support by the close relative. The statement by the care givers that they feel very near to the client, they appreciate client 's slight initiation or efforts in his daily activities, they state that they love being with him/her[8].

Previously parental expressed emotions scales have been used for relapse of psychiatric disorders. Some others measuring tools also used to assess expressed emotions as the five-minute speech sample is similar to the camber well family interview but warmth and hostility are not assessed in this interview[9].

In the same ways Family attitude scale self-report measure of expressed emotions which emphasizes only on the criticism and hostility[10].

The camber well family interview, only one model that gives all five elements of expressed emotions those are Criticism, Hostility, EOI, Warmth, and Positive Remarks[11].

These indications represented a dire need to develop culturally valid assessment tool to measure parental expressed emotions scale. To overcome these flaws, the present study on the development and psychometric properties of parental expressed emotions scale behavior scale will be a building block. In this situation the present study would be a great breakthrough in the ground of psychological measures as it would construct parental expressed emotions scale in native language. The existing study conducted with an objective to develop an assessment of parental expressed emotions in Urdu language.

METHODOLOGY

This is a cross sectional analytical studythat was conducted in the department of Psychology, University of Gujrat from Mar 2019 to Oct 2019. The data was collected from various educational institutions and community of Gujrat. The 380 parents (both mothers & fathers) using convenient sampling. At initial stage an item pool of 224 questions was generated by the investigator with the help, ofcamber well family interview description of parental expressed emotions scale, review of literature and 3 focus group (fig-1). During expert evaluation, 124 items were deleted. Hence, a pilot study was conducted with 100 items. After analysis 31 items were considered as reliable for final administration with five subscales of parental expressed emotions scale, (1) Critical comments, (2) Hostility, (3) Emotional over involvement, (4) Warmth, (5) Positive remarks.

Current study was approved and permitted by the Ethics Committee of the Department of Psychology, Universityof Gujrat. In pilot study 100 participants were included while final study was conducted on 380 participants. After the permission of institutional authorities' researcher used convenient sample to recruit study partici-

Figure-1: CFI Model (Camberwell Family Interview) Family Expressed Emotions (Leff, J. & Vaughn 1985)[11].

pants. Further, the purpose of study was explained to participants and data were collected after taking a written informed consent. The respondents were thoroughly instructed about how torespond to the statements. The respondent's identity confidentiality of data was insured. At the end they were thanked for their participation.

Data Analysis

Data Analysis to analyze data exploratory factor analysis, confirmatory factor analysis, and reliability analysis were implied by using Statistical Packagefor Social Sciences (SPSS-23) and Analysis of a Moment Structures (AMOS-23) for windows.

RESULTS

After conducting pilot study 100 items were further administrated on340 parents. From 150 questions 31 were retained after exploratory factor analysis while deleting the irrelevant question. Table-I indicated the KMO is 0.858 which is highly acceptable and Bartlett's Test of Sphericity values is also significant at 0.000. Table-II depicted number of items in each subscale as item number 7, 8,9,20 and 29 were reflected as reliable for the sub-scale of the warmth (Warmth). Fur-

ther, the item number 2,6,8,10,11,13 & 14 were reliable for emotional over involvement (EMOI). Item number 3,5,6,7,9 & 10 were reliable for Positive Remarks (POSR). Same way item number 4, 10,18,19,23,25 & 27 were reliable for Hostility (HS) Last of all, the item number 23, 24 and & 42 were reliable for Critical comments (CR). Confir-
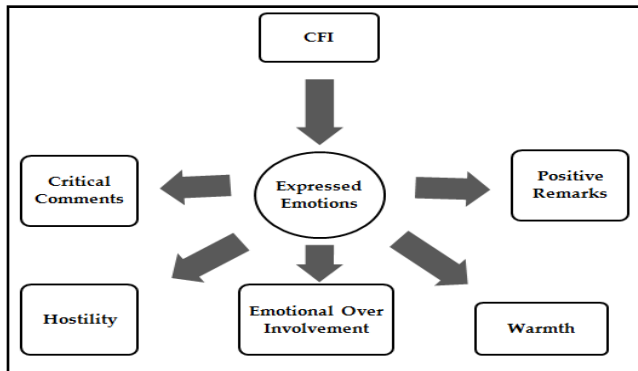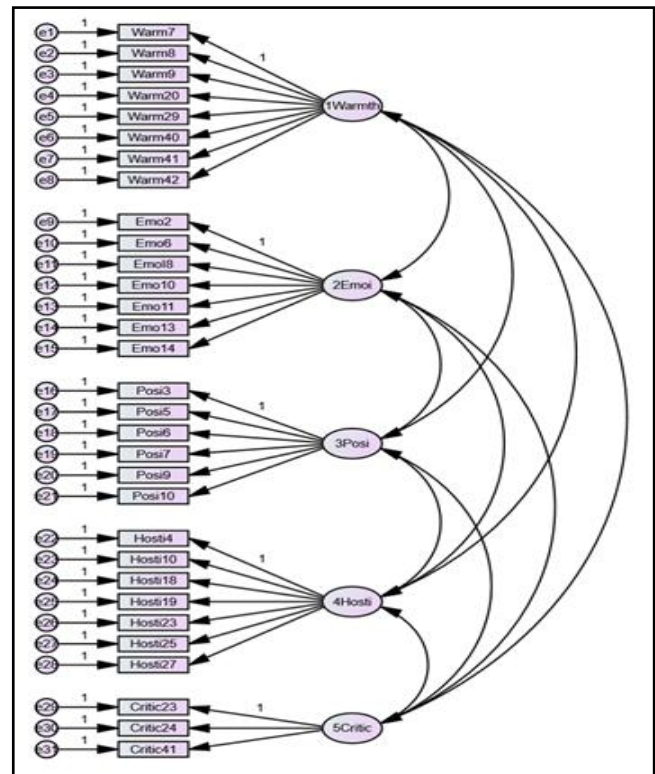

Figure-2: Scale and its subscales.

matory Factor Analysis (CFA) on 31 items appeared significant for five subscales. The value of Comparative Fit Index (CFI) was 0.914 that was in the acceptable range with the *p*-value of 0.000 <0.05. The results confirmed the model fit for parental expressed emotions scale.

Reliability of scale was found out by computed Cronbach alpha. Cronbach alpha value was 0.834. As acceptable reliability value is 0.70 and above. So that in the present study the reliability value is above than acceptable value (table-IV).

DISCUSSION

The primary objective of current study was to established parental expressed emotions scale in Urdu language and its psychometric proper-

ties. At initial stage an item pool of 224 questions was generated after expert's evaluation 100 item were deleted. Hereafter, a pilot study was conducted with 124 items in which 100 items were considered as reliable for final administration

Root Mean Square Error of Approximation (RMSEA) is an absolute fit measurement established on the non-centrality factor and is one of the greatest, if it is not the most, reported dimension for model fit[15].

Table-I: Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity for parental expressed emotions scale (n=380).

Measure	KMO	Bartlett's Test of Sphericity
Parental Expressed Emotions Scale	0.858	0.000

Table-II: Factor loading of parental expressed emotions scale (n=380).

Questions	Warmth	Questions	EOI	Questions	P0SR	Questions	Hostility	Questions	Critic
7	0.637	2	0.418	3	0.685	4	0.402	23	0.752
8	0.662	6	0.669	5	0.773	10	0.415	24	0.642
9	0.652	8	0.685	6	0.500	18	0.653	42	0.563
20	0.576	10	0.771	7	0.598	19	0.640		
29	0.600	11	0.739	9	0.690	23	0.678		
		13	0.585	10	0.701	25	0.733		
		14	0.618			27	0.555		

Table-III: Model Fit Summary of 31 Items (n=380).

p-value	Chi Square	Goodness of Fit Index	Comparative Fit Index	Root Mean Square Error of Approximation	Root Mean Square Residual
0.000	678.931	0.897	0.914	0.40	0.528

Table-IV: Reliabilities of the Subscales (n=380).

Sub Scales	Total Items	Cronbach Alpha r
Total	31	0.834

with five sub-scales. Furthermore, the exploratory factor analysis abridged the items to 31 that confirmed by confirmatory factor analysis considered reliable for further use. Current study reported 0.858 KMO value and .000 Bartlett's test of sphericity which indicated the sample size is adequate and data is suitable for further exploratory factor analysis. A study described that appropriateness of data depends on two key factors first is KMO value which determine whether your sample is adequate or not. Second, Bartlett's test of sphericity should be significant which tell us nature of correlation among variables[12,13].

Moreover, another study explored the KMO value between 0.7 to 0.8 considered good, while value between 0.8 to 0.9 and greater are excellent. In current study the reliability value of final 31 items were 0.858 that was greater than acceptable value. Pervious study is in lined to support the reliability of findings of current study that argued the reliability value of .70 or greater is considered as statistically suitable[14].

Furthermore, confirmatory factor analysis was implied in current study to confirm the factors of study results reported goodness of model fit as values GFI=0 .897, CFI=0.914, RMSEA=0.040 and RMSR=0.0528, respectively. These results are supported by previous findings stating that acceptable or good RMSEA values should be >0.05 Further GFI and CFI values near to 0.9 demonstrate a comparatively good fit[16,17].

Besides, the established measures were reflected as best fitted and reliable if the value of CFI was >0.90. As mentioned earlier, reliability value of 0.70 or greater is considered as statistically significant. The CFI values of parental expressed emotions scale for were 0.914 with the reliability of 0.834. According to the statistically adequate range the values of newly developed parental expressed emotions scale in highly acceptable ranges.

CONCLUSION

A scale to gauge parental expressed emotions scale in Urdu language is competently

established with 31 questions and five sub-scales. It will be very useful for measuring parental expressed emotions.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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