

THE DEVELOPMENT OF AN INTERPERSONAL DEPENDENCY SCALE: A PSYCHOMETRIC APPROACH

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ABSTRACT

OBIECTIVE

To develop a reliable and valid scale to measure interpersonal dependency in university students

STUDY DESIGN

Mixed Method Design (Qualitative and quantitative)

PLACE AND DURATION OF STUDY

The study was carried out in a public sector university in Faisalabad city. The data were collected from February, 2017 to May, 2017.

SUBJECTS AND METHODS

A standardized three stage model was used to develop a reliable and valid scale for measuring interpersonal dependency in university students. First phase comprised item generation through a phenomeno-logical approach followed by try-out phase and finally a sample of 592 university students (288 men & 304 women) was selected by using stratified random sampling technique. Dependent Personality Disorder Questionnaire and Self Esteem Scale were administered to establish concurrent and convergent validity respectively.

RESULTS

65 items out of 79 were retained after Exploratory Factor Analysis in the said scale constituting five factors. Further analyses showed significant interfactor as well as factor-total correlations and strong psychometric properties (reliability and validity) of the scale. A descriptive analysis of demographic information revealed that the women appeared to be more dependent on others as compared with men.

CONCLUSION

A culturally reliable and valid scale to measure interpersonal dependency can further be used for clinical and research purposes.

KEY WORDS

Dependent personality, psychometric properties, culture, gender

INTRODUCTION

Personality has been one of the oldest and most controversial concepts in psychology and many different approaches and classification systems were used to define, describe, and classify people in various domains of personality. The histrionic, narcissistic, antisocial, and dependent are four interpersonally imbalanced personality styles¹. Dependent personality is explained in terms of negative cognitive appraisal, desire and perusal of social approval, and fear of evaluation². Dependent individuals view themselves as weak and helpless and view others as strong and powerful³ consequently, forgo their own autonomous self direction, seek external guidance and reassurance. The repeated solicitation of reassurance may reinforce the belief that one is inept and helpless, which in turn may perpetuate continued interpersonal dependency and reassurance-seeking behaviors⁴.

Human beings have an innate need to establish and maintain dependency bonds, largely through the activation of the attachment system⁵ making them dependent on others for guidance, facilitation and support³. It has been found to be more prevalent in females⁶. Most of the manifestations of interpersonal dependency are said to be adaptive, such as looking for proximity, care, and support when in distress. In spite of the adaptive value of relying on others, interpersonal dependency can also be maladaptive⁷. Hence, there has been found a difference between unhealthy and healthy dependency: the former characterized by intense, under-modulated strivings, exhibited without the necessary reflexive effort across a broad range of situations and the latter by strivings – even intense – exhibited selectively (i.e. in some contexts but not others) and flexibly (i.e. in situation-appropriate ways)³. An all round interpersonal dependency may be diagnosed as dependent personality disorder (DPD)⁸ representing the severe and abnormal expressions of interpersonal dependency⁹.

Interpersonal dependency and DPD are associated with considerable bio-psychosocial issues including; physical ailment, poor health care utilization, functional impairment, fighting with others, oppression by others, and self-harm¹⁰. Moreover, interpersonal dependency has been found to be associated with several psychological disorders¹¹ including affective and anxiety disorders¹², substance abuse disorders¹³, eating disorders¹³, depression¹⁴, negative emotions in reaction to interpersonal stressors15, and most importantly with psychopathology in non-clinical population¹⁶ in West.

The bio-psycho-social model explains human being as having a complex interaction of biological predispositions, psychological factors, and social relations¹⁷. Hence, along with other theoretical perspectives like psychoanalytic perspective¹⁸, interpersonal perspective¹⁹, ethological/attachment theory²⁰, social learning theory²¹, evolutionary theory²², the age, stage, psychosocial and cultural context of the individuals also have a great deal of importance while understanding and studying interpersonal dependency.

Since, culture shapes and determines our way of relating with other people 23 . It is therefore emphasized to value possible cultural differences while studying

personality²⁴. Although, interpersonal dependency is considered to be a universal personality trait yet it is the degree by which the trait is encouraged, discouraged, ignored, or punished that may lead dependency to become pathological in expression²⁵. In individualistic cultures, self growth, autonomy and independence are more valued and parents are supposed to promote self-reliance and put less restriction on their children²⁶. Moreover, parents tend to provide choices, indulge into negotiations, encourage assertiveness and enable their children to feel in control of their own lives²⁷. Nevertheless, in traditional collectivistic cultures like Pakistan, dependency is cultivated in the name of obedience, family harmony and conformity²⁸.

Consequently, parents tend to be more controlling and expect more obedience from their children²⁹. Similarly, the length of childhood period is somewhat prolonged in traditional collectivistic cultures (e.g. Pakistan), and compliance, conformity, obedience, dependence on elders especially on parents are appreciated and valued³⁰.

Numerous studies are available in existing western literature that explored the phenomenon of interpersonal dependency. However, there is a dearth of local literature in Pakistani collectivistic culture which is entirely different from the Western individualistic culture. Moreover, most of the existing literature has found to be dealing with dependency in terms of pathology (i.e., dependent personality disorder) and very few studies have highlighted its manifestation in the non-clinical populations. Hence, keeping in view, the aforementioned dynamics of dependency and its relationship with numerous mental health problems, it was decided to explore the phenomenon of interpersonal dependency in collectivistic culture of Pakistan and finally to develop a reliable and valid scale to measure it in non-clinical population (university students). Taking non-clinical population into account the mental health of university students is recognized worldwide as an imperative community health concern. University students face numerous psychological, social, and emotional issues³¹ and these are increasing in number as well as in severity day by day³².

SUBJECTS AND METHODS

Phase I: Items Generation

To explore the different patterns of "interpersonal dependency" as perceived by university students, phenomenological exploration approach was used. 40 university students of BS program (10 from each year) were selected through purposive sampling and were given an operational definition of "Interpersonal Dependency" and were asked to describe other attributes of interpersonally dependent individuals. Individual interviews were conducted and open-ended questions were asked to explore the phenomenon more clearly. All items were pooled making an initial list of 95 items. After excluding repeated and ambiguous statements, a list of 83 items was retained. These statements were given to 10 experienced clinicians for expert validation after which a list of 79 items was retained. This list was converted into 4 point likert scale and was given the name "Interpersonal Dependency Scale (IPDS)".

Phase II: Try out

At this step, 40 students of BS program 1st year (20 men and 20 women) were selected through convenient sampling technique and were given IPDS to determine its user friendliness and

comprehension. No difficulties were reported by the students in understanding of the items of scale.

Phase III: Main Study

The main study was aimed to finalize the scale through factor analysis as well as to determine its psychometric properties.

Participants

The multistage sampling technique was used in the current study. At the first stage, one public sector university from Faisalabad city was selected randomly. At the second stage, a sample of 592 (49% men, 51% women) students was drawn by using stratified random sampling technique (i.e., BS 1st year, BS 2nd year, BS 3rd year, & BS 4th year). In each stratum, by using simple random technique, there were equal chances for boys and girls to be selected as sample of the main study. The students of institutions other than the selected university as well as the students enrolled in programs other than BS (4 year degree) in the selected university were excluded from this research. The age range of the participants was 17-26 years with the mean age of 20.46 (SD = 1.49).

Measures

Interpersonal Dependency Scale (IPDS)

The newly developed IPDS was used to measure interpersonal dependency in university students. IPDS comprised 79 attributes of dependent individuals as expressed by university students. The scoring options were (0) not at all, (1) sometimes, (2), often, (3) always. High score on the scale represented more dependency on others.

Dependent Personality Disorder Questionnaire (DPQ)

The DPQ33 was used to determine concurrent validity of the newly developed scale. It is a standardized scale to measure dependent personality in university students. In a sample of 82 undergraduate students, the authors found coefficient of internal consistency $\alpha=.90$, convergent validity ranging from r = .65 to .77, and concurrent validity up to r = .68. It consists of 59 (true / false) items measuring eight factors of dependency including; Decision-Making, Responsibility, Agreeableness, Self initiation, Nurturance, Helplessness, Relationships, and Abandonment/Self-Care.

Self Esteem Scale (SES)

An indigenously standardized scale for university students, the SES34 was used to determine the convergent validity of IPDS. It consists of 59 items and responses are taken on four point likert scale ranging from (0) "Not at all" to (3) "Very much". It has yielded five factors: Low Self-Esteem, Competence, Anxious/Withdrawn, Sociability, and Self-Confidence. The convergent validity was established with 1st factor of SES i.e., Low Self Esteem.

Procedure

After obtaining official permission, the participants were selected as per strategy explained earlier. The test protocol was given to the selected 592 participants ensuring the ethical considerations to the participants e.g., informed consent, confidentiality, anonymity, privacy, and right to withdraw. About 10% (n = 60) of the participants were re-tested with two week's interval to determine test-retest

reliability of IPDS. Concurrent and convergent validity was established on the 20% (n = 120) of participants. However, split half reliability was determined using the total sample (N=592) through Odd-Even method. For this purpose, the items in each factor were divided into two sets: Set A (odd items) and Set B (even items). Then all the A's were merged to make "Odd Items List" (33 items) and B's to make "Even Items List" (32 items) to find out correlation between both the lists. The data were analyzed through Statistical Package for Social Sciences (SPSS).

RESULTS

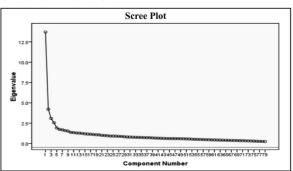
Item Analysis

Item analysis was carried out on 79 items. On the basis of initial factor solution appeared in scree plot, Factor Analyses were carried out using six, five, and four factor solutions. Rotated Component Matrix depicted that five-factor solution was the most clear and simplest structure with minimum number of dubious items. Moreover, this solution was also analyzed in terms of content and theme to adjust/discard dubious items. Finally, 65 items with .30 or above factor loadings were retained as shown in the Table 1. The Kaiser-Meyer-Olkin (KMO) value was found to be .90 and Barttlet test was 1.48 (p < .001).

Table 1Factor Structure, Eigen Values, and Item Correlation of 65 Items of Interpersonal Dependency Scale (IPDS) with Varimax Rotation (N = 592)

Item	FI	FII	FIII	FIV	FV	Item	FI	FII	FIII	FIV	FV
No						No					
68	.71	.26	.09	.06	03	54	02	.24	.49	07	.07
72	.69	.17	.22	.17	02	56	.14	.26	.47	.19	.05
71	.67	.14	.13	.13	.03	63	.31	.17	.45	.08	.04
73	.66	.13	.17	.11	.02	9	.27	.18	.44	.02	.05
67	.64	.07	.12	.16	07	39	.04	13	.41	.097	10
69	.59	.25	.14	.17	02	61	.19	.25	.41	06	.05
70	.51	.19	.28	.10	.06	32	.05	.24	.40	.07	14
10	.49	.21	.14	.13	07	50	.10	.10	.36	.26	.09
38	.43	.18	.33	.37	03	41	.30	.26	.32	.17	.095
19	.35	.19	.16	.29	.01	74	.03	02	.05	.63	08
13	.34	.22	.23	.03	.16	75	01	.02	04	.61	.06
8	.31	.24	.04	.08	.14	47	05	.13	.04	.48	07
64	.13	.62	.09	.19	.02	66	.22	.10	08	.44	11
17	.14	.62	.15	.03	.01	48	.37	.21	.21	.40	.04
24	.06	.59	05	.12	.09	51	.26	.16	.10	.40	.12
37	.16	.59	.22	.16	01	49	.26	.07	.14	.39	.06
31	.22	.56	.13	.12	05	79	.33	.09	05	.38	.19
25	.06	.54	.22	.12	.02	22	.21	.11	.07	.35	.21
16	.22	.53	.25	.07	05	58	.22	.13	.03	.31	.29
65	.32	.52	.17	.22	07	30	09	.12	.08	.31	.35
45	.14	.51	.09	.14	07	36	.15	.02	12	.31	.127
21	.22	.51	.36	.04	.08	53	.16	09	11	.024	.67
27	.02	.47	.35	.14	10	43	.08	13	.03	.02	.66
5	.01	.46	.21	.01	08	28	.20	06	.01	14	.61
33	.27	.43	.01	.05	18	62	.02	07	07	.14	.55
57	.26	.39	.22	.10	.04	4	08	14	07	09	.51
46	.06	.36	02	.38	.02	76	.04	06	03	.27	.47
20	.03	.09	.69	.02	03	42	.23	.21	.18	.07	.42
40	.11	.19	.67	.05	06	3	21	.01	19	01	.41
55	.21	.13	.67	07	08	18	24	.06	11	.12	.39
12	.11	.09	.62	02	01	15	32	.12	05	.22	.33
26	.04	.07	.59	.01	08	23	06	.02	.17	16	.32
11	.21	.21	.55	14	.04	Eigen Values	6.31	5.83	5.68	3.91	3.74

Note. Items with .30 or above loading are boldfaced in the corresponding factor.



Factors Description

Factor 1: Negative Self Image

It consists of 12 items and denotes to feeling of inferiority, failure, hopelessness, worthlessness, low self-esteem and self blaming. The sample items include; "criticizing own abilities", "feeling inferior to others", "being anxious and emotional", and so on.

Factor 2: Help Seeking

This factor comprises 15 items and denotes the tendency to seek help from others and to avoid responsibility. The sample items include; "feeling difficulty in problem solving at one's own", "avoiding difficult tasks and responsibilities", "lacking self initiative", and so on.

Factor 3: Social Anxiety

It consists of 15 items and refers to be passive, timid, and shy in the social relations. The sample items include; "can't share personal opinion with others", "being shy", "can't initiate conversation with strangers", "avoiding co-curricular activities", "avoiding to be group leader", and so on.

Factor 4: Support Seeking

This factor consists of 12 items and depicts the tendency of constant support seeking, maintaining social relations and friendships. The sample items include; "needing support of friends and family members", "worrying to be left alone", "needing others' praise", "expecting a lot from others", and so on.

Factor 5: Appeasing Others

It has 11 items and reflects to the tendency of pleasing and appeasing others. The sample items include; "avoiding confrontations in every situation", "doing everything to please others", "avoiding debates", "being agree with others even having different opinion", and so on.

Table 2 Inter-correlations, Means, Standard Deviations, and Cronbach's Alpha of IPDS and its Factors (N = 592)

	Factors	1	2	3	4	5	6
1.	NSI	-	.62***	.54***	.52***	.01	.82***
2.	HS	-	-	.58***	.45***	04	.81***
3.	SA	-	14	-	.27**	04	.75***
4.	SS	-	~	-		.24**	.70***
5.	AO	-	-	-	-	-	.27**
6.	IPDS-T	-	-	-		-	-
M		10.93	14.12	17.93	12.75	19.96	75.69
SD		6.76	7.08	8.06	5.74	5.24	22.76
α		.86	.87	.84	.72	.71	.91

Note. NSI = Negative Self Image; HS = Help Seeking; SA = Social Anxiety; SS = Support Seeking; AO = Appeasing Others; IPDS-T = Total of Interpersonal Dependency Scale. **p<0.01, ***p<0.001

Table 3Means, Standard Deviations, and t-values of Men and Women on Five Factors and Total of IPDS (N = 592)

Factors	Men (n = 288)	Women (n = 304)	t (590)	95% CI		Cohen's
	M(SD)	M(SD)	10.00	LL	LL UL	
NSI	8.78(5.52)	12.98(7.18)	7.94***	-5.24	-3.16	.66
HS	12.09(6.56)	16.05(7.03)	7.06***	-5.06	-2.86	.58
SA	14.89(6.86)	20.81(8.08)	9.58***	-7.13	-4.70	.79
SS	11.49(5.53)	13.98(5.69)	5.30***	-3.35	-1.54	.44
AO	19.94(5.37)	19.97(5.12)	.07	87	.81	.01
IPDS-T	67.19(20.11)	83.74(22.21)	9.48***	-19.97	-13.12	.78

Note. NSI = Negative Self Image; HS = Help Seeking; SA = Social Anxiety; SS = Support Seeking; AO = Appeasing Others; IPDS-T = Total of Interpersonal Dependency Scale.

***p<0.001.

Psychometric Properties of IPDS

The scale showed high internal consistency (Cronbach's Alpha = .91), test-retest reliability (r = .86, p < .001), split half reliability (r = .87, p < .001), concurrent validity (r = .77, p < .001), and convergent validity (r = .75, p < .001).

DISCUSSION

The purpose of the current study was to provide an empirical evidence of experience and expression of interpersonal dependency in Pakistani cultural context. The factor analysis of the scale resulted into five factors namely "Negative Self Image", "Help Seeking", "Social Anxiety", "Support Seeking", and "Appeasing Others". These findings are consistent with the literature³. The interpersonal dependency manifests pervasively in terms of low self-esteem and self-image, excessive need of social support and approval from others and difficulties in facing social world⁴ and try to appease others for continuation of such support.

The first factor denotes to a sense of persistent and pervasive inferiority and lack of confidence on one's own abilities lead an individual to seek support from others. Also, individual who tends to have negative self-image would feel resistant to make life decisions and always look for others help in the course of their lives. It is also important to note that sometime in order to cope with poor self-image and low self-esteem, people tend to conform to others' views more readily. People with dependent personalities can have a deep seated fear of rejection; therefore they tend to show compliance and conformity to others³. In this scenario, social anxiety and withdrawal become part and parcel of behaviors of these individuals.

The factor structure of the study also confirms the theoretical model² that explain dependent personality in terms of four interrelated components, firstly, dependent personality comprise of cognitive appraisal of oneself as worthless with low self-concept, secondly, a constant effort and desire to obtain social approval so that interpersonal relationships can be maintained, thirdly, a constant perusal of social approval to avoid social and emotional rejection and

abandonment and lastly, fear of evaluation by others that make them anxious and consequently withdrawal from the social world. The given structure also confirms the application of bio psycho social model in understanding the human behaviors.

Moreover, it was found that women experience more dependency on others, depict negative self image, social anxiety, tend to seek support and help from others, as compared to men. This finding is also in-line with previous literature⁶ and being in collectivistic culture, it might be cultivated through our traditional parenting patterns where compliance, conformity, obedience, dependency on elders especially on parents is appreciated and valued³⁰. Hence, women are supposed to show more compliance as a desirable attitude as compared to the men²³.

CONCLUSION

The current study is an effort to understand the manifestation and dynamics of interpersonal dependency in non-clinical population (university students) and to introduce an indigenous scale for its measurement.

IMPLICATIONS AND SUGGESTIONS

The findings of the current study have implications both in clinical services and further research. The developed scale can be used for the assessment of interpersonal dependency so that timely measures can be adopted to make the students as independent as possible through effective psychological interventions. Based on the current findings, further studies can be planned to unearth other dynamics of interpersonal dependency and its relationship with parenting, socialization, and other related psychological phenomena.

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