

Development and Preliminary Validation of Peer Pressure Assessment Scale (PPAS) for Pakistani Adolescents

Wjiha Mahmood,
University of Sargodha

Sultan Shujja
University of Management and Technology, Lahore

Mohsin Atta
University of Sargodha

The present research was conducted to develop an indigenous scale to measure peer pressure for adolescents (14-18 years). Behaviors exhibited due to peer pressure were identified using theoretical and empirical methods. During behaviors generation phase, 161 behaviors were generated with the help of existing literature, experts, university students, adolescents. A team of researchers selected behaviors representing peer pressure after careful scrutiny. Repeated, overlapping, age-wise inappropriate behaviors were discarded and 58 behaviors were transformed into items by researchers. The response format selected for Peer Pressure Assessment Scale (PPAS) was: Never (1), Sometimes (2), Seldom (3) and Always (4). For empirical evaluation, sample comprising 207 adolescents (118 girls and 89 boys) was conveniently drawn from government and private schools and colleges of Sargodha. Principal component factor analysis with varimax rotation provided two factors solution and 29 items were finally retained using .4 factor loading criterion for Peer Pressure Assessment Scale (PPAS) with two subscales; Destructive influence of peer pressure (22 items) and Constructive influence of peer pressure (7 items) respectively. Item analysis and alpha reliability revealed high internal consistency for PPAS ($\alpha=.84$) and its subscales. Initial Scoring procedure was devised by analyzing percentile scores and discriminated among high, moderate and low peer pressure. There was no gender difference in experiencing peer pressure that is why no separate cutoff scores were determined. Findings are discussed in the light of indigenous cultural knowledge.

Keywords: indigenous cultural knowledge, peer pressure, adolescents, empirical method

As children step into the age of adolescence, they begin to spend much of their time with peers rather than being influenced by parents, family, friends, society and institutional organization etc. They remain confused whether to comply with the demands of peers or parents in order to balance their social and school lives, vocational orientation) due to lack of experience. In order to seek help and direction, it becomes necessary to get acceptance of group members by adhering to the group's norms (Larkin, 1979). Peer acceptance directly or indirectly facilitate transition from childhood into adolescence (Sussman, Pockrel, Ashmore, & Brown, 1990). Peer pressure is often operationalized simply as the extent to which behavior among friends is correlated (Robin & Johnson, 1996) rather than the degree to which individuals feel pressure to act or think in certain ways (Brown, Clasen, & Eicher, 1986). Peer pressure was defined explicitly as when people of your own age encourage you to do something or to keep from doing something else, no matter if you personally want to or not (Brown, Clasen, & Eicher, 1986). Peer pressure is that individuals are motivated to act and think in certain ways because they have been urged, encouraged, or pressured by a peer to do so (Santor, Messervey & Kushmakar, 2000). Consistently, peer pressure was conceptualized as a subjective or actual experience of feeling of peer pressure to do certain things. Researchers unanimously agree on central theme of this construct that individuals experience strong urge or pressure from peers to do certain things. (Santor & Messervey, 2000). Peers groups influence the adolescent most frequently. Peer pressure has

been referred by various names such as peer group association, peer group self-identification, or peer --crowd affiliation. (Sussman et al., 1990 ; Sussman et al., 1994 ;Prinstein & La Greca, 2002). Peer groups influence adolescent's socialization and identity by allowing young persons to explore individual interests and uncertainties while retaining a sense of belonging and continuity within a group of friends (Santor & Messervey, 2000). Individuals become member of different types of group and usually pay heavily for their group membership (Clasen & Brown, 1985) which research has linked to a variety of potential problems such as substance use, potential risk behavior and delinquency (Bauman, & Ennett, 1996; Robin & Johnson, 1996; Hawkins, 1982; Keena, Loeber, Zhang, & Stouthamer, 1995). All measures of peer pressure, peer conformity and popularity were inter-correlated but peer pressure is the most emphasized construct. Brown and his colleagues (1986) differentiated peer pressure from peer conformity. According to them, peer pressure is related to attitude and perception, while peer conformity is related to behaviors. Peer pressure is conceptually different from the desire to be popular with others. Both constructs are related but in peer pressure is related to feeling urge or pressure to do something, whereas peer conformity is related to desire of becoming popular or being accepted by the peers. Peer pressure means being influenced by other group members in order to gain popularity, acceptance, and recognition within desired group (Santor, Messervey & Kushmakar, 2000). Peer pressure is commonly perceived as a negative force that drives the individual to act and behave in the ways other want. Although consequences of negative peer pressure have been investigated vigorously e.g., substance abuse, risk behaviors but there are research evidences about the positive impact of peer pressure i.e., academic competition, getting involved in sports, and increased sociability (Boussouni, Youssef, Anas, & Soumaya, 2005). Mostly, serious

health and social issues of late childhood and adolescence include smoking, drug, alcohol consumption and sexual activity. Survey was conducted to investigate the relationship of peer pressure with aforementioned issues and concluded that children and adolescents are much more likely to participate in high risk activities if their friends participate in it. It was found that the best predictor of young adults' smoking was whether they had smoking friends when they were adolescent (Brook, Whiteman, Czeisler, Shaprio, & Cohen, 1997). Similarly, findings show that everyone blames the peer pressure which forces the child to take risk on a "dare". Adolescents often report experiencing extreme or no daring peer pressure even in studies (Cox, Cox, & Moschis, 1990). According to some theorists the correlation between own and friends' behavior does not indicate any type of social influence but simply reflects the tendency of "a bird of a feather" to "flock together" (Glueck & Glueck, 1950). In order to prevent the onset of high risk behavior among adolescent, it is crucial to understand the extent to which interpersonal influence of one's peer group is likely to be important (Andreasen, 1995). Researcher has investigated cultural variations in terms of peer pressure. In individualistic culture, people's social behavior is determined by personal goals that overlap with the goals of collectivists such as family, work group, tribe, political allies & countrymen. When conflict arises between personal and collective goal, personal goal is preferred over the collective one. On the contrary, collectivistic culture's social behavior is determined largely by goals shared with some collective group and in conflicts, collective goals are placed ahead of personal goals. Conforming social or group norms due to peer pressure is closely related to individualistic and collectivistic culture. In collectivistic culture, individual endorse conformity and emphasize the maintenance of status quo and avoidance of acts that might disturb the traditions while in individualistic culture, personal happiness and pleasure is preferred over anything else (Shwartz, 1994). Allen (1965) argued that greater similarity between individual and the majority leads towards the thinking the majority right and, in turn, larger conformity. Turner (1991) also demonstrated that larger in-group inherits larger conformity level. The level of conformity would be higher when participant believes that his response will be same as majority. Research reflected that peer pressure affect the students who belong to different regions of the country and even different countries and cultures (Boussouni, Youssef, Anas, & Soumaya, 2005). Gender researchers provide evidence that women feel greater peer pressure to conform as compared to men (Cooper, 1979; Eagly, 1978; Carli, 1981). Researchers investigated multidimensionality of peer pressure by measuring the perception of peer pressure in five areas: involvement with peers, school involvement, family involvement, conformity to peer norms and misconduct was quite evident. Perceived peer pressure towards involvement with peer was strong whereas misconduct increased across grades and pressure to conform to peer norms diminished. Peers influence contributes significantly in adolescent socialization and identity development (Clasen & Brown, 1985). Researchers demonstrated that more negatively labeled group generally show low involvement in school activities and positive attitude toward alcohol and drug use, highest level of delinquency and depression, low self esteem and least access to occupational opportunities (Downs & Rose, 1991). Brown university (2005) conducted a study to investigate the role of peer influence on one's willingness to engage in drug use and sexual behavior among college students. Researchers concluded that students who do not indulge into alcohol drinking, marijuana and

smoking in high school are not influenced by roommate's behavior in college and peer pressure. Jaccard, Blanton and Dodge (2004) made another analysis to investigate pressure exerted by close friends on the behavior of others. Findings revealed that teenagers who start drinking and having sex because of peer influence at a young age are more vulnerable towards failure in their academic life. Neuwirth and Frederick (2004) conducted a study indicating the role of peer and social influence on communicative acts related to drinking behavior. It explained the number one reason why mostly young people start drinking and trying illegal substances is actually the need of youth to fit in the group and not to be rejected. Similarly researchers studied the impact of peer pressure at early between ten and twenty years old. Peer pressure affects the relationship between a teenager and his or her family and also the interactions of people within the community (Lingren & Herbert, 1995). Researchers indicated that youth are engaging in multiple high risk behaviors rather than single risk behavior (Brown university 2005; Jaccard, Blanton & Dodge, 2005; Neuwirth & Frederick, 2004; Stevens & Griffin, 2001).

One of the well-validated measures of peer pressure was developed and validated by Brown, Clasen, and Eicher, 1986; Clasen, and Brown, 1985. The Peer Pressure Inventory (PPI) (Brendt, 1979) was designed to assess the perception of peer pressure in a number of domains, including peer social activities, misconduct, conformity to peer norms, involvement in school, and involvement with family. Although PPI remain very useful in assessing peer pressure in different domains, but it was too lengthy to administer. For this reason, researchers were reluctant to use this measure. During pilot testing of PPI, it was found that some participants had difficulty in comprehending hypothetical situations presented in PPI (Brown et al., 1986). In short, cultural variations of peer pressure in different countries play an important role in explaining the peer pressure e.g., peer pressure is found in excess in Norwegian as compared to Germany (Milgram, 1961). The social, ethical and cultural values of people differ to great extent in different regions of world. Similarly, the values of Pakistani people are distinct from the values of westerns, so the peer pressure measures have been developed and standardized on sample carry different cultural setup, educational system, moral values and societal norms. Another important aspect is the language of these measures which is not suitable for adolescents in Pakistan. Furthermore, influence of peer pressure can trigger psychosocial problem that hinder development of interpersonal relationships. The relationship of children with their parents, relatives & society is correlated to peer pressure. Their future including their occupation and marital life is influenced by peer pressure. Research indicated that those individuals who are indulged less in activities other than studies show a positive attitude toward negative peer pressure involving drug abuse or substance use (Downs & Rose, 1991). In addition, in country like Pakistan where collectivistic culture prevails and characterized as preference of collective goals over personal ones and tightened social bonds that offer safety from loneliness and stress related diseases (Mayers, 1996; Shwartz, 1994). Because of deep emotional attachment, adolescents are more likely to be influenced by peer, family and significant others. This strong social bond demands from the individuals of our society to create a deep association with our peers which is mostly not expected in western culture, so the peer pressure is more important concern of Asians' youth. For these reasons, we realized the need to develop indigenously valid and reliable self report measure of peer pressure for adolescent.

Method

Development of peer pressure scale for children:

Step1: Generation of Behaviors. In order to generate the behaviors constituting peer pressure on adolescents of 14-18 years, both, theoretical approach and empirical approach was used. The existing research and theories of peer pressure proved to be helpful in inferring behaviors reflecting positive and negative influence of peer pressure. This practice culminated 11 items that could not emerge during empirical behavior generation activity (Messervey & Santor, 1994; Mooney, Eisenberg, & Eisenberg, 1992; Boussouni, Youssef, Anas, & Soumaya, 2005).

In second phase of behavior generation, a preliminary questionnaire was developed that was given to 7 subject experts of Department of Psychology, University of Sargodha, 08 M. Phil students and 33 students of MSc III who were asked to mention 5 behaviors indicating peer pressure on adolescents (14-18 years). In result of using both approaches (theoretical and empirical), 161 behaviors were generated including 11 theoretically generated and 150 empirical generated behaviors. These behaviors were carefully scrutinized by researchers and repeated, culturally biased, age-wise inappropriate behaviors were discarded. After the scrutiny, 58 behaviors were retained.

Item formulation:

The retained 58 behaviors were transformed into items (in Urdu) and likert type four point response format was decided that was Never (1), Sometimes (2), Seldom (3) and Always (4). The scoring range was 1-4 on each item in which 1 was assigned to Never and 4 to Always. Items were written in the form of proper scale format and subjected to empirical evaluation.

Empirical Evaluation

The items pool constituted 58 items and obtained data were subjected to statistical analyses in order to drive appropriate factor structure and internal consistency and initial cutoff score was determine using percentile method. Following analyses were used to determine psychometric properties of Peer Pressure Assessment Scale (PPAS).

Sample

A sample of 207 adolescents including 89 boys and 118 girls of 14-18 years ($M=15.51$, $SD=1.393$) was drawn from two government schools, two government colleges, two private schools, and two private colleges of Sargodha using convenient sampling technique. The 58 item scale was administered in different classes after taking informed consent from designated sample.

Determining Psychometric Properties of Peer Pressure Assessment Scale

Construct Validity

Principle component factor analysis with varimax rotation was conducted to find out the factor structure of Peer Pressure Assessment scale (PPAS) and this procedure provided two factor structure solution named:

Factor I: Destructive Influence of Peer Pressure (DIPP)

Factor II: Constructive Influence of Peer (CIPP)

Table 1 demonstrates that both factors contained items with factor loadings greater than set factor loading criterion (.40). The items with factor loading below .40 were discarded and both factor had the eigen values greater than 1 that were Destructive Influence of Peer Pressure (DIPP) (eigen value=9.1) and Constructive Influence of Peer Pressure (CIPP) (eigen value= 4.9). Both factors explained variance of 15.7% and 8.4% respectively with accounted for total variance of 24.2% .

Table 1
Exploratory Factor Analysis showing Two Factor Structure of Peer Pressure Assessment Scale (PPAS) (N=207)

Item No.	Factor I	Factor II
	Destructive Influence of Peer Pressure (DIPP) Items =22	Constructive Influence of Peer Pressure (CIPP) Items=07
01	.43	-
06	.57	-
10	.50	-
11	.47	-
13	.55	-
14	.62	-
16	.59	-
17	.69	-
19	.63	-
22	.42	-
23	.49	-
25	.48	-
27	.56	-
28	.56	-
29	.41	-
30	.42	-
37	.63	-
42	.60	-
46	.51	-
51	.59	-
55	.59	-
56	.48	-
21	-	.42
33	-	.68
34	-	.56
40	-	.44
41	-	.61
43	-	.52
58	-	.55
Eigen Values	9.1	4.9
% Variance	15.7	8.4
Cum. %	15.7	24.2

Item analysis

After factor analysis, 29 items were retained out of 58 items including Destructive influence of peer pressure (22 items) and Constructive influence of peer pressure (07). Item analysis was

carried out on 29 items by computing item-total correlation on Peer Pressure Assessment Scale (PPAS) in order to check internal consistency of items (see Table 2).

Table 3 revealed that two subscales, Constructive Influence of Peer Pressure ($r = .40$) and Destructive Influence of Peer Pressure ($r = .92$), were significantly correlated with total scale while correlation between two subscales remained non-significant.

Table 2
Item Analysis of Finalized Items of Peer Pressure Assessment Scale (N=207)

Items	r	items	r
01	.42	29	.32
06	.43	30	.28
10	.43	37	.58
11	.41	42	.51
13	.51	46	.44
14	.54	51	.40
16	.51	55	.53
17	.56	56	.34
19	.51	21	.24
22	.33	33	.50
23	.41	34	.48
25	.39	40	.39
27	.45	41	.46
28	.43	43	.30
		58	.29

Table 3
Inter-correlations among sub-scales and total peer pressure assessment scales (N=207)

Scales	2	3
1. Destructive Influence of Peer Pressure (DIPP) items=22	.029	.92*
2. Constructive Influence of Peer Pressure (CIPP) Items=07		.40*
3. Total Peer Pressure Assessment Scale		

* $p < .001$.

Internal Consistency

Internal consistency was computed by using Cronbach Alpha reliability that is very valid and reliable method. The alpha reliability of two subscales including Destructive Influence of Peer Pressure (DIPP) ($\alpha = .88$) and Constructive Influence of Peer Pressure (CIPP) ($\alpha = .68$) and total Peer Pressure Assessment Scale (PPAS) ($\alpha = .84$) was highly satisfactory (see Table 3). Descriptive statistics also revealed even distribution of scores.

Initial Cut-off scores

Scoring procedure of Peer Pressure Assessment Scale was devised using careful analysis of percentiles of specified sample.

Table 4
Reliability Analyses Showing Internal Consistency in Sub-scales and Total Peer Pressure Assessment Scale (N=207)

Scales	Minimum	Maximum	M	SD	α
Destructive Influence of Peer Pressure (DIPP) Items=22	22	77	36.2	9.5	.88
Constructive Influence of Peer Pressure (CIPP) Items=07	8	28	19.5	4.3	.68
Total Peer Pressure Assessment Scale(PPAS) Items=29	32	92	55.8	10.7	.84

The sum of subject's scores on Peer Pressure Assessment Scale (PPAS) and its two subscales constituted total score of subject. The range of scores on PPAS was 29-119. The careful analysis of percentile revealed that 48 corresponded to 25 percentile, 53 corresponded to 50th percentile and 63 corresponded to 75th percentile. The criterion of 1 standard deviation above and below the mean was used to demark low, moderate and high influence of peer pressure. the adolescents falling below the 48 score on the PPAS were experienced less peer pressure, those falling between 48 and 63 score were moderately influenced by the peer pressure and scores falling above 63 indicated greater peer pressure. One way Anova was calculated to find of statistical significance of demarcation among three groups (Low, Moderate, High) made on the bases of percentile method. F test revealed that three groups were different, $F(2, 203) = 377, p < .001$. Post Hoc revealed that three groups were significantly different as adolescents experiencing low influence of peer pressure had $M_{diff} = 43$, experiencing moderate influence of peer pressure had $M_{diff} = 53$ and experiencing high influence of peer pressure had $M_{diff} = 71$. No gender difference was found on influence of peer pressure. that is way, no separate cutoff score was determined for boys and girls.

Discussion

The aim of study was to develop an indigenously valid and reliable scale to assess peer pressure on Pakistani adolescents of 14-18 years. Construction of PPAS was strongly grounded in theoretical and empirical framework resulted in 29 items self report

measure with two subscales named Destructive Influence of Peer Pressure (DIPP) and Constructive Influence of Peer Pressure (CIPP). These factors were statistically derived using principle component factor analysis with varimax rotation. The items factor loading above the set criterion (.4) were retained in final scale. These two factor solution was consistent with existing literature on impacts of peer pressure that can be positive and negative (Boussouni, Youssef, Anas, & Soumaya, 2005). The items loadings in two factors were dramatically uneven (Destructive Influence, items=22 and Constructive Influence, items=7). The reason may be that mostly behaviors showing influence of peer pressure were empirically generated though the young adolescents, Msc, BS (Hons.), M Phil students and subject experts and most of the respondents may be pre-occupied with the thoughts of considering the influence of peer pressure as negative. That is why; their responses were dominated with attribution of negative influence with peer pressure. Both subscales were not correlated with each other but significantly correlated with total PPAS. These two dimensions were opposite, yet parallel and independent of each others. It means adolescents influenced by peer pressure in constructive manner may not be necessarily influenced destructively by peer pressure and visa verse. These two dimensions carry strong research and theoretical support (Al Mooney, Eisenberg, & Eisenberg, 1992; Boussouni, Youssef, Anas, B, & Soumaya, 2005; Bauman, & Ennett, 1996). Interestingly, no significant gender differences emerged in terms of destructive, constructive or overall influence of peer pressure. Boys and girls are equally influenced by peer pressure. The plausible reason may be that boys and girls are exposed to similar kind of peer relationships and experience similar peer demands and conformity level when they step in the age of adolescence. Girls may have as strong need to be accepted by the peer as the boys' need of peer acceptance. This study is not free of limitations because sample was drawn from two private and government schools of single city. It is suggested that to enhance external validity, this scale should be extended to other cities of Pakistan and diverse ethnic and social samples. Development of Peer Pressure Assessment Scale was pioneering step towards measuring destructive and constructive influence of peer pressure on adolescents. The findings of current study may be beneficial for child psychologists, school counselors, parents, and school teachers. Knowing about the constructive and destructive nature of peer pressure can help the adolescents in making social adjustment and learning social skill to cope peer pressure aftereffects.

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