Psychometric Properties of the Urdu Version of Almost Perfect Scale-R

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Empirical evidence suggests that Perfectionism is a multidimensional construct. The current study was conducted to determine the psychometric properties of Almost Perfect Scale-R (Urdu Version) that distinguishes between adaptive and maladaptive perfectionists. Using a purposive sampling, 450 (200 male adolescents and 250 female adolescents) with ages ranging from 13-18 years were recruited from different educational institutions in Lahore. They completed the Almost Perfect Scale-R (Urdu Version), the General Self-Efficacy Scale and reported their GPA. Data were analysed by exploratory factor analysis, MANOVA, Cronbach's alpha coefficient and Pearson's Correlation Coefficient. The exploratory factor analysis yielded a two factor solution: adaptive perfectionism and maladaptive perfectionism. A non-hierarchical k means cluster analysis identified three different groups namely; the non-perfectionisms, the adaptive perfectionisms subscale and maladaptive perfectionism subscale was .79 and .80 respectively. The correlations of perfectionism with self-efficacy and academic achievement were indicative of the scale's convergent and divergent validity. The results suggest that the Urdu version of the APS-R is useful to evaluate and understand the construct of Perfectionism among Pakistani adolescents.

Keywords: perfectionism, factor analysis, self-efficacy, academic achievement, adolescents.

Perfectionism is considered to be a relatively common phenomenon. Nobody is keen to make mistakes and expose their flaws and shortcomings to others. This human tendency to strive for perfection is further strengthened by the societal expectation to fix any flaw related to our homes, health, financing, parenting and relationships (Smith, 2013).

Although there is none agreed upon definition of perfectionism, literature suggests that people with perfectionism have standards, "way beyond reach or reason" (Gould, 2012, p. 9). It is further suggested that such people "strain compulsively and unremittingly toward impossible goals" and tend to "measure their worth entirely in terms of productivity and accomplishment" (Gould, 2012, p. 9). Oxford Dictionary (2013) explains perfectionism as "refusal to accept any standard short of perfection." This reflects a unidimensional view of perfectionism (Egan, Wade, Sharan & Antony, 2014). Literature that highlights perfectionism to be unidimensional, views perfectionists as having some common characteristics such as setting unrealistic standards, generalizing their failures and believing in a black and white approach (Selsik, 2003). However, by the start of 1990's, there was a shift in the way perfectionism was being conceptualized and it started to be viewed as a multidimensional construct rather than a unidimensional one (Selsik, 2003). Stoeber (2014) views perfectionism as a multidimensional construct and defined it as a "personality disposition characterized by striving for flawlessness and setting exceedingly high standards for performance, accompanied by tendencies for overly critical evaluations." (p. 527) It can, therefore, be stated that perfectionism is a multidimensional construct; however, researchers differ on the definition and core dimensions of perfectionism. Perfectionism has been studied in different ways by using different tools.

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Tools for Measuring Perfectionism

Various tools have been developed based on the theories held by their respective authors to measure perfectionism. Some of the significant ones to measure this construct in individuals, include the Burns Perfectionism Scale (Burns, 1980), Neurotic Perfectionism Scale (Mitzman et al., 1994), Perfectionism Inventory (Hill et al., 2004), Positive and Negative Perfectionism Scale (Terry-Short et al., 1995), Adaptive/Maladaptive Perfectionism Scale (Rice & Preusser, 2002), and the Child and Adolescent Perfectionism Scale (Flett et al., 2000). Scales such as the Frost Multidimensional Perfectionism Scale and the Hewitt and Flett Multidimensional Perfectionism Scale have gained popularity among researchers as they have been present since more than two decades (Egan, et al., 2014). The Almost Perfect Scale-Revised (Slaney, Rice, Mobley, Trippi, & Ashby, 2001) is also frequently used by the researchers as it can classify adaptive and maladaptive perfectionists and its psychometric properties are well established (Egan, et al., 2014).

Frost et al. (1990) developed Frost Multidimensional Perfectionism Scale based on a multidimensional view of perfectionism. They presented perfectionism as having six dimensions including organization, personal standards, doubts about actions, concern over mistakes and parental expectation and parental criticism. According to them, the dimensions of doubts about actions, concern over mistakes, parental expectation and parental criticism are linked to different forms of psychopathology whereas personal standards and organization are not (Egan et al., 2014).

Hewitt and Flett Multidimensional Scale (Hewitt & Flett, 1991) describes perfectionism as having three main components including self-oriented perfectionism, other-oriented perfectionism and socially-prescribed perfectionism. In self-oriented perfectionism, the perfectionists are likely to set high standards for themselves, evaluate themselves critically and are unable to accept their flaws and mistakes. In other-oriented perfectionism people are likely to set extremely high standards for others. Such perfectionists have problems related to anger, relationship, stress and other issues linked with the high standards that they set for others. On the other

hand, in the socially-prescribed perfectionism, the perfectionist believes that other people have set unrealistic and impractical expectations from them and in order to attain approval from others, it is important to meet those expectations (Antony & Swinson, 2009).

The Almost Perfect Scale developed by Slaney (1996) consists of three subscales. The subscales of Order and Standard, measure adaptive perfectionism and the Discrepancy subscale is a measure of maladaptive perfectionism (Vandiver & Worrell, 2002). The tendency of setting high standards for oneself without the fear of evaluation is reflective of High Standards. This dimension can be considered adaptive but with a high score on Discrepancy, it is viewed as maladaptive. The third subscale Order refers to preference for neatness and organization (Rice, Ashby & Slaney, 2007).

Previous literature shows that researchers have frequently used the Frost Multidimensional Perfectionism Scale and Hewitt Multidimensional Perfectionism Scale to assess perfectionism. Slaney et al. (2001) maintained that the subscales of both the scales did not focus on the basic meaning of perfectionism. In fact, they focused on its causes, concomitants and effects. Slaney constructed the Almost Perfect Scale-R with the objective of developing a scale that focused on the positive and negative aspects of perfectionism, which laid emphasis on the actual meaning of perfectionism and which did not consider the basic characteristics of perfectionism as the correlates of the construct of perfectionism (Park, 2009). Keeping this in view, the Urdu version of the APS-R was used in the current study.

Perfectionism-Positive and Negative

More often perfectionism has been considered as a negative trait and focus has been laid on stress, fear, anxiety and procrastination that accompany it (Adelson & Wilson, 2009). Studies have linked perfectionism to stress, depression, anxiety, suicide and eating disorders. On the other hand, there is empirical evidence highlighting the positive correlates of perfectionism such as life satisfaction, well-being and positive affect (Chang, Watkins & Banks, 2004). The positive aspect of perfectionism has also been linked to self-esteem and academic achievement. Hence perfectionism can have both healthy and unhealthy impact. Healthy perfectionism can result in a greater sense of pride from achievement and a greater need to succeed (Adelson et al., 2009). Unhealthy perfectionism, on the other hand, raises concern about the individual's well-being and their behavior (Adelson et al., 2009).

Perfectionism and its Correlates in Adolescents

Various models of perfectionism agree on the fact that childhood and adolescence are the crucial phases for the development of perfectionism (Damian, Stoeber, Negru & Baban, 2013). Factors related to school such as evaluation, grading system, and competition with each other is important in the development and maintenance of perfectionism during school years. During this period, the adolescents are more aware of the level of achievements expected of them and they have a greater sense of the implications of the school performance (Damian et al., 2013). Keeping this in view, the variables of self-efficacy and academic achievement were selected for this study.

Gahemi and Damirchiloo (2015) found that perfectionism correlated with self-efficacy. The findings of their study revealed that with an increase in perfectionism, self-efficacy also increased. Another study conducted by Bulina (2015) found out that adaptive perfectionism was related to higher self-efficacy whereas maladaptive perfectionism was linked to low self-efficacy. Previous studies have also revealed that adaptive perfectionists had a higher level of self-efficacy as compared to maladaptive perfectionists and non-perfectionists (Khani, Abdi & Nokhbezare, 2013; Yao, 2009).

Several studies conducted in the past have used GPA as a measure of academic achievement (Kyeon, Cho, Hwang & Lee, 2010; Nounopoulos, Ashby & Gilman, 2006). Rice and Ashby (2007) used GPA to study the differences between the different types of perfectionists. The results revealed that maladaptive perfectionists reported lower GPA as compared to adaptive perfectionists. Another study revealed that adaptive perfectionism was linked to GPA (Kyeon et al., 2010).

Significance of the Study

There is a dearth of studies that investigate the impact of perfectionism in adolescents in Pakistan. A few studies have been carried on adolescents living in Asian culture which have proven that Asian students are likely to set high standards for themselves. Previous studies have shown that there is a difference in the way perfectionism is experienced in the populations of China, Taiwan and India and the US. Therefore, it is important to understand the construct of perfectionism as experienced by the adolescents living in Pakistan. The present study was carried out to fill the gap in

As compared to the western culture, adolescents living in our society are more likely to set high standards of achievement. They have considerable pressure to outshine and are expected to excel in all areas of life. The society expects from them to be perfect not only in studies but in all areas of life including physically, socially and morally. Thus, there is a need to develop a scale that measures perfectionism in Pakistani adolescents. Moreover, studies have shown that perfectionism is both adaptive and maladaptive. This view highlights the significance of having a reliable and valid instrument that measures and identifies different types of perfectionists in Pakistani society.

Perfectionism has not been studied in the context of academic achievement and self-efficacy, especially in Pakistan. This study developed an insight into the impact of different types of perfectionism on self-efficacy and academic achievement. Moreover, the identification of different types of perfectionists has opened new avenues for counselling and therapy of adolescents that may help them to improve their efficacy and level of achievement.

Aim of the Study

The current study had four goals:-

- 1. Determining the conceptual validity of the APS-R (Urdu Version) by conducting a factor analysis.
- 2. Determining the reliability of the APS-R (Urdu Version)
- 3. Determining the validity of the APS-R (Urdu Version)
- Identifying and classifying the different types of perfectionists through cluster analysis.
- Comparing three types of perfectionists based on their scores on study variables (academic achievement and self-efficacy).

Method

Sample

A purposive sampling strategy was used to collect the data. Students studying in grades 7 to 12 in educational institutions of Lahore were recruited (N=450). The sample consisted of 44.4 percent male and 55.6 percent female students. The ages of the students ranged from 13 to 18 years (M=16.04, SD=1.59).

Measures

Almost Perfect Scale-R (Urdu version). Urdu version of the APS-R (Bokhari & Sitwat, 2010) was used in the current study. The APS-R was originally developed by Slaney et al. (1996). The scale consists of 23-item and has three subscales: High standards, Order and Discrepancy. The high standards and order subscales measure adaptive perfectionism whereas, discrepancy subscale reflects the maladaptive aspects of perfectionism. Rating is done on a 7-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). Cronbach's alpha coefficients of the scale as reported by authors are adequate: High Standards (.85, .85), Order (.86, .85) and Discrepancy (.92, .91).

General Self-Efficacy Scale. Urdu version of the General Self-Efficacy Scale (Shahed, 2011) was used. This is a self-reported measure and was originally developed by Schwarzer & Jerusalem (1995). It measures self-efficacy and consists of 10 statements. The participant respond to the statements on a 4-point likert scale ranging from 1 (*not true at all*) to 4 (*exactly true*). The Cronbach's alpha coefficient for this scale ranges from .76 to .90.

Academic Achievement. The participant's performance in the last attempted examination was taken as a measure of academic achievement.

Procedure

Permission was obtained from the principals of the selected educational institutions to allow the researcher to administer the questionnaires. The participants were provided information regarding the aim of the study, confidentiality and voluntary participation. Written consent was sought from the participants. The APS (Urdu version) and the General Self-Efficacy Scale were administered on the students (N=450). The responses of the students (N=450) were entered into the SPSS data sheet.

Data Analyses

SPSS 20 was used for analysing the data. The construct validity of Urdu version of the Almost Perfect Scale-R was worked out through the exploratory factor analysis. MANOVA was performed to compare different types of perfectionists on their scores on perfectionism. Cronbach's alpha coefficient was used to find out the internal consistency. Pearson's correlation coefficient was applied to investigate the relationship of perfectionism with self-efficacy and academic achievement.

Results

Exploratory Factor Analysis (EFA)

Principal Axis factoring with varimax rotation was used to test the factorial structure of the Urdu translated Almost Perfect Scale-R (Table 1). The Kaiser Meyer Olkin measure yielded a value of .84, indicative of sample size being sufficient to obtain distinct and reliable results. The Bartlett's test of sphericity was significant $(\chi^2(253)=2338.201, p<.05$. The communalities ranged from .19 to .53. The criteria of eigenvalues greater than 1 and scree plot were used to determine the number of factors to be retained in the scale.

Table 1
Exploratory Factor Analysis of the Urdu Version of APS-R
(N=450)

(N=450)		
Item No.	Factor I	Factor 2
1. Kaam per yan school mein meri kargardagi ke	.57	12
mayyar aala hain	•••	
2. Main ek munazzim shakhs hoon.	.57	08
4. Safai (nafasat) mere liye eham hai.	.64	02
5. agar aap apne aap se zyada tawaqqo nahi	.31	02
lagayein ge tou aap kabhi kamyab nahi ho	.51	01
sakenge.		
7. Mere khyal mein cheezon ko unki jagah per	.56	.03
rakhna chahiye.	.50	.03
5	=(07
8. Meri apne aap se bohat zyada tawaquaat hain.	.56	07
10. Mujha hamesha ba-terteeb aur munazzim	.39	.12
rehna pasand hai.	40	0.2
12. Meh apne liye bohat aala mayaar muqarrar	.49	.02
kerta/kerti hoon.		
14. Meh aksar apne aap se behtari ki tawaqqo	.67	00
rakhta/rakhti hoon.		
18. Meh her kaam behtereen kerne ki koshish	.53	06
kerta/kerti hoon.		
22. Mere ander imtiazi (dusron se behter) haisiat	.41	.07
haasil kern eke liye jidojuhad kerne ki shaded		
khwahish hai.		
3. Meh aksar nakaam aur namurad mehsus	14	.44
kerta/kerti hoon, kyunke meh apne maqasid ko		
hasil nahi ker sakta/sakti.		
6. Mujhe apna behtereen kaam kabhi tasalli	04	.36
baksh nahi lagta.		
9. Meh shaz o nadir (bohat kam) apni tawaquaat	11	.51
per pura uterti hoon.		
11. Mujhe meri behtereen kawish (kargardagi)	.09	.46
bhi kabhi kaafi nahi lagti.		
13. Meh pni kamyabi se kanhi mutmaiin nahi	13	.53
hota.		
15. Meh aksar apni umeedon per pura na uterne	.25	.38
ki wajah se pareshan hota/hoti hoon.	.23	.50
16. Meri kargardagi shaz o nadir (bohat kam) he	01	.66
mere mayar ke mutabik hoti hai.	01	.00
17. Yeh janne ke bawajood keh meh ne	00	.64
behtereen kaam kiya hai meh mutmaiin nahi	00	.07
hota/hoti.		
	.08	.41
19. Meh kabhi kabhar he apni zaati kargardagi ke	.08	.41
aala mayar tak pohanch paata/paati hoon.	02	70
20. Meh mushkil he se apni kargardagi se	.03	.70
mutmaiin hota/hoti hoon.	0.1	
21. Meh ne shayed he kabhi mehsus kiya ho keh	.01	.53
meh ne jo kaam kiya hai woh tasalli baksh hai.	-	
Factors	I	II
Eigenvalues	3.28	3.11
% of variance	14.27	13.52
Cumulative %	14.27	27.80

The results from exploratory factor analysis pointed to a two factor solution. The Urdu form of the Almost Perfect Scale-R was different from the original scale as it revealed a two factor solution instead of a three factor solution. However, the two dimensions were accurately reflected with all the Discrepancy items (except item 23) falling under one factor (Maladaptive perfectionism) and all the Standards and Order items falling under the second factor (Adaptive perfectionism). The two-factors taken together accounted for 27 percent of the variance. All items loaded on their corresponding factors except for item 23, which failed to achieve a factor loading of .3 on either of the two subscales. EFA revealed that the Urdu version of the APS-R had a total of 22 items loading equally on two different factors. The two factors were named as Adaptive Perfectionism and Maladaptive Perfectionism.

Reliability

Table 2
Cronbach Alpha, Means and Standard Deviations of Subscales of APS-R (N=450)

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Scales	No. of	α	M	SD	Range	
	Items				Actual	Potential
Adaptive	11	70	55.5	7.68	16-66	11-66
Perfectionism		.17				
Maladaptive	11	.80	38.5	10.5	11-54	11-66
Perfectionism						

Table 2 shows that Cronbach's alpha coefficient for adaptive perfectionism subscale was .79 and for the maladaptive perfectionism subscale was .80. The deletion of any item did not increase the Cronbach's alpha coefficient for either of the two subscales.

Correlations between Urdu version of APS-R and other variables

Table 3
Correlation APS Subscales (Urdu Version) with Self-Efficacy and Academic Achievement (N=450)

	/	
Perfectionism Subscales	Self-Efficacy	Academic
		Achievement
Adaptive Perfectionism	.342**	.10**
Maladaptive	123**	251**
Perfectionism		

Note. APS= Almost Perfect Scale *.p<.05.**.p<.01.***.p<.001

Table 3 shows the correlation between subscales of the Urdu translated Almost Perfect Scale-R with other variables including self-efficacy and academic achievement. The results indicate that there is a positive and significant relationship between adaptive perfectionism and self-efficacy and adaptive perfectionism and academic achievement. Maladaptive perfectionism have significant negative correlations with both self-efficacy and academic achievement. The correlations of the adaptive perfectionism with self-efficacy and academic achievement provide support for the convergent validity of the scale. The negative correlation of maladaptive perfectionism with self-efficacy and academic achievement provided support for the divergent validity of the scale.

Cluster Analyses

To classify the participants into groups of perfectionists and nonperfectionists, cluster analysis was carried out. A nonhierarchical k means cluster analysis was performed on the sample (N=450) using the three cluster solution based on previous literature. Results of cluster analysis indicated that cluster 1 consisted of 185 cases (41.1%), cluster 2 consisted of 231 cases (51.3%) and cluster 3 consisted of 34 cases (7.5%). Participants included in cluster 1 had high score on adaptive perfectionism subscale and low score on maladaptive perfectionism subscale. Participants included in cluster 2 had high score on both adaptive and maladaptive perfectionism subscales. Participants included in cluster 3 reported low scores on both the subscales. On the basis of the results of cluster analysis, students in cluster 1 were identified as adaptive perfectionists; students in cluster 2 were identified as maladaptive perfectionists and students in cluster 3 were identified as non-perfectionists.

Comparing Types of Perfectionists on Study Variables

ANOVA was carried out to determine the differences among different groups of perfectionists on their scores for self-efficacy and academic achievement. The results indicated that there were significant differences as determined by ANOVA. F(2,447)=17.102, p=.001) on the scores of self-efficacy. The Tukey's Post Hoc Tests showed that the differences on the scores of self-efficacy among the three groups were significant. The adaptive perfectionists had the highest mean scores on self-efficacy (M=33.87) followed by maladaptive perfectionists (M=32.56) and non-perfectionists (M=29.15).

The results of ANOVA for the scores of academic achievement among the three groups of perfectionists was also significant, F(2,430)=7.179, p= .001). Moreover, the Tukey's Post Hoc Tests showed that there were significant differences between adaptive perfectionist and maladaptive perfectionists (p=.001) on the scores of academic achievement. No significant differences were found between adaptive perfectionists and non-perfectionists (p=.691) and between maladaptive perfectionists and non-perfectionists (p=.504). The adaptive perfectionists had the highest mean scores on academic achievement (M= 70.30) followed by non-perfectionists (M= 68.47) and maladaptive perfectionists (M= 66.02).

Discussion

The present study established the psychometric properties of Urdu translated Almost Perfect Scale-R. The construct validity of the APS-R score was assessed through EFA. Previous studies based on the APS-R have yielded a three-factor solution including the Standard, Order and Discrepancy subscales (Nakanao, 2009; Ulu, Tezer & Slaney, 2012; Vandiver & Worrell, 2002) but the present study showed a two factor solution which did not distinguish between the Order and Standard subscales. The results, however, clearly supported the positive and negative dimensions of perfectionism. These results coincide with the findings of Cazan (2016), which highlighted a two factor solution with the Standard and the Order subscales falling under a single factor.

The study also aimed to classify different types of perfectionists through cluster analysis. The findings of the cluster analysis were similar to the results of past studies (Wang, Puri, Slaney, Methikalam & Chadha, 2012; Ulu, et al., 2012). The present study

categorized the participants into three different groups including adaptive perfectionists, maladaptive perfectionists and non-perfectionists.

The Cronbach's alpha coefficient for the two subscales were adequate and similar to previous studies conducted to find out the reliability of the Almost Perfect Scale (Park, 2009)

A correlational analysis was also conducted to find out the relationship of perfectionism with self-efficacy and academic achievement. The results revealed that there was a positive relationship between adaptive perfectionism and self-efficacy and a negative relationship between maladaptive perfectionism and selfefficacy. The results are similar to previous findings (Chufar, Pettijohn, 2012; Khani, Abdi & Nokhbezare, 2013) providing evidence for the relationship between perfectionism and selfefficacy. Maladaptive perfectionism had a significant negative relationship with academic achievement whereas adaptive perfectionism had a significant positive relationship with academic achievement. The analysis of variance also revealed that there were differences in the scores of adaptive perfectionists and maladaptive perfectionists on the measure of academic achievement. In line with previous findings (Ram, 2005; Rice, Richardson & Tueller, 2014; Cazan, 2016), adaptive perfectionism was linked to higher academic achievement and maladaptive perfectionism was related to lower academic achievement. The correlation between perfectionism and other variables provided support for the convergent validity of the

Limitations and Recommendations

The study only took sample from institutions located in Lahore (provincial capital). Considering the cultural and economic diversity in Pakistan, future studies should gather data from other regions and provinces to have a truly representative sample of Pakistani population. Secondly, the psychometric properties of the Urdu translated APS-R were examined in adolescents. Future studies can examine the psychometric properties of the Scale with other sample of different age and backgrounds. The temporal stability of the scale can also be found out by Test retest reliability. Despite the limitations, the results of the current study reveal that the Urdu version of the APS-R can be useful in measuring Perfectionism among Pakistani adolescents.

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