

## Development and Validation of a Perceived Gender Discrimination Scale (PGDS) for Pakistani Women

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### Abstract

**Objective.** Gender discrimination and its perception have been always the cornerstone in gender psychology; however, the assessment encapsulates barriers concerning cultures. Perceived gender discrimination encapsulates the relative deprivation theory suggesting that it is generated through the pervasive relative comparison from the privileged gender. Relative deprivation theory provides the basis to assess the construct by the constituents of relative perception thus resulting in subsequent effort on a conceptual level. In this paper, we aimed to measure perceived gender discrimination among Pakistani women through the development of a new measure.

**Method.** Perceived Gender Discrimination Scale (PGDS) developed using the triangulation method has 56 items. Open-ended data was obtained through focus group discussion following the item generation and then procuring the expert opinion on themes. In the present research, an attempt was made to develop ( $N = 300$ ) and validate ( $N = 300$ ) such a measure for Pakistani adult women to measure their perception of gender discrimination. Independent sample sets for both studies comprised of working, non-working, married, and single adult women with an age ranging from 21 to 52 years. Data was collected through convenient purposive sampling and ethical requirements were met priorly to seek information on the subject matter.

**Results.** Exploratory factor analysis revealed an eight-factor solution accounting for 75.26 % cumulative variance with .84 alpha reliability and confirmatory factor analysis yielded acceptable model results, thus, providing stability to use the scale for assessment of women's gender discriminatory perception efficiently and effectively. Perceived Gender Discrimination Scale (PGDS) measures the unfair discrepancy results from recognition of an unfair discrepancy between women's situation in the eight domains of Education, Employment/Career, Familial Matters, Financial Matters, General Social Rights, Appreciation and Encouragement, Abuse and Violence, and Gender-Based Stereotyping in comparison with men.

**Conclusion.** Perceived Gender Discrimination Scale (PGDS) provides a detailed assessment of perception of gender discrimination among Pakistani women in their native language. It describes the relativity of the perception as compared to the absolute discrimination concept. Furthermore, this indigenously developed scale provides stable psychometric features to be utilized in future studies for measuring relative deprivation in terms of discrimination.

**Keywords.** *Gender discrimination, Pakistani women, perception of inequality, scale development.*



## Introduction

Gender discrimination occurs when a human being belonging to either sex is not given the basic rights of making his/her own life decisions. Inequity based on gender exists to a varying extent in all societies and varies over time and across social and ethnic groups and the burden of hardship often falls disproportionately on women. Perceived gender discrimination among women is defined as the perception by an individual of particular events as disproportionately negatively affecting oneself as a woman in comparison with men across a variety of domains, including discrimination and oppression (Corning, 2000, 2002).

The population of Pakistan shows a bigger ratio by numbers for women, but by facilitation, this numerical figure has no meaning at all, as abundant and recent research work is still quoting the current status of women in which they are deprived affected in nearly all segments in Pakistan (Abrar-ul-haq et al., 2017; Ahmed et al., 2014; Ali et al., 2011, 2020; Asian Development Bank, 2000; Faridi & Rashid, 2014; Fatima, 2014; Galloway, 2014; Goujon & Wazir, 2019; Human Rights Commission of Pakistan, 2015; Mehdi, 2004; Morgan, 2014; National Education Management Information System (NEMIS), 2017; Nauman & Abbasi, 2014; Nawaz-ul-Huda & Burke, 2017; Nazli, 2004; Pakeeza, 2015; Rasul, 2014; Siddiqui & Hamid, 2003). Lack of access to education, poor health, non-existence of productive rights, lack of access to overall societal resources, and their exclusion in decision-making process and position at the family, community, and national level is common in all these countries, perhaps with the difference in degree.

Third-world women especially are hampered by the lack of equal opportunities, rights, and decision-making power (Abrar-ul-haq, et al., 2017; Faridi, & Rashid, 2017; Fatima, 2014). Further, not only have scientific and technological advances increased the gap between the so-called developed and the underdeveloped nations, but they have also increased the distance between men and women in the third world itself (Kalkowski & Fritz, 2004).

This construct has its distinct variations concerning collectivistic, Asian, and Islamic yet patriarchal cultural systems in Pakistan.

The present study was conducted to re-identify construct's indigenous meanings using an understanding of relative deprivation theory with respect to a sample that is comprised of urban and educated women of Islamabad and Rawalpindi. The approach was to see that in how many areas Pakistani women potentially perceive discriminatory issues. It is important to highlight the factor that gender discrimination being subtle and obvious on various levels of society, response to its exposure is relatively reported in terms of over or under-reporting by women. The stance of exploring this based on relative deprivation theory suggests the same as the perception of gender discrimination or lack of equality is always more or less than the actual situation being faced by the pertinent individual (Corning, 2000; Smith et al., 2012; Zoogah, 2010). This study addressed the objectives to develop the Perceived Gender Discrimination Scale for adult women and validate the factorial structure of measurement with the help of exploratory and confirmatory factor analysis and eventually establishing the psychometric properties of the assessment.

## Method

To achieve the mentioned objectives present research was conducted in two main phases; Phase-I aimed at the development of the Perceived Gender Discrimination Scale (PGDS) and Phase-II aimed at establishing factorial validity of newly developed PGDS through Confirmatory Factor Analysis technique.

**Phase-I: Development of Perceived Gender Discrimination Scale (PGDS).** Employing the empirical approach for scale development (Cohen, 2013, 2018; Cohen & Swerdlik, 2001; Worthington & Whittaker, 2006) scale development was done through items pool generation, evaluation of items by experts for content validity, empirical evaluation through Exploratory Factor Analysis and finally examining the reliability of Perceived Gender Discrimination Scale. The item pool was generated through five focus group discussions with adult females. The categories identified were i.e., discrimination experienced in domains of (a) education, (b) employment/career, (c) familial matters, financial matters, (d) abuse and violence, (e) gender-based stereotyping, (f) appreciation and encouragement and (g) general social right.

Expert evaluation based on maximum frequency responses on every category and apparent face validity of item with respective category yielded 56 items. In this process, five Ph.D. experts of scale development and gender/social psychology were requested to review the items for further scrutiny. Later items were arranged on a 5-Likert type scale with the response categories *Strongly Disagree = 5 to Strongly Agree = 1*.

**Selection of final items through exploratory factor analysis.** A sample of 300 adult women was approached through a convenient sampling technique. The age range was from 21 to 52 years ( $M = 30.29$ ;  $SD = 5.86$ ).

Item pool for Perceived Gender Discrimination Scale used in this study was 5-point Likert type scale *Strongly Disagree = 5 to Strongly Agree = 1*, comprised of 56 items with both positively worded (item no 1 to 29 and 42 to 56) and negatively worded (item no 30 to 41) statements. Data were collected from adult females who were working in different organizations, studying in educational institutions, and were housewives. Participants were shared about the purpose of the study and assured about their confidentiality and anonymity on the responses. Item total correlation and psychometric properties through alpha reliability coefficient examined to screen for EFA and its prospective rotational method, results are as follows:

**Table 1**

*Items total Correlation of Perceived Gender Discrimination scale (PDGS) (N = 300)*

Item no.	<i>r</i>	Item no	<i>r</i>	Item no	<i>r</i>	Item no	<i>r</i>	Item no	<i>r</i>	Item no	<i>r</i>
1	.75**	11	.73**	21	.64**	31	.65**	41	.54**	51	.57**
2	.63**	12	.70**	22	.70**	32	.66**	42	.64**	52	.53**
3	.65**	13	.76**	23	.71**	33	.59**	43	.69**	53	.54**
4	.67**	14	.65**	24	.75**	34	.58**	44	.69**	54	.41**
5	.76**	15	.62**	25	.78**	35	.48**	45	.69**	55	.46**
6	.72**	16	.61**	26	.75**	36	.64**	46	.69**	56	.39**
7	.78**	17	.63**	27	.75**	37	.61**	47	.55**		
8	.71**	18	.71**	28	.68**	38	.65**	48	.57**		
9	.79**	19	.73**	29	.76**	39	.60**	49	.57**		
10	.73**	20	.64**	30	.44**	40	.53**	50	.55**		

Note. \*\* $p < .01$

For 56 items, there have been significant positive correlation and internal consistency, thus referred to oblique rotation method (Costello & Osborne, 2019; Fabrigar et al., 1999; Fabrigar & Wegener, 2012) to run the EFA on the items for identifying factor structure. Perceived Gender Discrimination Scale' 56 items were analysed through Principal Axis Factoring (PAF) analysis (Tinsley & Tinsley, 1987). PAF being suggested as closer to reproducing the common variance and provide ease for interpretability of extracted factors (Costello & Osborne, 2019; Cudeck, 2000; de Winter & Dodou, 2012; Fabrigar & Wegener, 2012; Howard, 2016). Greater than .40 factorial loadings were used as the final selection criteria of an item. Data fitness with the help of Bartlett's Sphericity test 20997.983 (1540df) ( $p < .000$ ) and the .92 value of KMO revealed the suitable initial statistics to run the analysis.

**Table 2**

*Factor Loadings for Perceived Gender Discrimination Scale (PGDS) through Principal Axis Factoring Analysis by using Oblique's Promax Rotation Method (N = 300)*

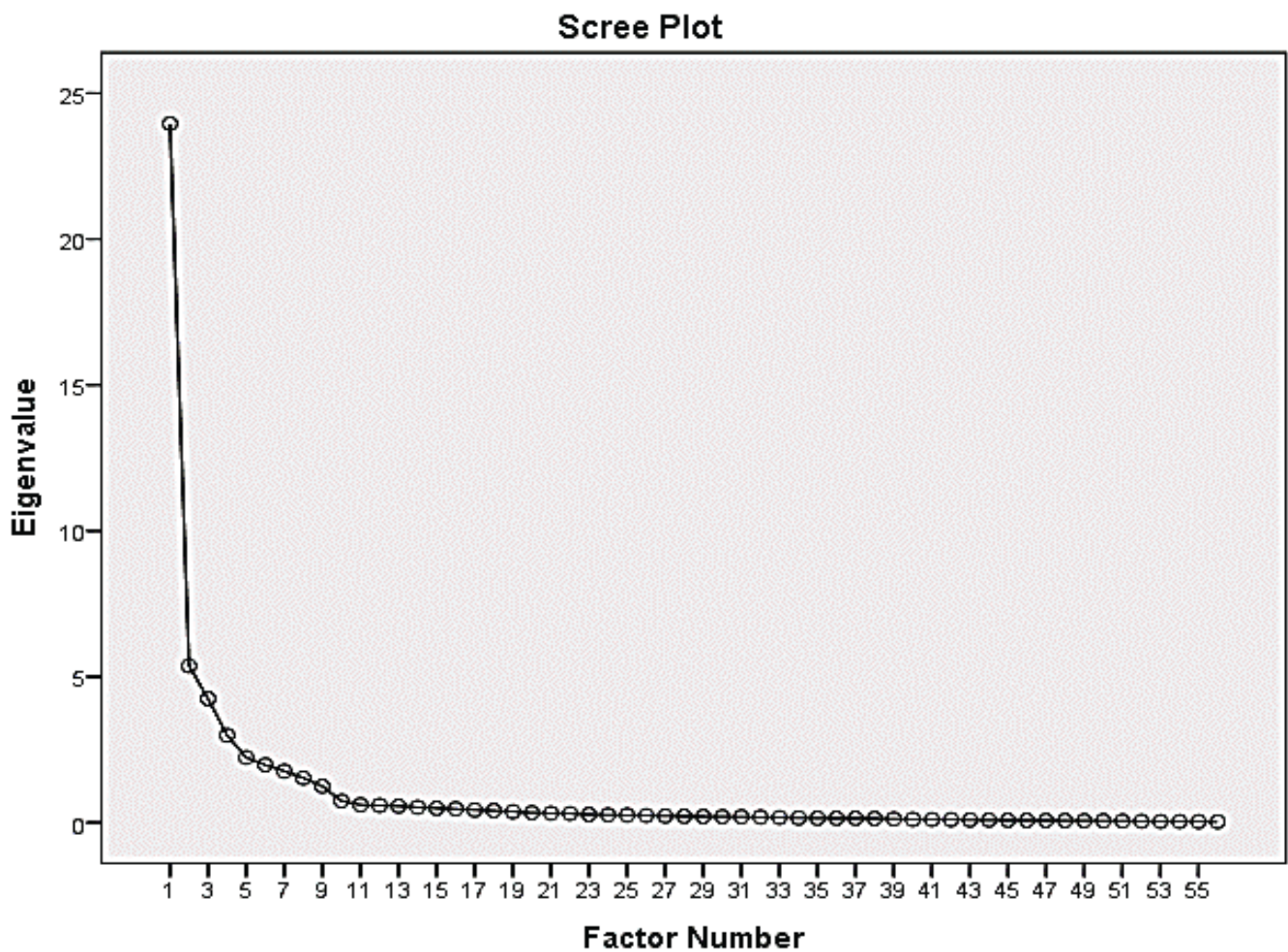
Sr. no.	IIF	F1	F2	F3	F4	F5	F6	F7	F8	$h^2$
1	51	<b>.90</b>	-.07	.00	-.02	.11	-.03	-.00	.01	.79
2	49	<b>.89</b>	.03	.05	-.05	.15	-.04	-.04	-.12	.79
3	48	<b>.89</b>	-.01	-.01	.00	.06	-.02	-.03	.00	.77
4	53	<b>.93</b>	.00	-.02	-.02	.04	.05	-.05	.00	.68
5	50	<b>.82</b>	.00	-.05	.05	-.09	.00	.05	.05	.71
6	52	<b>.82</b>	.04	-.00	-.05	-.05	.02	.08	-.05	.68
7	47	<b>.79</b>	.07	-.02	.01	.15	-.08	-.08	-.03	.66
8	55	<b>.78</b>	-.09	.02	.05	-.28	.04	.02	.16	.66
9	56	<b>.73</b>	-.06	.00	.06	-.25	-.01	.03	.10	.54
10	54	<b>.69</b>	.09	-.02	-.00	-.15	.08	.04	-.10	.48
11	8	-.03	<b>.90</b>	.01	.04	-.08	-.03	.01	.02	.76
12	10	-.03	<b>.90</b>	.03	.02	-.06	-.03	.00	.02	.79
13	9	.04	<b>.88</b>	.02	.01	.07	-.04	-.03	.00	.86
14	11	.04	<b>.86</b>	.00	-.05	-.03	.03	-.03	.05	.76
15	13	.03	<b>.86</b>	.04	-.06	.18	-.02	-.09	-.03	.83
16	12	.00	<b>.86</b>	-.03	-.03	-.06	.03	.05	.00	.71
17	7	.05	<b>.77</b>	.01	.03	.02	-.05	.04	.06	.80
18	15	-.05	<b>.76</b>	-.05	.02	-.02	.012	.05	-.06	.56
19	14	-.02	<b>.74</b>	-.04	.03	-.03	.06	.05	.01	.59
20	21	-.07	-.00	<b>.91</b>	.04	-.06	.00	-.04	.00	.74
21	23	.03	.04	<b>.89</b>	-.04	.07	.02	-.03	-.08	.82
22	19	.04	-.03	<b>.89</b>	-.01	.11	-.01	-.04	.00	.85
23	18	-.00	.02	<b>.88</b>	.02	.02	.02	-.05	-.00	.80
24	20	-.02	.02	<b>.86</b>	.03	-.01	.00	-.02	-.04	.70
25	17	-.05	-.01	<b>.85</b>	.00	-.24	.01	.13	.09	.72
26	16	-.04	-.01	<b>.85</b>	.00	-.16	-.01	.05	.09	.68
27	22	.10	-.03	<b>.75</b>	-.05	.23	-.03	.01	-.07	.73
28	41	-.06	-.00	-.03	<b>.90</b>	-.04	.03	.03	.00	.79
29	39	.02	-.04	-.00	<b>.88</b>	.03	-.05	-.00	.06	.77
30	37	.00	.00	.00	<b>.85</b>	.03	.00	.03	-.01	.78
31	40	-.00	-.01	-.04	<b>.85</b>	-.01	.02	.01	-.00	.71
32	38	.00	.10	.11	<b>.84</b>	-.01	-.03	-.03	-.02	.79
33	36	.10	-.00	.02	<b>.78</b>	.14	.04	-.03	-.07	.77
34	43	-.03	-.01	-.01	.00	<b>.97</b>	-.06	-.00	.04	.90
35	44	-.04	.00	-.03	.00	<b>.92</b>	.01	.00	.03	.86
36	45	-.02	.00	-.01	.00	<b>.92</b>	-.02	-.00	.04	.85
37	46	-.06	-.01	.02	.01	<b>.85</b>	.05	.02	.01	.80
38	42	-.10	-.02	-.06	.08	<b>.85</b>	.04	.01	.04	.77
39	34	-.02	.02	.01	-.02	-.03	<b>.91</b>	-.01	-.03	.77
40	35	-.02	.03	-.04	.03	-.05	<b>.82</b>	.00	-.02	.65
41	30	-.02	.02	.01	-.05	-.15	<b>.82</b>	.00	.05	.59
42	33	.04	.00	-.02	.03	.11	<b>.77</b>	-.01	-.01	.71
43	32	.05	-.02	.02	.09	.11	<b>.74</b>	-.00	.02	.79
44	31	.05	-.03	.07	-.01	.17	<b>.70</b>	.00	.01	.69
45	2	-.04	.06	-.01	-.00	-.09	-.01	<b>.93</b>	-.01	.79
46	3	-.02	.02	-.02	.03	-.08	-.00	<b>.89</b>	.02	.76
47	4	.03	-.06	-.00	.01	-.03	.03	<b>.88</b>	.04	.76
48	1	.04	.03	.02	-.01	.20	-.01	<b>.71</b>	-.02	.79
49	5	.06	.05	.05	-.02	.21	-.02	<b>.68</b>	-.01	.79
50	6	.00	.14	.07	-.01	.15	-.03	<b>.64</b>	-.04	.72
51	28	-.03	-.05	.01	.05	-.10	.03	.04	<b>.91</b>	.76
52	26	.00	.03	.00	-.01	.10	-.04	-.02	<b>.87</b>	.85
53	29	.02	.01	-.01	-.03	.06	.05	-.00	<b>.84</b>	.84
54	27	.04	.06	.03	-.03	.05	-.03	-.01	<b>.81</b>	.81
55	25	.00	.06	.04	-.00	.11	.00	.00	<b>.74</b>	.81
56	24	.02	.05	.01	-.00	.15	.01	-.00	<b>.70</b>	.75
Eigen values		23.7	5.08	3.99	2.74	2.01	1.73	1.52	1.31	
% of variance		42.3	9.08	7.12	4.90	3.60	3.10	2.72	2.33	
Cumulative %		42.3	51.4	58.5	63.4	67.1	70.2	72.9	75.2	
		F1	F2	F3	F4	F5	F6	F7	F8	$h^2$

Note. IIF - Items no in initial form.

**Table 2** depicts the results of principal component analysis by using the oblique-Promax rotation method to determine the factor structure and construct validity of PGDS. Thompson (2004) as the more desirable oblique rotation choice recommends Promax. Promax as being created at primary oblique rotation provides an indirect merger of correlated factors rotation by enhancing their loadings and minimizing the issues of factor indeterminacy such as negative signs commonly observed in EFA analysis mainly because of direct-oblimin rotation (Cureton & Mulaik, 1975; Fabrigar & Wegener, 2012). All items have their unique representation in 8 different categories as initially constructed by qualitative exploration. Besides the factor loadings for these items suggests very strong construct uniqueness with no-overlapping at all. Items retained .5 communalities i.e. less specific within variable variance and total factorial variance as 75.26 considering eight factors as suitable factor solution (Field, 2009). A scree plot as discrete criteria was opted to see Eigenvalues greater than 1 with single-factor variance contribution as at least 5% as shown in Figure 1.

### Results Phase I

Figure 1. Scree plot Showing Extraction of Factors of Perceived Gender Discrimination Scale



### **Final Perceived Gender Discrimination Scale.**

Eight factors or subscales of the respective measurement have emerged from score range 56-280 on response options *Strongly Disagree* = 5 to *Strongly Agree* = 1. The higher score obtained by the subject indicates more perception of gender discriminatory experiences. Each factor/subscale has the following details:

**F1: General social rights.** Overall 10 items (47, 48, 49, 50, 51, 52, 53, 54, 55, and 56) were loaded on this factor. The score range of this subscale was from 10 to 50, and a higher score means experiencing discrimination in access to different social rights as compared to men. It covers the right to cast vote, use technology (personal phone, internet), approach and seek facilitation for personal health, has right to get access to leisure opportunities (movies, park, festivals, etc.), access to sources of basic rights, complaint cells, police, media, and legislative institutions, and equal and accurate representation on the course and syllabus and media platforms.

**F2: Employment/career.** Overall 9 items (7, 8, 9, 10, 11, 12, 13, 14, and 15) were loaded on this factor. The score range of this subscale was from 9 to 45, and a higher score means more discrimination perceived in employment and career relate to autonomy and decision making as compared to men. It covers the areas of right to make a career, employment in any profession, promotion inequality, evaluation based on eligibility and skills, unequal division of responsibilities, respect, compromises, multiple roles, and right to delay marriage for pursuing the job.

**F3: Familial matters.** Overall 8 items (16, 17, 18, 19, 20, 21, 22, and 23) were loaded on this factor. The score range of this subscale was from 8 to 40, and a higher score means more discrimination perceived in familial matters related to autonomy and decision making as compared to men. It covers the areas of right to choose the time and type of marriage, right to decide on the family system, and on the number of children, decision making about children and their future, compromise in with family/in-laws, inviting friends in the house, right to decide dowry and divorce-related matters.

**F4: Gender-based stereotyping.** Overall 6 items (36, 37, 38, 39, 40, and 41) were loaded on this factor. The score range of this subscale was from 6 to 30, and a higher score means relatively more discriminatory exposure to stereotypical judgments and attitudes on persona primarily because of the female gender as compared to the male gender. It covers exposure to an attitude of perceiving women as less intelligent, more emotional and dramatic, less trustworthy, less confident, more susceptible and responsible in case of mistakes, and given secondary status frequently in society.

**F5: Appreciation and encouragement.** Overall 5 items (42, 43, 44, 45, and 46) were loaded on this factor. The score range of this subscale was from 5 to 25, and a higher score means perception of relatively more discrimination while appreciating and encouraging women in different domains of life as compared to appreciation given to men in the same tasks. It covers the discrimination felt by women in appreciation and encouragement while performing well in education, having skills and talents, performing in career, taking care of family and children. Stance is that men get more credit while performing the above deeds as compared to women and that created relative deprivation among women.

**F6: Abuse and violence.** Overall 6 items (30, 31, 32, 33, 34, and 35) were loaded on this factor. The score range of this subscale was from 6 to 30, and a higher score means relatively more discriminatory exposure to abuse and harassment based on the physical appearance of females as gender as compared to the male gender. It covers exposure to sexual harassment in various settings, exposure to physical, mental, psychological, and verbal abuse, under the pressure of the need to be smart and slim, and judgment based on physical features as compared to skills and personality on different occasions such as marriage proposal.

**F7: Education.** Overall 6 items (1, 2, 3, 4, 5, and 6) were loaded on this factor. The score range of this subscale was from 6 to 30, and a higher score means more discrimination perceived in education relates to autonomy and decision making as compared to men. It covers the areas of right to seek higher education, education in other places, education of the desired subject, education from the male instructor, co-education, and right to delay marriage for education.

**F8: Financial matters.** Overall 6 items (24, 25, 26, 27, 28, and 29) were loaded on this factor. The score range of this subscale was from 6 to 30, and a higher score means more discrimination perceived in financial/monetary matters related to autonomy and decision making as compared to men. It covers the rights of spending money/salary/pocket money by personal choice, holding a

bank account, purchasing and selling domestic goods/grocery items, making significant financial decisions in the family, purchasing or selling property, and seeking/getting the inheritance from family.

**Psychometric properties of Perceived Gender Discrimination Scale.** To establish the psychometric properties of scale correlation coefficients were calculated:

**Table 3**

*Mean, Standard Deviation, Cronbach Alpha and Correlation of Perceived Gender Discrimination Scale (PGDS) and its Subscales among Adult Women (N= 300)*

Sr. No.	Variables	PGDS	1	2	3	4	5	6	7	8
	PGDS	-	.62**	.83**	.76**	.66**	.72**	.65**	.78**	.82**
1	GSR			.45**	.39**	.27**	.20**	.29**	.38**	.43**
2	EC				.55**	.44**	.58**	.40**	.67**	.65**
3	FAM					.41**	.50**	.41**	.58**	.59**
4	GBS						.48**	.60**	.40**	.44**
5	AE							.43**	.57**	.62**
6	AV								.37**	.49**
7	EDU									.63**
8	FIN									
	Number of items	56	10	9	8	6	5	6	6	6
	Cronbach Alpha	.84	.90	.91	.93	.93	.91	.93	.93	.93
	<i>M</i>	143.9	26.4	23.3	20.6	16.4	12.6	15.4	14.0	14.9
	<i>SD</i>	48.48	10.13	10.81	9.35	7.51	6.61	6.68	7.33	7.39

*Note.* GSR = General Social Rights; EC = Employment and Career; FAM = Familial Matters; GBS = Gender based Stereotyping; AE = Appreciation and Encouragement; AV = Abuse and Violence; EDU = Education; FIN = Financial Matters.

Table 3 indicates a positive correlation between subscales and their total insignificant proportion.

**Phase-II: Factorial Validity of Perceived Gender Discrimination Scale through Confirmatory Factor Analysis.** In this phase, to have a complete understanding of this construct, PGD has been also defined conceptually with operational definition.

**Perceived Gender Discrimination.** The perceived gender discrimination among women is grounded in the theoretical framework of relative deprivation theory states that discontent results from recognition of an unfair discrepancy between one's situation and that of others. A high level of PGD indicates that women are perceiving more unfair discrepancy between one's situation and that of men whereas a low level on the assessment measure of PGD indicates less perception of deprivation in the domains in comparison with men (Corning, 2000, 2002).

**Instruments.** Perceived Gender Discrimination Scale (PGDS) comprising 56 items on the 5-Likert rating has positively worded (item no 1 to 29 and 42 to 56) and negatively worded (item no 30 to 41) statements. A higher score means more perception of gender discrimination among women and a low score means women perceive more gender equality. The response options were *Strongly Disagree* = 5 to *Strongly Agree* = 1 with a possible score range on overall PGDS is 56-280. The underlying eight subscales in the PGDS with their items, numbers are as follows:

1. Discrimination in education: 6 items (1, 2, 3, 4, 5, and 6), score range from 6 to 30.
2. Discrimination in career: 9 items (7, 8, 9, 10, 11, 12, 13, 14, and 15), score range from 9 to 45.

3. Discrimination in familial matters: 8 items (16, 17, 18, 19, 20, 21, 22, and 23), score range from 8 to 40.
4. Discrimination in financial matters: 6 items (24, 25, 26, 27, 28, and 29) score range from 6 to 30.
5. Exposure to abuse and violence: 6 items (30, 31, 32, 33, 34, and 35) score range from 6 to 30.
6. Exposure to Stereotypical attitude towards personality: 6 items (36, 37, 38, 39, 40, and 41), score range from 6 to 30.
7. Discrimination in appreciation and encouragement: 5 items (42, 43, 44, 45, and 46), score range from 5 to 25.
8. Discriminatory access to general social rights: 10 items (47, 48, 49, 50, 51, 52, 53, 54, 55, and 56), score range from 10 to 50.

A sample of 300 adult women was approached through a convenient sampling technique and the age range was from 19 to 50 years ( $M = 30.57$ ;  $SD = 5.67$ ).

Data were collected from adult females who were working in different organizations, studying in educational institutions, and were housewives. Participants were shared about the purpose of the study and in the end, they were thanked for their participation with surety to maintain the confidentiality and anonymity of the information.

**Confirmatory Factor Analysis.** For establishing factorial validity of the Perceived Gender Discrimination Scale confirmatory factor analysis technique was applied. CFA is theory-driven therefore, the planning of the analysis is driven by theoretical relationships among the observed and unobserved variables.

**Result Phase II.** Descriptive analysis results were as  $M = 160.52$ ,  $SD = 47.37$  with Cronbach Alpha .90, potential and actual ranges 56-280 and 66-264 respectively. Based on these findings, confirmatory factor analysis was executed on the items as follows in table 4.

**Table 4**  
*Factor loadings (Standardized Regression weights) for Eight Factors of PGDS (N= 300)*

Sr.No.	No. of Items.	Factor loading	Sr.No.	No. of Items.	Factor loading	Sr.No.	No. of Items.	Factor loading	Sr.No.	No. of Items.	Factor loading
F7 – Education .62			F3 - Familial Matters .62			F6 - Abuse and Violence .62			F5 - Appreciation and Encouragement .62		
1	1	.96	16	1	.93	30	1	.86	42	1	.99
2	2	.95	17	2	.94	31	2	.94	43	2	.99
3	3	.95	18	3	.96	32	3	.96	44	3	.97
4	4	.96	19	4	.95	33	4	.94	45	4	.97
5	5	.98	20	5	.95	34	5	.93	46	5	.98
6	6	.96	21	6	.95	35	6	.91	F1 - General Social Rights.62		
F2 - Employment and Career .62			22	7	.93	F4 - Gender Based Stereotyping .62			47	1	.87
7	1	.93	23	8	.93	36	1	.93	48	2	.88
8	2	.94	F8 - Financial Matters .62			37	2	.96	49	3	.89
9	3	.95	24	1	.94	38	3	.96	50	4	.92
10	4	.95	25	2	.95	39	4	.96	51	5	.94
11	5	.96	26	3	.95	40	5	.96	52	6	.93
12	6	.95	27	4	.95	41	6	.95	53	7	.93
13	7	.95	28	5	.94				54	8	.91
14	8	.95	29	6	.95				55	9	.92
15	9	.94							56	10	.90

Table 4 showed the standardized regression weights of factor loadings for 56 items of PGD. As per results, factor loading is equal to or greater than .40 in each factor which was the selection criteria of items in the development of scales. Moreover, results confirmed the factor structure of PGDS developed in study II.



Results of the confirmatory analysis showed that first-order CFA for PGDS for 56 items yielded significant results, which represents the possible explanation of the rejection of the null hypothesis. Inclusion and reporting of multiple fit indices were viewed in some of the previously developed scales' guidelines (Jackson et al., 2009; Rafnsson et al., 2006). For first-order CFA of 56 items of PGD viewing its correlation within covariance of subscales i.e.,  $X^2(df = 1456) 3941.634$  at  $p < .001$ ,  $CMIN/df = 2.70$ , Comparative Fit Index (CFI) = .92, Non-Normed Fit Index (NFI) = .88, Tucker Lewis index (TLI) = .92, and Root Mean Square Error of Approximation (RMSEA) = .07 indicated this as acceptable model. However, for testing the composite integrity of our scale, model of second-order CFA was tested providing acceptable figures of  $X^2(df = 1491) 4291.25$  at  $p < .001$ ,  $CMIN/df = 2.87$ , CFI = .91, NFI = .88, TLI = .91 and RMSEA = .07. These fit indices justified the factorial validity of PGDS as one construct having eight different and interlinked dimensions sufficient to be used to assess perceived gender discrimination among women (Barrett, 2007; Bentler, 2007; Boomsma, 2000; Chin, 1998; Hair et al., 2010; Hoyle & Panter, 1995; MacCallum & Austin, 2000; McDonald & Ho, 2002; Medsker et al., 1994; Raykov et al., 1991; Thompson, 2004).

**Figure 2**  
Measurement Model of Perceived Gender Discrimination Scale with Eight Subscales (56 items)

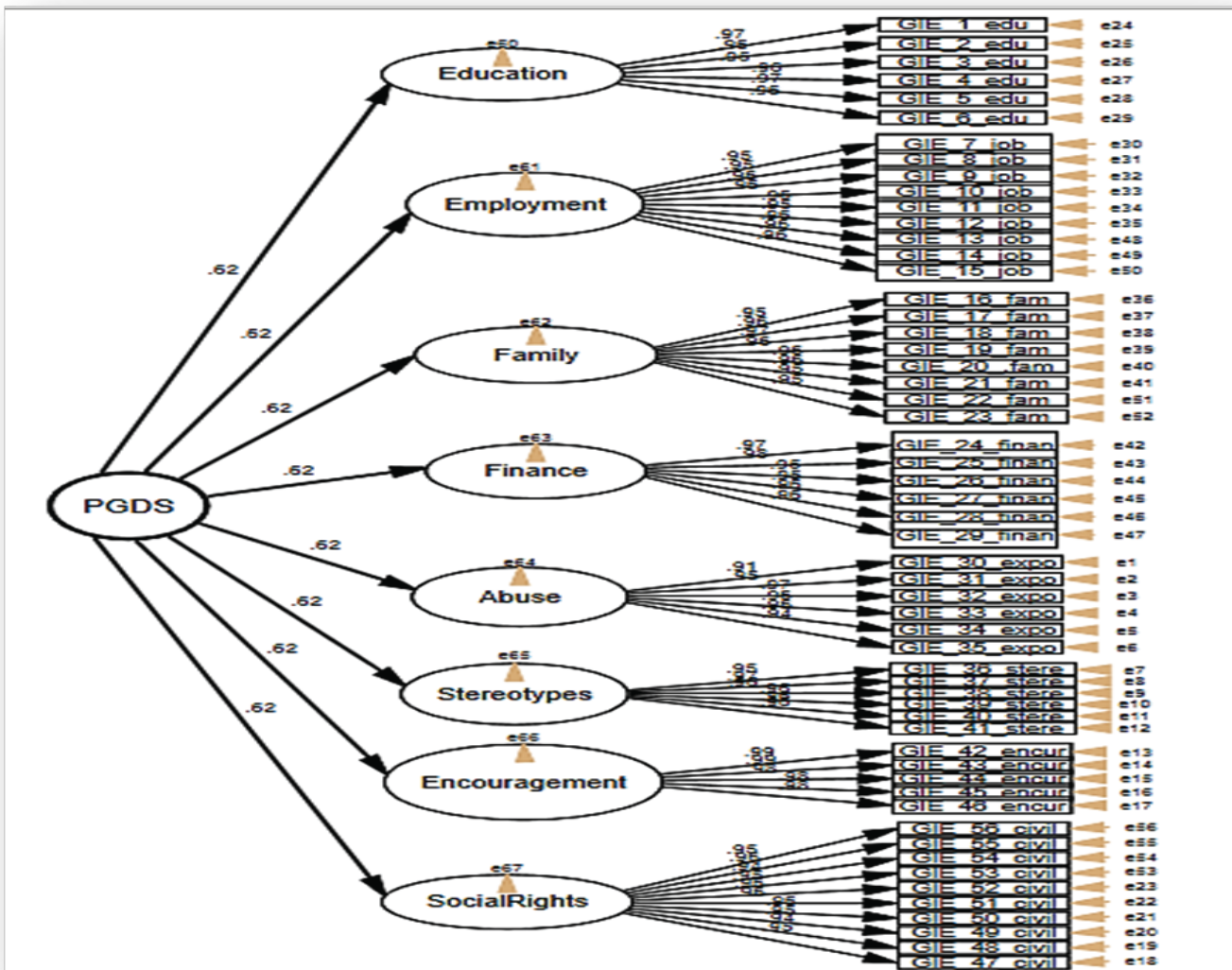


Figure 2 represents the graphical picture of the good fit model. It can be seen that all the items show factor loading  $> .40$ , providing evidence of a good fit measurement model.

## Discussion

For perceived gender discrimination, the development of assessment measures usually revolved around qualitative exploration because of its utmost variation from culture to culture, religion and socio-economic practices, and legislative boundaries researchers. Previously, the focus of research on these themes was to see women's differential treatment in different situations, exploring the antecedents and consequents on the part of victims and perpetrators and measuring sexist attitudes and their types. Attitudinal research investigating the associates of keeping up negative suppositions about women has shown, for instance, that holding a more preservationist political viewpoint, being more engaged with religious exercises, being male, and having a subject of natural and mechanical sciences instead of humanities-related fields are fundamentally identified with keeping up women's traditional conventional perspectives (McEwen, 1990).

Research in the behavioral domain (Lott, 1995) on the other hand discovered oppressive conduct by men to appear as social separation and distancing from women over the assortment of circumstances and settings to maintain their men-like persona. Further examinations have demonstrated that men who hold more traditional perspectives will probably have executed serious sexual mishandle than the individuals who hold more liberal perspectives (Hull & Burke, 1991; Muehlenhard & Falcon, 1990; Osland et al., 1996). Another aspect of research for these domains are different scales developed over the years to assess this domain in different ways with different theoretical definitions (Fitzgerald et al., 1988; Spence et al., 1973, 1975; Stokes et al., 1995; Swim et al., 1995; Tougas et al., 1995). These all examine recommend that the universal dynamic of perceived gender discrimination among women is comparable and besides diverse regarding Pakistan.

Perceived gender discrimination as an overly studied phenomena across the globe still needs indigenous inspection. It was seen that the perception of gender discrimination and its reporting are different from person to person and domain to domain. Most importantly there have been found over or under-reporting with-in this context because of the theoretical support of relative deprivation theory (Corning, 2000; Smith et al., 2012). This study addressed the development of a perceived gender discrimination scale for the measurement of underlying construct among adult women.

Corning (2000, 2002) developed Perceived Social Inequity Scale (PSIS) for women on a similar theoretical framework, her findings on Principal Axis Factoring by using Oblique rotation as items were correlated yielded 6 factors with factor loading up to .90 for PSIS. A similar strategy was employed to develop PGDS for the present study because both scales have the same requirements and theoretical support except for the cultural differences and indigenous realities. EF analysis resulted in, 56 items being loaded on eight factors by the conclusion that perceived gender discrimination is a multidimensional construct. Overall, eight subscales regarding eight domains have emerged in this multifactor solution. This solution was keeping in view the Kim, (2013) guidelines for exploratory factorial solutions.

These eight factors were observant of different domains of PGD experienced by women. Discrimination in education means more discrimination perceived in education relates to autonomy and decision-making as compared to men. Discrimination in employment and career means more discrimination perceived in employment and career relate autonomy and decision making as compared to men. Discrimination in familial matters means more discrimination perceived in familial matters related to autonomy and decision-making as compared to men. Discrimination in financial matters means more discrimination perceived in financial/monetary matters related to autonomy and decision-making as compared to men. Exposure to abuse and violence means relatively more discriminatory exposure to violence, abuse, and harassment based on the physical appearance of females as gender as compared to the male gender. Gender-based stereotyping means relatively more discriminatory exposure to stereotypical judgments and attitudes on image primarily because of the female gender as compared to the male gender. Discrimination in appreciation and encouragement means perception of relatively more discrimination while appreciating and encouraging women in different domains of life as compared to appreciation given to men in the same tasks. Discriminatory access to general social rights means experiencing discrimination in assess to different social rights as compared to men.

The confirmatory factor of analysis was performed to endorse the eight-factorial solution as one construct having eight different domains in a statically testable model. For the present study, CFA was applied because of its excellent practice guidelines available for the development and validation of any instrument (Brown, 2006; Byrne, 2004, 2016; Kline, 2014; Thompson, 2004). Another aspect of model fit concerns whether a model modification is practiced. Ideally, researchers test several competing models so they are not in a position of having to modify a model to find an acceptable fit. It is often noted that post hoc modifications to models, such as those based on modification indices, should be done parsimoniously and only when the modifications are theoretically and practically plausible (e.g., MacCallum & Austin, 2000). Fortunately, for PGDS's error covariance was not employed at all because the chief aim was to retain the strength of scale on whatever findings we obtained from the sample.

#### **Limitations and Future Recommendations.**

Despite attempts to cover maximum through this study, due to resources and time-related constraints it yet bears the following gap to be addressed in the future:

1. Sample collection focus was on women who are educated and are residents of urban areas as a result illiterate and rural population has been unnoticed limiting research scope and applicability of findings to particular group's understanding and the existence of gender discrimination.
2. The ethnic and religious point of view regarding perceived gender discrimination is very important but unfortunately have not been incorporated. For future researches, the recommendation is to keep in mind these important facts.
3. Single-informant approach and only female gender were taken but using multi-informant approach can add a unique set of information and also contribute as endorsing factor because social desirability and under/over-reporting can be potential barriers to sketch an accurate picture for gender discrimination like constructs.
4. Validation of newly developed measures i.e., construct, convergent, discriminant, and differential group for perceived gender discrimination was not established. In the future, bearing in mind this as a requirement for scale development will help toward refining the distinct entity of measure and will help in the generalizability of findings.

#### **Implications**

Debate on gender is perhaps from the eons and eternity no matter how much and how many disciplines of life will try to encapsulate this dense concept it will remain a source of constant inquiry and search. A similar attempt was made through present research to see this broadly spread phenomenon in light of psychology along with the integration of sociological and economical perspectives. This research broadens understanding on domains of gender studies, gender development, and personal growth initiative adds the blend of positive psychology.

Coming to the fact that the concept of relative deprivation was taken to shed the impression that not only an absolute presence of discrimination and deprivation affects an individual but its sole perception, and relativity of its existence is a potential factor to be studied in this research concerning gender discrimination. An easy path is to simply paint a foreign impression on native conditions but this does not identify the true representation, therefore research was conducted to understand and explore gender discrimination along with its possible antecedents and precedents in Indigenous perspective enhancing the knowledge within ground realities of this region. It resulted in the conceptualization of a new validated measure of reflection and applicability for the native population, assessing the perception of gender discrimination among women.

#### **Conclusion.**

Findings presented in this paper are encouraging in terms of psychometric properties through exploratory and confirmatory factorial analyses, Cronbach alpha, and correlation coefficients of indigenously developed scale i.e., Perceived Gender Discrimination Scale. Perceived Gender Discrimination is multidimensional constructs as PGDS has eight subscales based on eight distinct domains i.e., discrimination experienced in domains of education, employment and career, familial matters, financial matters, abuse and violence, gender-based stereotyping, appreciation and encouragement, and general social rights. Inherent with indigenous insight and foundation on relative deprivation theoretical background, PGDS is comprehensive to have understanding and insight about gender discrimination, its existence, and perception among Pakistani women.

## Declaration

**Ethical Board Review.** This study adheres to ethical considerations and follows the National Institute of Psychology's Ethical Review Board criteria.

**Conflict of Interest.** The authors declare no conflicts of interest associated with this manuscript.

**Unpublished Originality.** The authors declare that this submission contains original unpublished work and is not being submitted for publication elsewhere.

**Copyright Transfer.** The authors agree that upon acceptance of an article by the journal copyright of the article will be transferred to the publisher.

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