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The Impact of Socio-cultural factors on females passing through Higher Education in Pakistan

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ABSTRACT

Purpose: Educated females play an important role in the social and economic development of a country. The aim of the study was to assess the problems facing females before entering higher education, and then after education when joining professions. **Research Methods:** Using a higher education survey questionnaire, data were collected from 2188 female respondents including students (n=2018) and teachers (n=170) from government colleges and universities spread over four districts of the Pakistan province of Punjab. Results showed females who do succeed in getting a higher education are then exposed to a male dominant culture in the workplace. This re-inforces the socio-cultural norms of the country at large; causes conflict between professional and cultural obligations, and is linked with de-motivation. Four types of female have been identified who respond to the socio-culture in stereotypical ways. System successes have survived discrimination inherent in the wider society with family support. System fighters, lacking whole-hearted family support, perceive discrimination strongly but have an intrinsic motivation that drives them on. Motivated realists appear to have accommodated to the socio-cultural practices of Pakistan, and have planned how to 'beat the system' to eventually become system successes. Neutral acceptors can be contrasted with system fighters as they appear to lack intrinsic motivation, accept the external socio-cultural world with minimal challenge.

Implications for Research and Practice: The results of the study provide guidelines to the policy makers and administrators to make amendments in the higher education policy where female can avail more opportunities to get higher education and social recognition as they have the significant contribution in the development of a sustainable society.

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Introduction

Higher education is a pre-requisite of an open civil society based on merit. It helps in the understanding of societal norms; gives individuals self-reliance; discourages discrimination based on gender, beliefs, religion and social class; enhances the quality of life, and encourages democratic governance (Isani & Virk, 2000, Kramarae, 2000; McClelland & Evans, 1992). For empowering women in all walks of life, the most basic and essential factor is the education (Lopez-Claros & Zahidi, 2005). Higher education empowers qualified women to become leaders in society and it permits them to become role models for the young girls.

Access to higher education is a priority for all countries, and where they are still under-represented the issues need to be addressed in both quantitative and qualitative terms (Jacobs, 1996; Morely, 2007). Ahmed (1986) has reported that a significant reason for under development in economic and social terms in the developing countries, of which Pakistan is typical, is the absence of a sufficiently high percentage of educated and technically qualified women. The socio-culture of Muslim majority countries means that females suffer particular disadvantages because discrimination appears to be woven within the fabric of society (Sen, 2001). This is indeed the major limitation on gender equality in Pakistan (Khan, 2007, p.43; The Nation, 2014).

The Islamic republic of Pakistan is a generally male dominated society, and commonly adopts a hostile attitude towards women. The gender disparity is not only with respect to opportunities and resources, but it is also in rewards, and exists in all regions and classes of the country. Poor education provision results in adult female literacy at 29 % compared with 57 % literacy of males (Sen, 2001). These figures are reflected in the gender disparity statistics for employment. Comparing Pakistan with other countries in terms of the labour force, in all the developing countries the female labour force ranges between 40% and 50%, whereas in Pakistan it is only 7% (Shahzad, Ali, Qadeer & Hukamdad, 2011). The female role is one of general subordination to the male, determined by the forces of patriarchy across classes, regions, and the rural/urban divide. The gender-biased criterion of resource allocation severely limits the educational opportunities of females both at school and higher education (HE) levels.

The socio-cultural hurdles facing females are many, there is a preference for sons due to their leading and productive role in household life. Parents' prefer to invest more in a son's education as their old age social security (Khan, 2007). Daughters are expected to marry early and carry out the domestic tasks of the home. Their prescribed goals are those of motherhood and being a good wife (Maqsood, Maqsood & Raza , 2012; UNESCO, 2010). Parents do not prioritize education for girls due to low family household income (Khalid & Mukhtar, 2002). Travel is seen as a threat to personal security. This is a particularly strong factor in deterring girls from entering higher education as institutions are likely to be very distant and, even if boarding facilities are available, there are possible incidents of sexual harassment and sexual abuse to consider (Sathar & Haque, 2000; World Bank, 2007; UNESCO,

2010). Rural females are at a particular disadvantage (Soofi, 2014). Firstly, the culture is ultra-conservative, and secondly, the survival of poor families often depends upon the work of their women and children (Kumar, 2000; Farah and Sheera, 2007). However, in recent decades it has been observed that a growing proportion of girls are getting education at higher levels despite the socio-cultural hurdles. By 2011-12, the proportion of Pakistani females in HE had risen to 49% (Government of Pakistan, 2013), which is well above the global figure for a Less Developed Country (UNESCO, 2002).

On entering HE, females continue to have less parity in their experiences (Jacobs, 1996). During their studies, transportation, accommodation, and continuing family pressures can all cause distractions (Komuhangiro et al., 2003; Rathgeber, 1995). There are gender issues in co-educational institutions in Muslim majority countries, given the traditional cultural perception of the female in society (Malik, 2002; Shahzad et al 2011; UNESCO, 2010). Many countries have encouraged the establishment of all women's colleges and universities in an effort to empower women by introducing contemporary female courses (Chliwniak , 1997).

After graduation, even in less gender polarised societies, it is common for females to experience overt and subtle gender discrimination to some extent throughout their careers (Jacobs, 1996; Gracia, 2009). There has been some improvement in Pakistan (Batool, et al, 2013; Maqsood et al., 2012), but for women to achieve a successful career here it requires the inner strength of purpose to overcome the prevailing socio-culture norms of society, and this is likely to be at the cost of their family life.

Research Questions

This study looks at the admission to HE and the movement into professional work from the perspective of the discriminated Pakistani female. Given that an increasing proportion of women are receiving higher education and taking up professional positions in the country, how has the patriarchal mind set been overcome for this to happen? Do all women in HE encounter the same obstacles and if a form of gender discrimination does exist, what is this form and does it affect all females equally? Research questions will now be presented to explore the perceptions of gender discrimination as seen by female students and faculty firstly in gaining admission to HE and, secondly, in moving from HE into professional life.

1. Does male dominant culture of Pakistan inhibits females from seeking admission to higher education?

2. To what extent do females, who succeed in getting a higher education, later encounter a male culture of the workplace, which

(a) re-inforces the socio-culture norms of the country at large;

(b) causes conflict between professional and cultural obligations, and

(c) causes de-motivation.

3. To what extent does the degree of success females achieve in overcoming the discriminating, cultural obstacles depend upon their age, family support, subject area and district?
4. Do female teachers and lecturers, having achieved some measure of success, less affected by discrimination than college and university students?
5. Are there specific 'types' of female who respond characteristically in different ways to the discriminatory problems they face?

Method

Research Design

The present research study aimed to investigate the impact of socio-cultural factors on females passing through higher education in Pakistan. To this aim, the study used a mixed approach by using quantitative and qualitative research design during the data collection and analysis phases. For quantitative design, survey questionnaire was employed and for qualitative design interviews were conducted.

Research Sample

Tables 1 and 2 show the main survey sample broken down by the four female respondent groups and the districts of the institutions. The majority of the questionnaire sample respondents were university students (Table1). Some 7.8% were college and university teachers.

Table 1.

Distribution of the Respondents

	Frequency	Percent
College student	485	22.2
University student	1533	70.1
College teacher	94	4.3
University teacher	76	3.5
All	2188	100.0

The age distribution of respondents showed 86.5% were aged between 20 to 30 years and 5.7% over 30 years. The rest of the sample did not provide age data. Table 2 explains the respondents' frequency from different districts of Punjab (Pakistan province).

Table 2.

Respondents' Districts

District	Frequency	Percent
Lahore	776	35.5
Okara	384	17.6
Multan	456	20.8
Rawalpindi	572 *	26.1
All	2188	100.0

*Includes 144 respondents from Private institutions

Research Instruments and Procedures

The research reported here is based on the questionnaire survey of a larger mixed methods investigation (Shaukat & Pell, 2016; Shaukat & Siddiquah, 2013). The advantage of the questionnaire approach is that large amounts of information can be composed from a large number of individuals in a short period of time and in a comparatively cost-effective way (Cohen, Manion, & Morrison, 2007). The sample comprises college students, college teachers, university students, and university teachers. Teachers were to reflect upon the problems from their earlier careers, while students were to comment on their HE admission and their perceptions of the professional life to come. Only females were targeted due to the gender sensitivity of the issue.

To test the hypotheses, a questionnaire was constructed after an extensive literature review and the outcomes of discussions from focus groups comprising female students and faculty. The first pilot version of the questionnaire comprised 34 items in a Section A (HE admission) and Section B (post HE). Responses to the items required judgement to be made on a five-point Likert scale ranging from 'strongly agree' to 'strongly disagree'. Item analyses of the first pilot with 50 female students and faculty showed up inappropriate items and that an open-ended question was drawing very few responses. The second version of the questionnaire comprised 43 items and was piloted with 80 female students and faculty.

The analysis of the second pilot responses to the questionnaire, included a preliminary factor analysis. The language of several items was slightly modified and five more added to make 48 in total. A measure of face validation was provided by expert opinion from the two faculty members of Education disciplines.

In the main survey, principal components factor analysis was used to reduce the data collected and to test the validity of emerging factors. The relative contributions of demographic variables to the derived attitude scale scores were tested by multiple regression (Cohen, Manion, & Morrison, 2007; Youngman, 1979). To identify possible types of respondent, cluster analysis of the data is used (Pell & Hargreaves, 2011). This is a statistical methodology which is able to identify those individuals who score broadly the same on the research variables under investigation. This causes the population to be split into a number of 'types', showing similar characteristics. In the words of Anderberg (1973), "The objective of cluster analysis is to set the observations into groups such that the degree of 'natural association' is high among members of the same group and low between members of different groups" (p.3). Pell and Hargreaves (2011) looked at the relative strengths of the methods and their validities to conclude that an optimum solution requires a dual clustering methodology of an initial hierarchical 'group-average' clustering, to establish the number of clusters in the data, followed by partition clustering operating on this knowledge.

Main survey data were collected from four districts of Punjab, namely Okara, Multan, Rawalpindi and Lahore. Districts were selected purposively from southern, central and northern Punjab, where at least one university was available. This was to

enable the selection of both HE students and teachers. Random sampling was used to select the colleges and universities within the selected districts. Prior permission was sought for data collection from the heads of all the chosen institutions. Participants were then selected randomly from each year stratum of the chosen college and university. Researchers described the nature of survey to the participating students and faculty before the data collection, which took place at the end of the semester.

Data Analysis

A survey questionnaire was established to measure the female students and faculty problems in attempting to higher education and moving on to a profession after higher education.

The items of two questionnaire sections;

A. Problems faced by females in attempting to enter higher education, and

B. What moving on to a profession after higher education will mean,

were subjected, separately, to principal components factorisation followed by an oblique rotation of the factor axes to allow for the likely correlation of the attitudinal factors (Norusis, 1990). The complexity of the factors emerging suggested that the items with major loadings be extracted and subjected to a psychological uni-dimensional check for validity (Gardner 1995, 1996) and Cronbach Alpha maximisation for reliability (Youngman, 1979). Table 3 shows the nine scales defined by their respective major items. The allocation of all items to their corresponding scales appears in the Appendix. Five of the nine scales satisfy the criterion of 0.7 for an acceptable attitude scale reliability (Youngman, 1979). Four of the scales have reliabilities in the range of 0.6 to 0.7, which are considered as acceptable for investigating group differences (Youngman, 1979; McMillan & Schumacher, 1993). The unidimensional presentation of each of the scales as indicated by a single factor accounting for the non-error variance is taken as a measure of each scale's validity (Duff, 1997; Munby, 1997).

Results

The following tables are presented for the description of the research study.

Five items of Section A are not allocated to either of the emergent factors. Correlations between scale scores and the five items show that the socio-cultural pressures females are subject to in attempting to enter higher education are a consequence of *a male dominated society, where deep conservative beliefs rule family life.* (This is conveyed by item 11, which has the highest mean score at 4.00, SD 0.98 and N=2188 on inhibiting entry to HE). Further, higher education is expensive, and for most families is an additional hurdle, not only because of the financial pressures of tuition fees, but also in providing for safe transportation and secure living accommodation.

Table 3.

Scales from the Questionnaire Items

Scale	*Item*	*M*	*SD*	*N*	*Factor loading*	*Item-whole correlation*
1. Socio-cultural challenge Section A Six items Alpha=0.73 Unidimensional allocation of variance 42.0%	7. Parents do not feel comfortable in letting their daughters join higher education institutions because they will then not be submissive in accepting their parents \ families	3.05	1.24	2162	0.659	0.51
2. Personal insecurity Section A Six items Alpha=0.70 Unidimensional allocation of variance 40.1%	14. Females do not get higher education because they, themselves , do not feel secure and safe while going to institutions alone	3.25	1.24	2188	0.677	0.46
3. Family pressures Section B Four items Alpha=0.78 Unidimensional allocation of variance 59.8%	36. Lack of job approval from family	3.40	1.18	2186	0.709	0.64
4. Social problems at home Section B Three items Alpha=0.67 Unidimensional allocation of variance 60.5%	44. Neglect of children and family	3.70	1.12	2187	0.588	0.56
5. Potential workplace worries Section B Three items Alpha=0.65 Unidimensional allocation of variance 58.6%	39. Lack of handsome salary according to their qualification	3.91	1.05	2187	0.526	0.49

Table 3 Continue

Scale	Item	M	SD	N	Factor loading	Item-whole correlation
6. Acquiring wisdom Section B Four items Alpha=0.66 Unidimensional allocation of variance 50.8%	31. I can take wise decisions in my professional life	4.22	0.73	2187	0.706	0.56
7. Personal well-being Section B Three items Alpha=0.61 Unidimensional allocation of variance 56.4%	47. Being able to take wise decisions in your personal life	4.12	0.86	2187	0.606	0.45
8. Unsuitable aspects of workplace Section B Five items Alpha=0.78 Unidimensional allocation of variance 52.8%	21. Unsafe and unsecure working environment	3.64	1.13	2188	0.749	0.61
9. Lack of recognition Section B Four items Alpha=0.71 Unidimensional allocation of variance 53.3%	26. Professional jealousy against females	3.60	1.17	2188	0.739	0.52

The five un-allocated items of Section B provide additional interpretation of the seven emerging factors from this Section. Although it does appear that *family pressures* are exacerbated by the responsibilities and challenges of the workplace and when this is far from the home residence. Particularly, item 41 might be seen as a measure of workplace de-motivation.

Table 4.

Scale and Item Inter-Correlations for Section B

Un-allocated item		Correlation with main scale total less item (N=2187)						
		Family pressures	Social problems at home	Work doubts	Acquiring wisdom	Personal well-being	Unsuitable workplace	Lack of recognition
20	Interaction with males for professional networking	0.205 (6)	0.185	0.177	0.087	0.098	0.290 (8)	0.225 (8)
28	Expressing my ideas and opinions confidently in professional life	0.097 (6)	0.123	0.193	0.301	0.238	0.095 (8)	0.212 (8)
33	Working place far from their residence (out of station)	0.307 (6)	0.282	0.297	0.155	0.160	0.373	0.305
34	Household responsibilities	0.207 (6)	0.207	0.261	0.133	0.147	0.162	0.161
41	Fear of accepting responsibilities and challenges at workplace	.414 (5)	0.327 (6)	0.317 (6)	0.024 (6) ns	0.117 (6)	0.222 (6)	0.283 (6)

All correlations significant at p<1%, ns not significant
(8) N=2188; (6) N=2186; (5) N=2185

Linking the Questionnaire Scales

The analysis of the nine scale scores proceeded by investigating the significant breakdown effects in terms of District, type of institution, status of respondent, and student semester. The full analysis is available elsewhere (Shaukat & Siddiquah, 2013). Here, the analyses are summarised by employing the Negative pathway through HE measure which is derived from the nine separate factor scales of Table 3.

Correlational and factor analysis of these nine scales' scores shows that scales 6 and 7 form a positive outcome measure for the HE experience, which demonstrates enhanced individual mastery, pride in successful achievement, gender neutrality and social vision. It is regretful that the two measures in combination have a very low reliability of only 0.56. The remaining seven scale scores provide a unidimensional measure of the Negative pathway through HE that is faced by females. Table 5

shows the statistics for this composite scale, the reliability of nine sub scales is mentioned in the table.

Table 5.

Negative Pathway through HE (N=2186)

	Scale	Mean score/item	SD	Item-whole correlation
1	*Social cultural challenge*	3.24	0.79	0.36
2	*Personal insecurity*	3.51	0.73	0.53
3	*Family pressures*	3.46	0.92	0.60
4	*Social problems at home*	3.79	0.79	0.54
5	*Potential workplace worries*	3.83	0.79	0.56
8	*Unsuitable aspects of the workplace*	3.76	0.78	0.53
9	*Lack of recognition*	3.52	0.83	0.53

Multiple linear regression was used to review the relative contributions of the independent, explanatory variables of district, respondent type and semester. Multiple linear regression shows the relative importance of the breakdown variables in predicting composite scores on *Negative pathway through HE,* and takes into account the significant contributions of all variables (Table 6). The 'typical' respondent's composite score is calculated from the linear expression:

3.598 - 0.114 Lahore - 0.307 Semester 1 + 0.144 College student - 0.170 University teacher + 0.070 Rawalpindi

Table 6.

Predicting Negative Pathway through HE Scores from Demographic Variables

	Unstandardized Coefficient	Std. Error	% variance
(Constant)	3.598	0.019	
Lahore district (scores '1')	-0.114	0.026	1.3
Semester 1 (scores '1')	-0.307	0.068	1.0
College student (scores '1')	0.144	0.033	0.9
University teacher (scores '1')	-0.170	0.062	0.3
Rawalpindi district (scores '1')	0.070	0.032	0.2

Multiple r = 0.198, medium effect size, N = 2016

It is seen that *Negative pathway through HE* scores are depressed (i.e. 'pathway' is less negative) for respondents from Lahore, students in Semester 1 of their courses and for university teachers. Scores are higher (i.e. 'pathway' is more negative) for college students and those studying in Rawalpindi.

Cluster Analysis

Using the two-stage clustering procedure of 'group-average' clustering followed by 'partition' clustering with the data for the nine scale scores from Table 3, and after rejecting 26 'outlier' data sets, the four clusters of Table 7 emerged.

Table 7.
Mean Scale Scores and Standard Deviations for Four 'Partitioned' Clusters

Type (N)	1.Social cultural challenge	2.Personal insecurity	3.Family pressures	4.Social problems at home	5. Work place worries	6.Acquiring wisdom	7. Personal well-being	8.Unsuitable workplace aspects	9.Lack of recognition
1 (319)	**2.80**m**	**2.80**l**	**2.31**l**	**2.91**l**	**2.89**l**	**4.19**	**4.10**	**2.78**l**	**2.63**l**
	0.72	0.71	0.67	0.81	0.80	0.60	0.56	0.78	0.84
2 (562)	**2.66**l**	**3.38**s**	**3.35**s**	**3.88**n**	**4.13**m**	**4.31**s**	**4.31**m**	**3.87**s**	**3.50**
	0.64	0.65	0.78	0.66	0.51	0.45	0.45	0.61	0.74
3 (680)	**3.82**l**	**4.03**l**	**4.19**l**	**4.31**l**	**4.33**l**	**4.41**m**	**4.37**m**	**4.26**l**	**4.12**l**
	0.58	0.49	0.60	0.47	0.50	0.42	0.46	0.52	0.53
4 (601)	**3.40**s**	**3.45**n**	**3.37**n**	**3.66**s**	**3.53**m**	**3.75**l**	**3.46**l**	**3.62**s**	**3.35**s**
	0.59	0.57	0.67	0.63	0.62	0.56	0.61	0.60	0.62
All (2162)	**3.25**	**3.52**	**3.47**	**3.81**	**3.84**	**4.17**	**4.06**	**3.76**	**3.52**
	0.78	0.72	0.91	0.77	0.78	0.56	0.64	0.78	0.83

**p<1%, *p<5% significant difference between type mean and the rest
Effect sizes for mean differences: n=negligible, s=small, m=medium, l=large

The System Successes

Type 1 mean scores fall into the 'disagree' sector of the postulated problems for females in HE. From this, it is concluded that these respondents are not experiencing or do not anticipate any major difficulties in moving through higher education and into a career. Type 1s have the lowest *Negative pathway* scores of the four types. The value of higher education in acquiring intellectual skills and personal satisfaction is strongly supported (but the ratings are actually less than those of Types 2 and 3). These respondents are the '*System successes*', who acknowledge the socio-cultural and workplace problems of females that can occur in Pakistan, but who are able to overcome these. There are proportionally fewer Type 1s amongst college students (p<1%, small effect size) and there are proportionally more amongst University teachers (p<1%, small effect size) (Table 9). Okara district has the lowest proportion of Type 1s: Lahore has the highest (p<1%, small effect size).

Table 8.

Negative Pathway through HE Broken Down by Type

Cluster	*Mean/scale*	*N*	*Std. Dev*
1	2.73**l	319	0.33
2	3.54**n	562	0.24
3	4.15**l	680	0.24
4	3.48**s	601	0.26
All	3.60	2162	0.53

**p<1%, when compared to the rest, effect sizes l=large, s=small, n=negligible

The System Fighters

Type 3 respondents agree, sometimes very strongly, about the negative obstacles they face, first of all getting admission to higher education and then moving onto a job later. Mean scores on item 11, Conservative family norms are the main hurdles in the way of female higher education, are significantly higher than for the other types (p<1%, small effect size). Type 3s closely link Family pressures and Social problems at home with Work place worries (from a factor analysis of Type 3 scores). Despite these forebodings, Type 3s are even more convinced of the end product of high intellectual and personal development. This group are 'System fighters', who recognise clearly the problems and difficulties that females face but are determined to overcome them. There are proportionally more Type 3s amongst College students (p<1%, small effect size) and fewer amongst University students (p<1%, small effect size). Rawalpindi district has a higher proportion of Type 3s than does other districts (p<1%, small effect size). This type comprises a higher proportion of Arts respondents (p<1%, small effect size).

The Motivated Realists

Type 2 respondents experience more obstacles than Type 1s in getting to higher education, although their perceptions of female treatment are less hostile than the Type 3s. A major difference between Type 2s and Type 1s is that the former expect or experience more difficulties in the work place. Like Type 3s, Type 2s are highly motivated to the value of higher education and its possibilities. There are proportionally more University students in Type 2 (Table 9). These are the 'Motivated realists'. Science has a greater representation than Arts for this type (p<1%, small effect size). This type are under-represented in Lahore (p<1%, small effect size), but over-represented in Multan and Okara (p<1%, small/medium effect sizes).

The Neutral Acceptors

Type 4 respondents have less motivation than the other three groups. The difference on this measure has an unusually large effect size. This is not to imply that Type 4s are de-motivated, rather that they are not so 'driven' to succeed as the others. There is a strong awareness of the prevailing socio-cultural pressures. This probably leads to a compliance with the existing norms of Pakistani society, and these respondents are not unhappy to come to terms with the restrictions at home and at

work. Type 4s are 'Neutral Acceptors'. There are proportionally more Type 4s amongst College students (p<1%, small effect size) (Table 9). Multan and Okara districts both have lower proportions of Type 4s than expected (p<1%, small effect size): Lahore has a higher proportion (p<1%, small effect size).

Table 9.

Cluster Type Broken Down by Respondent Group

Respondent group	Type				
	1 *System successes*	2 *Motivated realists*	3 *System fighters*	4 *Neutral Acceptors*	All
College student	49	107	203	120	479
University student	236	426	432	420	1514
College teacher	12	17	30	35	94
University teacher	22	12	15	26	75
Total	319	562	680	601	2162

In conclusion, College students are more likely to be *system fighters* or *neutral acceptors.* University students show a bias towards *motivated realists.* University teachers, having successfully negotiated the socio-cultural maze, are more likely to be *system successes.* The sample of College teachers is too small for significant variations to emerge.

The Efficiency of the Clustering

Discriminant function analysis is able to show how a combination of the scale scores can allocate a respondent to an appropriate group. This can be done for 96% of the respondents by using the three functions consisting primarily of (i) *socio-cultural challeng*e scores, (ii) *acquiring wisdom/personal well-being* scores, and (iii) all the other six scale scores. The third function is the major discriminator, which contributes 74% of the variance. Pell and Hargreaves (2011) suggest that the percentage correct classification into groups by the cluster variables is a measure of the efficiency of the clustering procedure, which at 96% would be judged satisfactory for a valid discussion of findings. The lower reliabilities of four of the nine scales adds to error variance, which shows itself in 85 of 2162 respondents appearing in groups other than those predicted. Breakdown of group composition by respondent type (College student etc.), district and subject discipline will also be affected by the error variance and is an explanation of the proliferation of small effect sizes when testing for differences within the breakdown categories.

Discussion and Conclusion

Discussion

The study was conducted to determine the problems faced by female students and faculty regarding higher education in attempting to higher education and while getting in a profession after higher education. The discussion is presented here according to the research questions.

Research Question 1

The male dominant culture of Pakistan will inhibit females from seeking admission to higher education.

This statement receives immediate strong support from the socio-cultural challenge factor (Tables 3), which identifies the prevailing socio-cultural climate as a deterrent to seeking higher education entry. The second factor of personal insecurity (Tables 3 and) highlights the practical, every-day concerns that arise and have to be overcome to become a student. The correlations of the unallocated items of Section A emphasise that a male dominated society, which has established conservative norms, underpins the responses of the socio-cultural challenge.

In terms of the cluster analysis of Table 7, the mean socio-cultural challenge scores for two groups of respondent suggest that the 'challenge' either does not exist or has been overcome.

Thus for a majority, but not all respondents, the research question of a patriarchal culture inhibiting higher education for females is supported. For others, the family environment is sufficiently strong for daughters to be encouraged to continue with their education.

Research Question 2

To what extent do females, who succeed in getting a higher education, later encounter a male culture of the workplace, which

(a) re-inforces the socio-culture norms of the country at large;

(b) causes conflict between professional and cultural obligations, and

(c) causes de-motivation.

This issue is specifically addressed in Section B of the questionnaire. The family pressures factor of Tables 3 shows that the strong socio-cultural element of gender discrimination persists far beyond the higher education experience. Moving on to work, the extraction of the social problems at home factor (Tables 3) gathers together the domestic difficulties that women face, while work place worries (Tables 3) are expressed by the three 'real-word' items. It is important to emphasise the positive correlation between scores on these three factors and item 41, 'Fear of accepting responsibilities and challenges at workplace' (Table 4). This item implies low motivation at work. Women, once employed, are likely to adopt a low profile because of the negative impact of the family pressures, social problems at home and

workplace worries factors. They lack confidence in taking on leadership and direction because of the feeling that pressures of the family, the home and the workplace will become too much for them. In an extended interview validation study (Shaukat & Siddiquah, 2013) term this concept professional dissatisfaction.

From the evidence collected research question 2 is supported and retained.

Research Question 3.

To what extent does the degree of success females achieve in overcoming the discriminating, cultural obstacles will depend upon their age, family support, subject area and district.

The unallocated Item 11, Conservative family norms are the main hurdles in the way of females higher education, has the highest mean score of all items in Section A, confirming that the family history of conservatism is a major force for limiting females' opportunities in higher education.

The current study presents the composite variable Negative pathway through HE for analysis (Table 6). Here, high scores indicate significant discrimination and cultural obstruction. Age is not significant. District has the strongest influence of the breakdown variables tested, most notably that of being educated or working in Lahore. This lowers scores and indicates less perceived discrimination. Lahore is the most advanced and developed of the districts, and its residents have a more encouraging attitude towards females' higher education than elsewhere.

The positive effect of being a Semester 1 respondent (negative coefficient in Table 6) can be explained by a lack of experience within higher education of how the discriminatory system actually operates in practice. Regardless of the semester, college students perceive higher levels of discrimination than do the other groups. College students will be younger than the other groups and closer to family instilled values of perceived role and implicit discrimination. College lecturers tend to be less well educated than university staff and hence more conservative. College students are therefore in an environment that can be more repressive than that of the universities.

Subject area proves to be insignificant in predicting Negative pathways scores. However, a more detailed regression studies of the separate nine scales (Shaukat & Siddiquah, 2013) shows Arts respondents having significantly elevated scores on Socio-cultural challenge and Science respondents giving higher rating to the 'HE purpose' scale of Acquiring wisdom. This suggests that science might have the potential to upset the current socio-cultural mores of the country.

On the evidence presented, research question 3 is supported in terms of the influence of family and district factors for females entering and passing through higher education.

Research Question 4

Do Female teachers and lecturers, having achieved some measure of success, less affected by discrimination than college and university students?

The regression equation for Negative pathway through HE (Table 6) are 'College student' shows significant coefficients at 0.144 and University teacher' at - 0.114. The positive sign for college students indicates a high predicted 'discrimination' score: the negative value for university teachers implies a low predicted score.

There would seem to be sufficient differences between the natures of college students and university students (see the Discussion of research question 3) for the latter to perceive discrimination as less harsh. The omission of a significant effect for college teachers might well be more statistical as the sample is relatively small.

From the evidence presented, it is concluded that research question 4 is supported for university teachers and college students alone

Research Question 5.

Are there specific 'types' of female who respond characteristically in different ways to the discriminatory problems they face?

The cluster analysis of Table 7 shows four possible types of respondent; system successes, system fighters, motivated realists and neutral acceptors.

The system successes (Type 1) do not fit the general stereotype of the oppressed Pakistani female. This cluster is not insubstantial and comprises about 15% of the sample. All seven gender discrimination research measures in Table 7 show means that register disagreement with the propositions expressed. Thus, system successes do not rate Pakistani higher education as being disadvantageous to females.

System fighters (Type 3) are fully aware of the prevalent gender discrimination. Family pressures, social problems at home and work place worries are strongly linked for this group from a within cluster correlational study. This demonstrates a particular strength of cluster analysis in allowing correlation methods to be applied within the individual clusters, which can reveal otherwise diametrically opposite associations or no associations at all. System fighters have superior medium effect size mean scores on the intellectual enhancing, acquiring wisdom and personal well-being scales.

Motivated realists (Type 2) have to battle against socio-cultural discrimination like the system fighters, but they differ in their perceptions of moving from home into higher education, and then the working environment beyond (Table 7). At the senior education stage, motivated realists appear to be supported by the family against external socio-cultural pressures, as are the system successes, who also have mean scores below 3.0 for socio-cultural challenge. However, having to leave the home environment and go to higher education raises the motivated realists' mean scores on personal insecurity. Work place inequality problems and career related family relationship difficulties are appreciated, but are not rated as severely as do the system fighters. The motivated realists press forwards with high scores on the intellectual enhancing, acquiring wisdom and personal well-being scales.

Neutral acceptors (Type 4), on the average, disagree with the role of higher education as a personal 'liberator'. This group have significantly lower scores on the

'HE purpose' scales of acquiring wisdom and personal well-being (Table 7). The difference on these measure when compared with other types has a large effect size. Cohen (1988) refers to normal effect sizes in the 'soft' behavioural sciences as 'small', especially when using newly developed scales, so these differences between the clusters are striking, especially as these two scales have above average error variance (Table 3). It appears that neutral acceptors have less motivation than others to be in higher education. The socio-culture challenge of living in Pakistan is accepted, as are the realities of insecurity and workplace discrimination. Hypothetically, neutral acceptors accommodate to the 'status quo', and have minimalist lifetime goals.

Profiling the clusters in terms of institutional grouping, broad subject discipline and district does show some small effect size variations compatible with Lahore being a relatively rich and developed city (Shaukat & Siddiquah, 2013). The institutional grouping effect shows high prestige university teachers having above average representation in the system successors: college students in less prestigious institutions are having to grapple with difficulties as system fighters or having accommodated to discrimination as neutral acceptors. University students in higher prestige institutions are more likely to be motivated realists aiming to become system successes, but not yet comfortable with the inequality they experience. Having stated all this it must be appreciated that the four types are spread across all districts and all four institutional groups, which suggests that additional variables not gathered in this research, for example respondent personality, family resources and economic well being, are needed to interpret and explain the differences between the types.

On the evidence presented, research question 5 is supported and retained.

Conclusion

In the introduction to this study it was asked how do females in Pakistan overcome the patriarchal mindset of the country to make use of Higher Education, and whether all females adopt the same strategy. The research has identified four types of female, who respond in stereotypical ways. System successes have survived discrimination inherent in the wider society with family support. System fighters, lacking whole-hearted family support, perceive discrimination strongly, but have an intrinsic motivation that drives them on. Motivated realists appear to have accommodated to the socio-cultural practices, and have planned how to 'beat the system' to eventually become system successes. Neutral acceptors can be contrasted with system fighters as they appear to lack intrinsic motivation and accept the external socio-cultural world with minimal challenge.

This study sampled only those females who had successfully overcome gender discriminatory practices to gain admission to Higher Education. There is another female population who succumb to the socio-cultural pressures and are unable to realise their potential to the detriment of themselves and their country.

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Appendix: Questionnaire items

Key for Section A scales:

Soc-cul *Socio-cultural challenge*
Per-insec *Personal insecurity*

Table A1.
Section A Items and Scales

	Section A *What do you think about the problems faced by females in attempting to enter higher education?*	Scale
1	Preference given to sons leads towards the low participation of females in higher education	Soc-cul
2	Higher education is more important for males as they have to run families and females just look after them	
3	A male dominating culture prevents females from seeking higher education	
4	Parents are hesitant to educate females because they are less likely to make use of their education in future	Soc-cul
5	Females are not supported in getting higher education because it will encourage them to demand their social (talking decisions on important events) and legal (property)rights	Soc-cul
6	Females are not encouraged to get higher education because individuals are reluctant to change their social structure (females' empowerment)	Soc-cul
7	Parents do not feel comfortable in letting their daughters join higher education institutions because they will then not be submissive in accepting their parents decisions	Soc-cul
8	Females don't receive higher education due to financial constraints on the family	
9	Females are not encouraged to join higher education because parents do not feel the environment of higher education is secured and protective for their daughters	Per-insec
10	Co-education restricts female higher education	Per-insec
11	Conservative family norms are the main hurdles in the way of female higher education	
12	Late teenage (below 20 years) marriages/ marriages during higher education prevents females from going on to higher education	
13	Prevalence of discrimination between daughters and sons creates hindrance in female higher education	Soc-cul
14	Females do not get higher education because they, themselves, do not feel secure and safe while going to institutions alone.	Per-insec
15	Females do not get higher education due to unavailability of proper transportation	Per-insec
16	Females who do not get safe boarding facility should not enroll in a higher education institution	Per-insec
17	Females do not get higher education because their parents assume they can lose their character due to bad company	Per-insec

Key for Section B scales:

Fam-press *Family pressures*
Soc-home *Social problems at home*
Wk-worr *Potential workplace worries*
Ac-wis *Acquiring wisdom*
P-well *Personal well-being*
Unsuit-w *Unsuitable aspects of workplace*
Lac-rec *Lack of recognition*

Table A2.
Section B Items and Scales

	Section B *Moving on to a profession after higher education will mean:*	Scale
18	Late working hours	Unsuit-w
19	Male dominant work place where males are more in number than females in different disciplines	Unsuit-w
20	Interaction with males for professional networking	
21	Unsafe and unsecure working environment	Unsuit-w
22	Unsuitable working time (late afternoon and evening)	Unsuit-w
23	Harassment at workplace	Unsuit-w
24	Discrimination against females	Lac-rec
25	Lack of work recognition	Lac-rec
26	Professional jealousy against females	Lac-rec
27	Lack of work reward	Lac-rec
28	Expressing my ideas and opinions confidently in professional life	
29	I can contribute to the welfare of society in a positive way	Ac-wis
30	I can compete equally with male colleagues	Ac-wis
31	I can take wise decisions in my professional life	Ac-wis
32	I can achieve personal social mobility	Ac-wis
33	Working place far from their residence (out of station)	
34	Household responsibilities	
35	Lack of moral support from family	Fam-press
36	Lack of job approval from family	Fam-press
37	Conservative thinking of life partner	Fam-press
38	Unavailability of transportation	Wk-worr
39	Lack of handsome salary according to their qualification	Wk-worr
40	Under employment according to qualification	Wk-worr
41	Fear of accepting responsibilities and challenges at workplace	
42	Conservative family (parents) environment	Fam-press
43	Lack of day care facility for their children	Soc-home
44	Neglect of children and family	Soc-home
45	Allow you to adjust better in your future personal life	P-well
46	Some conflict with household responsibilities	Soc-home
47	Being able to take wise decisions in your personal life	P-well
48	Leading a better marital life	P-well