Self-efficacy and Gender Role Liberalism in Young Adults: An Exploration of Relationship and Predictors

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Gender role liberalism is pivotal in ensuring equal status and contribution of men and women in society. Self-efficacy might be related to gender role liberalism. This study aimed to investigate the nature of the relationship between self-efficacy and sex-role liberalism and to find demographic predictors of sex-role liberalism and self-efficacy in the young adult working sample. Sex Role Liberalism Scale (Clarkberg, Stolzenberg & Waite, 1995), General Self Efficacy Scale (Schwarzer & Jerusalem, 1995), and demographic questionnaires were administered on 240 teachers (130 men and 110 women; Mean Age = 29.89), taken from two universities of Lahore. Joint Principal Component Analysis revealed no conceptual overlap between both constructs. The directionality of the relationship was analyzed through Structural Equation Modeling in AMOS. Self-efficacy and gender role liberalism predicted each other independently as well as reciprocally with the stronger contribution of gender role liberalism to self-efficacy. Regression analysis revealed higher gender role liberalism in men with working mothers in juxtaposition with non-working mothers. The effect

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of father's education on the liberalism of men was greater than women's. Gender role liberalism and father's education predicted self-efficacy. The findings have strong implications regarding enhancing self-efficacy in young adults through promoting gender role liberalism that will in turn promote greater liberal attitudes towards both genders.

Self-efficacy implies an individual's belief in one's abilities to attain a goal or accomplish a task (Bandura, 1977, 1986, 1997). It is "the perception of one's capabilities to attain performance outcomes" (Audia, Locke & Smith, 2000, p. 4). It influences one's functioning and performance through the choice of activities for oneself, amount of effort executed and time utilized in carrying out those activities, and one's consistency and perseverance in attaining the goals set for oneself. One of the central ideas in self-efficacy theory is that engagement and persistence in a given activity is a function of an individual's assessment of their skills and capabilities to accomplish the activity as well as cope with challenges in the environment (Arshad, Farooq, Atif & Farooq, 2020). A person's life has many challenges and to face these challenges, the first step is the belief that the person can achieve those challenges. Self-efficacy is displayed in a person's behavior in many ways. While people with low efficacy tend to avoid challenging situations and remain underconfident to take up the initiative, people with higher self-efficacy recover quickly even after failure (Wagner, 2009). Thus self-efficacy determines one's success in their activities and behaviors.

Gender role liberalism, also known as sex-role liberalism, embodies the faith in equality and freedom of both genders. It ranges from gender-role socialization to choice of work and leisure-time activities. Gender role liberalism stems from gender-role attitudes that personify the beliefs and attitudes of persons about categorization in tasks, assigned to men and women within a social situation or a specific culture. Gender role theory posits that gender roles consist of people's expectations and beliefs about normative gender differences in psychological and behavioral characteristics (Eagly, Wood & Diekman, 2008). Gender-role attitudes are complex and multifaceted concept. They

refer to wider bands of behaviors from stereotypes about both genders, to opportunities in schooling and employment, roles in the family, and division of household and childcare labor. Traditional sex roles are differentiated, with women's roles centered on household and children, and men's roles centered on economic gains (England & Farkas, 1986). More recently, literature has shown gender stereotyping in characteristics and skills, eg IT and technology-related skills as being 'masculine' and interpersonal skills as more soft and feminine skills (Margolis & Fisher, 2003). Studies on the influence of socialization on male and female college students' gender roles indicate that men's masculinity is considerably higher than women's, and women's femininity is higher than men's (Stephen & Mary, 2008; Zhi, 2011).

Gender-role traditionalism refers to the preference for differentiated roles, while gender-role liberalism indicates a preference for less differentiation between men's and women's roles, and less segregation of roles by gender into the home and work-centered activities. Gender role attitudes, like other attitudes, are shaped by factors both in childhood and adulthood (Blee & Tickamyer, 1995). Although the role of society is colossal in determining the perceived sex-role attitudes, the strongest sex-role attitude seems to occur within the home settings in which parents' education, thoughts, and attitudes influence child's beliefs about sex roles (Susan, 1997). Gender role socialization theory (such as Bandura, 1997) explains that specific sex roles performed by and/or reinforced by parents and other family members enhance the sense of self-efficacy in children about their being perfect for those behaviors. Bandura (1997) identified four main sources of self-efficacy; mastery experiences, social modeling, social-persuasion, and psychological responses (Muretta, 2004). Social modeling is also very important in that parents and peers to play the role of a model in shaping a child's attitude towards sex roles. Studies on the influence of socialization on male and female gender roles indicate significant differences in masculinity and femininity across genders (Stephen and Mary, 2008; Zhi, 2011). Jackson and Scheines (2003) stated that parents' education influences task segregation of children. If the education of parents is high, they are less likely to segregate children's tasks in gender-

specific lines but there is mixed empirical evidence on the effect of parental education on children-related variables (Bazik, 2010). The majority of researchers have found a significant impact of a mother's educational attainment on children's egalitarian attitudes (Fan & Marini, 2000, Cunningham, 2008, Davis & Pearce, 2007). However, Blee and Tickamyer (1995) found that maternal education did not affect their sons' gender role attitudes. Many studies have also found that the higher the father's educational attainment, the more egalitarian his children's attitudes will be (for example, Thornton, Alwin, & Camburn 1983, Fan & Marini, 2000, Cunningham, 2001). One study found that the fathers' educational attainment was only associated with their sons' gender role attitudes (Mahaffy & Ward, 2002). Another study found that the father's education was not statistically significant (Davis & Pearce, 2007). Tahir, Jishnu, and Ejaz (2009) found in research on Pakistani school children that mother's education had a positive impact on children's confidence level. Mother's employment status is also studied in this regard. Whitbeck et al. (1997) explored the impact of parents working conditions on their parenting behavior and then on adolescents' self-efficacy. Results revealed that employed mothers had a more powerful impact on their children's self-efficacy as compared to employed fathers. Buchanan and Selmon (2008) found mixed evidence in this regard. They found the interaction of race with mothers' employment status in predicting self-efficacy. Mothers' full-time employment was positively related to self-efficacy in whites only. They also found a positive relationship between self-efficacy and sex-role liberalism. In general, researchers have found that maternal employment during childhood is not significant (Tallichet & Willits, 1986, Blee & Tickamyer, 1995, Davis & Pearce, 2007). Diametrical perspective on this shows that maternal employment was associated with shifts to more egalitarian gender role attitudes throughout the life course (Fan & Marini, 2000) and that maternal employment is most significant when it occurs during a child's adolescent years (Kiecolt & Acock, 1988). Here family income also seems to play a role. Gender role liberalism might be associated with the gender of the person as well. Bazik (2010) did not find any differences in men and women on sex roles

whereas Buchanan and Selmon (2008) found significant gender differences in self-efficacy and gender role liberalism.

Sex role liberalism becomes all the more relevant when it comes to adult life, involving multiple facets of life like the selection of the field of study and career. Stephen and Mary (2008) examined the influence of entrepreneurs' gender-role identification on self-efficacy and found a positive association. A more liberal attitude towards sex roles and a greater sense of self-efficacy leads to a more open choice of fields and careers. Fan and Marini (2000) reported that among females, equal male-female role attitudes contribute positively to self-image, sex-role orientation, achievement, and self-esteem supporting them in thinking of a broader range of work, career, and family responsibilities. As self-efficacy and sex-role attitudes develop side by side from childhood onwards, it is difficult to argue which predicts the other. On one hand, theoretical argument proposes sex-role liberalism as a predictor of self-efficacy, whereas on the other hand, higher self-efficacy might lead to higher liberal attitudes for one's or other's gender roles (Li, Billimora, Wang & Guo, 2020).

Specifically in Pakistani culture, which is predominantly patriarchal, men with low self-efficacy are expected to have conservative sex-role attitudes to save their status-quo at home or workplaces. Females with higher self-efficacy might have more liberal sex-role attitudes owing to their belief that they are capable of and can handle any situation or otherwise those with low self-efficacy might think that men are better at many tasks than them. Thus this point becomes arguable: whether sex-role liberalism predicts self-efficacy or vice versa. In a society like Pakistan where roles of males and females are fairly segregated due to religious and cultural background, self-efficacy development in a child from the very beginning might be based on gender roles. A person might be considered efficient in one type of behavior or goal pursuits appropriate for his/her gender and not for the other. Thus self-efficacy seems an essential part of sex-role attitudes and being liberal in views might indirectly reflect that the person has a higher sense of self-efficacy as males or females.

In the light of the above literature review, the following hypotheses are formulated:

Hypothesis1: Self-efficacy and sex-role liberalism are likely to be correlated.
1a: There might be a conceptual overlap between self-efficacy and sex-role liberalism
1b: Sex role liberalism is likely to predict self-efficacy
1c: Self-efficacy is likely to predict sex-role liberalism
1d: There is likely to be a reciprocal relationship between both variables i.e sex role liberalism will predict self-efficacy that in turn will predict sex-role liberalism (feedback loop)

Hypothesis 2: Demographic variables (education of mother and father, maternal employment, the gender of the participants, and family income) are likely to predict self-efficacy and sex-role liberalism.

Hypothesis 3: Gender might interact with other demographic variables (parental education and mother employment status) in predicting both study variables.

Method

Participants

The sample of the current study included young adults within the age range from 22 to 35 years (Mean age = 29.89; SD = 2.71). Participants (n=240 teachers; 130 men and 110 women) were from Lecturer and Assistant Professor Cadres, accessed from both private and public universities of Lahore with at least one year of job experience. Participants without any self-reported prior history of physical or psychological illness were included

Table 1

Descriptive Characteristics of the Participants

Variable	Frequency	%	Mean	SD
Age			29.89	2.71

Gender				
Men	130	54.17		
Women	110	45.83		
Father Education			14.50	3.77
≤ 5 years	6	2.50		
6-10	30	12.50		
11-14	87	36.25		
16 and above	117	48.75		
Mother Education			11.36	4.87
≤5 years	39	16.25		
6-10	57	23.75		
11-14	93	38.75		
16 and above	51	21.25		
Mother employment				
Non-working	155	64.58		
working	85	35.42		
Family income†			78.41	15.54
(in thousands)				
≤30	30	12.50		
31-65	48	20.00		
66-100	110	45.83		
>100	62	25.83		

† Income is presented in Pak Rupees
Sample characteristics are presented in Table 1.

Measures

General Self Efficacy Scale (GSES). The General Self-efficacy Scale (Schwarzer & Jerusalem, 1995) is a 10 item scale used to assess a general sense of perceived self-efficacy. The scale aims to measure self-efficacy in dealing with life situations specifically hassles and stressors and adjusting with them. Items are designed to tap the belief that one can perform novel or difficult tasks and cope with stressful life events. Responses are obtained on a four-point rating scale from not at all true to exactly true. High scores indicate greater self-efficacy. Alpha reliability of the scale for the current sample was .86.

Sex-Role Liberalism Scale. This scale was developed by Clarkberg, Stolzenberg, and Waite (1995) through factor analysis of the items on responses to questions on sex-role attitudes developed for the national survey. The scale consisted of 8 items with 5 point response options ranging from strongly disagree to strongly agree. Higher scores indicate greater liberalism about sex roles. Alpha reliability of the scale for the current sample was .88.

Demographic Information Sheet. A questionnaire was provided to gain information about the demographics of the participants. It included age of the participants, gender, job cadre (lecturer or assistant professor), years of service, type of institute working in (public or private), parental education (both father and mother), employment status of mother (working or housewife) and total family income.

Procedure

Permissions were sought from authors of the scales required in the study. Participants were recruited from two large Universities of Lahore after getting permission from authorities of the respective universities. Participants were provided information about the study aims and materials and written informed consent was sought. Questionnaires were filled by all participants individually in one sitting. It took 10-15 minutes on average to complete the questionnaires. A total of 260 questionnaires were administered out of which 256 were received back and scrutinized. 16 of them were discarded for being incomplete. Thus remaining 240 comprised the final study sample used for analysis.

Analyses and Results

As a first step, the psychometric properties of all study measures and descriptive characteristics of the study participants were calculated. Both measures exhibited good internal consistency reliability values. Skewness was found to be well within the range of normal distribution (±1SD).

Table 2
Psychometric and Descriptive characteristics of Study variables

Variable	Mean	SD	Range		Skewness	α
			Minimum	Maximum		
Sex role liberalism	3.87	0.69	2.21	4.95	-.81	.88
Self-efficacy	3.42	0.47	2.35	3.90	-.49	.86

In initial t-tests for the significance of mean differences, no significant difference was observed for the type of university or cadre on study variables, so data were combined for analysis. Results were presented in two sections. Section 1 described findings on the relationship between self-efficacy and sex-role liberalism and section 2 present predictors of both variables.

Relationship between Self-efficacy and Sex Role Liberalism

To check hypothesis 1, the correlation between self-efficacy and sex-role liberalism was calculated. Results indicated moderate correlation between both ($r = .52$; $p < .01$). To further verify if there is any conceptual overlap between both (hypotheses 1a), items of both scales were subjected to joint Principal Component Analysis (PCA). Results are presented in Table 3.

Table 3

Joint Principal Component Analysis (with Varimax Rotation[†]) of Sex Role Liberalism and Self Efficacy Items

Item	Factors in first solution				Revised solution	
	1	2	3	4	1	2
SRL 1	**.79**	.10	.14	.30	**.80**	.16
SRL 2	**.76**	.28	.05	.22	**.80**	.20
SRL 3	**.74**	.04	.03	.05	**.73**	.04
SRL 4	**.73**	.02	.15	.24	**.71**	.31
SRL 5	**.69**	.21	.06	.06	**.70**	.18
SRL 6	**.66**	.13	.33	-.01	**.70**	.15
SRL 7	**.66**	.39	.16	-.24	**.66**	.31
SRL 8	**.63**	.12	.12	-.24	**.65**	.10

SE 1	.03	**.81**	.13	.11	.12	**.65**
SE 2	.27	**.73**	.04	.02	.21	**.63**
SE 3	.10	**.69**	.05	.30	-.05	**.63**
SE 4	.23	**.64**	.23	.09	.12	**.60**
SE 5	-.02	.06	**.76**	.17	.28	**.60**
SE 6	.15	.11	**.76**	.17	.20	**.56**
SE 7	.19	.10	**.72**	.15	.13	**.54**
SE 8	.27	.09	**.52**	**.47**	.34	**.50**
SE 9	.19	.39	**.51**	.06	.09	**.48**
SE 10	.13	.26	.26	**.67**	.31	**.40**
% variance	24.07	14.66	14.2	6.41	25.05	19.13

Note: SRL = Sex role liberalism; SE = self-efficacy. Factor Loadings above .40 are boldfaced.

[†]The same solution resulted even when rotational strategy was changed to direct oblimin.

Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .78 and Bartlett's Test of Sphericity was significant ($p < .001$). The joint PCA solution resulted in a four-factor solution with 59.17% explained variance. All of the items of the Sex-Role Liberalism Scale loaded to one factor whereas items of the Self Efficacy Scale loaded on to three factors. Thus, our supposition that both concepts overlap was rejected. Sex role liberalism was proved as a unitary concept that is different from self-efficacy, though both are related and self-efficacy itself is further distributed into three factors. When the analysis was revised with several factors to extract fixed at two, the solution provided two different concepts of self-efficacy and sex-role liberalism with no cross-loading.

Next we tested hypotheses on directionality of relationship between sex role liberalism and self-efficacy (1b, 1c and 1d). As a precondition of directionality of relationship as recommended by Anderson and Gerbing (1988), first measurement models of both variables were separately tested through confirmatory factor analysis (CFA) in AMOS. These analyses showed both measurement models fitting data well with one latent factor for each. Fit indices for

measurement model of self-efficacy were: χ^2= 88.1, df=29; p < .001; Goodness of Fit Index (GFI)= .93; Incremental Fit Index (IFI)= .90; Comparative Fit Index(CFI)=.90; Root Mean Square Error of Approximation [RMSEA] = .08; Standardized Root Mean square Residual [SRMR] = .07. Fit indices for sex role liberalism were: χ^2= 33.84, df=12; p < .01; GFI = .97; IFI= .98; CFI=.98; RMSEA = .08; SRMR = .04. For directionality of relationship between sex role liberalism and self-efficacy, three separate models were tested. In model 1, path from sex role liberalism to self-efficacy was drawn; in model 2, path from self-efficacy to sex ole liberalism was drawn and in model 3, reciprocal paths from self-efficacy to sex role liberalism and vice versa were added. Results of the analyses are presented in Figures 1a, 1b and 1c. Fit indices showed that although both direct path models yielded acceptable fit but reciprocal model was the best fit (Model 1a: χ^2= 26.42, df=8; p <=.001; GFI = .97; IFI= .96; CFI=.96; RMSEA= .08; SRMR = .09; Model 1b: χ^2= 24.53, df=4; p < .001; GFI = .97; IFI= .95; CFI=.95; RMSEA = .07; SRMR = .10; Model 1c: χ^2= 1.27, df=13; p =.530 .01; GFI = .68; IFI= .99; CFI=.99; RMSEA = .00; SRMR = 01).

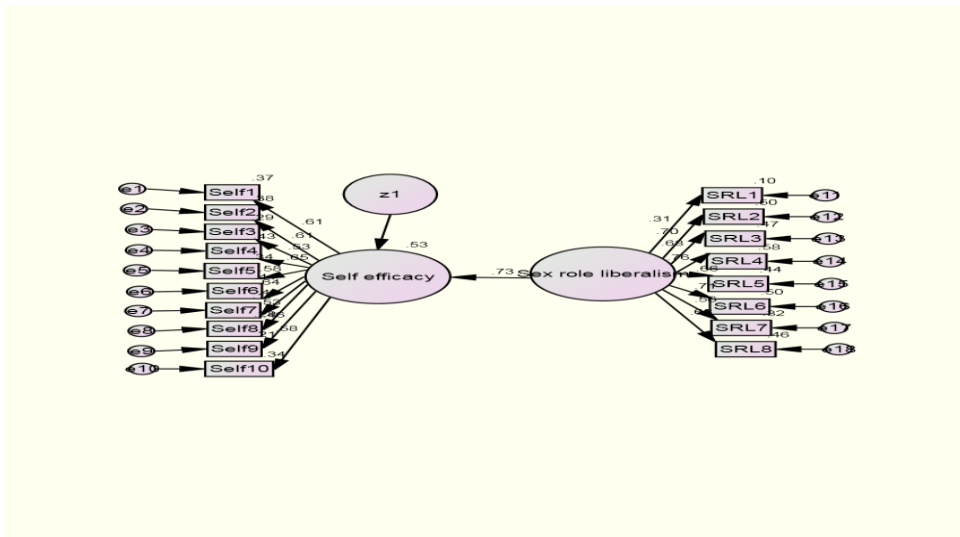Figure 1a: *Sex role liberalism as a predictor of self-efficacy*

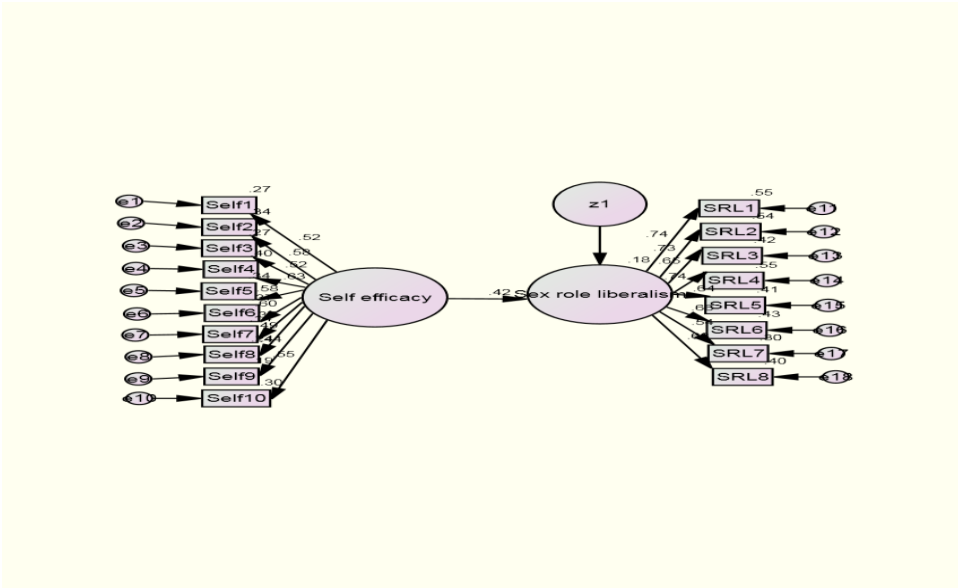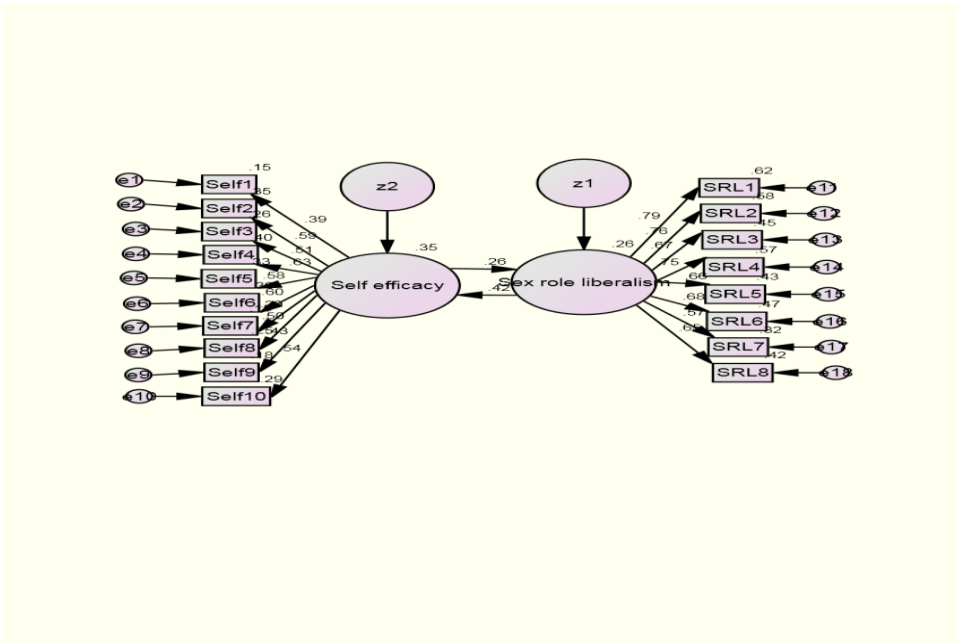Figure 1b: *Self-efficacy as a predictor of sex-role liberalism*

Figure 1c: *Figure showing the reciprocal relationship between self-efficacy and sex-role liberalism*

Independent predictors of both variables were explored through hierarchical regression analyses. Two separate hierarchical multiple regression analyses were run for sex role liberalism and self-efficacy as dependent variables. In both analyses, demographic variables were entered in the first step. While predicting sex-role liberalism, father education, mother education, mother employment status, gender, and family income were entered in the first step. In the second step, self-efficacy and third step, the interaction of gender with father and mother education, mother employment status, and self-efficacy were entered. Analysis with self-efficacy as the dependent variable was performed following the same steps with sex-role liberalism as a predictor at the second step. Results are described below in Tables 4 and 5.

Table 4

Hierarchical Multiple Regression Analysis for Predictors of Sex Role Liberalism

Predictor	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Father education	.10	.11	.07	.21	.10	.15	1.15	.31	.81***
Mother education	.07	.11	.07	.08	.10	.07	.20	.28	.18
Mother employment	2.55	-.95	-.24**	1.85	.84	.17*	1.18	2.68	.11
Family income	.24	.35	.05	.07	.30	.01	-.14	.31	-.03
Gender	.15	.69	.01	.07	.60	.01	1.70	2.43	.16
Self efficacy				.67	.08	.49***	.49	.24	.35*
Gender X FE							-.67	.21	-.69*
Gender X ME							-.22	.19	-.40
Gender X MEmp							3.05	1.21	.60*
Gender X self efficacy							.09	.16	.09
R^2	.12			.33			.39		
F		6.32***			19.02***			14.87***	
ΔR^2		.12***			.21***			.07***	

*p<.05; **p<.01; ***p<.001.

Note: FE = Father education, ME = Mother education, MEmp = Mother employment

With sex-role liberalism as the dependent variable, all models were significant and at each step, the addition of variables resulted in a significant change in explained variance of the model. In the first model, mother employment was the only significant predictor of sex-role liberalism. In the second model, self-efficacy and mother employment were predicting sex-role liberalism. In the final model, when interactions were added, mother employment turned insignificant whereas father education appeared as a significant variable along with self-efficacy and interaction of gender with father education and mother employment. The overall model explained a 39% variance in DV.

Table 5

Hierarchical Multiple Regression Analysis for Predictors of Self efficacy

Predictor	Model 1			Model 2			Model 3		
	B	SE	β	B	SE	β	B	SE	β
Father education	-.17	.08	-.16*	-.20	.07	-.20**	-.62	.24	-.60*
Mother education	.22	.08	.28**	.20	.07	.25**	.39	.21	.48
Mother employment	1.04	.69	.13	.14	.62	.02	1.41	2.08	.18
Family income	.27	.25	.07	.19	.22	.05	.26	.24	.07
Gender	.12	.50	.07	.07	.44	.01	3.21	1.85	.41
Sex role liberalism				.36	.04	.49***	.59	.16	.81***
Gender X FE							.27	.16	.38
Gender X ME							-.17	.14	-.42
Gender X MEmp							-.73	1.25	-.21
Gender X SRL							-.15	.09	-.32
R^2	.11			.32			.35		
F	5.84***			18.50***			12.11***		
ΔR^2	.11***			.21***			.02		

*$p<.05$; **$p<.01$; ***$p<.001$.

Note: FE = Father education; ME = Mother education; MEmp = Mother employment; SRL = Sex role liberalism.

In predicting self-efficacy, all three models were significant but the third model did not add any significant variance to the previous model. Father education and sex-role liberalism were consistent predictors of self-efficacy across all models. Overall explained variance of the model was 35%.

Interactions (hypothesis 3) were found significant in regression analysis of sex-role liberalism needed to be analyzed further to explore the exact nature of the interaction. Interaction plots were drawn to examine the exact nature of the interactions. Figure 2 presents the interaction of father education with gender in predicting sex-role liberalism.

Figure 2: *Interaction between gender and father education in predicting sex role liberalism*
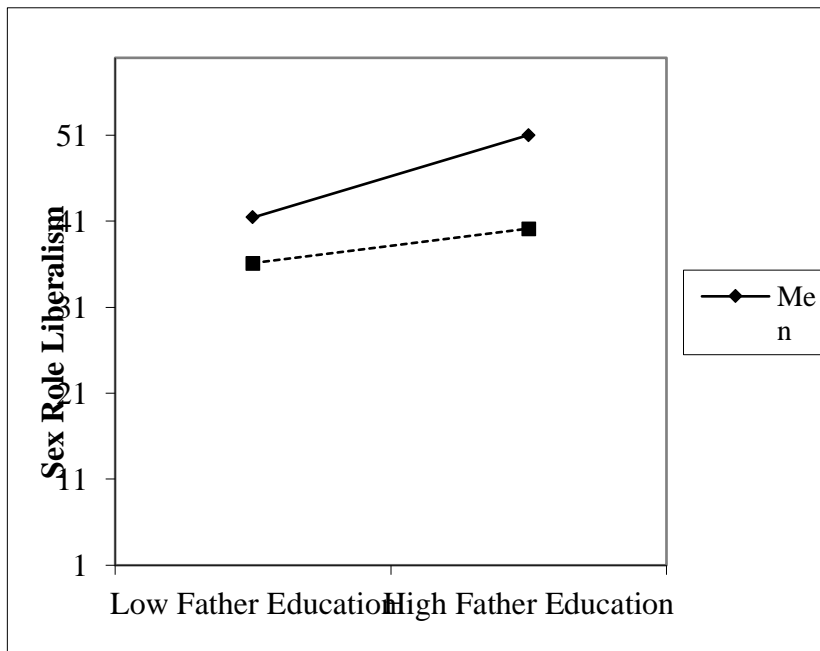
Higher father's education was associated with greater sex-role liberalism in both genders but this effect was more pronounced for men.

Figure 3 shows the interaction of gender with mother employment in predicting sex-role liberalism.

Figure 3: *Interaction between gender and mother employment in predicting sex role liberalism*
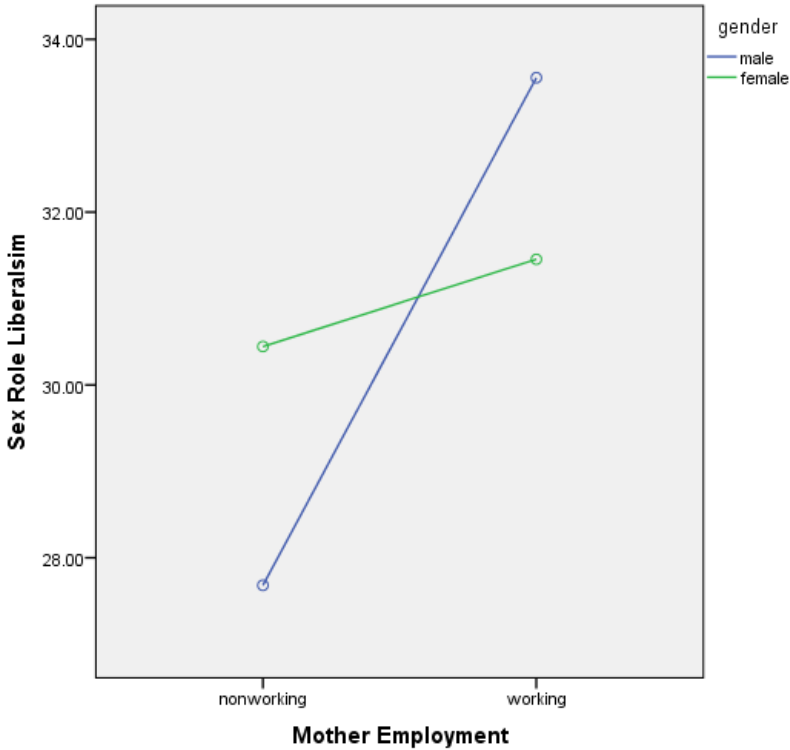
The general trend was similar in that both men and women. Men and women whose mothers are working showed greater sex-role liberalism but the nature of difference was reversed. Women with non-working mothers had higher liberalism than men whereas men with working mothers had higher liberalism than women.

Discussion

The current study aimed to determine the nature of the relationship between self-efficacy and sex-role liberalism and to explore its predictors. Four alternate possibilities were examined and it was

established that both are significantly correlated; however, there was no conceptual overlap between both. In factor analysis, no cross-loading of the items of both scales indicated that sex-role liberalism is a concept distinct from self-efficacy. It was presumed that when gender role socialization takes place in childhood, at the same time self-efficacy develops and it might be a part of that. Thus they may exist as concurrent and but remain distinctively apart. This has been supported through previous empirical contributions (Miller & Byers, 2008). A reciprocal relationship between both variables was also found. It gives a profound indication that a person's sex-role liberalism i.e. beliefs about equal chances for and capabilities of both genders lead to greater belief in his/her abilities that in turn leads to greater liberal attitudes towards gender roles. This appears to be equally applicable to both men and women. If men or women think that they should enter so-called cross-gender fields, it means that they possess higher self-efficacy, they would excel in any field. Specifically in Pakistani society, liberalism or conservatism is perceived more as an issue when women are entering male-dominated jobs. It can be argued that if men or women feel threatened by women entering male-dominated fields or think that women are not capable of doing well in such fields or jobs, it stems from their conservative attitudes towards sex roles, as the current study divulges.

Further, when predictors of both sex role liberalism and self-efficacy were investigated, gender did not predict any of the variables. In contrary to earlier findings (Bazik, 2010, Arshad, Farooq, Atif & Farooq, 2020), there was no independent association of gender with self-efficacy or sex role liberalism in the current investigation. This finding is probably attributed to the better education and working status of participants. Participants in the current study were working in universities that do not threaten the dominance of particular gender, and by dint of better education, they had liberal beliefs about sex roles and their self-efficacy. Fenyes (2014) in one such study on young adults from higher education found that students, hailing from villages were not more traditional in their gender role attitudes as they were living in cities during their studies. Thus being in the same environment itself is a factor

leading towards equality in sex roles. Kalil and Kunz (1999) found that unemployed women have less self-efficacy and less egalitarian attitudes towards sex roles than do women who are employed out of the home. Concerning females, it can be argued that as they have already chosen the same career as those of men in our study, joining the same career might be considered a reason for having the same level of liberalism as those of men from this profession. In Pakistani society, a teaching career is considered equally prestigious and suitable for men and women.

Sex role liberalism was also predicted by the education of the father. Father's education was positively associated with sex-role liberalism. As the interaction of gender with father education was found significant, it further helped in understanding the association between self-efficacy and sex-role liberalism. As reported earlier, though the association was positive for both genders father's education impacted men more than women. It ascertains that modeling plays a crucial role in gender-role socialization and consequently liberalism regarding these roles. As education is found associated with liberal attitudes (Fenyes, 2014), its effect seems to get transferred more in the male child as compared to the female child. The same findings were reported by Mahaffy and Ward (2002) who found that father's educational attainment was only associated with their son's sex-role attitudes.

Mother's employment status was found interacting with gender in predicting sex-role liberalism. Prior studies have found that mother's employment affects the liberal attitudes of their children (Fan & Marini, 2000; Pagnis & Verghese, 1994). In the current study, it was found that men with working mothers had greater sex-role liberalism as compared to women with working mothers. This is an insightful finding as women with non-working mothers had greater liberal views as compared to men. It can be argued that men, who see their mother working, outside of their homes, somehow develop liberal attitudes about males and females. The effect of mother employment can further be indirectly explained through the father's education. The employment status of the mother was positively associated with the father's education in our study. Assortative mating theory (Crow & Felsenstein, 1968; as cited in Marks, Bun, and

McHale, 2009) predicts that individuals tend to choose partners with similar attributes and thus wives and husbands are expected to be more similar than unrelated women and men. Empirical findings support this notion in showing that married couples, as compared to randomly paired couples, are more similar in values, attitudes, and personality along with demographics and other psychological outcomes (Luo & Klohnen, 2005). Though we did not measure liberalism in mothers or fathers, it can be argued that greater liberalism in men might be an indirect result of their mother and father being liberal or they might have clinched from their mother's work the liberalism of their father. Either employed mothers themselves have a more egalitarian outlook or they are working because they belong to family background and environment that is egalitarian such as their parents, husbands, etc. In specific Pakistani culture, liberalism is generally considered more in context with women's work and choices (that are relatively limited) as compared to men. Secondly, many women who work share the burden of bread-winning with their men. This relieves the burden on men whereas adds to burden on women due to dual responsibilities of job and household. On the other hand, women whose mothers are not working exhibit more liberal attitudes as they have not achieved this status yet. Whether direct or indirect, it can be inferred that for making a difference in the attitudes of men, the status of women is equally important. Overall it is important to note that men had less liberal attitudes as compared to women if the effect of father education or mother employment was not there. This gives us enlightenment to conduct future research for exploring parents' sex-role liberalism to see its relation with their children's liberalism.

Self-efficacy was positively predicted by sex-role liberalism and negatively predicted by the father's education. Association with sex-role liberalism is discussed earlier in this section. The negative association of a father's education with self-efficacy is an unexpected finding. Though prior research has mixed findings regarding the relation of self-efficacy with father's education. Either no relationship was reported (Fayyaz & Anjum, 2008) or a positive relationship was found (Ingoldsby, Schvaneveldt, Supple & Bush, 2012). Thus, the negative association in the current study is not in alignment with previous findings. As this can

be noted from regression analysis of self-efficacy, mother's education significantly and positively predicted it while father's education negatively predicted self-efficacy. When interactions of gender were added to the model, the mother's education turned insignificant and the father's education became an even stronger predictor with a large increase in beta value. It indicates some moderation/mediation links in explaining self-efficacy that highlight the need to execute further inquiry and exploration before surmising any conclusions.

Limitations and Suggestions

The current study envisaged an attempt to explore the relationship between and identify predictors of self-efficacy and sex-role liberalism. Few limitations are noted that are presented for future researchers to address. First, we selected working participants from a career (teaching) that is equally accepted rather appreciated for both genders in Pakistani culture. Thus it might have affected the results, inclusion of stigmatized professional groups such as flying, surgery may yield better insight into the intricacies of sex-roles and liberalism phenomenon. Future research should include participants from more diverse and male/female-dominated careers as well as non-working females to understand the full range of liberalism or conservatism and beliefs about self-efficacy across genders. Another important aspect is that factor of education in participants was controlled. If participants with diverse educational backgrounds are selected, the effect of their education can also be examined. Finally, an attempt was made to analyze the nature of the relationship between both variables through sophisticated statistical techniques, yet they cannot cover the methodological shortcoming of the cross-sectional research design of the study. A longitudinal research design is warranted for confirming the directionality issue.

Implications

Nonetheless, this study has important implications regarding promoting liberal attitudes towards sex roles. Father education and mother working status as predictors of self-efficacy and sex-role liberalism respectively indicate that views of male members and actual status of female members affect their youngsters. As it is generally

observed in Pakistani society that married women do the job successfully with the support from their husbands, male education even becomes more important. As attitudes of men are found more affected by parental variables in our study and lower in case of low father education and mothers as a housewife, it becomes increasingly important to focus the Pakistani male child at home and in educational institutions for inculcating more liberal attitude. On the other hand, women should be given more practical opportunities, like the choice of career, which will enhance their status and contribution in society and will, in turn, bring more liberal attitudes and consequently greater self-efficacy in both men and women.   Lastly, future research is needed to understand what predicts sex-role liberalism in women as compared to men as it remains less clear in the current study.

Conclusion

The present research revealed a relationship between self-efficacy and sex-role liberalism. Both were found significant predictors of each other with sex-role liberalism having a great contribution. Father's education and mother's employment status showed a greater impact on sex-role liberalism. Men with higher father's education were found more liberal towards gender roles. Similarly, men with working mothers showed more liberalism in their role attitudes as compared to the women with working mothers. The present research gives the insight that male child is needed to be focused at home and at other institutions to inculcate liberal attitudes and education is a key to that.

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