

Task-Specific Occupational Self-Efficacy and Gender Role Attitudes of Pakistani Adolescents

Saadia Aziz & Anila Kamal
National Institute of Psychology
Quaid-i-Azam University, Islamabad.

The present research is aimed to investigate the relationship between task-specific occupational self-efficacy and gender role attitude of adolescents. In Part I Task-Specific Occupational Self-Efficacy Scale was translated and Part II dealt with exploring the relationship between task-specific occupational self-efficacy and gender role attitude. Gender wise differences were also explored. Two hundred undergraduate students (100 males and 100 females) studying in different institutions of Rawalpindi and Islamabad participated in the study. Findings revealed that females were more egalitarian in gender role attitudes as compared to boys but still perceived themselves more efficacious in verbal, interpersonal ability. Boys' traditional gender role attitude was in accord to their efficacy in quantitative business ability and physical strength and agility that indicates as boys hold traditional gender role attitudes so they perceive themselves more capable in performing task related to quantitative and business skills and physical strength. Significant gender differences were observed in task-specific occupational self-efficacy as girls scored high on verbal, interpersonal and aesthetic ability whereas boys scored high on quantitative and physical ability. Limitations of the study are discussed and suggestions for counseling younger Pakistani adolescents are offered to guide researchers investigating the psychological mechanisms at work in the formation of self-efficacy beliefs in academic contexts.

Key Words: Task-specific occupational self-efficacy, Gender role attitudes, Adolescent psychology, Educational psychology, and Self-efficacy expectations of Pakistani students

Self-efficacy has been found to be a major construct in assessing an individual's perception regarding level of competence to perform certain tasks. One's appraisal of being competent determines the ultimate level of performance and is important in academic and vocational achievement related to the initiation of career related activities (Brown & Lent, 2006; Multon, Brown, & Lent, 1991; Pajers & Urdan, 2006). Bandura (1997) defined self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated type of performances" (p. 391). Belief that "I can do it" is the basis for successful pursuit of goals or for changing and improving one's situation or oneself (Mischel, 1990). These self-efficacy beliefs act as a basis for individual's motivation, well-being, and personal accomplishment in all facets of life. Research in area of self-efficacy takes into consideration different specific domains of behavior (such as, math and science ability) and careers outcomes (both traditional and nontraditional) with regard to women (Betz, 2007). Traditional careers for women refer to those that adhere to the societal gender role stereotypes and socialization such as teaching, nursing, dress designing, and other healthcare practitioners whereas nontraditional careers for women are those that have been historically saturated by males such as physicians, engineers, computer and math occupations.

The role of self-efficacy expectations and causal attributions for achievement among men and women university faculty regarding research indicates men as holding stronger research self-efficacy beliefs, spend greater amount of time in research activities and show greater productivity than women Vasil (1992). Previous studies reported gender differences and perception of one's gender role attitude as a contributing factor in self-efficacy expectations of men and women in different domains and aspirations for gender appropriate or inappropriate occupations. (e.g., Bonnet, 1994; Busch, 1995; Dickerson & Taylor, 2000; Halena, 1997; Meng-Jung & Chin Chung, 2010; Miura, 1987; Petek & David, 2009; Sandra, 1998). As regard to Pakistan, choice of a major and the bifurcation of arts and science group starts from high school and onward in which students have to opt for either group. Enrolment status of students as cited by FBS (2010) indicate that pre-medical was opted more by females than male students (47%, 53%) in 2008 whereas male students outweigh female students in the pursuit of pre-engineering as their respective percentages in 2008 (82%, 17%) signifying pre-engineering as domain of male students. This inherent mental disposition or social conditioning is empirically substantiated by the percentage of male and female under graduate students passed in science group in 2007 (65%, 35%) and 2008 (67%, 33%). Arts studies seem to be favorite learning pursuit of female students as compared to male students as girls' enrolment in art and science colleges outnumbered boys' enrolment whereas boys' enrolment in the professional colleges had been about thrice of girls. The examination results also revealed that arts group attracts more female than male students. Arguably, the percentage of males and females passed in 2007 (43%, 57%) and 2008 (43%, 56%) showed female edge over males in arts studies (FBS, 2010).

Correspondence concerning this article should be addressed to Saadia Aziz, National Institute of Psychology, Quaid-i-Azam University, Pakistan. E-mail: azizsadi@gmail.com

This situation is more pronounced if urban, suburban and rural areas are considered separately seeing that in urban areas scenario is quite different because more women are creating their space in working environments. Above mentioned facts and figures further substantiate the reasons behind the segregation in career pursuits in indigenous context and this may be attributed to shortage of separate professional colleges for women, socio-cultural inhibitions to get enrolled in co-educational institutions, better access to arts than science colleges in terms of proximity, number of seats, short working hours, and low induction of female candidates because of entering into family life at an early age.

Betz and Hackett's (1981) model of self-efficacy highlights socialization process and learning experiences due to which women lack efficacy for performing many career-related behaviors and therefore fail to fully recognize their potentials and capabilities while pursuing their career goals. The primary notion behind the theory is that women's low expectations of success are the basic source of internal barriers. These internal barriers are influenced by the gender differences in efficacy expectations from four sources of information: Performance accomplishment; Vicarious learning experiences; Emotional arousal; and Verbal persuasion (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Usher and Pajers (2008) indicated that though mastery experience is the most powerful source of self-efficacy yet these sources vary according to contextual factors such as gender, ethnicity, academic ability, and academic domain. Woman's belief in herself to successfully perform within a career or task domain that has historically been dominated by males is known as nontraditional self-efficacy. This phenomenon may be more pronounced in collectivistic cultures where identity is considered a part of a broader cultural group primarily the family in which cultural norms and values strongly adhere to gender specific roles and gender role socialization (Hardin, Leong, & Osipow, 2001). Burke et al. (2009) found that women efficacy is high in spheres they considered more significant. Their concept of self-efficacy was high in gender and culture bias, such as high in familial domain and low in bureaucratic and institutional context. Academic proficiency and math self-efficacy were found to be the stronger predictors of persistence in science and engineering careers (Judith, Bower, & Smantha, 2006) and this persistence is higher for men as compared to women (Mau, 2003).

Gender roles mirror the traditional, existing cultural norms and patterns of people living in a specific place during a particular period. These norms may not be universal and not necessarily be healthy. They are individually constructed and differ according to the context and are related to individual experiences (Fields & Cochran, 2010). Previous studies indicate that adolescent women with modern gender role attitudes tend to have high levels of career commitment and are likely to be more instrumental and efficacious in nontraditional careers (O'Brien & Fassinger, 1993) and these gender role attitudes and self-efficacy expectations within a certain task domain explain why women remain underrepresented in the science, mathematics, and engineering fields (Gianakos, 1995). Anila, Khan, and Sabir (1993) found that men with professional and higher education had more modern sex role attitudes as compared to men with nonprofessional and low level of education. While exploring the role of teachers and educators in academic with reference to Pakistani context Allana, Asad, and Sherali (2010)

pointed that academician can influence the educational outcomes of the students and can play their roles in contemporary society.

In a developing country like Pakistan where women are marginalized and are more disadvantaged, existing social norms and mindsets, practices and policies all show gross discrimination against women, gender concerns are very pertinent and need to be addressed as gender is rarely thought to be important and hardly understood. Discriminatory laws and various inequalities in the access to education, employment, decision-making, and healthcare create hindrance for women to participate actively in every sphere of life. The ranking of Pakistan in the political empowerment of women is 43rd among 128 countries but the overall standing of the country's is 127th out of 130 in new Global Gender Gap ranking. In both women's literacy rate and workforce population Pakistan ranks at 117th, with regard to enrollment in primary education it is ranked at 110th and in wage equality for similar work it is positioned at 60th and in labor force it is 121st amongst the group (Haque, 2010).

Keeping in view it may be particularly relevant to explore this arena to help in explaining the domain specific self-efficacy of both genders specifically women who had limited exposure to occupational and academic experiences that lead to strong self-efficacy (Hackett & Betz, 1981). Disadvantaged position in labor force and the narrow options from which women seem to choose is attributable at least in part to differing expectations of self-efficacy between men and women specifically in Pakistan where educational status of women shows deplorable disparities between men and women. The role of socio-cultural factors that operate through biological potentialities in shaping human behavior, stereotypes that prevail in different groups of society such as family, neighborhood, school, classroom, peer group, mass media, or the culture in which we survive not only challenge women's sense of efficacy in various domains but also demoralize them. These cultural and historical contexts shape adolescents' construction of self, gender appropriate behaviors, and continue to change (Clemans, DeRose, Graber & Brooks-Gun, 2010; Hassan, 1996). Hackett and Betz (1981) viewed self-efficacy expectations to be particularly useful in understanding of women's career development because the gender role socialization of women is less likely than that of men to facilitate the development of strong career related self-efficacy expectations. With regards to present research previously most of the studies were carried out in west and there is a real dearth of research pertaining to Pakistani context that explores the underlying reasons behind the low induction of female students in professional colleges and subsequently low participation in labor force.

Since adolescence is marked as a stressful period of development which involves a pivotal shift from childhood dependency to adulthood independence, self-sufficiency, and self-reliance (Smith, Cowie, & Blades, 1998). This is due to adolescents' belief that unless their actions may not result what they desire, they have little spur to act or to persist in the case of challenges (Pajers, 2005). As adolescents have to make various complex decisions such as choice of courses, extracurricular activities, and level of effort to be invested for future career pursuits (Bandura, 2006; Creed, Prideaux, & Patton, 2005). Very few studies have focused towards examining the self-efficacy of younger adolescents like middle school students, for that reason such an emphasis is very significant because the process of developing vocational preferences and career plans start

at an early age (Jantzer, Stalides, & Rottinghaus, 2009). According to Compendium on Gender Statistics in Pakistan 2009 (Federal Bureau of Statistics, 2010) overall 29.6% of the population fall in the age range of 15-29 years and out of those 10.02% male and 9.40% females fall in the age range of 15-19 years. So a need was realized to empirically justify females' pursuit of arts majors and males' preference for discipline of science, by exploring the relationship between Pakistani adolescents' task-specific occupational self-efficacy and their perceived gender role attitudes as most of the arts subjects require competency in verbal, interpersonal and aesthetic ability whereas discipline of science needs proficiency in mathematics and quantitative reasoning. Another objective was to see gender wise differences in task-specific occupational self-efficacy. In order to meet the objectives correlational research design was used. Based on research documenting the importance of task-specific self-efficacy and gender role attitudes following hypotheses were formulated:

Hypothesis No. 1: There would be a significant positive relationship between girls' traditional gender role attitudes and perceived verbal, interpersonal and aesthetic ability.

Hypothesis No. 2: There would be a significant negative relationship between boys' traditional gender role attitudes and perceived quantitative, business, scientific and physical abilities.

Hypothesis No.3: Girls perceive themselves more efficacious on verbal, interpersonal and aesthetic ability as compared to boys

Hypothesis No.4: Boys perceive themselves more efficacious on quantitative, scientific business ability; and physical strength and agility as compared to girls.

Method

Participants

Overall 200 participant undergraduate students (100 males and 100 females) with an age range of 16 to 18 years ($M_{age} = 17.5$ years, $SD = 4.12$) were selected through purposive sampling. Initially researcher contacted the administration of different institutions to get a prior consent from the heads of institutions. They were briefed about the nature and purpose of the study. After getting the approval of administration, day and time was set on which researcher approached the students in various academic institutions of Islamabad and Rawalpindi (e.g., Govt. Postgraduate College for Women, Satellite Town; Islamabad Model College for Girls; Islamabad College for Girls; Govt. Postgraduate College for Women, F/7-2; Govt. Asghar Mall College for Men; Islamabad College for Boys; 502 Model College for Boys; Islamabad model College for Boys) on voluntary basis. After having their voluntary consent they were given a set of questionnaires including demographic information. They were given some general instructions regarding how to attempt the questionnaire. Then the specific instructions pertaining to each questionnaire were also made clear to them. They were requested to read each statement carefully and select the appropriate response option that they think well represents them. Any query by the respondent regarding the

comprehension of words/statements in the scales was clarified by the researcher. After getting the filled out questionnaires respondents were thanked for their voluntary participation in the research. Equal number of student were taken from humanities/arts group ($n = 100$, 50 boys & 50 girls), and science/general group ($n = 100$, 50 boys & 50 girls).

Instruments

Task-Specific Occupational Self-Efficacy Scale (TSOSS) Task-Specific Occupational Self-efficacy Scale (TSOSS; Osipow & Rooney, 1990) was the first one that assessed individual's level of competence regarding certain tasks. TSOSS is multi-dimensional in nature as it identifies individual's self-efficacy in four different factors that is four different abilities and this multi-dimensionality in analysis is considered a hallmark feature of micro-analytic self-efficacy assessment (Cleary & Zimmerman, 2006). TSOSS is a 60-item scale comprising of four factors. These factors are F1: verbal, interpersonal ability; F2: quantitative, logical, scientific, and business ability; F3: physical strength and agility; and F4: aesthetic ability. It is a Likert type 5-point rating scale (1 = *no confidence* and 5 = *absolute certainty*) on which respondent has to indicate his level of confidence to perform each task. The score range for total TSOSS is 60 to 300 whereas for each subscale it is 15 to 75. All the items are positively scored. Respondent has to indicate his/her level of confidence in case of performing each activity by marking his response in front of option that best describes his perception with regard to perform that activity. Chronbach Alpha for TSOSS (English version) ranged from .91 to .93 for the four factors whereas alpha reliability coefficients of TSOSS (Urdu version) is .89 for total and for subscales ranged from .75 to .87. A number of validity studies have been conducted using TSOSS (Osipow & Temple, 1996). Gati, Osipow, and Fassa (1994) supported the wide cultural language applicability of the scale. In present research the interscale correlations of all the subscales with total TSOSS (Urdu Version) were significant at $p < .000$, showing high internal consistency of the scale.

(ii) *Sex Role Attitude Scale (SRAS)* SRAS developed by Anila & Ansari (1992), is based on Sandra Bem's gender schema theory (Bem, 1981) and comprises of 32 items that assess the attitudes of subjects towards work roles of men and women, parental responsibilities of men and women; occupational abilities of men and women; marriage plan; vital life decisions; personal relationship between men and women; and level and type of academic achievement for men and women. SRAS is a widely used scale with specific reference to Pakistani context (Neelofar, 2001; Salik, 2003). It is a 5-point scale on which respondent indicates the degree of his agreement or disagreement (1 = *absolutely true* and 5 = *absolutely wrong*). Half of the items are phrased traditionally (negatively scored) and half modern (positively scored). In scoring the traditional items are reversed so that the high total score is indicative of modern views. The score range of total SRAS is 32 to 160. High scores indicate more modern/egalitarian gender role attitudes whereas low score indicate traditional gender role attitudes. Alpha reliability coefficient of SRAS is .87 (Anila, 1992), and for present study it was found to be .78. Number of previously

carried out studies in local context indicate the validity of SRAS (e.g., Neelofar, 2001; Tahira, 2005; Yaqoob, 2007; Yousaf, 20003; Zahra, 2009)

Procedure

Research was carried out in two parts. Part I dealt with the translation of TSOSS in Urdu and Part II with exploring the relationship between gender role attitudes and task-specific occupational self-efficacy. Gender-wise differences in terms of task-specific occupational self-efficacy were also explored in part II.

Part I: Translation of Task-Specific Occupational Self-Efficacy Scale

This part focused upon the translation of TSOSS. Before translation of the scale 10 students enrolled in first year of college (equal number of students were taking courses in Urdu and English), with age range of 15 to 20 years were requested to give feedback regarding their perception about the content of the scale. This exercise was done to have an insight into comprehension of students taking courses in both languages. Analysis of the responses revealed that 15 out of 60 items were not comprehended accurately. This may be due to the variation in the context of languages (i.e., Urdu & English). So it was decided to translate the scale into Urdu, which may prove to be helpful in better understanding of items and would enhance validity of the findings. Back translation method was adopted for translation of TSOSS. 15 bilinguals (9 men and 6 women) who had good command on both languages with minimum qualification of post-graduation translated the scale into Urdu. The provided translation evaluated by three psychologists (two Ph.D degree holders, and first author of the present research) with reference to the context, grammar and wording that conveyed the closest meaning was retained. To check the authenticity of Urdu translation, scale was back translated into English by eight bilinguals (4 men and 4 women) who were unfamiliar with the original version and had minimum qualification of post-graduation. Back translation (i.e., from Urdu to English) of the scale was evaluated by the authors. The closest translation with highest frequency was selected and was also counterchecked by the original author of the scale, and was used in the present study after his approval.

Part II: Correlation Coefficients and Gender Wise Differences on TSOSS

Results

Correlation coefficient between task-specific occupational self-efficacy and gender role attitudes was computed in order to find out the relationship between task-specific occupational self-efficacy and gender role attitudes for boys and girls separately.

Table 1 showed the correlation coefficient of gender role attitudes and task-specific occupational self-efficacy. Results shown in the table indicate significant positive relationship between F₁ (i.e., verbal, interpersonal ability) of TSOSS and gender role attitudes of girls. This shows that girls despite of holding modern/

Table 1
Correlations for Scores on SRAS and TSOSS (N = 200)

TSOSS	SRAS (r)	
	Boys (n=100)	Girls (n=100)
1. F ₁ : Verbal, interpersonal ability	.06	.21*
2. F ₂ : Quantitative, business ability	-.30**	-.05
3. F ₃ : Physical strength and agility	-.27*	-.15
4. F ₄ : Aesthetic ability	.16	.18
5. Mean (SRAS)	99.4	108.8

Note. TSOSS = task-specific occupational self-efficacy.

* $p < .05$, ** $p < .01$.

egalitarian gender role attitudes perceive themselves confident in verbal, interpersonal ability. Significant negative correlation has been found between F₂, F₃, of TSOSS with SRAS on boys sample indicating that boys who score low in SRAS (i.e., holding traditional gender role attitudes) are high in their self-efficacy regarding quantitative, logical, scientific, and business ability. To see the Gender-wise differences in task-specific occupational self-efficacy *t*-test was applied on Task-Specific Occupational Self-Efficacy Scale and on SRAS.

Table2
Gender-wise comparison on TSOSS (N = 200)

		Gender					95% CI		Cohen's d
		Boys (n = 100)		Girls (n = 100)		t			
TSOSS		M	SD	M	SD		LL	U	
							L		
1	F1: Verbal, interpersonal ability	38.1	9.5	50.9	11.1	8.7*	0.82	2.90	1.23
2	F2: Quantitative, business ability	57.5	9.9	33.5	10.9	16.2**	0.86	2.96	2.30
3	F3: Physical strength and agility	55.0	10.5	35.1	11.4	12.7**	0.92	2.98	1.96
4	F4: Aesthetic ability	33.0	8.7	53.8	8.7	16.7**	0.890	2.99	2.39

Note. TSOSS = task-specific occupational self-efficacy.

* $p < .05$, ** $p < .01$.

The results shown in Table 2 revealed significant in efficacy of boys and girls in their verbal, interpersonal, and aesthetic ability

with high mean score of girls indicating that girls perceive themselves more efficacious on verbal, interpersonal ability and aesthetic ability. While the significant difference on quantitative, business ability and physical strength and agility with high mean score of boys indicate that boys perceive themselves more competent than girls in quantitative, scientific, business ability and in physical strength and agility.

Discussion

The present study examined the relationship between task-specific occupational self-efficacy and gender role attitudes. Study also investigated the gender wise differences on TSOSS. According to Bandura (1977, 1997, 2000) individual's level of self-efficacy in certain task domain determines the eventual performance on that task, and these efficacy beliefs play an influential mediating role to lend people change their lives for better prospects. Academic and vocational achievement which is related to the initiation of career, related activities are also determined by one's efficacy (Multon et al., 1991).

Correlation coefficients between subscales of TSOSS and total SRAS have been computed. Findings revealed that though girls hold modern gender role attitudes yet they feel efficacious in verbal ability which disconfirms hypothesis number one and in contradiction to previous researches (Busch, 1995; Gianakos, 1995; Hackett & Betz, 1981; Halena, 1997; Junge & Dretzke, 1995; Miura, 1987; Murphy, Coover, & Owen, 1989). Findings of Williams (as cited in Osipow & Temple, 1996) are also contrary to the findings of present study in which he found the consistency between gender role attitudes and responses on TSOSS. Results of O'Brien and Fassinger (1993) and Valenzuela's (1993) study revealed that girls with modern gender role attitudes tend to have high levels of career commitment and are likely to be instrumental and efficacious with regard to math and careers because modern gender role attitudes are indicative of women being more committed to advanced and science related disciplines. Their findings also does not support present results and this contradiction in finding may be attributed to social-cultural and contextual factors because all the above mentioned studies had been carried out in west where pattern of socialization for girls is somewhat different than the east. It is observed that there seems to be a change in thought patterns and perceived values of Pakistani girls as they showed more modern gender role attitudes as compared to boys but they are not so encouraged to pursue more advance and science disciplines that ultimately shatter their confidence in their real potentials. So this contradiction in results shows that change in perceived gender role attitudes is present but this change is not consistent with their preference in practical pursuit of career and has not influenced the perceived self-efficacy of female students.

Significant negative correlation between quantitative and physical ability with gender role attitudes on boys sample show boys perceived traditional gender role attitudes are found to be consistent with their perception of being efficacious in quantitative, scientific, business ability, and physical ability. This confirms the hypothesis number two. These findings are in accord to the previously conducted researches (Busch, 1995; Gianakos, 1995; Halena, 1997; Jung & Dretzke, 1995; Miura, 1987; Murphy et al.,

1989). Findings of Mehta and Strough (2010) also revealed that girls usually carry feminine, expressive traits, and have cooperative activity orientation. The reason behind the difference in perceived self-efficacy of boys and girls regarding certain tasks could be due to significant influence of educational system in Pakistan on the development of gender stereotyped work roles that promote females to choose feminine courses like languages, and home economics whereas boys are encouraged to take math, and science courses. Sax (2007) noted that teachers play a significant role in students' confidence and achievement. Math and science are considered typically masculine domains whereas literature, languages, and the arts are considered as an appropriate choice for females. As per expectations to perform well in tasks that are viewed as gender specific girls tend to have lower self-efficacy than boys in math and science fields. Xin (2010) observed the role that classroom assessment can play in mathematics performance and its relationship to student characteristics by comparing the samples belonging to USA, Canada and Finland. Findings suggested that individual characteristics such as gender, family, social-cultural status of the student, foreign language spoken at home, time and effort spent for test preparation and homework, mathematic self-efficacy and expected education level were related to mathematics performance across the three countries. Schools reinforce gender role stereotypes in their curriculum by making women's achievements invisible and emphasizing more on men's accomplishments which reinforce the idea that males are more worthy and capable than females can better lead and exert influence. Media also plays a significant role in forming images and perception regarding both gender (Wood, 1994).

On task-specific occupational self-efficacy significant gender differences were observed on subscales of TSOSS. Girls were found to be more efficacious in verbal, interpersonal ability, and aesthetic ability as compared to boys. This was in accord to the results of previous researches (Gianakos, 1995; Junge & Dretzke, 1995; Meng-Jung & Chin Chung, 2010; Murphy et al., 1989; Osipow & Rooney, 1992; Osipow & Temple, 1996; Pajers & Valiante, 1997; Sax, 2007; Schoen & Winocur, 1988). Boys reported themselves as perceiving more competent in quantitative, scientific, business ability, and physical strength and agility (Cunningham, Dohert, & Gregg, 2007; Sax, 2007). Meng-Jung and Chin Chung (2010) noted that the usage of internet was for significantly different purposes for boys and girls as boys were had more exploration-orientation and the girls had communication-orientation. Previous studies also support the finding of gender difference in task-specific self-efficacy. Generally boys were observed to be more confident regarding their abilities than girls. Earlier studies (Kay & Hagen, 1995; Lyness & Thompson, 1997; Melamed, 1995; Petek & David, 2009) reflect that women under use their abilities, talents, and perceive less competent for advancement towards higher levels in their professions. These findings confirmed hypothesis number three and four.

In future TSOSS can be used to provide a systematic feedback to individuals about their self-perceptions to aid them in identifying career areas in which they see themselves to be strong. It can also identify those areas in which the individual's self perceptions indicate lower self-efficacy beliefs. For example, high self-efficacy in a given area can identify career areas worth exploring. Whereas

lower self-efficacy in a given area can identify discrepancies between career self-efficacy and career requirements that can be used either to reconsider career options or to find ways to enhance efficacy beliefs and explore underlying reasons limiting the self-efficacy beliefs (Osipow & Temple, 1996). In any developing country like Pakistan where a real gap exists in participation of both genders such as crude participation rate of male in labor force in 2007-2008 was 49.3% and for female this rate was 14.0% (FBS, 2010). National statistics does not count the economic value of women's participation in reproductive sphere and unpaid labor as productive. This gap should be bridged by creating awareness and bringing change in the social environment, altering the thought patterns, raising the literacy rate through providing facilitative environment, and by giving them full encouragement and support to identify their real potentials. This can eventually save their time, effort, and money.

Conclusively, it can be said that the notable significant finding of this research was the exploration of one major underlying reason i.e., self-efficacy for low participation of females in certain domains of labor force and their restriction to limited spheres of life. Moreover girls' modern or egalitarian gender role attitudes indicate that though women roles are changing and they are passing through a transition, but the pace of this change in their thought patterns is quicker than their behavior. The observed incongruence between their perception and task-specific occupational self-efficacy propels one to think that though girls hold modern gender role attitudes yet they are realistic in their efficacy for different domains and recognize their real prowess. As they are well aware of their social, cultural, religious and familial obligations so accordingly they judge their potentials. A need is there to inculcate an attitudinal change in the masses towards women's new embarking role which can be facilitated through taking appropriate measures keeping in view the cultural milieu.

Limitations and Recommendations for Future Research

Present research is an endeavor to explore the relationship between task-specific occupational self-efficacy of adolescents with reference to their gender role attitudes in Pakistani context. For future it would be useful to replicate these findings with relatively large sample size. Possible interactions between years spent in school, self-efficacy, and gender may also add new findings. Moreover to identify the multidimensionality of TSOSS in Pakistani context confirmatory factor analysis will also enhance the construct validity of the scale. In future task-specific occupational self-efficacy in relation to certain personality traits may also be explored indigenously in the prediction of career exploration and pursuits of adolescents. Beyond this study the broader implications for the adolescent students could be that this research based information will be helpful in admission policies and job strategies for males and females. This research based empirical data may substantially prove beneficial in making strategic policies and actions that could exert long term effects. Promoting gender awareness in parents and teacher can minimize gender discrimination in society and would facilitate the change in curriculum and at policy level. Moreover revising curriculum text, making educational system more gender sensitive and gender friendly, promoting gender neutral language at

all levels, devising gender sensitive policies, programs, and interventions, highlighting the role of government and nongovernment organizations, promoting gender sensitive organizational culture, allocating specific budget for sustaining gender sensitive agenda, introducing teacher training programs, institutionalizing special committees, setting media campaigns to address and promote gender equality are some of the measures that can be taken to mainstream gender in all institutions of the society (Allana, Asad, & Sherali, 2010). As in Pakistan specifically in government school and colleges there is no trend to explore students' interests, aptitudes and potentials at the time of admission that ultimately leads to a large percentage of dropouts or who are unable to complete academic year, this not only leads to wastage of time, money, and effort, but also discourage them and make them feel low. Non-college-student samples such as employees in different organizations may also be approached to explore their level of self-efficacy in different domains which may prove to be helpful in assigning responsibilities.

References

- Allana, A., Asad, N., & Sherali, Y. (2010). Gender in academic settings: The role of teachers. *International Journal of Innovation, Management and Technology*, 1(4), 343-348.
- Anila. (1992). Sex role attitudes of working and non-working women. *Pakistan Journal of Psychological Research*, 7(1-2), 31-39.
- Anila., & Ansari, Z. A. (1992). *Development of sex role attitude scale for Pakistan*. Unpublished manuscript, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.
- Anila., Khan, F. N., & Sabir, F. (1993). Men's sex role attitudes as related to their age, marital status, occupation, and education. *Pakistan Journal of Psychological Research*, 8, 53-63.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- Bandura, A. (2000). Self-efficacy: The foundation of agency. In W. J. Perrig (Ed.), *Control of Human Behavior, mental processes, and consciousness* (pp. 17-33). NJ: Erlbaum.
- Bandura, A. (2006). Adolescent development from an agentic perspective. In F. Pajers & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp.1-22). Greenwich, Ct:Information Age Publishing.
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72(1), 187-206.
- Bem, S. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354-364.
- Betz, N. E. (2007). Career self-efficacy: Exemplary recent research and emerging directions. *Journal of Career Assessment*, 15(4), 403-422.
- Betz, N. E., & Hackett, G. (1981). The relationship of career-related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, 28, 399-410.
- Bonett, R. M. (1994). Marital status and sex: Impact on career self-

- efficacy. *Journal of Counseling and Development*, 73, 187-190.
- Brown, S. D., & Lent, R. W. (2006). Preparing adolescents to make career decisions: A social cognitive perspective. In F. Pajers & T. Urdan (Eds.) *Adolescence and education: Vol. 5. Self-efficacy beliefs of adolescents* (pp.201-223). Greenwich, CT: Information Age.
- Burke, N. J., Bird, J. A., Clark, M. A., Rakowski, W., Guerra, C., Barker, J. C., & Pasick, R. J. (2009). Social and cultural meanings of self-efficacy. *Health Education Behavior*, 36(1), 111-128. Doi: 10.1177/1090198109338916
- Busch, T. (1995). Gender differences in self-efficacy and attitudes towards computers. *Journal of Educational Computing Research*, 12(2), 147-58.
- Cleary, T. J., & Zimmerman, B. J. (2006). Self-regulation empowerment program: A school-based program to enhance self-regulated and self-motivated cycles of student learning. *Psychology in the Schools*, 41, 537-550. doi: 10.1002/pits.10177
- Clemans, K. H., DeRose, L. M., Graber, J. A., & Brooks -Gunn, J. (2010). Gender in adolescence: Applying a person- in-context approach to gender identity and roles. In J. C. Chrisler & D. R. McCreary (Eds.), *Handbook of gender research in psychology* (pp. 527-558). NY: Springer.
- Creed, P., Prideaux, L., & Patton, W. (2005). Antecedents and consequences of career decision strategies in adolescence. *Journal of Vocational Behavior*, 67, 397-412. doi:10.1016/j.jvb.2004.08.00
- Cunningham, G. B., Doherty, A. J., & Gregg, M. J. (2007). Using social cognitive career theory to understand head coaching intentions among assistant coaches of women's teams. *Sex Roles*, 56(5-6), 365-372. doi: 10.1007/s11199-006-9175-z
- Dickerson, A., & Taylor, M. A. (2000). Self-limiting behavior in women group and organization management. *Thousand Oaks*, 25(2), 191-210. doi: 10.1177/1059601100252006
- Everhart, C. B., & Chelladurai, P. (1998). Gender differences in preferences for coaching as an occupation: The role of self-efficacy, valence, and perceived barriers. *Research Quarterly for Exercise and Sport*, 62(2), 188-199. Retrieved from <https://secure.sportsquest.com/su.cfm?articulo=S-270448&title=S-270448>
- Federal Bureau of Statistics, Statistics Division, Government of Pakistan. (2010). Compendium on gender statistics in Pakistan 2009 (UNFPA Publication). Retrieved from <http://www.statpak.gov.pk>
- Fields, A., & Cochran, S. (2010). Men and Depression: Current Perspectives for Health Care Professionals. *American Journal of Lifestyle Medicine* doi: 10.1177/1559827610378347
- Gati, I., Osipow, S. H., & Fassa, N. (1994). The scale structure of multi-scale measures: Application of the split-scale method to the task-specific occupational self-efficacy scale and the career decision-making self-efficacy scale. *Journal of Career Assessment*, 2, 384-397. doi: 10.1177/106907279400200405
- Gianakos, I. (1995). The relation of sex-role identity to career decision-making self-efficacy. *Journal of Vocational behavior*, 46, 131-143. doi: 10.1006/jvbe.1995.1009
- Hackett, G., & Betz, N. E. (1981). A self-efficacy approach to the career development of women. *Journal of Vocational Behavior*, 18(3), 326-339. doi:10.1016/0001-8791(81)90019-1
- Halena, P. (1997). Gender self-efficacy expectations and occupational. *The Finnish Journal of Education, Kasvatus*, 28(2), 166-179.
- Haq, R. (2010). *Gender and nexus of purdah culture in public policy* (MoWD Alumni Network-GTZ CB-MoWD Project). Retrieved from <http://mowdalumni.com.pk/pdf/driffat.pdf>
- Hardin, E. E., Leong, F. T. L., & Osipow, S. H. (2001). Cultural relativity in conceptualization of career maturity. *Journal of Vocational Behavior*, 58, 36-52. doi:10.1006/jvbe.2000.1762
- Hassan, R. (1996). Achievement motivation and achievement attitudes. In Hassan, I. N. (Ed.), *Psychology of women*. Islamabad: Allama Iqbal Open University.
- Jantzer, A. M., Stalides, D. J., & Rottinghaus, P. J. (2009). An exploration of social cognitive mechanisms, gender, and vocational identity among eighth graders. *Journal of Career Development*, 36 (2), 114-138. doi:0.1177/0894845309345841
- Judith, M., L., Bower, B. G., & Samantha, B. (2006). Gender and Motivation. *Journal of School Psychology*, 44(5), 351-373. doi:10.1016/j.jsp.2006.04.004
- Junge, M. E., & Dretzke, B. J. (1995). Mathematical self-efficacy gender differences in gifted/talented adolescents. *Gifted Child Quarterly*, 39, 22-28.
- Kay, F.M., & Hagan, I. (1995). The persistent glass ceiling: Gendered inequalities in the earnings of the earnings of lawyers. *British Journal of Sociology*, 46, 279-310.
- Lyness, K. S., & Thomson, D. E. (1997). Above the glass ceiling? A comparison of matched samples of female and male executives. *Journal of Applied Psychology*, 80, 359-375.
- Mau, W. C. (2003). Factors that influence persistence in science and engineering career aspirations. *Career Development Quarterly*, 51, 234-243.
- Mehta, C. M., & Strough, J. (2010). Gender segregation and gender-typing in adolescence. *Sex Roles*, 63(3-4), 251-263. doi: 10.1007/s11199-010-9780-8
- Melamed, T. (1995). Barriers to women's career choices, structural determinant, or simply sex discrimination. *Applied Psychology: An international Review*, 44, 295-314.
- Meng-Jung, T., & Chin-Chun, T. (2010). Junior High School Students Internet Usage and Self-Efficacy: A Reexamination of the Gender Gap. *Computers and Education*, 54(4), 1182-1192. doi: 10.1016/j.compedu.2009.11.004
- Michalelides, M. (2008). Emerging themes from early research on self-efficacy beliefs in school mathematics. *Electronic Journal of Research in Educational Psychology*, N. 14, 6 (1), 219-234.
- Mischel, W. (1990). *Social psychology*. California: Brooks/Cole Publishing Co.
- Miura, I. T. (1987). The relationship of computer self-efficacy expectations to computer interest and course enrollment in college. *Sex Roles*, 16, 5-6. doi: 10.1007/BF00289956
- Multon, K. D., Brown, D. S., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, 38, 30-38.
- Murphy, C. A., Coover, D. & Owen, S.V. (1989). Development and validation of the Computer Self-Efficacy Scale. *Educational and Psychological Measurement*, 49, 893-899. doi: 10.1177/001316448904900412
- Neelofar (2001). *Gender role attitude and gender differences in*

- work family conflict among dual career. Unpublished M.Sc Research Report, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- O'Brien, K. M., & Fassinger, R. E. (1993). A causal model of the career orientation and career choice of adolescent women. *Journal of Counseling Psychology*, 40, 456-469. doi: 10.1016/0001-8791(85)90057-0
- Osipow, S. H., & Rooney, R. A. (1989). *Task-Specific Occupational Self-Efficacy Scale*. Columbus, OM: Authors.
- Osipow, S. H., & Rooney, R. A. (1990). *Task-Specific Occupational Self-Efficacy Scale: Short form*. Columbus, OM: Authors.
- Osipow, S. H., & Rooney, R. A. (1992). Task-specific occupational self-efficacy: The development and validation of a prototype scale. *Journal of Vocational Behavior*, 40, 14-32. doi: 10.1016/0001-8791(92)90044Z
- Osipow, S. H., & Temple, R. D. (1996). Development and use of the Task-Specific Occupational Self-Efficacy Scale. *Journal of Career Assessment*, 4(4), 445-456. doi: 1177/106907279600400407
- Pajers, F. (2005). *Self-efficacy beliefs of adolescents*. Greenwich, CT: Information Age.
- Pajers, E., & Valiante, G. (1997). The predicative and meditational role of writing self-efficacy beliefs of upper elementary students. *Journal of Educational Research*, 90, 353-363.
- Pajers, F., & Urdan, T. (Eds.). (2006). *Adolescence and education: Vol. 5. Self-efficacy beliefs of adolescents*. Greenwich, CT: Information Age.
- Petek, A., & David, D. (2009). An investigation of factors related to self-efficacy for java programming among engineering students. Online Submission, *Turkish Online Journal of Educational Technology*, 8(1).
- Salik, A. (2003). *Gender role attitudes and its relationship with performance on gender typed task in competitive conditions*. Unpublished M.Phil Dissertation, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Sandra, K. (1998). *Career development and gender, race, and class*. (ERIC Digest No. 199). Columbus: ERIC Clearinghouse on Adult Career and Vocational Education.
- Sax, L. J. (2007). College women still face many obstacles in reaching their full potential. *Chronicle of Higher Education*, p. 46.
- Schoen, L. G., & Winocur, S. (1988). An investigation of the self-efficacy of male and female academics. *Journal of Vocational Behaviour*, 32(3), 307-320. doi: 10.1016/0001-8791(88)90022-X
- Smith, P. K., Cowie, H., & Blades, M. (1998). *Understanding children's development* (3rd ed.). Massachusetts: Blackwell Publishers.
- Tahira, Y. (2005). *Relationship between gender role attitudes and attitude towards spousal violence in university students*. Unpublished M.Sc Research Report, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Usher, E. L., & Pajers, F. (2008). Sources of self-efficacy in school: Critical review of the literature and future directions. *Review of Educational Research*, 78(4), 741-796. doi: 10.3102/0034654308321456
- Valenzuela, A. (1993). Liberal gender role attitudes and academic achievement among Mexican-origin adolescents in two Houston inner-city catholic schools. *Hispanic Journal of Behavioral Sciences*, 15(3), 310-323. doi: 10.1177/07399863930153002
- Vasil, L. (1992). Self-efficacy expectations and causal attributions for achievement among male and female university faculty. *Journal of Vocational behavior*, 41(3), 259-269. doi: 10.1016/0001-8791(92)90028-X
- Wood, J. T. (1994). *Gendered Lives: Communication, gender and culture*. Belmont, CA: Woodsworth, Inc.
- Xin, L. (2010). Assessment use, self-efficacy and mathematics achievement: Comparative analysis of PISA 2003 data of Finland, Canada and the USA. *Evaluation & Research in Education*, 23 (3), 213-229. doi:10.1080/09500790.2010.490875
- Yaqoob, H. (2007). *A study of gender role attitudes of women*. Unpublished M.Sc Research Report, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Yousaf, S. (2003). *Acceptance of rape myths in younger and older women and their gender role attitudes*. Unpublished M.Sc Research Report, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Zahra, K. (2009). *Personality traits and gender role attitudes of traditional and nontraditional professionals*. Unpublished M.Sc Research Report, National Institute of Psychology, Quaid-i-Azam University, Islamabad.
- Zimmerman, B. J., & Cleary, T. J. (2006). Adolescents' development of personal agency: The role of self-efficacy beliefs and self-regulatory skill. *Self-Efficacy Beliefs of Adolescents*, 5, 45-69.

Received: 20th February 2015

Revisions Received: 8th November 2015