



Stereotype Threat Faced by Women at Management Positions in The Academic Sector of Pakistan

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The purpose of this paper is to examine the association between stereotype threat and stress level of women occupying managerial positions in academic sector of Pakistan. Furthermore, the study explored the underlying mechanisms through which stereotype threat might translate into negative attitudinal and behavioral reactions. In this research sequential explanatory mixed method approach was opted comprising of two stages. Where first phase is quantitative in nature while the second is qualitative. In the first stage the data were collected from female employees holding the managerial positions in public and private universities of five main cities of Pakistan such as Islamabad, Rawalpindi, Lahore, Multan, and Karachi by opting convenience sampling. The sample size achieved at the end was 213. The response rate was 53.25%. An interview guide was formed on the basis of quantitative study results. We kept on conducting interviews till saturation was achieved and no additional or further information was generated. So, the final sample size for interviews was n=7. Results showed that stereotype threat was positively related to job stress, and identity separation mediated this relationship. Self-doubt also mediated the relationship between stereotype threat and job stress, while psychological empowerment did not moderate it. Co-worker support moderated the relationship between stereotype threat and self-doubt, and co-worker support also moderated the indirect relationship between stereotype threat and job stress. These findings have theoretical and practical implications for addressing the impact of stereotype threat on job stress and improving the well-being of female employees in managerial positions in academia.



Introduction

Despite the prevalent diversity at workplaces, stereotypes pertaining to gender have transformed into a constant obstacle for the women's capability to flourish in the professional fields (Roberson & Kulik, 2007). Women are deemed as weak, sensitive, and devoid of leadership traits-skills that are incoherent with success and growth at workplace (Merluzzi, & Phillips, 2022). Furthermore, women are thought as inferior workers because of the viewpoint that they have comparatively less commitment towards their profession and are more inclined towards their families (Kibreet, 2022). It is common that women get less promotional opportunities at work, face obstacles to reach leadership positions, and earn less compared to their counterparts (Bolotnyy, & Emanuel, 2022).

A recent survey conducted by International Labour Organization (ILO) ranked Pakistan last amongst countries which have lower women proportion at management positions. Only 3% of the management positions are being occupied by women in Pakistan (Dawn, 2020). The situation is no different in academic sector of Pakistan. The research indicates that the prevalent glass ceiling and conventional division of roles persistently hamper the women's ability to reach the top managerial positions (Farooq et al., 2020). The inability of women to reach top management positions instigates different perceptual and attitudinal reactions. Studying the relationship between stereotype threats and negative consequences among female managers in academia sector in Pakistan is crucial in promoting more equitable work environments. Investigating this gap in the literature can provide insights into how to mitigate the negative impact of stereotype threats and support female managers' career development.

Previous research studies highlight a negative association of stereotype threat with work performance (Mariano, et al., 2022; Brodish & Devine, 2009; Kaye & Pennington, 2016), work well-being, recommendation of job to other women (von Hippel et al., 2015), leadership aspirations (Davies et al., 2005), engagement and identification (Oliveira & Cardoso, 2018; von Hippel et al., 2019), intention to quit, job commitment (von Hippel et al., 2019) job satisfaction (Cortlan & Kinias, 2019). However, according to our knowledge there is paucity of studies that visualize the impact of stereotype threat of women at managerial position on their emotional reactions i.e., job stress. So, the first gap of this study is to highlight the linkage between stereotype threat and stress level of women occupying managerial positions in academic sector of Pakistan.

Proceeding further, the research literature displays an enhanced concern on investigating the underlying mechanisms through which stereotype threat among women might translate into negative attitudinal and behavioral reactions. Studying the interactions between anxiety, other emotions with stereotype threats over time can help address the complex emotional mix related to stereotype threats (Zhang, et al., 2022). This study is needed to provide a deeper understanding of the factors that contribute to job stress among women who experience stereotype threat. Stereotype threats can increase job stress, leading to negative effects on employees' well-being and job



satisfaction (Cortland, & Kinias, 2019). Therefore, it's crucial to unravel this gap in literature and identify mechanisms to support female managers in academia. This study uses identity separation as a mediating mechanism between stereotype threat and job stress. The reason behind choosing identity separation as an underlying process is that at workplace disentanglement might occur among women at managerial positions pertaining to their job identity or their female identity. Women who feel that their work needs characteristics incompatible with femininity might feel a requirement to separate these features from their work self (von Hippel et al., 2015). So an effort to get away from feminine self and just embrace the work self might trigger stress among women occupying managerial positions in academia. A research study examined the mediating impact of identity separation between stereotype threat and wellbeing of employees but there is scarcity of research that visualize identity separation as a mediator between stereotype threat and job stress (see von Hippel et al., 2015). This is the first gap that this study intends to address.

Likewise, this study posits that stereotype might trigger self-doubt (Tellhed & Adolfsson, 2018) among women at managerial positions in academia which might further translate into workplace frustration. This is the second gap that this study aims to explore. Previous research literature reveals that self doubt is associated with a plethora of psychological and performance outcomes of employees (Hermann et al., 2002; Zhao et al., 2019). Research posits that individuals having self-doubt as a consequence of stereotype threat feel themselves self handicapped and devoid of abilities which might instigate frustration. Apart from intervening mechanisms, this study also elaborates the boundary level effects of psychological empowerment on the linkage between stereotype threat and job stress. This is the third research gap this study aims to fulfill. Psychological empowerment has been used as a moderator in plethora of studies (Tripathi & Bharadwaja, 2019). Work settings flourishing the feelings of independence, impact and meaningfulness which have a propensity to mitigate stress at work (Tripathi & Bharadwaja, 2019). In the similar manner, we posit that co-worker support can buffer the influence of stereotype threat on self doubt. This is the fourth gap which emphasizes that support from co-workers at work boost the confidence level of employees and it helps them to clarify doubts about their self worth.

Theory and Hypotheses Development

Stereotype Threat and Job Stress

Research literature in the past two decades has extensively focused upon the outcomes of the feeling that an individual is being victimized by negative stereotypes at the workplace (Barber, 2017; Steele, 1997; Weber et al., 2018). This threat is considered a type of socio-psychological threat that arises when an individual is in a condition or performing an act for which a negative stereotype about that particular group exists. There is a scarcity of studies highlighting the impact of stereotype threat on employee engagement at the workplace; however, previous researchers do support this viewpoint.



Studies have shown that stereotype threat is linked with increased employee stress levels, decreased life satisfaction (Silverman & Cohen, 2014), diminished organizational commitment, reduced women's entrepreneurial intentions (Amin, Arndt, & Tanner, 2023; Gupta & Bhawe, 2007), rumination (Schmader et al., 2008), job satisfaction, turnover intentions (Von Hippel et al., 2013), work engagement (Bedyńska & Żołnierczyk-Zreda, 2015), and well-being (von Hippel et al., 2015). The research literature depicts that employees experiencing stereotype threat are in continuous fear of being judged through the lens of the stereotype, which generates stress and tension in them. Moreover, they feel that they have to persistently struggle to demolish their stereotypical image in their organization. They are also very concerned that any individual failure shall be the corroboration of the negative stereotype. All these feelings and fear instigate job stress and anxiety in employees with stereotype threat.

Hypothesis 1: Stereotype threat is positively related to job stress.

Mediating Role of Identity Separation

Identity separation envisages the disengagement of individuals from their identity due to the belief that being component of their group is not extremely important for them. This disengagement is owing to diminishing the endangered identity (Steele et al., 2002). We posit that the stereotype threat can lead individuals to experience a sense of threat to their relevant identity and resort to identity separation as a coping mechanism. This can involve separating one's identity as a woman from one's identity as an employee. This phenomenon is important to study in the context of stereotype threat and its impact on individuals' perceptions of their professional identities (Manzi, et al., 2019). Persons who face stereotypical risks, like misidentifying with a threatening climate, can often try to minimize the threat by misidentifying with the stereotyped culture itself (Schmader et al., 2008; Steele, 1997). According to previous research, individuals actively misidentifying components of group identity to defend against the peril of stereotyping while at the same time retaining positive identification with their group (Pronin et al., 2004).

In response to the threat of stereotypes, individuals may engage in identity division or differentiation by dissociating themselves from group membership aspects perceived to be associated with negative stereotypes, while maintaining affiliation with those perceived as unproblematic. For instance, women in the workplace may downplay the importance of their gender in their identity. This can result in women "splitting" their distinctiveness by disassociating themselves from stereotyped aspects of their collective identity, while simultaneously identifying with elements of their identity that are not linked to the stereotype. Several studies have reported this phenomenon (Pronin Pronin et al., 2004; Årseth et al., 2009). This disassociation from identity owing to the negative stereotype might trigger stress in females at managerial positions. Research highlights that constant switching of identity by females at management position trigger unrest and anxiety in them (Hippel et al., 2015). The reason is that they are in the process of a constant fight with their identification in order to show alignment with desired group characteristics.



Hypothesis 2: Identity separation mediates the relationship between stereotype threat and job stress.

Psychological Empowerment as a Moderator

Psychological empowerment is considered as the extent to which employee perceives his/her organizational value in context of increasing employees' thoughts of capability and self sufficiency pertaining to their job (Wang et al., 2019). An overview of previous literature indicates that psychological empowerment tend to influence employees' attitudes and behaviours (Aggarwal et al., 2020). Empowered employees have a propensity to work individually and accomplish work goals (Suifan et al., 2020) thus, diminishing the threat of being stereotyped or ostracized for being part of the stereotyped group which consequently reduces employees' stress. Several previous studies highlighted that workplace empowerment reduce the levels of stress and frustration of employee et al., 2022). Literature reveals that employees' who feel psychologically empowered possess the capability to control their surrounding work environment and occupational worries (Chung, 2018). Past studies have also investigated the buffering impact of psychological empowerment on employees' attitudinal and behavioral reactions (Kirrane et al., 2019)

Hypothesis 3: Psychological empowerment moderates the relationship between stereotype threat and job stress such that the relationship is weak when psychological empowerment is high as compared to when it is low.

Mediating Role of Self-Doubt

The persons having self-doubt persistently find themselves in perils of being damaged by their negative or weak judgement (Mirels et al., 2002). The research literature depicts that fighting against the negative stereotypes and the stereotype threat can have a negative impact on employee's judgment regarding his/her own self. The theory of negative stereotype threat clearly envisages that when pessimistic stereotype of a certain group becomes a popular criterion of evaluation of performance the persons having stereotype threat have a propensity to start doubting their own abilities thus leading to self-doubt (Stone, 2002). The presence of stereotype threat puts an augmented burden on the individual thus indulging him in doubting his/her own capacity and competency. This persistent self-doubt stemming out of stereotype threat the leads to tension related stress in that employee. Such employee feels difficult to handle the tasks and as a consequence is stressed due to his/her doubtful thinking pattern. Thus, the undesirable viewpoint about one's own judgmental aptitude engages employees in stress at job.

Hypothesis 4: Self-doubt mediates the relationship between stereotype threat and job stress.

Moderating support of Co-worker support

In a work setting, co-worker support is described as social support provided by coworkers. Social support can be offered in four areas: emotional support (care, affection, trust), functional support (providing practical assistance or goods), knowledge support (assisting in problem-



solving), and assessment support (affirmation or self-assessment communication) (Langford et al., 1997). Social support points towards the behaviours aimed at assisting other individuals (Hobman et al., 2009). At the workplace, most unarguable practices of social assistance for employees is co-worker support (Mayo et al., 2012). Co-worker support is deemed as a crucial factor in psychologically devastating circumstances or situations for employees (Xu et al., 2017). Employees with stereotype threat might overcome their doubtful judgements about their self in the presence of supportive co-workers. If co-worker continuously supports the person with stereotype threat in the moments of struggle with stereotypical image in circumstances where such employee feels less worthy him/herself, self-doubt may get weakened (Oliveira & Cabral-Cardoso, 2017). Optimistic interaction with co-workers acts like very recovering process for self-threatened employee. Co-worker emotional and instrumental support can attenuate the positive impact of stereotypical threat on employee self-doubt. If co-workers emotionally support employees, show concern and build confidence of employees in their abilities, the impact of stereotypical threat on self-doubt can be reduced (Lin Dar, 2009). Likewise, co-worker instrumental support concerning completing some tasks of employee can further reduce negative judgement of employees with stereotype threat. So, we propose co-worker support as moderator of link between stereotypical threat and self-doubt.

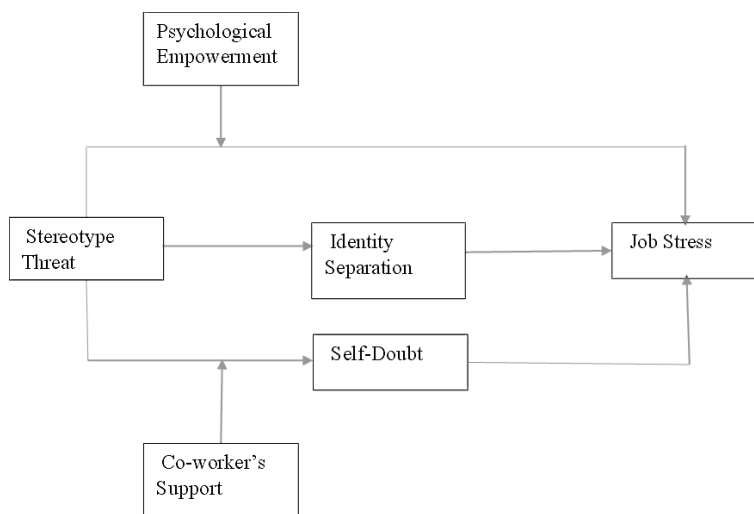
Hypothesis 5: Co-worker support moderates the relationship between stereotypical threat and self-doubt such that the relationship is weak when co-worker support is high is compared to when it is low.

Taken together the above-mentioned hypothesis 4 and hypothesis 5 that evaluated the mediating role of self-doubt and moderating role of coworkers' support between the stereotype threat and job stress. In line with this it is reasonable to further hypothesized that coworkers supports also mitigates the indirect impact of stereotype threat on job stress through self-doubt. According to Preacher et al. (2007) this sort of analysis is described as moderated mediated analysis. Hence, following hypothesis has been developed

Hypothesis 6: Co-worker support moderates the indirect relationship between stereotypical threat and job stress such that the indirect effect of stereotype threat via self-doubt will be weak when co-worker support is high.



Figure 1. Hypothesized model



Method

In this research sequential explanatory mixed method approach was opted comprising of two stages. Where first phase is quantitative in nature while the second is qualitative.

Measures

The details of scales used in this study are as follow: Stereotype threat to assess stereotype threat, the study utilized the ten-item scale developed by von Hippel et al. (2011). Participants were asked to rate their level of agreement with statements such as “My male colleagues view me as less competent due to my gender” using a seven-point Likert scale ranging from strongly agree to strongly disagree.

Identity separation was evaluated by the scale proposed by Benet-Martínez and Haritatos (2005) and consisted of two items. Sample item include “I am conflicted between feminine and work ways of doing things”. The Likert scale of seven points has been used to measure a response ranging from strongly agree to strongly disagree.

Self-doubt was evaluated by the scale developed by Oleson et al., (2000) and consisted of eight items. Sample item include “I sometimes find myself wondering if I have the ability to succeed at important activities”. The Likert scale of six points has been used to measure response ranging from disagree very much to agree very much. Job stress was evaluated by the scale used Motowidlo et al. (1986) and consisted of four items. Sample item include 'My work is incredibly stressful.' The Likert scale of five points has been used to measure response ranging from strongly disagreeing to strongly agreeing. Psychological empowerment was evaluated by the scale proposed by Spreitzers (1995) and consisted of twelve items. Sample item include “The work I do is meaningful to me”. The likert scale of five points has been used to measure response ranging from strongly agree to strongly disagree. Co-worker’s support was evaluated by the scale used



(Zhai et al., 2020) and consisted of five items, on illustration being “My co-workers are easy to talk with”. The Likert scale of five points has been used to measure a response ranging from never to always.

Population

According to Pakistan Education Statistics (2015-16) there are 103 universities in Pakistan. The total number of female employees in these universities are 1,355,649 where 1,141,219 i.e. 84% of the female are working in public and 214,430 i.e. 16% of the females are working in private sector. The total number of female employees in this sector are 602,509 which is the population of the current study.

Study 1 – Quantitative Phase

Sampling and method

The data were collected from female employees holding the managerial positions in public and private universities of five main cities of Pakistan such as Islamabad, Rawalpindi, Lahore, Multan, and Karachi by opting convenience sampling. A list of registered universities was obtained from the Higher Education Commission of Pakistan. With the approval of the management, the hardcopies of questionnaire were handed over to females holding the management positions in numerous departments. While in some cases the administration provided the email addresses of participants and questionnaires were mailed to those participants.

In the current study approximate 400 questionnaires were distributed. However, because of pandemic situation in Pakistan the sample size achieved at the end of data collection phase was 213. The response rate was 53.25%. We collected the demographic information of participants that included age, education, sector and position. All the participants that took part in the survey were females. Moreover, the age of 59.2% participants was 20 to 30. While 38% participants belonged to the age group 31 to 40. Moreover, 59.6% of the participants had 1 to 5 years of experience. Likewise, 32.4% of the participants had 6-10 years of work experience. Moreover, 4.2% of the participants had 11 to 15 years of work experience and 3.8% of the participants 16 to 20 years of work experience. In addition, 31.9% of the respondents belonged to public universities and 68.1% belonged to private universities. 50.7% of the participants held executive or below executive positions in the institutes.

Study 2 – Qualitative Phase

Sampling and method

An interview guide was formed on the basis of quantitative study results and qualitative research question which states: “How the findings that emerge from the qualitative data might be used to provide in depth understanding of the stress levels faced by women managers undergoing stereotype threat”? For the qualitative portion of the study, respondents were selected from those who took part in quantitative phase of the research and showed consent to participate in the second phase. 52 participants showed interest to participate in the qualitative part. Maximum variation



sampling method was used to collect data from interviewees. The logic behind purposefully choosing interviewees on the basis of variance related to education, experience and position in academic sector is gathering of diverse experiences and viewpoints. This technique is employed in previous studies (Van Dellen & Heidekamp, 2015). We kept on conducting interviews till saturation was achieved and no additional or further information was generated. So, the final sample size for interviews was n=7. Researcher wrote the interview answers carefully during the whole interview process. Interviews’ length showed variation 25 minutes to 1 hour. All the interviews were recorded by the interviewers for further analysis

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Quantitative Analysis – Hypotheses Testing

Correlations

Table no 1 below depicts the means, standard deviations, and correlations among the study variables. The result of correlation suggest that all the relationship of all study variables were in the desired direction.

Table No 1: Correlation Analysis

		Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1	Age ^a	1.46	0.62	1									
2	Work status ^b	1.68	0.47	-.08	1								
3	Position ^c	1.52	0.75	.53**	-.03	1							
4	Experience ^d	1.76	0.91	.51**	-.06	.61**	1						
5	ST ^e	3.31	0.96	.06	-.07	-.02	.00	1					
6	IS	4.17	0.59	-.13	-.02	-.06	-.13	.55**	1				
7	SD ^g	3.58	0.91	-.04	.11	-.10	-.13	.38**	.57**	1			
8	JS ^h	3.23	0.74	-.05	-.11	-.07	.01	.58**	.50**	.47**	1		
9	PE ⁱ	3.64	0.78	-.05	-.06	.06	.01	-.34**	-.24**	-.13	-.34**	1	
10	CS	2.77	0.95	-.02	.00	.09	.06	-.54**	-.27**	-.10*	-.28**	.37**	1

Hypotheses Testing

For hypotheses testing PROCESS macro (Hayes, 2013) was used as it is well known technique in social sciences to analyze direct effect, moderation, mediation and indirect effect. Table 4 below depicts the results for conditional indirect impact of psychological empowerment on stereotype threat with job stress through identity separation as a mediator. The results showed



support for hypothesis 1, where stereotype threat was positively related to job stress ($\beta = 0.39, p < 0.01$). The results for hypothesis 2 suggest that identity separation mediates the relationship between stereotype threat and job stress [$\beta = 0.11, 0.05; 0.19$]. Hence, hypothesis 2 is also accepted. Hypothesis 3 postulated that psychological empowerment moderates the relationship between stereotype threat and job stress such that the relationship is weak when psychological empowerment is high as compared. This hypothesis was found to be rejected ($\beta = - 0.27, CI [- 0.47; - 0.08]$).

Table No2. Regression results for conditional indirect impact of psychological empowerment on stereotype threat with job stress through identity separation as a mediator.

Predictor	B	SE	t	p	LLCI	ULCI
Dependent = Identity Separation						
Constant	1.65	0.54	3.08	0.00	0.59	2.71
Stereotype Threat	0.93	0.09	9.86	0.00	0.75	1.12
Age	-0.44	0.18	-2.50	0.02	-0.79	-0.09
Work Station	0.02	0.19	0.12	0.90	-0.36	0.41
Position	-0.18	0.13	-1.40	0.15	-0.44	0.07
Experience	0.24	0.16	1.47	0.14	-0.08	0.55
Dependent Variable = Job Stress						
Constant	2.01	0.67	3.00	0.00	0.69	3.33
Identity Separation	0.12	0.03	3.88	0.00	0.06	0.18
Stereotype Threat	0.39	0.17	2.36	0.02	0.06	0.72
Psychological Empowerment	-0.02	0.14	-0.11	0.91	-0.30	0.27
ST x PE	-0.02	0.04	-0.56	0.57	-0.10	0.06
Age	-0.08	0.08	-1.02	0.31	-0.24	0.08
Work Station	-0.13	0.09	-1.54	0.13	-0.29	0.04
Position	0.11	0.06	1.86	0.06	-0.01	0.22
Experience	-0.08	0.07	-1.15	0.25	-0.22	0.06
Indirect effect of X on Y						
Identity Separation	Effect	Boot SE				
	0.11	0.03			0.05	0.19
Direct effect of X on Y						
	0.34	0.05			0.24	0.44
Total effect of X on Y						
	0.46	0.04			0.36	0.54

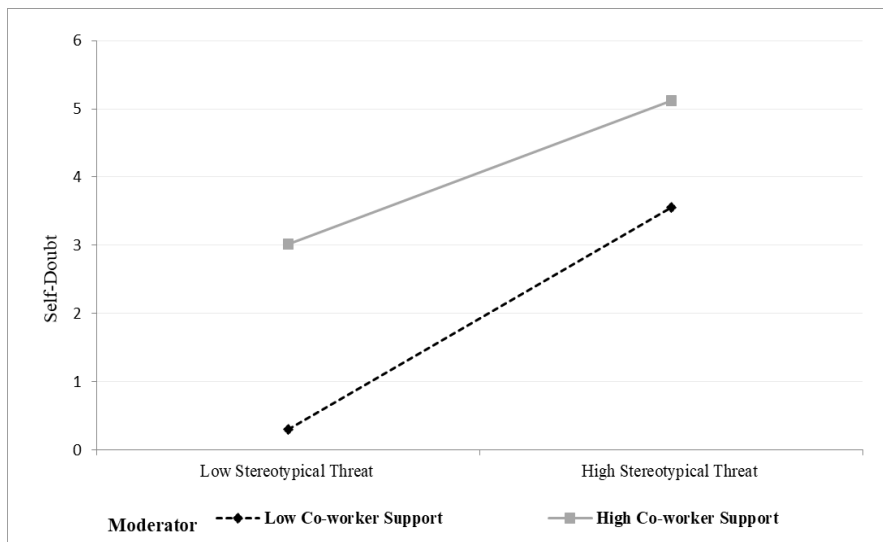
Note n= 213; Unstandardized estimates are reported. Bootstrap sample size =5000

**p < .01



Table 2 shows the regression results for conditional indirect impact of stereotype threat on job stress with self-doubt as a mediator. Hypothesis 4 proposed self-doubt mediates the relationship between stereotype threat and job stress. The results supported this hypothesis ($\beta = 0.09, p < 0.01$). Hypothesis 5 postulated that co-worker support moderates the relationship between stereotypical threat and self-doubt such that the relationship is weak when co-worker support is high is compared to when it is low. Results supported this hypothesis where co-worker support was found to moderate the relationship between stereotypical threat and self-doubt such that the relationship is weak when co-worker support is high ($\beta = -0.29, CI [-0.41; -0.18]$). Figure 2 depicts co-worker support moderates the relationship between stereotypical threat and self-doubt such that the relationship is weak when co-worker support is high is compared to when it is low. Hence, hypothesis 5 is accepted.

Graph No 1: Mod Graph of Moderation



Hypothesis 6 stated co-worker support moderates the indirect relationship between stereotypical threat and self-doubt such that the indirect effect of stereotype threat (through self-doubt) will be weak when co-worker support is high. Results supported this hypothesis such as -1 SD ($\beta=0.21, LLCI=0.10, \text{ and } ULCI=0.36$), at mean ($\beta=0.13, LLCI=0.06, \text{ and } ULCI=0.25$), and at $+1$ SD ($\beta=0.06, LLCI=0.01, \text{ and } ULCI=0.15$).



Table No3. Regression results for conditional indirect impact of stereotype threat on job stress with self-doubt as a mediator.

Predictor	B	SE	t	p	LLCI	ULCI
Mediator = Self-Doubt						
Constant	-1.50	0.71	-2.12	.03	-2.89	-0.11
Stereotype Threat	1.34	0.18	7.44	0.00	0.98	1.69
Co-worker's Support	1.07	0.18	5.82	0.00	0.71	1.43
ST x CS	-0.29	0.06	-5.34	0.00	-0.41	-0.18
Age	-0.01	0.11	-0.13	0.90	-0.22	0.19
Work Station	0.25	0.11	2.21	0.08	-0.02	0.48
Position	-0.11	0.08	-1.47	0.14	-0.26	0.04
Experience	0.02	0.09	0.16	0.87	-0.18	0.21
Dependent Variable = Job Stress						
Constant	1.47	0.25	5.88	0.00	0.98	1.97
Self-Doubt	0.26	0.05	5.65	0.00	0.17	0.36
Stereotype Threat	0.36	0.04	8.19	0.00	0.27	0.45
Age	-0.13	0.08	-1.74	0.08	-0.29	0.02
Work Station	-0.18	0.08	-2.12	0.07	-0.34	0.01
Position	0.11	0.06	2.04	0.04	0.01	0.22
Experience	-0.06	.07	-0.82	0.41	-0.19	0.08
Indirect effect of X on Y						
Self-Doubt	Effect	Boot SE				
	0.09	0.04			0.04	0.18
Conditional indirect effects at specific levels of Co-worker's Support = mean and ± 1 SD						
Co-worker's Support	Indirect Effect	Boot SE				
-1 SD (1.81)	0.21	0.06			0.10	0.36
M (2.76)	0.13	0.04			0.06	0.25
+ 1 SD (3.71)	0.06	0.03			0.01	0.15
Index of moderated mediation						
Self-Doubt	Index	Boot SE				
	-0.08	0.03			-0.14	-0.04

Note n= 213; Unstandardized estimates are reported. Bootstrap sample size =5000

**p < .01

Qualitative Analysis - Thematic analysis

The analysis produced four themes to explain that how stereotype threat impact women at managerial positions. The main themes along with quotations are listed below:

The first theme that generated in qualitative analysis process was regarding glass ceiling. Six participants clearly mentioned that they have faced glass ceiling at different phases of their work life. They were of the viewpoint that male colleagues and higher management never accept this



thing but it is widespread and is having a huge impact on their promotion and general advancement in career. One of the participants (P1) mentioned:

“I don’t know exactly about other sectors, but in education sector we clearly witness a disparity between both genders. Women are unknowingly being hampered from career advancement. I myself feel that there are multiple barriers when it comes to promotion. How many women can you see at top positions in education sector? But this reality no body accepts....” (P1)

The second theme produced during analysis was related to frustration due to being stereotyped. One of the participants said:

“Sometimes we have to go beyond our main work duties to prove ourselves as equally competitive. I mean I have to work sometimes on more things and for a much longer time to negate the stereotype that women are less energetic and engrossed in their family life all time. When I hear comments about my female colleagues like she is never on time, she cannot be a leader, she has always some family issues etc, I try my hard to disprove them. The reason behind this effort is not to be labeled as other colleagues are. Ummm...Don’t you think such an effort 24/7 can get on my nerves...?” (P3)

Another participant also clearly talked about stereotyping and associated fears at work. She mentioned that we have to forget ourselves as a woman to perform our roles and that there is a constant fear of being labeled as non competitive: *“I would just like to quote an incident to answer you. One of my friends went on a maternity leave in the middle of a research project due to her health condition and I have to take the responsibility. I can still remember that the male team members used to say that they avoid working with women as they have unending problems, and that the project got delayed due to her irresponsibility. Even our seniors sometimes pass insensitive comments about women issues. I feel that after witnessing all these things now I am in a continuous effort to prove that I am strong and in this process sometimes I ignore my family” (P2)*

Interviewees highlighted that they come across many situations at work when they start doubting their own abilities. The reason behind is basically the male hegemony at main positions and consistent reminders that women can’t be leaders. One of the participants said: *I am quite competent in terms of my experience and background but there are times when I feel shaky about my abilities. It usually happens when in meetings I try to express my opinion and all of sudden many male colleagues negate my viewpoint. Some people do it just for the sake of criticizing. Since, the strength of females is not more than two or three in such meetings; I have to sometimes hold back my opinion.... (P5)*. While conducting analysis another important theme that emerged was workplace support systems. One of the participants shared: *One thing that keeps us going as women managers is support of our colleagues. I have few male colleagues who joined university with me so they are like family and then I have some very good female colleagues. These people do not let us get tired or lose confidence. Whenever, I feel things are not in my control I approach these support systems and they provide a listening ear. You know at workplace if someone just listens to your worries even that is a blessing.... (P6)*



The interviewees shared that they are in a constant pressure to behave like men in daily work life and forget their female selves. One of the interviewees (P5) mentioned: *“See it is simple; we women have to remain very composed, strict and firm when it comes to dealing with colleagues, administration and even students. Actually we have to portray ourselves in a particular way to survive at workplace. Like in my case or in most cases women are easily convinced and are soft natured but we cannot behave in these feminine ways at work and if we do we are doomed...”* (P5)

An interesting theme that formed during analysis was power dynamics of men. Participants shared that even if they want to change the system or challenge certain unethical practices, they have to face a huge pressure from the power play of males. One interviewee shared: *I am not biased or inclined towards any gender. I just want to say that men and women at managerial positions should be justly treated. I mean I am not saying to disrespect men at any level but women at managerial positions should be treated equally. I know no body will agree but I by virtue of my position cannot decide everything on my own. Ummm... I am answerable to many people and sometimes I am being told: “Madam your decisions are emotional, you cannot survive at workplace like this”. So in short it is a power game”.* (P4)

Discussion

Qualitative Phase

The qualitative portion of the study was based upon the research question: “How stereotype threat instigates stress among women working at managerial positions in academic sector of Pakistan”? Interviewees highlighted that biases against women managers are prevalent in academia i.e. glass ceiling. Interviewees shared that seeing others victimized due to the identity of being ‘woman’ instills a fear that they might be in the same position in future. This finding supports the previous studies (i.e. Steele, 1997) highlighting that stereotype threats are common at workplaces and women are a prime target of them.

Moreover, sometimes women at managerial positions and even generally have to become ignorant of their other responsibilities i.e. family just to break the stereotype that women can’t be good leaders or performers. This continuous process of proving themselves keeps them in pressure and tension most of the time. This finding is consistent with past studies highlighting that women tend to split their identity in order to survive at workplace and escape stereotypes associated with being a women employee (see Arseth et al., 2009).

In another theme, women talked about their “fragile self confidence” at work due to labeling and male domination. They shared that a continuous fear of being labeled as less competent at times results in doubting their own skills. Interviewees mentioned that male presence at most of the top positions and undue criticism brings them to a stage where they doubt their own selves and nothing can be more stressful than that. The interviewees added that they have to portray themselves as very cold and strong in order to maintain their position at work. They highlighted that they have



less autonomy as compared to men and when they make any decision, it is being labeled as an emotional decision. The reason behind such labeling is only their identity as a woman and common stereotypes associated with women employees. Lastly, interviewees mentioned workplace support as a crucial factor in mitigating their doubts and ambiguities about themselves. The interviewees were of the opinion that this support system builds their strength in difficult times when they feel no control over the situation. This finding is aligned with past studies focusing upon the influence of workplace support of employees' psychological and behavioral reactions (Xu et al., 2017).

Mixed Method Research Question Discussion

Mixed method research question envisaged: "How the findings that emerge from the qualitative data might be used to provide in depth understanding of the stress levels faced by women managers undergoing stereotype threat"?

Hypothesis 1 of the quantitative study was related to the positive association between stereotype threat and employee stress. The results of the quantitative study depict that employees having stereotype threat are in continuous fear of being judged through the lens of the particular stereotype which generates stress and tension in them (Hippel et al., 2015). The participants in the qualitative phase further explained this finding by mentioning that they are in a constant effort of negating the common stereotypes faced by women. The second theme "stereotyping triggers frustration" highlighted by interviewees elaborated that women at managerial positions in education sector have to fight the common place stereotypes associated with women such as they are less energetic or competitive as compared to male counterparts. The interviewees mentioned that when they hear such stereotypical comments about other female colleagues they try to negate them in every way possible and this continuous effort is stressful.

Quantitative results of the study also proved the second hypothesis related to mediating impact of identity separation between stereotype threat and job stress. The results are in line with past studies highlighting that stereotype threat engages women in a struggle to differentiate between their work identity and feminine identity (von Hippel, Walsh, & Zouroudis, 2011). Hence, women subjected to stereotype threat show less propensity to integrate both characteristics at workplace. The qualitative findings also provide support to this hypothesis as one of the recurrent themes was "identity conflict" where women at managerial positions clearly highlighted that because of being labeled or stereotyped as incapable or in competitive they have to forgo their feminine identity. They referred that they have to portray themselves as manly and firm in order to get their tasks done which often leads to frustration as forgoing ones' original self is difficult.

The third hypothesis related to moderating role of psychological empowerment on the relationship between stereotype threat and job stress was not proved. The reason behind may be that the empowerment of women at managerial positions is only ceremonial and they do not have complete control over their position and linked tasks. The qualitative interviewees highlighted a theme "power dynamics of men" where interviewees stated that they don't enjoy sufficient



autonomy and control when it comes to exercising their authority due to the male dominated managerial setups. Hence, it might be the reason that women at managerial positions don't feel sufficiently empowered to mitigate their frustration levels.

Proceeding further, hypothesis fourth pertaining to mediating role of self doubt between stereotype threat and job stress was proved. The results revealed that prevalence of stereotype threat puts an enhanced burden and pressure on the individuals thus indulging them in doubting his/her own capacity and competency (Stone, 2002). The theme "fragile self-confidence" highlighted labeling or fear of being labeled or stereotyped takes away the confidence from the women at managerial positions. The interviewees clearly mentioned common stereotyping or such threats e.g. women can't be leaders etc shake their confidence which augments their frustration levels.

Proceeding further, hypothesis 5 regarding the moderating role of coworker support on the relationship between stereotype threat and self-doubt was proved. Results revealed that coworker emotional and instrumental support can attenuate the positive impact of stereotypical threat on employee self-doubt. The qualitative findings also support this finding as interviewees mentioned that support systems at work are confidence boosters. Whenever women at managerial positions feel reluctant or doubtful about their abilities due to the associated stereotypes with women, it is the colleagues who provide support and let them perform their tasks. Furthermore, the results also supported the last hypothesis that emphasized when female employees' experiences stereotype threat this puts an enhanced burden and pressure on them thus indulging them in doubting his/her own capacity and competency further leading to job stress. However, this can be controlled if a female employee receives support from her coworkers.

Implications

While the concept of stereotype threat has been extensively studied in the field of organizational behavior, this research is among the few that focuses on the effects of stereotype threat on social identity in academia and empirically analyzes its impact on a large sample size. Specifically, this study provides new insights into the effects of stereotype threat on non-managerial female employees in academia. The findings have both theoretical and practical implications. The study fills a gap in the existing literature and offers new theoretical perspectives on the effects of stereotype threats. In practical terms, the study suggests that universities could implement HR policies aimed at helping employees cope with stereotype threats and mitigate their negative consequences.

References

Aggarwal, A., Chand, P. K., Jhamb, D., & Mittal, A. (2020). Leader–member exchange, work engagement, and psychological withdrawal behavior: the mediating role of psychological empowerment. *Frontiers in psychology, 11*(1), 15–28.



- Årseth, A. K., Kroger, J., Martinussen, M., & Bakken, G. (2009). Intimacy status, attachment, separation-individuation patterns, and identity status in female university students. *Journal of Social and Personal Relationships*, 26(5), 697–712.
- Barber, S. J. (2017). An Examination of Age-Based Stereotype Threat About Cognitive Decline. *Perspectives on Psychological Science : A Journal of the Association for Psychological Science*, 12(1), 62–90.
- Bedyńska, S., & Żołnierczyk-Zreda, D. (2015). Stereotype threat as a determinant of burnout or work engagement. Mediating role of positive and negative emotions. *International Journal of Occupational Safety and Ergonomics*, 21(1), 1–8.
- Benet-Martínez, V., & Haritatos, J. (2005). Bicultural identity integration (BII): Components and psychosocial antecedents. *Journal of personality*, 73(4), 1015-1050.
- Brodish, A. B., & Devine, P. G. (2009). The role of performance–avoidance goals and worry in mediating the relationship between stereotype threat and performance. *Journal of experimental social psychology*, 45(1), 180-185.
- Bolotnyy, V., & Emanuel, N. (2022). Why do women earn less than men? Evidence from bus and train operators. *Journal of Labor Economics*, 40(2), 283-323.
- Chung, Y. W. (2018). Workplace ostracism and workplace behaviors: A moderated mediation model of perceived stress and psychological empowerment. *Anxiety, Stress, & Coping*, 31(3), 304-317.
- Cortland, C. I., & Kinias, Z. (2019). Stereotype threat and women’s work satisfaction: The importance of role models. *Archives of Scientific Psychology*, 7(1), 8-25.
- Davies, P. G., Spencer, S. J., & Steele, C. M. (2005). Clearing the air: identity safety moderates the effects of stereotype threat on women's leadership aspirations. *Journal of personality and social psychology*, 88(2), 276-289.
- Dawn (2020). Pakistan ranks bottom for countries with women managers: ILO Report. Retrieved from: <https://www.dawn.com/news/1157221>
- Farooq, M., Ahmad, N. M., Mushtaq, A. Q., Ahmad, R. M., Ali, F. H., & Mujahid, A. B. (2020). Role of Women at Top Management in Public Sector Universities of Islamabad, Pakistan. *Journal of the Research Society of Pakistan*, 57(1), 181-197.
- Gupta, V. K., & Bhawe, N. M. (2007). The Influence of Proactive Personality and Stereotype Threat on Women’s Entrepreneurial Intentions. *Journal of Leadership & Organizational Studies*, 13(4), 73–85.
- Hermann, A. D., Leonardelli, G. J., & Arkin, R. M. (2002). Self-doubt and self-esteem: A threat from within. In *Personality and Social Psychology Bulletin* (Vol. 28, Issue 3, pp. 395–408). SAGE Publications Inc. <https://doi.org/10.1177/0146167202286010>
- Hobman, E. V., Restubog, S. L. D., Bordia, P., & Tang, R. L. (2009). Abusive supervision in advising relationships: Investigating the role of social support. *Applied Psychology*, 58(2), 233–256.



- Jia, X., Alvi, A. K., Nadeem, M. A., Akhtar, N., & Zaman, H. M. F. (2022). Impact of Perceived Influence, Virtual Interactivity on Consumer Purchase Intentions Through the Path of Brand Image and Brand Expected Value. *Frontiers in Psychology*, 13.
- Kaye, L. K., & Pennington, C. R. (2016). “Girls can’t play”: The effects of stereotype threat on females’ gaming performance. *Computers in Human Behavior*, 59, 202–209.
- Kibreel, L. (2022). Gender Inequality in Academia: Are Women Inferior in Workplace. Available at SSRN 4318859.
- Kirrane, M., Kilroy, S., & O’Connor, C. (2019). The moderating effect of team psychological empowerment on the relationship between abusive supervision and engagement. *Leadership & Organization Development Journal*, 11(2), 55–69.
- Langford, C. P. H., Bowsher, J., Maloney, J. P., & Lillis, P. P. (1997). Social support: A conceptual analysis. *Journal of Advanced Nursing*, 25(1), 95–100.
- Lin Dar, O. (2009). Trust in coworkers and employee behaviors at work.
- Manzi, C., Paderi, F., Benet-Martínez, V., & Coen, S. (2019). Age-based stereotype threat and negative outcomes in the workplace: Exploring the role of identity integration. *European Journal of Social Psychology*, 49(4), 705-716.
- Mayo, M., Sanchez, J. I., Pastor, J. C., & Rodriguez, A. (2012). Supervisor and coworker support: a source congruence approach to buffering role conflict and physical stressors. *The International Journal of Human Resource Management*, 23(18), 3872–3889.
- Merluzzi, J., & Phillips, D. J. (2022). Early Career Leadership Advancement: Evidence of incongruity penalties toward young, single women professionals. *Organization Studies*, 43(11), 1719-1743.
- Mirels, H. L., Greblo, P., & Dean, J. B. (2002). Judgmental self-doubt: Beliefs about one’s judgmental prowess. *Personality and Individual Differences*, 33(5), 741–758.
- Motowidlo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: its causes and consequences for job performance. *Journal of applied psychology*, 71(4), 618-631.
- Oleson, K. C., Poehlmann, K. M., Yost, J. H., Lynch, M. E., & Arkin, R. M. (2000). Subjective overachievement: Individual differences in self-doubt and concern with performance. *Journal of personality*, 68(3), 491-524.
- Oliveira, E., & Cabral-Cardoso, C. (2017). Older workers’ representation and age-based stereotype threats in the workplace. *Journal of Managerial Psychology*, 32(3), 254–268.
- Oliveira, E., & Cardoso, C. C. (2018). Stereotype threat and older worker’s attitudes: a mediation model. *Personnel Review*, 15(4), 436–451.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate behavioral research*, 42(1), 185-227.
- Pronin, E., Steele, C. M., & Ross, L. (2004). Identity bifurcation in response to stereotype threat: Women and mathematics. *Journal of Experimental Social Psychology*, 40(2), 152–168. [https://doi.org/10.1016/S0022-1031\(03\)00088-X](https://doi.org/10.1016/S0022-1031(03)00088-X)
- Roberson, L., & Kulik, C. T. (2007). Stereotype threat at work. In *Academy of Management*



Perspectives (Vol. 21, Issue 2, pp. 24–40). Academy of Management. <https://doi.org/10.5465/AMP.2007.25356510>

Schmader, T., Johns, M., & Forbes, C. (2008). An Integrated Process Model of Stereotype Threat Effects on Performance. *Psychological Review*, 115(2), 336–356.

Silverman, A. M., & Cohen, G. L. (2014). Stereotypes as stumbling-blocks: how coping with stereotype threat affects life outcomes for people with physical disabilities. *Personality & Social Psychology Bulletin*, 40(10), 1330–1340.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal*, 38(5), 1442-1465.

Steele, C. M. (1997). A Threat in the Air: How Stereotypes Shape Intellectual Identity and Performance. *American Psychologist*, 52(6), 613–629.

Steele, C. M., Spencer, S. J., & Aronson, J. (2002). Contending with group image: The psychology of stereotype and social identity threat. *Advances in Experimental Social Psychology*, 34, 379–440.

Stone, J. (2002). Battling Doubt by Avoiding Practice: The Effects of Stereotype Threat on Self-Handicapping in White Athletes. *Personality and Social Psychology Bulletin*, 28(12), 1667–1678.

Suifan, T. S., Diab, H., Alhyari, S., & Sweis, R. J. (2020). Does ethical leadership reduce turnover intention? The mediating effects of psychological empowerment and organizational identification. *Journal of Human Behavior in the Social Environment*, 30(4), 410-428.

Tellhed, U., & Adolfsson, C. (2018). Competence and confusion: How stereotype threat can make you a bad judge of your competence. *European Journal of Social Psychology*, 48(2), O189-O197.

Tripathi, N., & Bharadwaja, M. (2019). Psychological empowerment and stress: role of personality and power distance. *Journal of Indian Business Research*.

van Dellen, T., & Heidekamp, I. (2015). How Dutch employees experience freedom of learning for work. *International Review of Education*, 61, 735-759.

Von Hippel, C., Kalokerinos, E. K., & Henry, J. D. (2013). Stereotype threat among older employees: Relationship with job attitude and turnover intentions. *Psychology and Aging*, 28(1), 17–27.

von Hippel, C., Kalokerinos, E. K., Haanterä, K., & Zacher, H. (2019). Age-based stereotype threat and work outcomes: Stress appraisals and rumination as mediators. *Psychology and aging*, 34(1), 68-79.

von Hippel, C., Sekaquaptewa, D., & McFarlane, M. (2015). Stereotype Threat Among Women in Finance. *Psychology of Women Quarterly*, 39(3), 405–414.

von Hippel, C., Walsh, A. M., & Zouroudis, A. (2011). Identity Separation in Response to Stereotype Threat. *Social Psychological and Personality Science*, 2(3), 317–324.

Wang, W. T., Wang, Y. S., & Chang, W. T. (2019). Investigating the effects of psychological empowerment and interpersonal conflicts on employees' knowledge sharing intentions. *Journal of Knowledge Management*.

Weber, S., Kronberger, N., & Appel, M. (2018). Immigrant students' educational trajectories: The



influence of cultural identity and stereotype threat. *Self and Identity*, 17(2), 211–235.

Xu, S., Van Hoof, H., Serrano, A. L., Fernandez, L., & Ullauri, N. (2017). The role of coworker support in the relationship between moral efficacy and voice behavior: The case of hospitality students in Ecuador. *Journal of Human Resources in Hospitality & Tourism*, 16(3), 252–269.

Zhang, H., Zhou, X., Nielsen, M. S., & Klyver, K. (2022). The Role of Stereotype Threat, Anxiety, and Emotional Intelligence in Women’s Opportunity Evaluation. *Entrepreneurship Theory and Practice*, 10422587221096905.

Zhao, Q., Wichman, A., & Frishberg, E. (2019). Self-Doubt Effects Depend on Beliefs about Ability: Experimental Evidence. *The Journal of general psychology*, 146(3), 299-324.