The Impact of Coaches' Leadership Styles on Resilience in Female Athletes in Quetta, Pakistan

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ABSTRACT

Resilience is a vital psychological attribute that enables athletes to adapt positively to challenges, maintain motivation, and perform effectively under pressure. This study explored the impact of coaches' leadership styles on the resilience of female athletes in Quetta. A total of 270 female athletes representing different departments, clubs, and teams were selected using the Yamane formula (1979) through a convenient sampling technique. The Multifactor Leadership Questionnaire (MLQ) and the Connor-Davidson Resilience Scale (CD-RISC), consisting of 45 and 25 items respectively, were used to measure leadership styles and resilience. Both instruments demonstrated high reliability, with Cronbach's alpha values of 0.890 for the MLQ and 0.822 for the CD-RISC, and an overall reliability of 0.922. Statistical analyses, including the Shapiro–Wilk test, regression analysis, and ANOVA, were employed to examine the data. The Shapiro–Wilk test indicated that the data were not normally distributed (p < 0.05). Regression analysis showed a strong relationship (R = 0.833) between leadership styles and resilience, explaining 69.3% of the variance (R^2 = 0.693). The Durbin–Watson value of 1.560 confirmed no significant autocorrelation, while ANOVA results verified the overall significance of the model (p < 0.05). Furthermore, Spearman's correlation analysis revealed a highly positive association between leadership styles and resilience (0.883 for MLQ and 0.792 for CD-RISC). These findings emphasize that effective coaching leadership significantly enhances the resilience of female athletes, contributing to their sustained performance, mental strength, and overall well-being.

INTRODUCTION AND LITERATURE REVIEW

Coaches have a key role in the performance and psychological growth of athletes, the ability to bounce back and continue feeling well (Southwick et al., 2014) especially when it comes to building resilience. The styles of leadership as the strategy employed by coaches to control and inspire athletes have great influence on psychological results (Weinberg and Gould, 2018). Introduced by Burns (1978) as well as elaborated by Bass (1985), transformational leadership motivates athletes to transcend individual ambitions for collective achievement or team goal though idealized influence, inspirational motivation, intellectual stimulation and individualized consideration (Avolio and Bass 1995). Transactional leadership is reward oriented and compliance oriented whereas laissez-faire leadership style is hands-off, based on the autonomy of the athletes (Avolio and Bass 1995). Research suggests that transformational leadership creates encouraging conditions that improve leadership skills and psychological development (Huntrods et al., 2017, Weinberg and Gould 2018). However, the exact effect of these styles on resilience in female athletes of Pakistan remains unsatisfied and underexplored.

Leadership in sports is vibrant process that consists of behaviors of coaches, preferences of sportsmen and situational elements (Caruzzo et al., 2021). The multidimensional model of leadership suggests that congruence of desired, actual and needed behavior of leadership can bring better results to the team performance and athlete satisfaction (Caruzzo et al., 2021). The leadership styles adopted by coaches pose a great impact on the mental health of athletes, their motivation and performance (Price and Weiss, 2013). As an example, Huntrods et al., (2017) discovered that supportive coaching settings contribute to competence and acceptance by peers and leadership skills mainly in team sports.

As defined by Bass (1985), transformational leadership is quite effective in the sporting arena. This is a four-component process that includes idealized influence (as a role model), inspirational motivation (as a source of a vision), intellectual stimulation (supporting creativeness) and individualized consideration (as a support to the needs of athletes) (Avolio and Bass, 1995). These behaviors provide inclusive conditions which boost the intrinsic motivation of athletes and their team cohesion (Turnnidge and Côté, 2017). As an example, transformational coaching has been found to cause a significant decrease in the risk of injury by 29 to 40% due the establishment of a positive vision (Ekstrand et al., 2018). Conversely, transactional leadership that focuses on rewards and compliance does not work as effective in building psychological development in the long run (Cherry, 2013). Laissez-faire leadership, which implies minimum interference, can be appropriate in case of self-motivated athletes but accountability may be lower (Becker, 2021).

Resilience, the capacity to adjust to the negativity and still put in good performances and be healthy is essential for athletes who are affected by physical, psychological and social problems (Southwick et al., 2014). The stressors affecting female athletes in Quetta are particularly those related to gender discrimination, lack of facilities and gender norms that control individuals to relate sports to masculinity (Naseer et al., 2019). Resilience helps athletes overcome their fear such as fear of injuries or social pressure and support by coaches plays a significant role in the process (Pedro and Veleso, 2018). As an example, Codonhato et al., (2018) found that resilience with the support of the social group improves the recovery of female athletes after injuries.

The body image issues and disordered eating are gender-related concerns that also contribute to the necessity of resilience (Martinsen and Sundgot-Borgen, 2013). Female athletes normally deal with two sets of expectations, on one hand, athletic performance and on the other hand, their physical appearance which

often increases the level of mental distress (De Bruin and Oudejans, 2018). Also, athletes from minority backgrounds have other obstacles such as access to training, which worsens the situation and increases the necessity to be resilient (Goldback and Gibbs, 2017). Studies suggest that transformational leadership style promotes resilience by empowering athletes and alleviating stress (MohammadKhani and Gholamzadeh, 2016).

The interaction between leadership styles and resilience is not well studies especially among female athletes in conservative environments such as Quetta. Although transformational leadership is linked to favorable effects such as increased motivation and team integration (Galante and Ward, 2017), its effect on resilience of female athletes across cultural barriers remain unclear. This strength is critical to their performance and overall well-being, especially within a culturally limited setting such as Quetta. The results highlight the importance of coaching female athletes using specific approaches that would facilitate their psychological growth. Research shows that democratic and supportive coach-athlete relationships improve self-efficacy and satisfaction of athletes (Lameiras and Martins, 2017), whereas autocratic coach-athlete relationships may decrease motivation (Yusoff and Muhammad, 2018). The absence of research on the impact of leadership styles on resilience among Pakistani female athletes is one of the gaps this study aimed to address.

This is more critical with regard to female athletes on Quetta, Pakistan where the norms of the society, patriarchal system and cultural conservatism limit women's participation in sports (Naseer et al., 2019). In spite of such obstacles, prominent female athletes such as Nahida Khan (cricket) and Sonia Mustafa (football) have succeeded internationally, which means that resilience and good coaching are important. Reflecting on the impact of the coaching leadership style on resilience, coaches need to take an active part in helping female athletes in such scenarios.

In Pakistan, sport has become a rising agenda with success in the field of cricket, hockey and javelin at the international level like the Olympics. However, in Quetta (and other places due to cultural limitations), the number of female participants is low caused by different factors including traditional gender roles and facilities (Naseer et al., 2019). As key organizers, coaches need to embrace leadership styles that address such challenges and also help build resilience to enable athletes to overcome these challenges. This paper explores the impact of coaching leadership styles (transformational, transactional and Laissez-faire) on the resilience of female athletes in Quetta in order to offer a lesson on the possible ways of providing effective coaching in conservative communities.

METHODS

Participants: Nature of this study was cross-sectional and a total of 270 female athletes took part in it. The athletes belonged to different clubs, teams and departments in Quetta, representing different games such as cricket, football, hockey, athletics, karate and table tennis with majority being from a cricket and football background. The athletes were approached via a convenient sampling technique and the inclusion criteria were simple, an athlete with active participation in sports at club, district or department level with a minimum of one year playing experience was considered eligible for this study.

Measures: The variables were measured using two standardized questionnaires i.e. Multifactor Leadership Questionnaire (MLQ) and the Connor–Davidson Resilience Scale (CD-RISC).

Multifactor Leadership Questionnaire

The Multifactor Leadership Questionnaire (MLQ) is a five-point likert scale, developed by Bass and Avolio (1995), it is used to measure the leadership styles of coaches. It contains 45 items ranging from *0 (Not at all)* to *4 (Frequently, if not always)*.

Connor Davidson Resilience Scale

This scale is used to measure resilience level of athletes. It was developed by Connor-Davidson (2003) and comprises of 25 items ranging from 0-4 (Strongly disagree to strongly agree).

Procedure

This study involved 270 female athletes of different clubs, teams and departments I Quetta. The multifactor leadership questionnaire (MLQ) and the Connor-Davidson Resilience Scale (CD-RISC) were used for data collection. The participants were informed about purpose of the study and consent was taken.

Statistical Analysis

Data was analyzed using SPSS 27.0 version. The descriptive statistics were applied to assess the frequency, mean and standard deviation. Reliability analysis was applied to check consistency of the data in the existing sample. Independent variable's effect on dependent variable was analyzed using inferential statistics.

RESULTS

Table 1

Reliability Assessment of multifactor leadership questionnaire (MLQ) and Connor-Davidson resilience scale (CD-RISC) (n=270)

Scale	No. of Items	Cronbach's Alpha
Multifactor Leadership Questionnaire	45	0.890
Connor-Davidson Resilience Scale	25	0.822
Overall	70	0.922

Note: Table 1 shows the reliability of the scales. The Multifactor Leadership Questionnaire (MLQ) and the Connor-Davidson Resilience Scale (CD-RISC) demonstrated reliabilities of 0.890 and 0.822, respectively. The overall reliability of all scales, as indicated by a Cronbach's Alpha value of 0.922, reflects excellent data consistency.
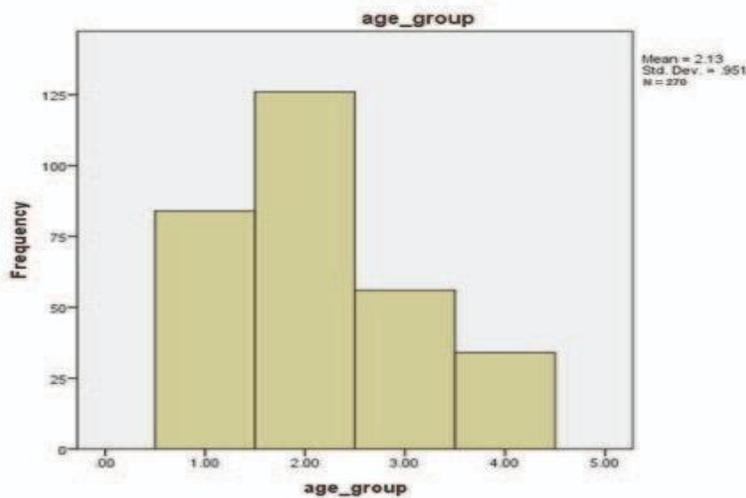
Table 2:

Normality of multifactor leadership questionnaire (MLQ) and Connor-Davidson resilience scale (CD-RISC) (n=270)

| Scales	Shapiro-Wilk		
	Statistic	**Df**	**Sig.**
Multifactor Leadership Questionnaire	0.927	270	0.000
Connor-Davidson Resilience Scale	0.928	270	0.000

Note: In table 2 The Shapiro-Wilk test was employed to assess the normality of the Multifactor Leadership Questionnaire (MLQ) and the Connor-Davidson Resilience Scale (CD-RISC). Shapiro Wilk test is a significant value of the Multifactor Leadership Questionnaire, which is a significance value is 0.000, and 0.000 is the value for the Connor-Davidson Resilience Scale; both values are less than 0.05 that, which shows the numbers is not-average.

Figure 1 Age of the respondents (n=270)

Note: Figure 1 shows the four age categories with a minimum value of 1 and maximum value of 4.

Figure 2 Games of respondents (n=270)

Games of Respondents

■ Cricket ■ Football ■ Karate ■ Table Tennis ■ Badminton
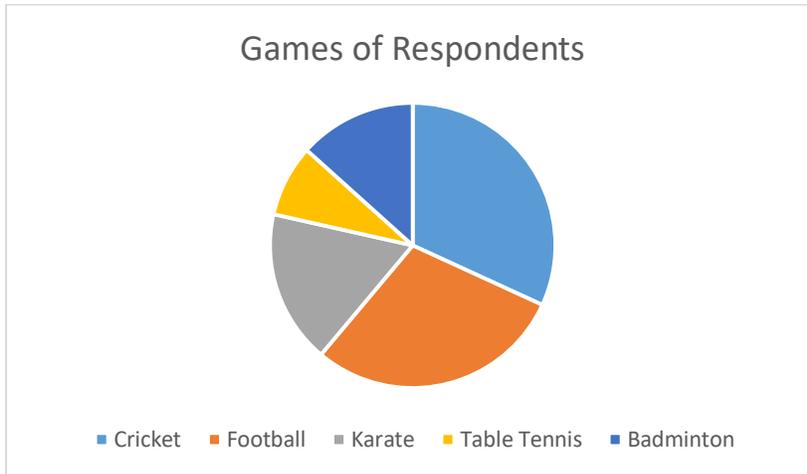
Note: This study is based on five games, cricket, football, karate, table tennis and badminton. Figure 2 shows the percentage of the respondents of each game.

Table 3 Correlations

	Mean value MLQ	**Spearman's Correlation**
Mean value CD-RISC	0.883**	0.792**
Sig. (2-tailed)	0.000	0.000

** Correlation is significant at the 0.01 level (2-tailed).

Note: Table 3 shows correlation value correlation among the means of both dependent and independent is 0.883, which is nearer to a positive one that shows a highly positive Correlation among variables. While spearman's rho correlation shows a correlation value 0.792, which explains the positive association between leadership styles and resilience. Spearman correlation is applicable only in the case of explaining non-parametric correlation.

Table 4: Summary of the Regression Model (n=270)

Model	**R**	**R Square**	**S.E.**	**DW**
I	0.833	0.693	0.286	1.560

R= Correlation of observed & predicted values, R2= R-Square, SE= Standard error of estimate, DW=Durbin Watson, Model-1:

Note: The regression model for MLQ and CD-RISC has been presented. The table-6 shows the values of Correlation (R), R-Square, and standard error of estimate (S.E.) of the regression model for MLQ and CD-RISC. The value of R-square (0.693) shows that 69.3% of the variability in MLQ and CD-RISC of the players can be explained by the predictors of the classic with a satisfactory cost of Durbin Watson, which is 1.560.

Table 5: Results of ANOVA for the Regression Model (n=270)

Model		Sum of Squares	Df	Mean Square	F	P
I	Regression	55.389	1	55.389	673.778	0.000
	Residual	24.497	269	0.82		

df=Degree of Freedom, F=Statistic of F-Distribution, p=Probability value for testing of hypothesis

Note: The outcomes of the analysis of variance (ANOVA) of the model are listed in Table 7. F-Statistics and probability values (p) for table 7 show that the model is significant as ($p<0.05$).

Table 6: Results of ONE-WAY ANOVA for the Regression Model (n=270)

Model		Sum of Squares	Df	Mean Square	F	P
I	Regression	53.765	1	53.763	613.313	0.000
	Residual	26.123	269	0.88		

Note: One-way ANOVA results in table 8 show that the mean Square of the regression model is 53.763 and the residual sum of squares is 26.123. The p-value for the model is 0.000, which is below 0.05, indicating that the model is statistically significant.

**Table 7: Regression Coefficients of the Model(n=270)**

Model	variables	Unstandardized Coefficients (β)	S.E.	t	P
	(Constant)	0.834	0.113	7.362	0.000
	Mean	0.778	0.030	25.957	0.000

SE= Standard error of estimate, t=Statistic of t-distribution, p= Probability value

Note: The unstandardized regression coefficient of the model is shown in Table 9. The regression coefficients in the table indicate that social support has a positive and significant effect ($p<0.05$) on the social identity measurement of players. Established on the above results listed in the table 6-9, the fitted regression model can be expressed as given below.

Figure 3

Graphical representation of regression analysis for model
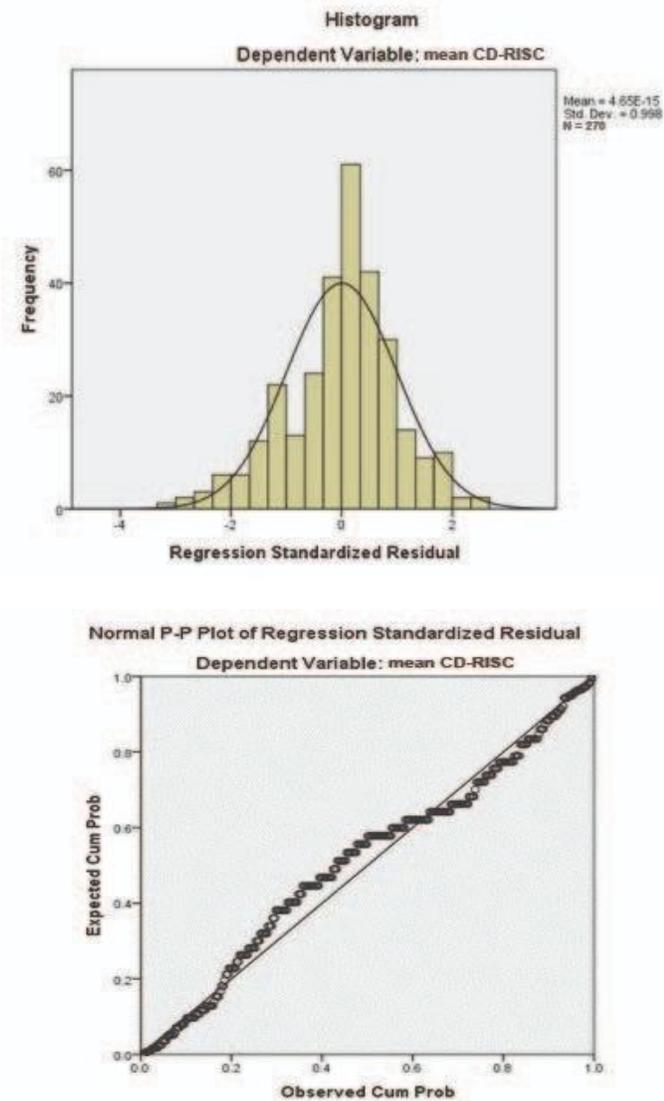
Note: Figure 3 shows the histogram and normal probability plot of the data for the regression model, and the histogram shows skewed data. The line in this p-plot represents the abnormal distribution, and the points represent the observed residuals.

DISCUSSION

This study explored how coaches' leadership styles influence the resilience of female athletes in Quetta, Pakistan, aiming to understand how coaching behaviors help athletes overcome challenges and improve performance. For this purpose Multifactor Leadership Questionnaire (MLQ) was used to assess leadership styles and the Connor Davidson Resilience Scale (CD-RISC) to measure resilience. These instruments were highly reliable with Cronbach's alpha score of 0.890 for the MLQ and for the CD-RISC score of 0.822 and

an overall reliability score of 0.922. These scores are high and confirm that the tools were responsive to the measurement of leadership and resilience within this group and hence, the findings are reliable and relevant to other sports environment, especially within those regions where the same issues exist.

The results showed that coaching leadership styles and resilience of athletes were related strongly. Transformational leadership style of coaches provides the athletes supportive environment in which they feel trusted, motivated and valued. This is what builds resilience in athletes and enables them to overcome the hiccups such as injury, societal pressure or competition pressure. In Quetta where there are no conducive training facilities to support female athletes because of cultural beliefs on the masculinity of sports, a conducive coach is crucial. These findings are consistent with previous research that found out that a good leader can increase mental and emotional resilience of the athletes (Bass and Avolio, 1995).

Resilience is greatly supported by transformational leadership that implies motivation of the athletes, attention to their personal needs and stimulation of creative thinking. Motivational coaches who have clear goals are able to assist the athletes to build mental toughness and confidence to deal with difficult situations. According to Bass and Avolio (1995), transformational leadership enhances self-belief and coping skills of atheltes, a fact that is consistent with this study's. Laissez-Faire leadership style, where coaches offer minimal guidance or autocratic style, which is too controlling, may adversely affect the development of athletes and their teams, decreasing resilience.

Female athletes are not inherently resilient but this depends on their environment with coaching playing a key role. Athletes, who develop a sense that their coaches are sympathetic and supportive, cope with pressure easily. In particular, the significance of this in Quetta where women athletes such as Nahida Khan and Sonia Mustafa have succeeded despite the constraints of the society is very important. By fostering a positive and inclusive environment, coaches can ensure that athletes are able to overcome several barriers such as gender discrimination and other resource problems and become more inclined to remain in sports and achieve more.

This paper is important as it concentrates on female athletes in Quetta who have not been studies much in the field of sports psychology especially in the conservative setting of Balochistan. Women in this case encounter special challenges which include having expectations of being a family oriented than sporting oriented and they have fewer opportunities than their male counterparts. These challenges can be overcome by coaches who apply motivating and participatory styles and create settings in which female athletes will feel empowered and appreciated. This can increase resilience as well as attract more women to participate and remain in sports to ensure gender equality in sports.

The results also reveal that resilience is the key to success in sports. Strong athletes are able to remain composed in tough situations, learn when things go wrong and adjust to the circumstances. Open communication, independence and emotional, control which promote, will allow athletes to avoid stress, burnout and anxiety. This implies that coaching programs are not only supposed to impart sports skills but also aim at instilling mental strength and emotional well-being.

The implication of these results to sports organizations, training of coaches and policies in Pakistan are crucial. There should be training of coaches on transformational leadership, emotional intelligence and resilience building strategies. This has the potential of causing improvements in performance and mental health of the athletes particularly the female athletes in areas like Quetta. Gender-sensitive coaching should also be promoted in sports programs in order to meet special needs of women to participate and succeed in sports.

Hovever, this study has some limitations too. It is also cross-sectional so we cannot be sure that resilience is a direct result of leadership styles. In the future, longitudinal studies may be employed to determine how coaching behaviors change resilience in the long run. Athletes could also be interviewed or discussed in groups which would give more information about their experiences and how they perceive their coaches. Research into different sports, competitions or coaching environments may reveal how leadership works in various contexts.

Quetta has certain cultural aspects that may affect the way athletes react to coaching which includes rigid gender stereotypes and lack of appreciation of women in sports activities. Future research might consider the influence of the cultural factors on leadership and resilience. Comparison of male and female athletes or urban and rural regions would also have significant differences. Also, it is possible that researching the influence of the personal background of coaches on their leadership style such as their training or cultural beliefs could add to our knowledge.

CONCLUSION

This leadership has examined how coaches' leadership styles has an effect on resilience of female athletes in Quetta and has provided important and considerable insights on how coaches behaviors influence athletes resilience. The identifiable trends in the study indicate an impact of specific coaching approaches such as empowering, transformational or participative styles, nurturing resilience qualities in female athletes. The coaches who use such styles can significantly promote athletes' mental fortitude, flexibility and resilience in competitive atmosphere. The above implications go beyond statistical connections to highlight the critical role coaches play as blueprints of resiliency within female athletes. With the use of effective leadership styles, coaches can foster the culture of resilience, enabling athletes to overcome the fear of failure, setbacks and succeed in their sporting journey. Such understanding provides the opportunity to redefine coaching practices. Through a focus on developing the resilience as well as technical skills, coaches in Quetta and similar settings can utilize leadership styles that empower athletes to not only be good competitors but also resilient individuals who can overcome the obstacles sports as well as in other areas of life. Although this paper demonstrates the effect of coaching styles on resilience in female athletes, future studies can explore further the mechanism and the contexts in which various styles of leadership directly lead to development and sustenance of resilience among female athletes.

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