Original Article   **http://hnpublisher.com**

Perceived Parental Practices and Mental Health Problems of University Students in the Cultural Context of Pakistan

Arif Nadeem¹ ⁱᴰ, Muhammad Saleem² ⁱᴰ, Aqeel Ahmad Khan³ ⁱᴰ

¹Lecturer, Department of Applied Psychology, Government College University, Faisalabad, Pakistan.
²Professor, Department of Applied Psychology, The Islamia University of Bahawalpur, Pakistan.
³Assistant Professor, Department of Applied Psychology, The Islamia University of Bahawalpur, Pakistan.
Correspondence: arifnadeem@gcuf.edu.pk¹

ABSTRACT

The current study aimed to explore the relationship of perceived parental practices with mental health problems in university students. For this purpose, a sample of 480 university students in the age range of 17-26 years (M=20.51; SD=1.48) was selected using stratified random sampling technique. The perceived parental practices and mental health problems were assessed through Egna Minnen Beträffande Uppfostran-Adolescent Version (Castro *et al.*, 1990) and Student Problems Checklist (Mahmood & Saleem, 2011) respectively. Results of the study revealed a significant negative relationship between the perceived fathers' emotional warmth and mental health problems whereas a positive relationship between the perceived fathers' rejection and mental health problems. Nevertheless, there was an insignificant association between fathers' over-protection and mental health problems in the participants. On the other hand, the perceived mothers' emotional warmth was negatively associated with mental health problems while the perceived mothers' rejection and over-protection were positively correlated with mental health problems in the participants. Furthermore, regression analysis revealed that the participants with a higher level of perceived fathers' emotional warmth had less proneness to have mental health problems. Suggestions and implications are discussed based on the current findings.

Keywords. Perceived Parental Practices, Mental Health Problems, University Students, Collectivistic Culture.

Introduction

Parents play a vital role in the growth and psycho-social development of their children (Knappe *et al.*, 2010). Therefore, studies (e.g., Becker et al., 2010) have highlighted the importance of parenting in the growth and development of children and adolescents. Various parenting styles have been under study by researchers (e.g., Boz & Ergeneli, 2014; Erozkan, 2012; Rubin & Kelly, 2015; Yasmeen, 2013) among which four have got the most popular i.e., authoritative, authoritarian, permissive, and uninvolved parenting. On the other hand, some researchers have investigated the role of parenting in terms of child-rearing practices/parental practices instead of parenting styles (e.g., Bilal *et al.*, 2013; Byford *et al.*, 2012; Guimond *et al.*, 2012). Hence, researchers started focusing on parenting in terms of parental practices

rather than considering it a mere biological relationship between the child and parents (primary caregiver). Since the term "parental practices" is defined as the particular behaviors and strategies used by the parents to control and socialize their offspring (Lightfoot *et al.*, 2009) therefore, parental practices can be viewed as more objective and specific to study instead of parental styles.

However, the perception of children about these practices is another important aspect (Saleem *et al.*, 2017). Therefore, it has been considered more important in the last few decades that the perception of children regarding parental practices should be studied instead of parental practices to comprehend the phenomenon more clearly. Since, parents play a vital role to manage, controlling, and shaping the behaviors of their children using usually positive reinforcement and punishment so, the perception of children regarding the parental mode of training is imperative to keep under-consideration that resultantly affects the parent-child relationship and perception of parenting (Saleem *et al.*, 2015). Hence, most of the researchers (e.g., Jun *et al.*, 2013; Kausar & Kazmi, 2011; Kazarian *et al.*, 2010; Khaleque & Rohner, 2012; Mitsopoulou & Giovazolias, 2013; Nishikawa *et al.*, 2010; Rafiee & Chehrei, 2016; Rasmi *et al.*, 2012; Saleem *et al.*, 2015) have studied the phenomenon of parenting in terms of perceived parental practices.

Several studies across the world have explored the association of parental acceptance/rejection with psycho-social adjustment and the mental health of individuals, particularly children and adolescents (Rohner *et al.*, 2005). Existing literature has shown that perceived parental practices are not only associated with children's cognitive development (Byford et al., 2012) but also suggested the association of parental acceptance and rejection with better mental health and serious mental health issues respectively (Khaleque & Rohner, 2012). Thus, disruption in the perceived parental practices leads to mental health issues including psycho-social, and emotional dysfunction (Becker *et al.*, 2010; Erozkan, 2012).

Literature Review

In a review of 43 studies conducted in 15 countries, Khaleque and Rohner (2002) confirmed that perceived parental warmth was positively associated with mental health in young adults. Furthermore, the young adults belonging to accepting (loving) families were more likely to have good feelings about themselves, a more positive view of the world, and lesser mental health issues as compared to those who were from rejecting (unloving) families. Parallel to this, collating cross-cultural shreds of evidence, Rohner and Britner (2002) concluded that perceived parental practices were universally associated with personality and mental health including; psycho-social adjustment, well-being, behavior issues, mood problems, and substance use.

Subsequently, Rohner (2004) reviewed the theoretical foundations as well as empirical pieces of evidence supporting the parental acceptance-rejection syndrome as a set of parental behaviors as perceived by the children including; warmth/affection, coldness/lack of affection, hostility/aggression, indifference/ neglect, and undifferentiated rejection. These behaviors appeared universally to be conveying the symbolic messages as my parent/caregiver "loves me" (i.e., perceived acceptance), or "does not love me" (i.e., perceived rejection). It was also found that the psychological adjustment of individuals universally tends to vary depending upon the extent of accepting or rejecting behaviors of the caregivers/significant others as perceived by the individuals. In another meta-analytic review of 66 studies conducted in 22 different countries, Khaleque and Rohner (2012) declared that a positive association between perceived parental acceptance/warmth and their children's psychological adjustment has been established for both children as well as adults across all cultures. All these reviews indicate that perceived parenting has been studied most frequently in terms of parental emotional warmth, over-protection, and rejection.

These perceived parental practices seem to have life-long effects on children as empirical studies conducted on children, adolescents, and young adults have depicted the same findings. Therefore, the existing literature suggests that over-protective parenting is maladaptive (e.g., Leung, 2021; Van Petegem *et al.*, 2020) and is associated with developmental problems in adolescents (Flamant *et al.*, 2022). Such

over-protective parenting also leads to maladjustment, low self-esteem, depression, and anxiety in adolescents and young adults (Van Petegem *et al.*, 2022), where young adults and adolescents are at high risk for the adverse consequences of over-protective parenting as compared to other age groups (Soenens & Vansteenkiste, 2020). Furthermore, Dwairy (2010) found that perceived parental acceptance and rejection were positively associated with adolescents' better psychological adjustment and the likelihood of developing psychological disorders respectively. Most interestingly, this study also revealed that perceived inconsistent parenting (i.e., a combination of accepting and rejecting parenting) was more harmful to the mental health of the participants as compared to the perceived straightforward parental rejection.

In other studies, almost consistent findings have been evident as perceived parental emotional warmth was found to be positively associated with the well-being and self-efficacy of adolescents (Kausar & Kazmi, 2011), whereas negatively associated with emotional distress (Operario *et al.*, 2006), social anxiety (Festa & Ginsburg, 2011), self-regulation, interpersonal adjustment (Baker & Hoerger, 2012), depression (Jun *et al.*, 2013), and problematic behaviors (Wu et al., 2015). On the other hand, perceived parental rejection and overprotection/cover-control were positively associated with social anxiety (Festa & Ginsburg, 2011), adjustment difficulties, deficits in self-regulation, psychopathology (Baker & Hoerger, 2012), self-victimization (Mitsopoulou & Giovazolias, 2013), and pathological narcissism (Winner, 2019), while negatively associated with life satisfaction (Rasmi et al., 2012), Most importantly, perceived parental rejection and/or over-protection have been found as a significant predictor of social anxiety (Festa & Ginsburg, 2011), depression, anxiety, somatic symptoms (Baker & Hoerger, 2012), vulnerability to being victimized by others (Mitsopoulou Giovazolias, 2013), and adjustment problems in the adolescents (Miranda *et al.*, 2016).

Various studies have also explored the association of perceived parental practices with mental health issues in terms of internalizing and externalizing problems of adolescents/young adults. Anhalt and Morris (2008) found that parental care was negatively correlated whereas parental over-protection was positively correlated with internalizing problems in university students. Additionally, parental criticism was found to be a significant positive predictor of anxiety and depression. Subsequently, Guajardo *et al.* (2009) revealed a positive correlation between perceived ineffective parental approaches and child misbehaviors (both internalizing and externalizing). Kazarian *et al.* (2010) found that perceived parental warmth had a significant positive correlation and perceived parental rejection had a significant negative correlation with subjective happiness in young adults highlighting the importance of parenting as a determinant of individuals' well-being. Nishikawa *et al.* (2010) established that perceived dysfunctional parenting and insecure attachment styles were positively associated with mental health problems in adolescents.

Guimond *et al.* (2012) declared that perceived parental over-protection was significantly associated with internalizing problems in children. It was also revealed that the overprotected children tended to withdraw rather than face challenging situations. Goraya and Shamama-tus-Sabah (2013) found that positive parenting style (warm and involving behavior) had a significant negative association with externalizing problems while negative parenting (harsh behavior) had a significant positive association with externalizing problems in the children. Moreover, positive parenting negatively whereas negative parenting positively predicted the externalizing problems in the participants.

Furthermore, there is also a unique individual contribution of both parents in determining the mental health and effective psycho-social functioning of their children (Pereira et al., 2014). In this regard, it has been found that social anxiety was predicted by perceived maternal over-protection (Bögels *et al.*, 2001) and paternal controlling behavior (Greco & Morris, 2002). However, in a randomized clinical trial, Suchman *et al.* (2007) found that parental control was positively associated with behavioral adjustment and parental warmth was positively associated with psychological adjustment in the children suggesting that parental control also helps to manage behavior and parental warmth supports better psychological

adjustment of the children in contrast to the previously established fact that parental control leads to the development of mental health problems (Greco & Morris, 2002).

Perceived maternal warmth is found to be positively associated with self-regulation (Von Suchodoletz *et al.*, 2011). Likewise, mothers' unwanted physical assistance is positively associated with social anxiety and mothers' rejection is positively associated with general anxiety whereas fathers' critical statements have appeared to be positively associated with depression in the children (Morris & Oosterhoff, 2016). Papadaki and Giovazolias (2015) have also found that perceived maternal rejection was positively associated with self-victimization, depression, and bullying behavior in children. The depressive symptoms were also found to be a significant positive mediator between maternal rejection and self-victimization/bullying behavior. Furthermore, perceived fathers' acceptance moderated all these relationships and was negatively associated with problematic behaviors in the children.

Pakistan has a collectivistic culture (Nadeem et al., 2018). Parents are considered central and very important figures in the family functioning of Pakistani religious and collectivistic culture (Saleem *et al.*, 2017) where fathers are supposed to be controlling and strict but mothers are anticipated to be loving and caring (Saleem *et al.*, 2019). Parents tend to be controlling and endorse training in collectivistic cultures while parents in individualistic cultures more strongly endorse the autonomous functioning of their children (He, *et al.*, 2021). However, there has been a debate that the negative connotation of the construct "controlling/over-protective parenting" as found in the Western literature cannot be assumed in the collectivistic cultural context of Pakistan (Kim, 2005; Kim & Rohner, 2003). Because, parental monitoring of growing children is considered a breach of autonomy in Western cultures but this monitoring is taken as an indication of parental care, love, and concern in Asian cultures (Nelson *et al.*, 2006). In Pakistani collectivistic and religious society parents used to give much importance and value to raising and training their children considering it their social as well as religious responsibility. Therefore, parental interference and control in the life decisions of their children even when children are grown up is not only socially acceptable but is also taken as a part of training and a sign of concern (Saleem *et al.*, 2015). Additionally, Saleem et al. (2017) also found positive (i.e., caring and affectionate) and negative (i.e., controlling and punitive) parenting styles in Pakistani adolescents.

As far as university students are concerned, they usually face a lot of stress and burdens placing them at great risk for developing interpersonal problems (Nadeem et al., 2018), adjustment issues (Anbesaw *et al.*, 2022), and poor mental health (Bibi *et al.*, 2021). Therefore, they commonly go through multiple life challenges, stressors, and mental health problems (Liaqat & Bashir, 2019; Lyrakos, 2012; Yusoff *et al.*, 2011). Since the existing Western literature revealed a strong association between perceived parental practices and mental health and university students are found to be at a greater risk for developing mental health problems in general, therefore, keeping this scenario in view the current study was planned in a collectivistic cultural context of Pakistan with the following objectives.

Research Objectives

- To explore the association between perceived parental practices and mental health problems in university students
- To determine the possible predictors of mental health problems in university students

Research Hypotheses

- It was hypothesized that perceived parental emotional warmth is negatively correlated whereas perceived parental rejection and over-protection are positively correlated with mental health problems in university students.
- It was also hypothesized that perceived parental practices are significant predictors of mental health problems in university students.

Research Methodology

Participants

The population of the current cross-sectional research comprised all the students enrolled in BS (4-year) degree programs in the universities of Faisalabad city, Pakistan. A sample of 480 students in the age range of 17-26 years (M=20.51; SD=1.48) was selected (through stratified random sampling technique) from four randomly selected universities in Faisalabad city, Pakistan. In each stratum (i.e., BS 1st, 2nd, 3rd, and 4th year) 120 participants were selected using a simple random technique (i.e., Random Number Table). In the process of sample selection, men and women had an equal chance to be selected as a sample of the study. In this way, the percentage of selected men and women was 48 and 52 respectively. The male and female regular students of the BS Program enrolled in the selected universities were included whereas students enrolled in institutions other than the selected universities and students enrolled in programs other than the BS program in the selected universities were excluded from this research.

Measures

Egna Minnen Beträffande Uppfostran (EMBU-A) "My Memories of Upbringing – Adolescent Version". The EMBU-A (Castro et al., 1990) was used to identify the parental child-rearing practices as perceived by the participants. This scale comprising 27 items measures three types of perceived parental practices namely (Emotional Warmth, Over-protection, and Rejection). On a four-point rating scale, perceptions of fathers' and mothers' rearing practices are measured independently. As far as the psychometric properties of the scale are concerned, the authors have found it a reliable and valid measure at the time of test construction. Later on, Gerlsma et al. (1991) re-evaluated the psychometric properties of the scale and found it internally consistent where alpha coefficients for the scale of Emotional Warmth and Rejection were high (α=0.88 and 0.86 respectively) for both fathers' and mothers' scales, however, for the Over-protection, it was a bit smaller coefficient (α=0.62).

Student Problems Checklist (SPCL). An indigenously standardized checklist, SPCL (Mahmood & Saleem, 2011) was used to measure mental health problems in the participants. The 45-item checklist assesses four types of mental health problems in university students (i.e., Sense of Being Dysfunctional, Loss of Confidence, Lack of Self-regulation, and Anxiety Proneness) having a high internal consistency ($\alpha = 0.95$), split-half reliability ($r = 0.82$), and test-retest reliability ($r = 0.84$).

Procedure

After obtaining the requisite official permissions, the participants were selected as per the sampling strategy explained earlier and rapport was established with them. After explaining the purpose of this study, written informed consent was taken from them. Assurance was given to them regarding confidentiality and they were told that their participation in this study can be withdrawn by them at any stage. The measures (EMBU-A and SPCL) were administered with standardized instructions recommended by the authors to ensure the uniformity of the procedures. The testing took 35-40 minutes followed by a "questions/answers session" of 10-15 minutes. For data analysis, Pearson Product Moment Correlations and regression analysis were carried out using Statistical Package for Social Sciences (SPSS v-21).

Results

Table 1: *Internal Consistency of the Measures (N=480)*

Measure	No. of Items	α
EMBU-A (Father's Scale)	27	.78
Emotional Warmth	15	.87
Rejection	6	.76
Over-protection	6	.69
EMBU-A (Mother's Scale)	27	.76
Emotional Warmth	15	.85
Rejection	6	.76
Over-protection	6	.68
SPCL	45	.94

Note. EMBU-A = My Memories of Upbringing-Adolescent Version; SPCL = Student Problems Checklist.

The data given in Table 1 shows an acceptable internal consistency of both Father's and Mother's scales of EMBU-A and high internal consistency of SPCL.

Table 2: *Intercorrelations of Father's Scale of My Memories of Upbringing-Adolescent Version (EMBU-A) and Student Problems Checklist (N=480)*

Factors	1	2	3	4	5	6	7	8
1. FEW	-	-.42**	.28**	-.25**	-.23**	-.18**	-.14**	-.24**
2. FR	-	-	.24**	.26**	.10*	.19**	.23**	.23**
3. FOP	-	-	-	.07	.03	.06	.11*	.08
4. SBD	-	-	-	-	.71***	.68***	.76***	.94***
5. LC	-	-	-	-	-	.56***	.64***	.86***
6. LSR	-	-	-	-	-	-	.61***	.78***
7. AP	-	-	-	-	-	-	-	.86***
8. SPCL	-	-	-	-	-	-	-	-
M	28.98	2.48	8.25	11.02	13.98	18.07	12.73	19.82
SD	9.39	2.86	2.94	6.76	6.91	7.98	5.78	5.27

Note. EMBU-A Sub-Scales: FEW = Father's Emotional Warmth; FR = Father's Rejection; FOP = Father's Over-protection; SPCL Sub-Scales: SBD = Sense of Being Dysfunctional; LC = Loss of Confidence; LSR = Lack of Self-Regulation; AP = Anxiety Proneness; SPCL = total of Student Problems Checklist. *$p < .05$; ** $p < .01$; *** $p < .001$.

The data presented in table 2 depicted a significant negative association between the perceived Father's Emotional Warmth and mental health problems whereas the perceived Father's Rejection appeared to be positively correlated with mental health problems. Nevertheless, there was an insignificant association between Father's Over-protection and mental health problems in the participants.

Table 3: *Intercorrelations of Mother's Scale of My Memories of Upbringing-Adolescent Version (EMBU-A) and Student Problems Checklist (N=480)*

Factors	1	2	3	4	5	6	7	8
1. MEW	-	-.37**	.32**	-.28**	-.22**	-.16**	-.13**	-.24**
2. MR	-	-	.16**	.37**	.19*	.23**	.31**	.32**
3. MOP	-	-	-	.08	.02	.09*	.14**	.09*
4. SBD	-	-	-	-	.71***	.68***	.76***	.94***
5. LC	-	-	-	-	-	.56***	.64***	.86***
6. LSR	-	-	-	-	-	-	.61***	.78***
7. AP	-	-	-	-	-	-	-	.86***
8. SPCL	-	-	-	-	-	-	-	-
M	32.24	2.64	9.17	11.02	13.98	18.07	12.73	19.82
SD	8.07	2.62	3.02	6.76	6.91	7.98	5.78	5.27

Note. EMBU-A Sub-Scales: MEW = Mother's Emotional Warmth; MR = Mother's Rejection; MOP = Mother's Over-protection; SPCL Sub-Scales: SBD = Sense of Being Dysfunctional; LC = Loss of Confidence; LSR = Lack of Self-Regulation; AP = Anxiety Proneness; SPCL = total of Student Problems Checklist. *$p < .05$; ** $p < .01$; *** $p < .001$.

The data given in table 3 illustrated a significant negative association between the perceived Mother's Emotional Warmth and mental health problems while the perceived Mother's Rejection and Over-protection appeared to be positively associated with mental health problems in the participants.

Table 4: *Hierarchical Regression Analysis of Predictors of Mental Health Problems in University Students (N=480)*

Predictor	B	SEB	β	t	p<
Step I (R= .32, ΔR^2 = .10)					
Gender	14.82	2.24	.33	6.63	.001***
Step II (R= .33, ΔR^2 = .09)					
Gender	14.68	2.34	.33	6.27	.001***
Step III (R= .52, ΔR^2 = .24)					
Gender	15.86	2.25	.35	7.06	.001***
Father Emotional Warmth	-.48	.18	-.20	-2.74	.01**

Note. Only significant results are presented in each step; Step I: $F = 11.65$, $df = 4$, $p< .001$; Step II: $F = 5.34$, $df = 9$, $p< .001$; Step III: $F = 9.46$, $df = 15$, $p< .001$. ** $p < .01$; *** $p < .001$.

Since the existing literature (as discussed earlier) revealed perceived parental practices as significant predictors of mental health problems, therefore, to explore the predictors of mental health problems in participants of the current study, a hierarchical regression analysis was carried out. In Steps, I and II, the personal characteristics (i.e., gender, age) and the familial characteristics of the participants (i.e., family income, family system) were included respectively. Step III included parental practices perceived by the participants. Data given in Table 4 revealed that the participants with a higher level of perceived Fathers' Emotional Warmth had less proneness to have mental health problems.

Discussion

Parents play a vibrant role in the psycho-social growth of their children empowering them to learn effective social skills and moral values (Knappe et al., 2010; Saleem et al., 2019). Therefore, the current study was designed to explore the association between perceived parental practices and mental health problems in Pakistani university students as university students go through various mental health issues (e.g., Liaqat & Bashir, 2019). The first objective of the current study was to explore the association between perceived parental practices and mental health problems in university students. The results revealed a significant negative correlation between the perceived father's emotional warmth and mental

health problems, and a significant positive correlation between the perceived father's rejection and mental health problems. However, the relationship between the father's over-protection and mental health problems was insignificant. On the other hand, the perceived mother's emotional warmth was negatively correlated with mental health problems while the perceived mother's over-protection and rejection were positively associated with mental health problems. These findings are supported by the existing literature (e.g., Soenens & Vansteenkiste, 2020; Van Petegem et al., 2022; Winner, 2019). Children's perception of parental practices not only plays a vital role in psychological adjustment (Saleem et al., 2017) but can also lead to certain mental health problems which are evident in the existing literature (e.g., Rafiee & Chehrei, 2016; Saleem et al., 2019). In this regard, parental rejection and over-protection are considered maladaptive (e.g. Leung, 2021; Van Petegem et al., 2020) and are associated with mental health problems in adolescents and young adults particularly (Flamant et al., 2022). The same association was evident in the findings of the current study.

Although parents tend to be controlling and endorse training in collectivistic cultures while parents in individualistic cultures more strongly endorse the autonomous functioning of their children (He, et al., 2021) yet parental practices may vary from culture to culture. Parental monitoring of children is considered a breach of autonomy in the West but such monitoring is taken as a sign of parental concern, love, and care in Asian collectivistic cultures (Nelson et al., 2006). Moreover, in collectivistic cultures, fathers are taken as a symbol of control and command and are anticipated to be stricter whereas mothers are supposed to be loving, kind, and emotionally close to their children (Saleem et al., 2019). Thus it has already been found that in collectivistic cultures adolescents used to perceive their fathers as "strict" and mothers as "benevolent" (Kim & Rohner, 2003). Therefore, it could be one of the reasons for the insignificant relationship between the father's over-protection and mental health problems in the participants of the current study as it is considered normal in collectivistic cultures like Pakistan. Moreover, parents used to consider the training of their children as a religious and social responsibility therefore, parental control over their children even when they are grown up is not only acceptable but is also considered a sign of care (Saleem et al., 2015). Thus, although controlling/over-protective parenting may be considered a negative element of parenting universally yet this impression may not have the same negative connotation in collectivistic cultures as taken in Western cultures (He et al., 2021).

The second objective of the current study was to determine the possible predictors of mental health problems in university students. For this purpose, a hierarchical regression analysis was carried out which revealed that the participants with a higher level of perceived fathers' emotional warmth were significantly less likely to have mental health problems. On the other hand, it was found that perceived fathers' over-protection was not a predictor of mental health problems in the students. Existing Western literature suggests mothers' emotional warmth is more important to predict children's behavior as compared to the fathers' emotional warmth (e.g., Bögels et al., 2001). The same pattern was evident in Pakistani collectivistic culture where mothers were found to be playing a distinctive role in child-rearing and children used to spend more time with them as compared to the fathers (Saleem et al., 2019). However, contrary to this, findings of the current research interestingly depicted that fathers' emotional warmth is taken as important as the mothers' by adolescents and young adults. Whereas, fathers' over-protection is supposed to be a normal practice in the cultural context of Pakistan considering it a symbol of care and concern as found in other studies (e.g., Nelson et al., 2006) thus; it was not found to be a predictor of mental health problems.

Conclusion

Results of the current study have revealed a significant association between perceived parental practices and mental health problems as well as perceived parental practices have been found as strong predictors of mental health problems.

Implications of the Study

Based on the findings of the current study, necessary cautionary and remedial measures to decrease the chances of mental health issues can be taken in the future particularly by introducing effective parenting strategies. Moreover, early identification (preferably in the childhood period) of the perceived parental practices possibly leading to mental health problems can be beneficial to change those practices through effective interventions. Such an early targeting of the perceived or even actually existing maladaptive parental practices and related mental health problems would be beneficial to eliminating or at least minimizing later psychopathology.

Limitations

Despite yielding interesting findings and having important implications, the current study has a few limitations as discussed below:

- The current study assessed the role of perceived parental practices only as predictors of mental health problems in university students.

- Sample of the current study was taken from one city in Pakistan therefore; the results cannot be generalized broadly.

- The current research was a mere correlational study to explore the relationship of perceived parental practices with mental health problems in university.

Recommendations

Based on the limitations of the current study, the following recommendations may be considered in future studies.

- In future studies, all possible determinants/predictors of mental health problems should be explored in Pakistani university students.
- The sample may be taken from different cities in Pakistan which would increase the generalizability of the findings.
- Based on these findings it is recommended that qualitative studies should be designed (if possible) in the future to uncover all possible causes of mental health problems in university students.

ORCID iDs

Arif Nadeem[1] https://orcid.org/0000-0003-0004-0224
Muhammad Saleem[2] https://orcid.org/0000-0003-0230-1571
Aqeel Ahmad Khan[3] https://orcid.org/0000-0002-1003-8059

References

Anbesaw, T., Beyene, A., & Kefale, J. (2022). Adjustment problem and associated factors among first year undergraduate students in Wollo University, Ethiopia. *Frontiers in Education, 7,* 1-9.

Anhalt, K., & Morris, T. L. (2008). Parenting characteristics associated with anxiety and depression: A multivariate approach. *Journal of Early and Intensive Behavior Intervention*, *5*(3), 122-137.

Baker, C. N., & Hoerger, M. (2012). Parental child-rearing strategies influence self-regulation, socio-emotional adjustment, and psychopathology in early adulthood: Evidence from a retrospective cohort study. *Personality and Individual Differences*, *52*(7), 800-805.

Becker, K. D., Ginsburg, G. S., Domingues, J., & Tein, J. (2010). Maternal control behavior and locus of control: Examining mechanisms in the relation between maternal anxiety disorders and anxiety symptomatology in children. *Journal of Abnormal Child Psychology, 38*, 533-543.

Bibi, A., Blackwell, S. E., & Margraf, J. (2021). Mental health, suicidal ideation, and experience of bullying among university students in Pakistan. *Journal of health psychology*, *26*(8), 1185-1196.

Bilal, K., Sadiq, U., & Ali, S. (2013). Parenting practices and well-being outcome in young adulthood. *Pakistan Journal of Social & Clinical Psychology*, *11*(1), 84-87.

Bögels, S. M., van Oosten, A., Muris, P., & Smulders, D. (2001). Familial correlates of social anxiety in children and adolescents. *Behaviour Research and Therapy*, *39*(3), 273-287.

Boz, A., & Ergeneli, A. (2014). Women entrepreneurs' personality characteristics and parents' parenting style profile in Turkey. *Procedia - Social and Behavioral Sciences*, *109*, 92-97.

Byford, M., Kuh, D., & Richards, M. (2012). Parenting practices and intergenerational associations in cognitive ability. *International Journal of Epidemiology*, *41*(1), 263-272.

Castro, J., Toro, J., Arrindell, W. A., Van der Ende, J., Puig, J., & Costa, S. (1990). Perceived parental rearing style in Spanish adolescents, children, and parents: Three new forms of the EMBU. *Psychiatry: A World Perspective 4,* 345-349.

Dwairy, M. (2010). Parental acceptance-rejection: A fourth cross-cultural research on parenting and psychological adjustment of children. *Journal of Child and Family Studies*, *19*(1), 30-35.

Erozkan, A. (2012). Examination of relationship between anxiety sensitivity and parenting styles in adolescents. *Educational Sciences: Theory & Practice, 12*(1), 52-57.

Festa, C. C., & Ginsburg, G. S. (2011). Parental and peer predictors of social anxiety in youth. *Child Psychiatry & Human Development*, *42*(3), 291-306.

Flamant, N., Boncquet, M., Van Petegem, S., Haerens, L., Beyers, W., & Soenens, B. (2022). To endure or to resist? Adolescents' coping with overprotective parenting. *Journal of Applied Developmental Psychology*, *82*, 101444.

Gerlsma, C., Arrindell, W. A., Van der Veen, N., & Emmelkamp, P. M. (1991). A parental rearing style questionnaire for use with adolescents: Psychometric evaluation of the EMBU-A. *Personality and Individual Differences*, *12*(12), 1245-1253.

Goraya, F., & Shamama-tus-Sabah, S. (2013). Parenting, children's behavioral problems, and the social information processing among children. *Pakistan Journal of Psychological Research 28*(1), 107-124.

Greco, L. A., & Morris, T. L. (2002). Paternal child-rearing style and child social anxiety: Investigation of child perceptions and actual father behavior. *Journal of Psychopathology and Behavioral Assessment*, *24*(4), 259-267.

Guajardo, N. R., Snyder, G., & Petersen, R. (2009). Relationships among parenting practices, parental stress, child behavior, and children's social-cognitive development. *Infant and Child Development: An International Journal of Research and Practice*, *18*(1), 37-60.

Guimond, F. A., Brendgen, M., Forget-Dubois, N., Dionne, G., Vitaro, F., Tremblay, R. E., & Boivin, M. (2012). Associations of mother's and father's parenting practices with children's observed social reticence in a competitive situation: A monozygotic twin difference study. *Journal of Abnormal Child Psychology*, *40*(3), 391-402.

He, H., Usami, S., Rikimaru, Y., & Jiang, L. (2021). Cultural roots of parenting: Mothers' parental social cognitions and practices from western US and Shanghai/China. *Frontiers in Psychology*, *12*, 1-11.

Jun, L. H., Baharudin, R., & Jo-Pei, T. (2013). Perceived parental warmth and depression in early adolescents: Path analysis on the role of self-esteem as a mediator. *Pertanika Journal of Social Sciences and Humanities*, *21*(1), 165-178.

Kausar, R., & Kazmi, S. R. (2011). Perceived parental acceptance-rejection and self-efficacy of Pakistani adolescents. *Journal of the Indian Academy of Applied Psychology*, *37*(2), 224-232.

Kazarian, S. S., Moghnie, L., & Martin, R. A. (2010). Perceived parental warmth and rejection in childhood as predictors of humor styles and subjective happiness. *Europe's Journal of Psychology*, *6*(3), 71-93.

Khaleque, A., & Rohner, R. P. (2002). Perceived parental acceptance-rejection and psychological adjustment: A meta-analysis of cross-cultural and intracultural studies. *Journal of Marriage and Family, 64*(1), 54-64.

Khaleque, A., & Rohner, R. P. (2012). Pancultural associations between perceived parental acceptance and psychological adjustment of children and adults: A meta-analytic review of worldwide research. *Journal of Cross-cultural Psychology, 43*(5), 784-800.

Kim, E. (2005). Korean American parental control: Acceptance or rejection? *Ethos, 33*, 347-366.

Kim, S. I., & Rohner, R. P. (2003). Perceived parental acceptance and emotional empathy among university students in Korea. *Journal of Cross-Cultural Psychology, 34*(6), 723-735.

Knappe, S., Beesdo-Baum, K., & Wittchen, H. (2010). Familial risk factors in social anxiety disorder: Calling for a family-oriented approach for targeted prevention and early intervention. *European Child & Adolescence Psychiatry, 19*, 857-871.

Leung, J. T. Y. (2021). Overparenting, parent-child conflict and anxiety among Chinese adolescents: A cross-lagged panel study. *International Journal of Environmental Research and Public Health, 18*, 1-14.

Liaqat, H., & Bashir, N. (2019). Alexithymia and loneliness: The moderating role of interpersonal problems in educated youth. *Journal of Pakistan Psychiatric Society, 16*(1), 26-29.

Lightfoot, C., Cole, M., & Cole, S. (2009). *The development of children*. New York: Worth Publishers.

Lyrakos, D. G. (2012). The impact of stress, social support, self-efficacy and coping on university students, multicultural European study. *Scientific Research, 3*(2), 143-149.

Mahmood, Z. & Saleem, S. (2011). Assessing psychological problems in university students in Pakistan: A psychometric study. *FWU Journal of Social Sciences 5*(1), 134-148.

Miranda, M. C., Affuso, G., Esposito, C., & Bacchini, D. (2016). Parental acceptance-rejection and adolescent maladjustment: mothers' and fathers' combined roles. *Journal of Child and Family Studies*, *25*(4), 1352-1362.

Mitsopoulou, E., & Giovazolias, T. (2013). The relationship between perceived parental bonding and bullying: The mediating role of empathy. *The European Journal of Counselling Psychology, 2*(1), 1-16.

Morris, T. L., & Oosterhoff, B. (2016). Observed mother and father rejection and control: Association with child social anxiety, general anxiety, and depression. *Journal of Child and Family Studies*, *25*(9), 2904-2914.

Nadeem, A., Mahmood, Z., & Saleem, S. (2018). Personality traits as predictors of interpersonal difficulties in university students in Pakistan. *Pakistan Journal of Social and Clinical Psychology*, *16*(1), 3-9.

Nelson, D. A., Nelson, L. J., Hart, C. H., Yang, C., & Jin, S. (2006). Parenting and peer-group behavior in cultural context. In X. Chen, D. C. French, & B. H. Schneider (Eds.), *Peer relationships in cultural context* (pp. 213-246). New York, NY: Cambridge University Press.

Nishikawa, S., Sundbom, E., & Hägglöf, B. (2010). Influence of perceived parental rearing on adolescent self-concept and internalizing and externalizing problems in Japan. *Journal of Child and Family Studies*, *19*(1), 57-66.

Operario, D., Tschann, J., Flores, E., & Bridges, M. (2006). Brief report: Associations of parental warmth, peer support, and gender with adolescent emotional distress. *Journal of Adolescence*, *29*(2), 299-305.

Papadaki, E., & Giovazolias, T. (2015). The protective role of father acceptance in the relationship between maternal rejection and bullying: A moderated-mediation model. *Journal of Child and Family Studies*, *24*(2), 330-340.

Pereira, A. I., Barros, L., Mendonça, D., & Muris, P. (2014). The relationships among parental anxiety, parenting, and children's anxiety: The mediating effects of children's cognitive vulnerabilities. *Journal of Child and Family Studies*, *23*(2), 399-409.

Rafiee, S., & Chehrei, S. (2016). The relationship between perceived parenting styles and loneliness in students. *Canadian Center of Science and Education*, *12*(9), 230-235.

Rasmi, S., Chuang, S. S., & Safdar, S. (2012). The relationship between perceived parental rejection and adjustment for Arab, Canadian, and Arab Canadian youth. *Journal of Cross-Cultural Psychology*, *43*(1), 84-90.

Rohner, R. P. (2004). The parental acceptance-rejection syndrome: Universal correlates of perceived rejection. *American Psychologist, 59*(8), 830-840.

Rohner, R. P., & Britner, P. A. (2002). Worldwide mental health correlates of parental acceptance-rejection: Review of cross-cultural and intracultural evidence. *Cross-Cultural Research, 36*(1), 16-47.

Rohner, R. P., Khaleque, A., & Cournoyer, D. E. (2005). Parental acceptance-rejection: Theory, methods, cross-cultural evidence, and implications. *Ethos, 33*(3), 299-334.

Rubin, M., & Kelly, B. M. (2015). A cross-sectional investigation of parenting style and friendship as mediators of the relation between social class and mental health in a university community. *International Journal for Equity in Health*, *14*(1), 1-11.

Saleem, S., Asghar, A., Subhan, S., & Mahmood, Z. (2019). Parental rejection and mental health problems in college students: Mediating role of interpersonal difficulties. *Pakistan Journal of Psychological Research, 34,* 639-653.

Saleem, S., Mahmood, Z., & Daud, S. (2017). Perceived parenting styles in Pakistani adolescents: A validation study. *Pakistan Journal of Psychological Research*, *32*(2) 487-509.

Saleem, S., Subhan, S., & Mahmood, Z. (2015). Perceived parental practices and mental health problems: Cross-cultural validation of EMBU-C on Pakistani adolescents. *FWU Journal of Social Sciences, 9*(1), 44-52.

Soenens, B., & Vansteenkiste, M. (2020). Taking adolescents' agency in socialization seriously: The role of appraisals and cognitive-behavioral responses in autonomy relevant parenting. *Child and Adolescent Development, 173*, 7-26.

Suchman, N. E., Rounsaville, B., DeCoste, C., & Luthar, S. (2007). Parental control, parental warmth, and psychosocial adjustment in a sample of substance-abusing mothers and their school-aged and adolescent children. *Journal of Substance Abuse Treatment*, *32*(1), 1-10.

Van Petegem, S., Albert Sznitman, G., Darwiche, J., & Zimmermann, G. (2022). Putting parental overprotection into a family systems context: Relations of overprotective parenting with perceived coparenting and adolescent anxiety. *Family Process*, *61*(2), 792-807.

Van Petegem, S., Antonietti, J.-P., Eira Nunes, C., Kins, E., & Soenens, B. (2020). The relationship between maternal overprotection, adolescent internalizing and externalizing problems, and psychological need frustration: A multi-informant study using response surface analysis. *Journal of Youth and Adolescence, 49*(1), 162-177. https://doi.org/10.1007/s10964-019-01126-8

Von-Suchodoletz, A., Trommsdorff, G., & Heikamp, T. (2011). Linking maternal warmth and responsiveness to children's self-regulation. *Social Development*, *20*(3), 486-503.

Winner, N. A. (2019). Over-parenting and young adult narcissism: Psychological control and interpersonal dependency as mediators. *Dissertations*. 1483. https://aquila.usm.edu/dissertations/1483

Wu, L., Zhang, D., Cheng, G., Hu, T., & Rost, D. H. (2015). Parental emotional warmth and psychological Suzhi as mediators between socioeconomic status and problem behaviors in Chinese children. *Children and Youth Services Review*, *59*, 132-138.

Yasmeen, S. (2013). Role of parenting styles in academic performance of college students. *Pakistan Journal of Education*, *30*(1), 189-191.

Yusoff, M. S. B., Yee, L. Y., Wei, L. H., Siong, T. C., Meng, L. H., Bin, L. X., & Rahim, A. F. A. (2011). A study on stress, stressors and coping strategies among Malaysian medical students. *International Journal of Students Research, 1*(2), 45-50.