GOMAL UNIVERSITY
JOURNAL OF RESEARCH

Gomal University, Dera Ismail Khan, Khyber Pakhtunkhwa, Pakistan
ISSN:1019- 8180 (Print) ISSN: 2708- 1737 (Online)

Website	www.gujr.com.pk	HEC Recognized	Social Sciences	CrossRef	DOI:10.51380

THE SCALE DEVELOPMENT OF ADOLESCENTS PARENT'S SELF-EFFICACY: A PSYCHOMETRIC APPROACH

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KEYWORDS

Parental Self-Efficacy, Adolescents, Validity, Reliability, Parents, Parent-Child Relationship, Family

Article History

Date of Submission: 12-08-2022
Date of Acceptance: 24-12-2022
Date of Publication: 31-12-2022

ABSTRACT

The parental self-efficacy or parents' confidence in raising their children is believed to influence the parent-child relationship. A scale was developed for parents of Pakistani adolescents to understand and measure experience and expression of parental self-efficacy. Initially, an open-ended question was asked for the item generation of parental self-efficacy with parents of 11-15 years old adolescents. Further, scale's content validity was established and then pilot testing was conducted to assess the user-friendliness of the developed scale. Lastly, sample of 300 parents (143 fathers & 157 mothers) with the age range of 25-67 (M=42.23; SD=6.57) was given the Parents Self-Efficacy Scale protocol General Self-Efficacy Scale. The results showed that the exploratory and confirmatory factor analysis generated four factors namely, Educating Morality, Providing Basic Needs, Inculcating Discipline and Teaching Autonomy. Also, the scale was proven to be highly reliable and valid. The results of this study provides singificnant information in order to validated the desired scale and reaching the conclusion in systematic manner. Further, the results have been discussed in the Pakistani cultural context.

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DOI: https://doi.org/10.51380/gujr-38-04-07

INTRODUCTION

Parenting is known as a parent's attitude, behaviour and feeling toward their children which has a psychological and social influence on them (Perales, Bisquert & Sahuquillo, 2015). Every parent has some confidence in their ability to raise their children which is parental self-efficacy (Jones & Prinz 2005; Bandura, 1997; Coleman & Karraker, 1998). A variety of terminologies can be observed in literature regarding the phenomenon, for example, parental "confidence", "competence", "mediation", or "parental self-esteem" (Hess, Teti & Gardner, 2004). The impact of parents' confidence and belief in ability to raise children has helped in promoting healthy emotions and behaviours in adolescents (Albanese, Russo & Geller, 2019). The confidence and

competence in parenting are linked with parenting knowledge; the more parenting knowledge the parent has, the better they will be in child rearing, positively responding to child and acting adequately according to the child's age (Mouton et al., 2018). In literature, the researchers have focused on parental self-efficacy of mothers (Rahayu & Haningsih, 2021; Cunningham & Renk, 2018; Takács et al., 2019), or parental self-efficacy of developmentally disabled children parents (Ben-Naim et al., 2018; Chung et al., 2018; Yang et al., 2020). Wittkowski et al. (2017) in the systematic review reported that studies focus on parental self-efficacy of fathers and mothers raising young adolescents. Parents with children in early adolescence go through difficult stage because of relatively less experience than they had when the child was young (Ciciolla & Luthar, 2019).

The parents with poor parental self-efficacy tend to be more forcible, punitive and authoritarian and have difficult and non-compliant children (Kong & Yasmin, 2022; Beaulieu et al., 2014). In recent study by Liu et al. (2022), it was found that parents who are confident in parenting help adolescents to perform better in academics, parents are able to cope with negative emotions and difficult parenting challenges with high parental self-efficacy. Adolescents, who are already in a rebellious age and stage, usually do not feel connected to parents. The behaviour of parents and adolescents are interconnected and influence one another both positively and negatively (Mouton et al., 2018). The lack of warmth, positive parenting, sensitivity, consistency and rule setting represent poor parental self-efficacy which leads to negative consequences for parent's and adolescent's mental health (Lo et al., 2021; Xue et al., 2021). The values and norms differ culturally when comes to parenting practices (Hong & Liu, 2021). Parental self-efficacy in one culture may not be same as in another culture (Kiang et al., 2021). Individualistic cultures help self-reliance, independence, and individual growth (Saleem et al., 2015); while collectivistic cultures (like Pakistan) focus on group harmony, conformity and cohesion (Nadeem et al., 2017). Cultural difference in parenting beliefs and practices developed a need for an indigenous scale for exploring construct in Pakistani culture. Wittkowski et al. (2017) report in the review of the parental self-efficacy measures that no measures for adolescents aged between 13-18 years were found.

Problem Statement

The aim was to develop a psychometrically sound measure of parental self-efficacy for parents of adolescents in Pakistan. The researchers highlight self-efficacy as the most important factor in parenting over a period. This role is influenced by the culture in which both the parents and adolescents are living therefore, to understand the experience and expression of the parental self-efficacy in parents of adolescents a psychometrically sound measure was developed for parents.

Research Gap

The social cognitive theory suggests that parenting behaviours have resulted from interactions social environment in which parenting occurs, the physical environment affecting parent-child relationship, parental self-efficacy, and beliefs of parents (Bandura, 2004; McAlister & Perry, 2008). Psychodynamic theories and Bowlby attachment theories describe parents relationship with the child as basis for future social relations (Freud, 1940; Bowlby, 1951). These theories have mostly focused on the relationship between mother and child; however, the relationship between father and child is overlooked. It is common knowledge that the father's role in child's life is critical (Henry et al., 2020), still fatherhood and mental health of fathers have remained under-researched (Tazouti & Jarlégan, 2019; Kong & Yasmin, 2022). Therefore, this study aimed

to overcome that gap by including fathers and mothers understanding parental beliefs in raising children.

LITERATURE REVIEW

The rationale of the study was to understand and investigate the key qualities of the construct 'parental self-efficacy' in Pakistani parents of 11-15 years old adolescents. As parent-adolescent relationships, family dynamics, mental health, and social development for future relations are greatly impacted by parental self-efficacy; it was pertinent to study the construct from its emic perspective. A culturally suitable and psychometrically comprehensive scale to assess parental self-efficacy which caters for both fathers and mothers was aimed to be developed. Rationale for selecting parents of 11-15 years old adolescents is changing and challenging nature of the problems presented by the adolescents to their parents. Adolescents face more social problems in relation to peers, career building, identity growth. Parents who are bare in conduct adolescents tactfully develop low parental self-efficacy. As self-efficacy is self-appraisal process which be influenced by cultural beliefs about parenting, it was important to explore construct for both parents (fathers & mothers) as literature has not been fair in including fathers while reporting parenting and as cultural belief of parenting in Pakistan is diverse from Western. According to theories, father's role in parenting comes second to mother (Bowlby, 1951), however, certain roles are linked to fathers only, for example disciplining, the teaching problem-solving, preparing for future, providing academic support, and inculcating a sense of responsibility (Baker et al., 2018).

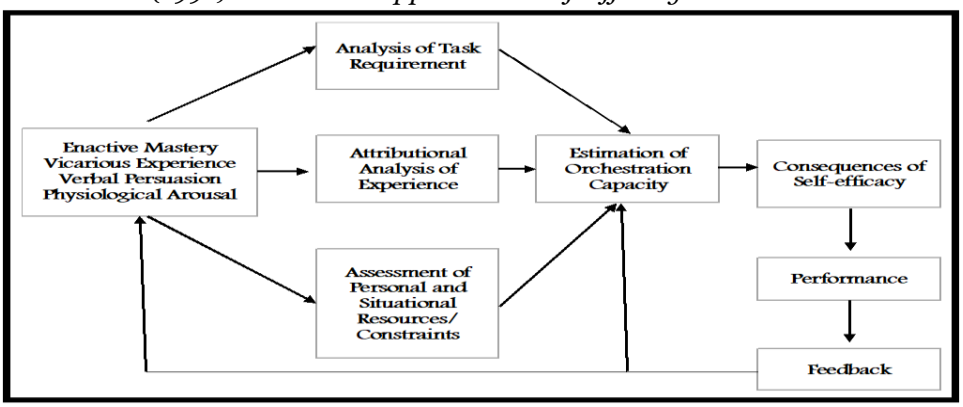
Hence, to explore parental self-efficacy in Pakistani parents a reliable and valid measure was established. Wittkowski et al. (2017) in the systematic review of parental self-efficacy measures searched 11 electronic databases. Articles that included use of measure for parental self-efficacy were included. They reported that out of 34 publications most of the was for parents of toddlers and infants (n=18). There were no measures for parents of adolescents aged 13-18 years. Only one measure existed for parents of 5-12 years aged children. Other measures covered the wide range of ages, for example, Me as Parent, Cleminshaw-Guidubaldi Parenting Satisfaction Scale and the Comfort with Parenting Performance. Barnes and Macedo (2007) developed a tool for perceived maternal self-efficacy. This scale targeted mothers of newly born children. Using a mixed sampling methodology, 165 pre-term mothers were approached and hospitalized in the UK. Data was collected 28 days after delivery. In this connectin, the scale consisted of 20 items with four subscales of high reliability. The cross-cultural validation was suggested by the authors for using the scale in other countries. In this linking, parental self-efficacy scale was developed in Australia by Nicholas et al. (2020) on a sample of 359 parents of the adolescents. The scale focused on parental self-efficacy in relation to adolescents' (12-15 years) depression and anxiety only.

The scale yielded a single factor which was preventative parenting. The items were developed using Parenting Guidelines for reducing depression and anxiety (Yap et al., 2015). The items were selected by expert consensus and a 4-point Likert scale was added to the items. The scale consisted of 9 items with each item reflecting domain topic of PRADAS (Parenting to Reduce Adolescent Depression and Anxiety Scale). In Pakistan, Perceived Parental Efficacy Scale was developed which focuses on child perception of their parent's capacity to perform ably (Fatima & Jabeen, 2017). In this study, 400 students were approached who were aged between 12-18 years. A three-factor solution was yielded in exploratory factor analysis. The results of the study

proved that mental health problems increase in adolescents who perceive parental disharmony and low parental self-efficacy in parents. Another study on Pakistani mothers of school-going children focused on developing an indigenous scale for maternal self-efficacy. This scale was targeted at mothers of children in middle childhood. The scale items mostly focused on child's physical care, nutritional care and commuting responsibility of mother for the child's regular school-going routine (Mahrukh & Bashir, 2018). This scale focused on problems of children related to their social life, peer influences, and mother-child communication which are prime concerns for mothers of adolescents. None of scales was made for measuring father's parental self-efficacy.

The theoretical approach to self-efficacy by Gist and Mitchell (1992) focused on determinants and malleability of self-efficacy. According to the theory, people who believe they can do better at a task perform better than those who think they cannot do well. Self-efficacy is a decision one reaches at based on multiple performance factors like enactive mastery, vicarious experience, verbal persuasion and physiological arousal. Adolescents, who are already in rebellious age and stage, usually do not feel connected to parents. The behaviour of parents and adolescents are interconnected and influence one another both positively and negatively. Self-efficacy is formed by three types of assessments; (1) Necessities of task performance, (2) Individual's assessment about why certain performance levels occurred and (3) Contemplation of the personal and the situational factors. Collectively these three assessment measures help in determining capacity of task performance depending upon the nature of the task as well. This forms the self-efficacy which is the self-appraisal process in which various information is processed to reach desired conclusion.

Figure 1
Gist and Mitchell's (1992) Theoretical Approach to Self-Efficacy



RESEARCH METHODOLOGY

The mixed method research design was employed which comprises of both, the qualitative and quantitative approaches in research for purpose of breadth, depth, understanding in research. This involves use of qualitative and quantitative perspectives, data collection methods, analysis & interpretation techniques (Johnston et al., 2017). The researcher applied diverse tools like study begins with an open-ended approach in interviews about phenomenon and continues on quantitative trials of scale development and validation. Government schools having adolescents

who are aged between 11-15 years were targeted to approach toward parents through the school setting.

Sampling

Purposive sampling has been used to obtain data from participants. Only those parents were included whose children were aged between 11-15 years and studied in government schools. Widowed, divorced and separated parents were not approached in this study for the collection of data.

Phase 1: Item Generation

Participants & Procedure: Aim in this phase was to explore expression of parental self-efficacy. The project was approved by Institutional Review Board (IRB) of the university. Purposive sampling technique was used to include parents of adolescents studying in government schools of Lahore, Pakistan. Parental self-efficacy was defined 'confidence in one's ability to nurture a child on emotional, physical, social & intellectual level.' Open-ended interviews were done with parents, that were transcribed and collated later. After omitting slang, ambiguous and repetitive items, a list of 50 items was generated in Urdu language. A 4-point Likert scale 0-3 was added to items where 0 meant 'not true'; 1 meant 'hardly true', 2 meant 'moderately true' and 3 meant 'absolutely true'.

Phase 2: Content Validity

Participants & Procedure: For establishing content validity of scale, 10 clinical psychologists were approached who had minimum 10 years of experience in field. They were provided with operational definition of parental self-efficacy. The experts were asked to rate each item about relevance to construct on a 5-point Likert scale. Any item rated below 50% was removed from scale. Feedback was also obtained regarding clarity of content, repetition & comprehensibility. A league table was made to assess the opinions of experts and 2 items were omitted from the scale.

Phase 3: Pilot Study

Participants & Procedure: Pilot study was done to assess face validity of scale, user friendliness, knowledge of instructions, items and format. 30 parents were approached whose adolescents were aged between 11-15 years. Participants were asked to provide their opinion and feedback on language, comprehension and layout of scale's items and instructions. The average time for filling form was 7 minutes. Individual testing was done and participants reported no ambiguity or difficulty.

Phase 4: Psychometric Properties

Participants & Procedure: A sample of 300 parents (143 fathers & 157 mothers) with age range of 25-67 (M=42.23; SD=6.57) were approached using purposive sampling. Only those parents were included who had adolescents aged between 11- 15 years studying in government schools. Government schools were selected to keep uniformity and homogeneousness as curriculum, teaching methodology and affordability is identical across schools. School education system of Pakistan is divided into three categories, government schools, private schools and madrassas. The lower, lower-middle and middle socioeconomic class attain education from government schools. After obtaining Institutional Review Board's (IRB) approval, government schools were approached and briefed about aim, objectives and procedure of study. The participants were approached and briefed about the study. Verbal consent was obtained from them and data were

collected from participants in form of individual testing. The participants were instructed in Urdu language to respond to each statement carefully by selecting an option given on the Likert scale.

Measures of Study

The following scales were used in the study: Parental Self-Efficacy Scale. Self-report scale had 48 items which were to be rated on a 4-point Likert scale where 0= not true; 1= hardly true, 2= moderately true, and 3=absolutely true. Scale measures parents' confidence in the parental role. The participants were required to "Rate each statement to what extent it relates to them." General Self-Efficacy Scale. It has 10-items used to assess optimistic beliefs regarding coping with difficult states of life. A 4-point Likert scale 1= Not at all true; 2= Hardly true; 3= Moderately true & 4= Exactly true is used for responses. Schwarzer and Jerusalem (1995) report internal constancy of scale to 0.76 to 0.90. Total score ranges from 10-40, with high score in lieu of high self-efficacy.

RESULTS OF STUDY

Factor analysis was used which is the correlation matrix showing intercorrelation of variables that can be reduced to latent variables (Bartholomew et al., 2011). Exploratory factor analysis was done to explore the construct of parental self-efficacy as an independent variable. Principal Axis Factoring (PAF) of 48 items with Promax rotation was done to decompose original data into a set of linear variates. The KMO measure verified the sampling adequacy of analysis KMO = .91. Bartlett's test of specificity $\chi 2$ (820) = 6121.527, $p<.001$ indicated that correlation amid items were sufficiently larger for PAF. Eigenvalue for each component in data was obtained by running initial analysis. The factor analysis described 4 factors and yielded 42.04% variance. Factor loadings were suppressed at 0.30 so as to find a best fit model with less dubious items. Criteria which was used to determine number of factors and items to be retained (Field, 2009) is as follows:

1. Guttman-Kaiser was used to retain factors with the eigenvalue greater than 1 (Kaiser, 1974).
2. Scree plot, a graphical representation of factors, was used to retain number of factors before breaking point or elbow (Cattell, 1966).
3. Items in respective factors with high item loadings.
4. Retaining items with factor loadings equal or greater than 0.30 (Kline, 1994).

Initial communalities were also determined on 48 items and those items with <0.25 loadings were removed from scale. Seven items had communalities <0.25. Therefore, items 13, 19, 22, 24, 30, 41 and 47 were eliminated from the scale. The principal Axis Factoring with promax rotation was run to obtain 4 factor solution with item loading of 0.30 & above showing 41 items retained.

To get the best model, factor solution of 2, 3, 4, and 5 was also observed in PCA with varimax rotation and PAF with Promax rotation. Eventually, criterion given by Kahn (2006) was used to retain factors with at least 5 items with 0.30 and above loading. The model with less dubious items was retained i.e., 4 factor solution with loadings 0.30 and above. The fugure two provide significant information about the Scree plot of parental self-efficacy scale and extracted factors, however, the table 1 shows the factor loadings of the 41 items on 4 factor solution towards the measures.

Figure 2

Scree Plot of Parental Self-Efficacy Scale & Extracted Factors

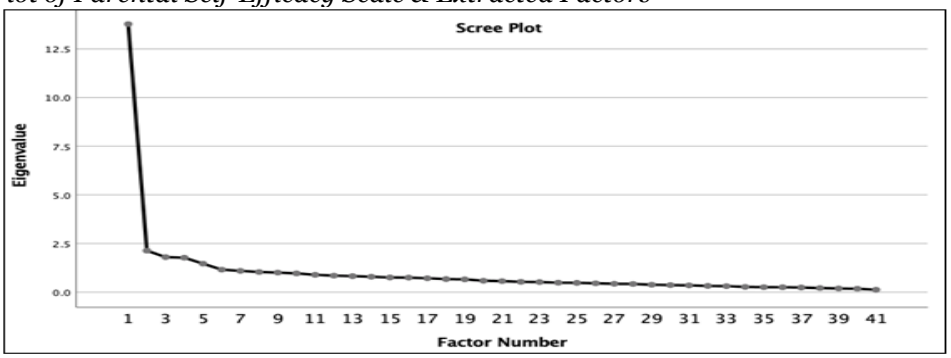


Table 1

Factor Loadings of 41 items of Parental Self-Efficacy Scale (N=300)

Sr. No	Item No	Factor 1	Factor 2	Factor 3	Factor 4	Communalities
1	2	.80	.04	.15	-.16	.71
2	11	.74	.02	.05	-.12	.53
3	4	.72	-.00	.18	-.13	.59
4	17	.69	.28	-.18	.03	.64
5	23	.56	-.03	-.26	.43	.53
6	18	.52	.12	.04	.08	.46
7	14	.49	-.22	.19	.19	.37
8	10	.44	.04	.24	-.03	.39
9	1	.44	.22	.17	-.13	.41
10	21	.43	.04	-.07	.35	.45
11	6	.34	.13	.31	.01	.44
12	38	.36	.73	-.21	-.14	.64
13	40	-.21	.70	.06	.15	.52
14	39	.13	.68	-.17	.10	.55
15	33	-.01	.61	-.02	.04	.38
16	34	.16	.48	-.06	.16	.43
17	26	.32	.46	.15	-.18	.50
18	46	-.01	.43	.29	.17	.55
19	44	.02	.41	.09	.12	.32
20	29	.05	.33	.28	-.03	.31
21	37	.18	.31	.15	.07	.35
22	5	.24	-.16	.59	-.04	.42
23	12	.09	-.17	.53	.02	.26
24	27	-.05	.29	.49	-.03	.44
25	3	.38	.02	.48	-.00	.59
26	42	-.24	.23	.46	.07	.29
27	28	-.02	.16	.43	.08	.32
28	8	.28	-.03	.41	-.01	.34
29	9	.20	-.05	.40	.03	.28

30	45	-.14	.16	.35	.27	.33
31	20	.07	-.01	.34	.33	.37
32	43	.06	.28	.33	.01	.34
33	7	.23	-.19	.32	.22	.27
34	31	-.22	.04	.09	.60	.33
35	16	.35	-.12	-.00	.52	.48
36	35	-.10	.09	.02	.52	.28
37	25	.07	.09	.03	.46	.34
38	15	.32	-.01	-.02	.45	.44
39	48	-.12	.29	.01	.44	.34
40	36	.08	.02	.16	.40	.31
41	32	.15	.23	.04	.35	.41
Eigen value		13.22	1.58	1.22	1.21	
% of variance		32.26	3.86	2.98	2.94	
% of cumulative variance		32.26	36.12	39.09	42.04	

Table 2

Correlation Matrix for Four Factors with Promax Rotation for Parental Self-Efficacy Scale

Factors	1	2	3	4
1	-	.59	.55	.52
2	-	-	.57	.53
3	-	-	-	.48
4	-	-	-	-

The results show that the correlation between the factors is above threshold of .32 as given by Tabachnick and Fidell (2007). This indicates a 10% or more overlap in variance among factors which is enough to justify an oblique rotation.

Factor Description

Factor labels were assigned based on initial themes of items. Critical analysis show following factor labels:

Educating Morality. First factor was labelled as 'Educating Morality' which consists of 11 items. High score on this factor shows ability of teaching respect and consideration for people. Sample items include, teaching ethics of communicating with children and elders, advising on adopting only good habits of other people, teaching hospitality etc.

Providing Basic Needs. Second factor was labelled as 'Providing Basic Needs' which consists of 10 items. High score on this factor shows parent's ability of fulfilling child basic needs. Sample items include, taking care of child's healthy diet, taking care of household, providing clothing items and so on.

Inculcating Discipline. Third factor was labelled as 'Inculcating Discipline' which consists of 12 items. High score on this factor depicts ability to control child reckless behaviour and focusing their attention towards attainment of future goals. Sample items include, preparing children for the future, stopping children's fights at home, helping children in studies and with pubertal

problems, making children clever and sensible, determining future occupation with children etc.

Teaching Autonomy. The fourth factor was labelled as 'Teaching Autonomy' which consists of 8 items. High score on this factor means teaching independent functioning to children while keeping an eye on them. Sample items include, teaching correct use of money, advising on taking care of their diet themselves, educating about the patience, keeping an eye on the daily activities, not letting the child go out of the house a lot, stopping the stubbornness over undue demands etc.

Inter Factor Correlation

Table 3

Inter Factor Correlation, Cronbach's Alpha of Subscales and Total Score of PSES (N=300)

	EM	PBN	ID	TA	PSEST	M	SD	α
EM	-	.72**	.72**	-.22**	.89**	31.13	3.34	.89
PBN	-	-	.69**	-.21**	.86**	28.22	2.99	.86
ID	-	-	-	-.28**	.88**	30.45	5.06	.84
TA	-	-	-	-	-.24**	4.32	3.58	.79
PSEST	-	-	-	-	-	107.03	11.71	.94

Note. EM=Educating Morality; PBN=Providing Basic Needs; ID=Inculcating Discipline; TA=Teaching Autonomy; PSEST= Parental Self-Efficacy Total, **p<.01

The table 3 shows that all the subscales and total score of parental self-efficacy are significantly positively correlated except for teaching autonomy, which is negatively correlated with all the subscales and total score of parental self-efficacy. This means that when parents highly educate morality, provide more basic needs and inculcate discipline in their adolescents, teachings for autonomy are lessened. It shows that parents with increased parental self -efficacy teach less autonomy to their adolescents.

Psychometric Properties

Validity. Concurrent validity of PSES was established with Generalized Self-Efficacy which was found to be significantly positively correlated r=.37, p<.01. This shows that concurrent validity is established as generalized self-efficacy increases, parental self-efficacy also increases in the results.

Reliability. Split half reliability of PSES was done using odd and even method and was found to be 0.95; while test re-test reliability which was done on 10% of the sample with an interval of one week was found to be .77.

Confirmatory Factor Analysis

The 4-factor solution of Parental Self-Efficacy Scale resulting from Exploratory Factor Analysis (EFA) was cross validated on a separate sample of 370 parents (men= 216; women= 154). The confirmatory factor analysis with maximum likelihood method was conducted and using AMOS 24.0 software and results were in line with guidelines given by Jackson et al. (2009). Indices for model fit indicated poor fit for initial model (chi square= 3076.77, p<.001, df= 773; CMIN/ df= 3.98; CFI=.74; GFI= .70; TLI= .72; NFI= .67; RMSEA= .09; SRMR= .07). After deleting covariances, items were deleted as well to obtain good model fit. Final scale had 18 items with 4

items in factor 1 (item 6, 10, 14, 23), 5 items in factor 2 (26, 29, 37, 39, 46), 5 items in factor 3 (5, 9, 12, 42, 45) and 4 items in factor 4 (15, 16, 25, 48). Model fit indices after item deletion indicated good fit (chi square= 354.98, p<.001, df= 129; CMIN/df= 2.752; CFI=.91; GFI= .91; TLI= .89; NFI= .86; RMSEA= .06; SRMR= .05). All standardized factor loadings (ranged from .47 to .76) fall in acceptable range, is ≥ 0.30. As chi square value was significant, it implied a poor fit; CMIN/df value was less than 0.3 which appeared in accepted range (Hooper et al., 2008; Schumacker & Lomax, 2004).

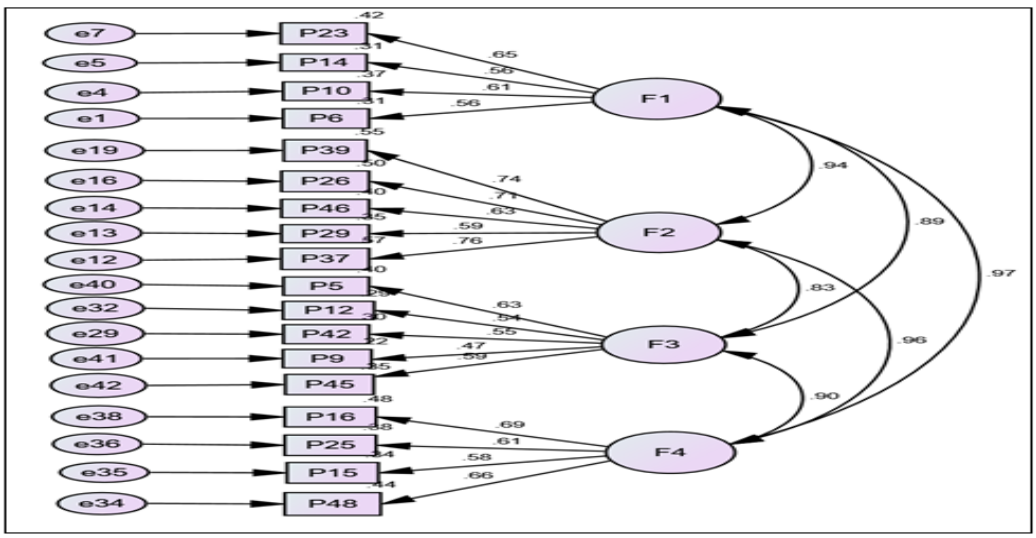
Table 4

Confirmatory Factor Analysis of Parental Self-Efficacy Scale (N=370)

	χ2 (df)	CMIN/df	GFI	TLI	CFI	RMSEA
Initial model	3076.77(773)	3.98	.70	.72	.74	.09
Model Fit	354.98(129)	2.75	.91	.89	.91	.06

Figure 3

Confirmatory factor analysis of Parental Self-Efficacy Scale



DISCUSSION

Parental self-efficacy is the parent's belief regarding their ability to successfully raise children and have some control over them (Döring et al., 2021). Parents with low parental self-efficacy have dysfunctional parental cognitive processes which affect child rearing styles and difficult behaviour in children (Gindrich, 2021); while those with high parental self-efficacy perceive less problems in children and have easier transitions between different stages of the parenthood (Gordo et al., 2018). Parental self-efficacy is significantly influenced by culture. Concept may be general but the expression is specific to culture. According to Zahra et al. (2021), individualistic cultures promote growth of the self, reliance on oneself and independence; while collectivistic cultures promote conformity to social norms and group values. Parents in collectivistic cultures promote interpersonal skills and prosocial behaviour in children (helping, sharing, cooperating

& politeness). Therefore, in the present study, parental self-efficacy as experienced by parents was transformed into 4-point rating scale and given name Parental Self-Efficacy Scale (PSES). Exploratory factor analysis yielded 4 factors namely, educating morality, providing basic needs, inculcating discipline and teaching autonomy. Confirmatory factor analysis confirmed factor structure.

As oblique rotation was used to obtain best factor structure in the exploratory factor analysis, conceptual correlation between factors can be observed. First factor, educating morality denotes ability to teach and inculcate respect and consideration of other people. Thus, this is Pakistani culture-specific manifestation of the parental self-efficacy as in Pakistan children are supposed conform and obey. Collectivistic cultures like Pakistan value morality lot and children are taught the culture specific moral values since the beginning (Saleem et al., 2019). This factor explains the most variance in scale. Mannerisms and etiquettes are central to collectivistic cultures are parents are obliged to teach these to their children in order to have group harmony and ensure a positive social image (An & Wilkens, 2019). The second factor is providing basic needs which is related to taking care of household, monitoring adolescent health and diet, providing clothing and providing financial support. This factor can be seen in part in other measures of parental self-efficacy like the parental self-efficacy for promoting healthy physical activity and dietary behaviors in children scale (Bohman et al., 2013). The third factor is inculcating discipline which is linked to parental control especially in relation to adolescent's behaviour. This factor includes disciplining the adolescent in manner that they focus on the attainment of their future goals.

Disciplining children and equipping them with abilities towards future success in all endeavors (academic or social) represent this factor. The previous findings also support this as it is reported that role of parental involvement is crucial in academic success, learning and development (Acar et al., 2021; Ribeiro et al., 2021; Kook & Greenfield, 2021). The fourth factor is teaching autonomy which depicts teaching self-reliance and independence to children while supervising and monitoring them. As Pakistani culture is collectivistic culture, parents are not focused on the teaching independence to their adolescents. The parents do not seem ready to let go of their adolescents. Therefore, they keep an eye on their activities and exercise control where required. This is not new to Pakistani culture where independence and autonomy are given to individuals at a later age depending upon gender and parental beliefs (Zahra et al., 2021). In this linking, an interesting finding was also revealed in the current study which the negative correlation of teaching autonomy factor with total score of parental self-efficacy and rest of the factors. In this connection, this shows that Pakistani cultural belief system in regards to parenting where, a parent feels less competent if their adolescent becomes more self-reliant and independent. Therefore, teaching autonomy is not considered a part of positive parenting by the parents in Pakistan.

The second component of the factor is monitoring activities; which reflects that a parent is aware if they monitor their adolescent a lot, then their parental self-efficacy will be low. The Parental Self-Efficacy Scale is similar to PSES developed by Nicholas et al., (2020) in a way that it targets both parents of adolescents aged (12-15 years); however, the scale of the current study does not solely focus on depression and anxiety of adolescents. The Parental Self-Efficacy Scale developed in the present study is broader in aspect and its items were developed using open ended interview approach; unlike the Australian scale that was based on expert consensus of single items from a previously developed Western scale (PRADAS). Consequently, the scale

developed in this study catered to both methods of expert consensus and open-ended approach with the parents of adolescents while establishing content validity. Thus, the current scale is also similar in way with the Perceived Parental Self-Efficacy Scale (Fatima & Jabeen, 2017) as in the development, the authors used a phenomenological approach to generate items. Apart from the methodological similarity, the content of the scales fluctuate as the prior mentioned scale was targeted for the school students and their perception of their parents' self-efficacy in parenting capacity.

The scale in the current study focuses on parents' own perception of parental self-efficacy. The findings on validity are also similar to previous researches (Ben-Naim et al., 2019; Botha et al., 2020; Hamilton et al., 2018; Hashemi & Einy, 2020; Hong & Liu, 2021; Treat et al., 2020) which report that when parental self-efficacy is high the couple satisfaction between spouses is also high and so is the general self-efficacy, while the mental health problems remain low in the parents. Moreover, parents of adolescents studying in government schools were selected as in government schools no evident differences exist in terms of the environment, language or the background (Zahra et al., 2020; Saleem & Mahmood, 2011). Thus, as Pakistani culture is the collectivistic culture, parents are not focused on teaching independence to their adolescents. The parents do not seem ready to let go of their adolescents. Apart from numerous strengths and implications, the study has a few limitations. Even though it is a mixed method design, the quantitative aspect of the study was based on a cross-sectional research design. Future studies may focus on a longitudinal approach. Secondly, self-report measures were used which don't leave much variation in choices. Thirdly, data was collected from parents of adolescents only. Studies in the future may include subcultural samples with parents of children with broader age range.

CONCLUSION

The current study is pioneering work in understanding parental self-efficacy of parents living in collectivistic Pakistani culture. Even though concept is universal but its expression culturally varies. The aim and objectives of the study were achieved and Parental Self-Efficacy Scale was developed and found to be highly reliable and valid. As mentioned earlier, scales for parental self-efficacy did not match the age range targeted in this study i.e., for parents of 11-15 years old adolescents, thus, valid and reliable scale is now available to measure parental self-efficacy for parents of those who fall in early adolescence age and stage. With the help of PAF and promax rotation, four independent factors emerged namely, educating morality, providing basic needs, inculcating discipline and teaching autonomy. The total number of items were 41 and the scale had high internal consistency α=.94. CFA verified the factor structure of the scale and the scale was reduced to 18 items. This scale differs from other scales on the parental self-efficacy as in its development, keen focus is maintained on using open-ended approach to understand the real-life manifestation and experience of parents of adolescents living in a collectivistic culture like Pakistan. Other scales have only focused on the procedural quantitative aspect of the construct ignoring the inclusion of parents' understanding of their parental self-efficacy. Hereafter, this research will help in future studies to understand concept of parental self-efficacy as it provides tangible content in regards to the content development of scale. Moreover, associated factors, predictors and consequences of the parental self-efficacy of parents of adolescents may also be explored.

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