

Original Research Article

Assessment of level of self esteem and perceived parenting style among school going adolescents in Puducherry: a cross-sectional analytical study

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ABSTRACT

Background: Adolescence is a critical developmental period during which self-esteem and family relationships may influence psychosocial well-being. Parenting style contributes to the emotional climate in which adolescents develop. This study assessed self-esteem and perceived parenting styles and examined their associations among school-going adolescents in Puducherry.

Methods: A cross-sectional analytical study was conducted among 486 school-going adolescents aged 13-17 years from government and private higher secondary schools in urban and rural areas of Puducherry between September and October 2024. Participants were selected using stratified cluster sampling technique. Data were collected using a socio-demographic questionnaire, the Rosenberg self-esteem scale and a perceived parenting style scale. Descriptive statistics, chi-square tests and Pearson correlation were used.

Results: Most adolescents had moderate self-esteem (91.6%); 4.3% had low and 4.1% had high self-esteem. Authoritative parenting was the most commonly perceived style (53.5%), followed by authoritarian (34.2%) and permissive (12.3%). Self-esteem showed weak negative correlations with authoritative ($r=-0.045$; $p=0.318$) and authoritarian parenting ($r=-0.027$; $p=0.555$), and a weak positive correlation with permissive parenting ($r=0.085$; $p=0.060$); none was statistically significant. Type of school ($p=0.009$) and area of residence ($p=0.022$) were associated with self-esteem. Gender ($p\leq 0.001$), type of school ($p=0.018$) and area of residence ($p=0.017$) were associated with perceived parenting style.

Conclusions: Most adolescents had moderate self-esteem and perceived authoritative parenting as the predominant style. No statistically significant correlation was observed between self-esteem and perceived parenting style. Adolescent mental health programmes should consider family, school and community contexts.

Keywords: Adolescents, Self-esteem, Parenting style, Authoritative parenting, Authoritarian parenting, Puducherry

INTRODUCTION

Adolescence is a crucial developmental phase characterized by rapid physical, emotional, cognitive and social changes. During this period, adolescents develop identity, autonomy and self-worth and may be vulnerable to psychosocial stressors. Academic pressure, peer relationships, family expectations and social transitions can affect psychological well-being. Self-esteem, defined as an individual's overall evaluation of self-worth, is an

important component of healthy psychosocial adjustment.^{1,2}

Parenting style is an important environmental factor shaping adolescents' emotional and psychological development. It refers to relatively consistent patterns of parental attitudes and behaviours that create the emotional climate of child-rearing. Baumrind described authoritative, authoritarian and permissive parenting patterns, which differ in parental responsiveness and

control.^{1,3} Authoritative parenting combines responsiveness with appropriate control, authoritarian parenting emphasizes control with lower responsiveness, and permissive parenting is characterized by high responsiveness with relatively low demands.

Previous studies have reported associations between parenting style and adolescent self-esteem, although findings vary across populations and cultural settings.^{2,4-8} Indian evidence remains limited, particularly from studies including adolescents in both urban and rural school settings. The present study therefore assessed self-esteem and perceived parenting style and examined their relationship and associations with selected socio-demographic characteristics among school-going adolescents in Puducherry.

METHODS

Study design and setting

A cross-sectional analytical study was conducted from September to October 2024 among school-going adolescents aged 13-17 years in government and private higher secondary schools located in urban and rural areas of Puducherry.

Participants and sampling

A total of 486 adolescents were selected using a Stratified cluster sampling technique. The sample size was calculated using an anticipated standard deviation of 3.98 for self-esteem scores, a 5% level of significance, an absolute precision of 5 and a design effect of 2. Adolescents aged 13-17 years who were willing to participate and available during data collection were included. Adolescents with diagnosed psychiatric illness were excluded.

Data collection tools

Data were collected using a socio-demographic questionnaire, the Rosenberg self-esteem scale and a standardized perceived parenting style scale assessing authoritative, authoritarian and permissive parenting styles. The Rosenberg scale consists of 10 items and was used to assess global self-esteem. Self-esteem scores were categorized as low (0-10), moderate (11-20) and high (21-30). The perceived parenting style scale was based on a short version of Buri's Parental Authority Questionnaire and classified participants according to the predominant perceived parenting style.

Ethical considerations

Ethical approval was obtained from the relevant institutional ethics committee JIP/CON/IEC/M.SC/2023/PN/4. Permission was obtained from the participating schools. Written informed consent was obtained from parents/legal representatives and assent

was obtained from adolescents before data collection. Participation was voluntary and confidentiality was maintained.

Statistical analysis

Data were analysed using descriptive and inferential statistics. Frequencies and percentages were used for categorical variables, and means and standard deviations were used for continuous variables. Chi-square tests were used to examine associations between categorical variables. Pearson correlation was used to assess the relationship between self-esteem and each perceived parenting-style domain. A $p < 0.05$ was considered statistically significant.

RESULTS

A total of 486 school-going adolescents aged 13-17 years participated in the study. The mean self-esteem score was 15.20 ± 2.79 . Frequency and percentage distribution of socio-demographic variables of school-going adolescents.

The largest proportion of participants were aged 16 years (25.9%), and females constituted 59.5% of the sample. More than half of the adolescents were studying in classes 8-10 (57.0%). The majority belonged to nuclear families (70.8%), while 50.4% resided in rural areas. Most mothers (70.0%) were aged 31-40 years, whereas most fathers (66.3%) were aged 41-50 years.

Most adolescents had moderate self-esteem (91.6%), while 4.3% had low and 4.1% had high self-esteem.

Authoritative parenting was the most commonly perceived parenting style (53.5%), followed by authoritarian parenting (34.2%) and permissive parenting (12.3%).

Self-esteem showed weak negative correlations with authoritative parenting ($r = -0.045$, $p = 0.3187$) and authoritarian parenting ($r = -0.027$, $p = 0.555$), whereas a weak positive correlation was observed with permissive parenting ($r = 0.085$, $p = 0.060$). None of these correlations was statistically significant.

Self-esteem was significantly associated with type of school ($\chi^2 = 9.499$, $df = 2$, $p = 0.009$) and area of residence ($\chi^2 = 7.652$, $df = 2$, $p = 0.022$). No statistically significant association was observed between self-esteem and age, gender, educational status, parental age, family type, religion, parental educational status, parental occupation, or monthly family income.

Perceived parenting style was significantly associated with gender ($\chi^2 = 16.077$, $df = 2$, $p = 0.0001$), type of school ($\chi^2 = 8.007$, $df = 2$, $p = 0.018$), and area of residence ($\chi^2 = 8.185$, $df = 2$, $p = 0.017$). No statistically significant association was observed with age, educational status, parental age, family type, religion, parental educational status, parental occupation, or monthly family income.

Table 1: Socio-demographic characteristics of the study participants, (n=486).

Demographic variables	Frequency	Percentage (%)
Age (in years)		
13	91	17.9
14	102	21.0
15	102	21.0
16	126	25.9
17	65	13.4
Gender		
Male	197	40.5
Female	289	59.5
Educational status		
8 to 10	277	57.0
11 to 12 th	209	43.0
Type of school		
Government-urban	122	25.1
Government-rural	122	25.1
Private-urban	121	24.9
Private-rural	121	24.9
Mother's age (in years)		
21-30	8	1.6
31-40	340	70.0
41-50	134	27.6
>50	4	0.8
Father's age (in years)		
21-30	-	-
31-40	119	24.5
41-50	322	66.3
>50	45	9.3
Type of family		
Joint family	142	29.2
Nuclear family	344	70.8
Religion		
Hindu	415	85.4
Muslim	36	7.4
Christian	35	7.2
Area of residence		
Urban	241	49.6
Rural	245	50.4
Educational status of mother		
Illiterate	24	4.9
1 to 12 th	390	80.2
Undergraduate	66	13.6
Post graduate	6	1.2
Educational status of father		
Illiterate	43	8.8
1 to 12 th	368	75.7
Undergraduate	59	12.1
Post graduate	16	3.3
Occupation of the mother		
Home maker	294	60.5
Unskilled worker	24	4.9
Semi-skilled worker	79	16.3
Semi-professional	19	3.9
Professional	70	14.4
Occupation of the father		
Unemployed	71	14.6

Demographic variables	Frequency	Percentage (%)
Unskilled worker	124	25.5
Semi-skilled worker	163	33.5
Semi-professional	28	5.8
Professional	100	20.6
Income (in INR)		
≤10,000	328	67.5
10,001-20,000	150	30.9
20,001-30,000	6	1.2
>30,000	2	0.4

Table 2: Distribution of adolescents according to level of self-esteem, (n=486).

Level of self-esteem	N	Percentage (%)
Low (0-10)	21	4.3
Moderate (11-20)	445	91.6
High (21-30)	20	4.1

Table 3: Perceived parenting among the school-going adolescents, (n=486).

Perceived parenting style	N	Percentage (%)
Authoritative	260	53.5
Authoritarian	166	34.2
Permissive	60	12.3

Table 4: Correlation between self-esteem and perceived parenting-style domains, (n=486).

Variables	Mean	SD	Karl Pearson's correlation "r" value	P value
Self-esteem	15.20	2.79	-0.045	0.318
Authoritative	23.18	5.83		
Self-esteem	15.20	2.79	-0.027	0.555
Authoritarian	21.58	4.93		
Self-esteem	15.20	2.79	0.085	0.060
Permissive	17.57	4.27		

Table 5: Associations of self-esteem among school-going adolescents with selected demographic variables, (n=486).

Demographic variables	Low		Moderate		High		Chi-square (χ^2) value and Df	P value
	F	%	F	%	F	%		
Age (in years)								
13	5	1.0	78	16.0	4	0.8	6.097 Df=10	0.807
14	3	0.6	95	19.5	4	0.8		
15	3	0.6	95	19.5	4	0.8		
16	6	1.2	114	23.5	6	1.2		
17	3	0.6	60	12.3	2	0.4		
Gender								
Male	8	1.6	182	37.4	7	1.4	0.331 Df=2	0.848
Female	13	2.7	263	54.1	13	2.7		
Educational status								
8 to 10	13	2.7	253	52.1	11	2.3	0.243 Df=2	0.886
11 to 12 th	8	1.6	192	39.5	9	1.9		
Type of school								
Government	6	1.2	231	47.5	5	1.0	9.499 Df=2	0.009**
Private	15	3.1	214	44.0	15	3.1		
Mother's age (in years)								
21-30	1	0.2	7	1.4	0	0	9.540 Df=6	0.145
31-40	14	2.9	308	63.4	18	3.7		
41-50	5	1.0	127	26.1	2	0.4		
>50	1	0.2	3	0.6	0	0		

Continued.

Demographic variables	Low		Moderate		High		Chi-square (χ^2) value and Df	P value
	F	%	F	%	F	%		
Father's age (in years)								
21-30	-	-	-	-	-	-	3.088 Df=4	0.543
31-40	6	1.2	108	22.2	5	1.0		
41-50	12	2.5	295	60.7	15	3.1		
>50	3	0.6	42	8.6	0	0		
Type of family								
Joint family	7	1.4	131	27.0	4	0.8	1.004 Df=2	0.605
Nuclear family	14	2.9	214	64.6	16	3.3		
Religion								
Hindu	18	3.7	379	78.0	18	3.7	0.732 Df=4	0.947
Muslim	1	0.2	34	7.0	1	0.2		
Christian	2	0.4	32	6.6	1	0.2		
Area of residence								
Urban	12	2.5	225	46.3	4	0.8	7.652 Df=2	0.022*
Rural	9	1.9	220	45.3	16	3.3		
Educational status of mother								
Illiterate	2	0.4	20	4.1	2	0.4	10.377 df=6	0.110
1 to 12 th	14	2.9	364	74.9	12	2.5		
Undergraduate	5	1.0	55	11.3	6	1.2		
Post graduate	0	0	6	1.2	0	0		
Educational status of father								
Illiterate	2	0.4	38	7.8	3	0.6	2.037 Df=6	0.916
1 to 12 th	16	3.3	338	69.5	14	2.9		
Undergraduate	3	0.6	54	11.1	2	0.4		
Post graduate	0	0	15	3.1	1	0.2		
Occupation of the mother								
Home maker	12	2.5	270	55.6	12	2.5	9.030 Df=8	0.340
professional	4	0.8	64	13.2	2	0.4		
Unskilled worker	2	0.4	20	4.1	2	0.4		
Semiskilled worker	1	0.2	76	15.6	2	0.4		
Semi-professional	2	0.4	15	3.1	2	0.4		
Occupation of the father								
Semi-professional	2	0.4	25	5.1	1	0.2	14.493 Df=8	0.070
professional	4	0.8	93	19.1	3	0.6		
Semi-skilled worker	59	12.1	100	20.5	4	0.8		
Unskilled worker	20	4.1	100	20.5	4	0.8		
Unemployed	7	1.4	60	12.3	4	0.8		
Income (in INR)								
≤10,000	14	2.9	296	60.9	18	3.7	5.263 Df=6	0.511
10,000-20,000	7	1.4	141	29.0	2	0.4		
20,000-30,000	0	0	6	1.2	0	0		
>30,000	0	0	2	0.4	0	0		

Chi-square test was used to assess associations. *p<0.05; **p<0.01. *indicates p<0.05; **indicates p<0.01.

Table 6: Association of perceived parenting style among school-going adolescents with selected demographics.

Demographic variables	Authoritative		Authoritarian		Permissive		Chi square (χ^2) value and df	P value
	F	%	F	%	F	%		
Age (in years)								
13	46	9.5	33	6.8	8	1.6	4.432 Df=10	0.926
14	55	11.3	35	7.2	12	2.5		
15	57	11.7	34	7.0	11	2.3		
16	63	13.0	44	9.1	19	3.9		
17	36	7.4	19	3.9	10	2.1		
Gender								
Male	84	17.3	81	16.7	32	6.6	16.077 Df=2	0.0001***
Female	176	36.2	85	17.5	28	5.8		

Continued.

Demographic variables	Authoritative		Authoritarian		Permissive		Chi square (χ^2) value and df	P value
	F	%	F	%	F	%		
Educational status								
8 to 10	147	30.2	94	19.3	36	7.4	0.252 Df=2	0.881 NS
11 to 12 th	113	23.3	72	14.8	24	4.9		
Type of school								
Government	114	23.5	93	19.1	35	7.2	8.007 Df=2	0.018*
Private	146	30.0	73	15.0	25	5.1		
Mother's age (in years)								
21-30	6	1.2	1	0.2	1	0.2	4.221 Df=6	0.647
31-40	183	37.7	113	23.3	44	9.1		
41-50	70	14.4	50	10.3	14	2.9		
>50	1	0.2	2	0.4	1	0.2		
Father's age (in years)								
21-30	-	-	-	-	-	-	2.810 Df=4	0.590
31-40	66	13.6	39	8.0	14	2.9		
41-50	175	36.0	107	22.0	40	8.2		
>50	19	3.9	20	4.1	6	1.2		
Type of family								
Joint family	69	14.2	51	10.5	22	4.5	2.694 Df=2	0.260
Nuclear family	191	39.3	115	23.7	38	7.8		
Religion								
Hindu	219	45.1	146	30.0	50	10.3	1.546 Df=4	0.818
Muslim	20	4.1	11	2.3	5	1.0		
Christian	21	4.3	9	1.9	5	1.0		
Area of residence								
Urban	142	29.2	78	16.0	21	4.3	8.185 Df=2	0.017*
Rural	118	24.3	88	18.1	39	8.0		
Educational status of mother								
Illiterate	12	2.5	10	2.1	2	0.4	2.580 Df=6	0.859
1 to 12 th	205	42.2	135	27.8	50	10.3		
Undergraduate	39	8.0	20	4.1	7	1.4		
Post graduate	4	0.8	1	0.2	1	0.2		
Educational status of father								
Illiterate	23	4.7	18	3.7	2	0.4	6.326 Df=6	0.388
1 to 12 th	198	40.7	121	24.9	49	10.1		
Undergraduate	29	6.0	24	4.9	6	1.2		
Post graduate	10	2.1	3	0.6	3	0.6		
Occupation of the mother								
Home maker	161	33.1	94	19.3	39	8.0	6.345 Df=8	0.609
professional	37	7.6	25	5.1	8	1.6		
Unskilled worker	16	3.3	7	1.4	1	0.2		
Semi-skilled worker	37	7.6	31	6.4	11	2.3		
Semi professional	9	1.9	9	1.9	1	0.2		
Occupation of the father								
Semi professional	25	2.7	2	2.7	1	0.4	4.555 df=8	0.804
professional	93	19.1	4	0.8	3	0.6		
Unskilled worker	100	20.5	20	4.1	4	0.8		
Semi-skilled worker	100	20.5	59	12.1	4	0.8		
Unemployed	60	12.3	7	1.4	4	0.8		
Monthly income (in INR)								
≤10,000	168	34.6	118	24.3	42	8.6	3.368	0761
10,000-20,000	87	17.9	45	9.3	18	3.7		
20,000-30,000	4	0.8	2	0.4	0	0		
>30,000	1	0.2	1	0.2	0	0		

*Note: Chi-square test; p<0.05 considered statistically significant. *, **, *** and non-significant.

DISCUSSION

This cross-sectional analytical study examined self-esteem and perceived parenting styles among 486 school-going adolescents in Puducherry. Most participants had moderate self-esteem, and authoritative parenting was the most commonly perceived style.

In the present study, 91.6% of adolescents had moderate self-esteem. Similar patterns of moderate or average self-esteem have been reported among adolescents in India and Nepal. Differences between studies may be related to age distribution, cultural context, family environment, socioeconomic circumstances and the instruments used to assess self-esteem.⁹⁻¹²

The mean self-esteem score in the present study was 15.20 ± 2.79 . This finding is broadly comparable with previous reports among adolescent school populations, although some studies have reported higher mean scores. Differences in scoring procedures, participant characteristics and psychosocial context may account for these variations.^{3,6,11,13,14}

Authoritative parenting was the most frequently perceived parenting style (53.5%), followed by authoritarian (34.2%) and permissive (12.3%). The predominance of authoritative parenting is consistent with findings from several studies of adolescents. However, the proportions of the 3 styles vary between populations, which may reflect cultural expectations, parental practices and adolescents' perceptions of parental behaviour.^{3,4,7,10,15-18}

No statistically significant correlation was observed between self-esteem and authoritative, authoritarian or permissive parenting styles. This finding is consistent with some previous studies but differs from reports showing significant associations between parenting style and adolescent self-esteem. The inconsistent evidence suggests that self-esteem is likely influenced by multiple interacting factors, including peer relationships, school experiences, family environment and individual characteristics, rather than parenting style alone.^{3,6,8,10,12,16}

Type of school and area of residence were significantly associated with self-esteem. Perceived parenting style was significantly associated with gender, type of school and area of residence. These findings indicate that contextual characteristics may influence adolescents' psychosocial experiences and their perceptions of family relationships. School-based screening and family-focused interventions may therefore be strengthened by considering the broader social environment.^{2,5,8,11}

Strengths and limitations

The study included a relatively large sample of adolescents from government and private schools in urban and rural areas and used standardized measures.

However, the cross-sectional design prevents inference of causality. The study was limited to school-going adolescents aged 13-17 years in Puducherry, which may limit generalizability to out-of-school adolescents and other age groups. Self-reported measures may also be affected by recall or social-desirability bias.

CONCLUSION

Most school-going adolescents in Puducherry had moderate self-esteem, and authoritative parenting was the most commonly perceived parenting style. No statistically significant correlation was observed between self-esteem and the three perceived parenting styles. Type of school and area of residence were associated with self-esteem, while gender, type of school and area of residence were associated with perceived parenting style. Adolescent mental health programmes should incorporate family, school and community perspectives when promoting psychosocial well-being.

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