



Self-Esteem among Adolescents in Different Educational Streams through the COVID 19 Pandemic – The Critical Need for Life Skills Intervention to face the New Challenge.

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Abstract

Background: Self-esteem indicates an individual's negative or positive perception of themselves, and is found to be a significant component among students and their mental health (1). It is at college that students expand their capabilities and gain self-esteem and confidence. But COVID 19 has drastic impact all through the globe, causing major twists and turns to adolescent students' college life. The students were recommended online classes as compared to the usual live campus life, taking a toll on their mental health. As different streams of college courses pose distinct challenges, it is likely that students also show varying degrees of self-esteem.

Aim: This descriptive cross-sectional study aimed to assess the self-esteem of students in arts and science and engineering courses, amidst COVID pandemic with onlins classes, with respect to their socio-demographic variables (age, gender, stream of education, father's education, father's occupation, monthly family income, mother's qualification, status of mother, and family type).

Methods: Random sampling was used to gather 96 arts and science students, and 180 engineering students from a private arts and science and engineering college in Chennai, Tamil Nadu, respectively. All students in the sample were in their first year of college. A self-developed socio-demographic questionnaire and the Rosenberg Self-Esteem Scale were sent to the 276 students using Google Forms. Their responses were studied and inferred using descriptive (frequency, percentage, mean, and standard deviation) and inferential statistics (independent t test, ANOVA, and Post Hoc test).

Results: There were 276 students included in the study, out of which 93 were female and 183 were male. A higher self-esteem was evident among females, students with post-graduate fathers, graduate mothers, non-working mothers, fathers working in other domains or being self-employed, and among those living in nuclear families. Family income was also found to be statistically significant in terms of self-esteem. Although students ≤ 18 years of age had higher self-esteem scores, there was no statistical significance.

Conclusion: self-esteem was found to be higher among arts and science students than engineering students. Furthermore, a statistically significant difference was observed in the self-esteem of the students, their gender, parent education levels, father occupation, working status of mother, family income, and family type. The study emphasises the critical need for life skills intervention to face the pandemic and academic challenges. Further research is required to understand the difference in level of life skills and self-esteem between students of different academic streams.

Keywords: Self-esteem, Mental health, COVID 19, Life skills.

Introduction

Adolescence is the vital phase of development, involving physical, psychological and behavioural changes (Moulier et al., 2019) and a search for identity formation and novelty seeking. The transition from school to college life poses challenges for students, especially their self-esteem, and amidst the COVID 19 scenario, where the students have to attend online classes, which is new and unusual compared to the normal live campus life. To have a positive attitude towards life, an individual needs self-appraisal especially self-esteem.

According to sociologist Morris Rosenberg, self-esteem denotes an individual's negative or positive attitude and appraisal of themselves, their thoughts, and feelings (2). Self-esteem also relates to one's awareness of their personal value system and emotional appraisal of their self-worth (3). When presented with negative feedback, those with a high self-esteem are generally less affected, while those with a low self-esteem are inclined to react adversely (4). Moreover, self-esteem is central to personal well-being as it positively relates to social adjustment, psychological health, and quality of life (5).

As students face a series of challenges during their studies, self-esteem is considered a significant aspect of their mental health and coping potential (1). Among students, a higher self-esteem has been related to more success (6), less anxiety (7), lower chances of developing depression (8), and better social relationships (9). Additionally, educators have overtime asserted a student's perception of themselves to be a fundamental determinant of their academic success (10). Research also puts forward a positive relationship between self-esteem and happiness among students (11). For students to be confident and motivated to attain their educational goals, self-esteem is an essential element, due to which educators are to take this into consideration and provide it with the educational importance it demands (12).

A low self-esteem has been associated with hopelessness, suicidal tendencies, and depression, marking the urgent need for evaluation of self-esteem among young adults (13). Studies have shown self-esteem to negatively correlate with depression, anxiety, and suicidal thoughts (14,15), thus asserting its preventive implications in the process of suicidal ideation. As the transition to college often poses challenges for students in the form of fear, insecurity, anxiety, and rigid adjustments, that may have adverse effects on self-esteem, it is essential to understand the vulnerability of self-esteem during this phase to provide students with the attention they need to prevent negative, and often times, fatal outcomes (16). Understanding self-esteem in the student population can also provide a glance into the status of their mental health and well-being.

Different college courses are likely to pose distinct challenges for students in terms of workload, social interactions, and skills, because of which the impact they have on self-esteem may also vary. However, existing literature regarding differences in self-esteem between academic streams are scarce. Therefore, the present study was conducted to assess the self-esteem in relation to socio-demographic variables among arts and science and engineering college students in Chennai, Tamil Nadu.

Methodology

Design

The present investigation was conducted in Chennai, Tamil Nadu, South India, and adopted a descriptive cross-sectional study design, to study the self-esteem among adolescents in different educational streams through the COVID 19 Pandemic.

Sampling

Random sampling was used to select students from a private engineering college and arts and science college in Chennai. Students from first year within the age range of 17-21 years were selected. For students to be included in the study, they were to show a willingness to take part, and have no mental or physical ailments.

Tools Used

For data collection, a Google Form consisting of the following tools was sent out to the students:

- Socio-Demographic Questionnaire – A self-developed socio-demographic questionnaire collected information regarding age, gender, stream of education, father's education, father's occupation, monthly family income, mother's qualification, status of mother, and family type.
- Rosenberg Self-Esteem Scale (RSES) (17)– The RSES, developed by Morris Rosenberg, assesses global self-esteem of individuals, and was initially designed to evaluate self-esteem among high school students. However, following its development, the scale has been implemented in various populations.

Scoring: The RSES consists of 10 items scored on a four-point Likert scale. Items 1, 2, 4, 6 and 7 are scored on a scale of 'strongly agree' (3), 'agree' (2), 'disagree' (1), and 'strongly disagree' (0), and items 3, 5, 8, 9, and 10 are scored as 'strongly agree' (0), 'agree' (1), 'disagree' (2), and 'strongly disagree' (3). Scores will range from 0-30, with higher scores indicative of a higher self-esteem.

Psychometric Properties: The Cronbach's alpha for this scale ranges between 0.77-0.88, and the test-retest correlation ranges between 0.82-0.88 (18).

Procedure

1. Students were briefed regarding the study and their informed consent was obtained.
2. Students were instructed on how to respond to the questionnaires.
3. Google Forms, consisting of the socio-demographic questionnaire and RSES, were then sent to the students.
4. Following their response, the data was analysed using SPSS (Statistical Package for the Social Sciences) Version 20 software, and the necessary statistical tests were conducted.

Statistical Analyses

Statistical analyses were performed using SPSS Version 20 software. Descriptive statistics including frequency, percentage, mean, and standard deviation were calculated, along with inferential statistics such as the independent t test, ANOVA, and Post Hoc test.

Ethics

The researcher approached the universities and obtained permission to conduct the study. To comply with ethical guidelines, the researcher briefed the students about the study, and informed them about their right to withdraw at any time they felt discomfort. Informed consent was obtained from all students. For students below 18 years, parents provided their informed consent.

Results

A total of 276 students responded to the Google Forms questionnaire, out of which 96 were from an arts and science background, and 180 were from an engineering background. As presented in Table 1, the majority of the students were male (n=183), and there were more students in the 18-19 age group (n=243). About a quarter of the fathers of the students worked in the agriculture sector (27.2%), with more than half of the students having a family income of up to 50,000 INR (63.0%). There were more mothers (64.1%) and fathers (55.4%) who had completed their school level education. Also, the predominant number of mothers were non-working (n=219), and the majority of students lived in a nuclear family (70.7%).

Table 1. Socio-Demographic Details of the Students

Socio-Demographic Details		N (276)	Percentage (%)
Age	17	6	2.2
	18	135	48.9
	19	108	39.1
	20	18	6.5
	21	9	3.3
	Gender	Female	93
Male		183	66.3
Stream of Education	Arts and Science	96	34.8
	Engineering	180	65.2
Father's Education	Graduate	78	28.3
	Post-Graduate	45	16.3
	School Level	153	55.4
Father's Occupation	Agriculture	75	27.2
	Business	66	23.9
	Government Sector	42	15.2
	Labourer	15	5.4
	Others	45	16.3
	Self-employed	33	12.0
Family Income	100000 to 200000	21	7.6
	50000 to 100000	63	22.8
	Above 200000	18	6.5
	up to 50000	174	63.0
Mother's Education	Graduate	66	23.9
	Post Graduate	33	12.0
	School level	177	64.1
Status of Mother	Non-working	219	79.3
	Working	57	20.7
Family Type	Joint Family	81	29.3
	Nuclear Family	195	70.7

Following performance of the independent t test, there was no significant difference in self-esteem between those below and above 18 years, $t(274)=1.223$, $p=0.223$. In terms of gender, females ($M=18.03$, $SD=3.714$) reported a higher self-esteem than males ($M=16.41$, $SD=5.114$), $t(274)=3.006$, $p=0.003$. Moreover, students from the arts and science stream ($M=18.00$, $SD=4.106$) had higher self-esteem than engineering students ($M=16.40$, $SD=4.974$). In terms of parent education, students with post-graduate level fathers ($M=18.20$, $SD=5.759$) had a higher self-esteem than those with graduate ($M=17.50$, $SD=4.067$) or

school level (M=16.31, SD=4.662) qualified fathers, $t(273)=3.524$, $p=0.031$. Similarly, the self-esteem of students with graduate mothers (M=18.82, SD=3.969) was higher, $t(273)=7.087$, $p=0.001$. Students with non-working mothers (M=17.34, SD=4.592) had higher self-esteems than those with working mothers (M=15.47, SD=5.064), $t(274)=2.678$, $p=0.008$. Also, students in nuclear families had a higher self-esteem (M=17.38, SD=4.629) than those in joint families (M=15.93, SD=4.891), $t(2.345)$, $p=0.020$. Students with fathers working in other industries (M=19.80, SD=3.912), or self-employed (M=18.64, SD=4.485) had a higher self-esteem, while those with fathers in the agriculture sector (M=15.08, SD=3.819) had the lowest self-esteem, $t(270)=7.439$, $p=0.000$. Family income was also found to be significant, $t(272)=3.457$, $p=0.017$, as students whose family's earned 50,000 to 100,000 INR had a higher self-esteem (M=18.43, SD=4.672), and those who earned above 200,000 INR had a lower self-esteem (M=15.17, SD=5.125).

Table 2. Mean Self-Esteem Scores of the Students

Socio-Demographic Details		N (276)	Mean ± Standard Deviation	t/f value	p
Age	≤ 18	141	17.30 ± 4.734	1.223 ^{NS}	0.223
	> 19	135	16.60 ± 4.748		
Gender	Female	93	18.03 ± 3.714	3.006 ^{**}	0.003
	Male	183	16.41 ± 5.114		
Stream of Education	Arts and Science	96	18.00 ± 4.106	2.698 [*]	0.007
	Engineering	180	16.40 ± 4.974		
Father's Education	Graduate	78	17.50 ± 4.067	3.524 [*]	0.031
	Post-Graduate	45	18.20 ± 5.759		
	School Level	153	16.31 ± 4.662		
Father's Occupation	Agriculture	75	15.08 ± 3.819	7.439 ^{**}	0.000
	Business	66	16.36 ± 4.702		
	Government Sector	42	16.71 ± 6.209		
	Labourer	15	17.40 ± 1.404		
	Others	45	19.80 ± 3.912		
	Self-employed	33	18.64 ± 4.485		
Family Income	100000 to 200000	21	17.43 ± 2.501	3.457 [*]	0.017
	50000 to 100000	63	18.43 ± 4.672		
	Above 200000	18	15.17 ± 5.125		
	up to 50000	174	16.55 ± 4.832		
Mother's Education	Graduate	66	18.82 ± 3.969	7.087 ^{**}	0.001
	Post Graduate	33	16.73 ± 5.564		
	School level	177	16.31 ± 4.690		
Status of Mother	Non-working	219	17.34 ± 4.592	2.678 ^{**}	0.008
	Working	57	15.47 ± 5.064		
Family Type	Joint Family	81	15.93 ± 4.891	-2.345 [*]	0.020
	Nuclear Family	195	17.38 ± 4.629		

* Significant at $p < 0.05$

** Significant at $p < 0.01$

Table 3. Post-Hoc Test Results

Socio-Demographic Details		N	Subset for alpha=0.05		
			1	2	3
Father's Education	School level	153	16.31		-
	Graduate	78	17.50	17.50	-
	Post graduate	45		18.20	-
Father's Occupation	Agriculture	75	15.08		
	Business	66	16.36	16.36	
	Government sector	42	16.71	16.71	
	Labourer	15	17.40	17.40	17.40
	Self-employed	33		18.64	18.64
	Others	45			19.80
Mother's Education	School level	177	16.31		
	Post graduate	33	16.73		
	Graduate	66		18.82	
Family Income	100000 to 200000	21	17.43		
	50000 to 100000	63		18.43	
	Above 200000	18		15.17	
	up to 50000	174			16.55

Discussion

The Present Study | Categories Bagging Higher Self-Esteem

The present study aimed to assess the self-esteem of engineering and arts and science stream students. Based on the findings, arts and science students demonstrated a higher self-esteem than engineering students. Additionally, a higher self-esteem was evident among females, students with post-graduate fathers, graduate mothers, non-working mothers, fathers working in other domains or being self-employed, and among those living in nuclear families. Although those ≤ 18 years of age had higher self-esteem scores, there was no statistical significance. A primary strength of this study is that it demonstrates the difference in self-esteem between arts and science and engineering degree students. However, it consists of a small sample due to which the external validity of the study reduces.

Self-Esteem and Age

The findings of the present study showed no significant difference in self-esteem based on age. This could be due to the students being close in ages, because of which a difference could not be inferred. Research has shown self-esteem to gradually rise during adolescence, into the young adult years, with extroverted, emotionally stable, and conscientious people illustrating better self-esteems than introverts, the emotionally unstable, and less conscientious people (19). Similarly, individuals above 65 years reported higher self-esteem levels, but based on role accumulation, older age was related to reductions in self-esteem (20).

Findings From Existing Literature | Self-Esteem and Gender

Similar to the present study, Tom and Ravindranadan (2016) studied the differences in self-esteem between male and female students studying in an Arts and Science college. Their findings demonstrated females to have a higher self-esteem than males. The higher self-esteem among females could be attributed to their generally higher maturity levels. Additionally, O'Hara (2011) found female engineering students to report higher levels of self-esteem. However, Vinotha and Shenbaham (2014) reported no gender difference in self-esteem among Engineering students. They also reported no difference in self-esteem based on levels of family income. This contradicts the present study which showed a significant difference in self-esteem

based on family income. Tamini and Velibeygi (2011) showed males to have higher self-esteem scores than females, but no significant difference in terms of self-esteem across educational streams. Existing literature therefore demonstrates a variation in findings regarding self-esteem levels based on gender, thus showing how both genders can be susceptible to a low self-esteem.

Self-Esteem and Parents Education | Educated Parents - The Impact

Although students with post-graduate level fathers and graduate level mothers had a higher self-esteem, a study by Soltani, Mirshah, Shirani, and Arbabisarjou (2013) demonstrated no significant relationship between education level of parents and self-esteem of children. This is contradicted by Şahin, Barut, and Eranli (2013) who showed the self-esteem level of adolescents to increase with the educational qualification of their parents. Ummeet (2015) also suggested the education level of mothers and family income to predict self-esteem among college students. Furthermore, Shi et al. (2017) demonstrated a positive association between family income and self-esteem, while Twenge and Campbell (2002) illustrated individuals from higher socioeconomic backgrounds to have higher self-esteem. Regardless, Sang (2015) showed no significant difference in self-esteem in relation to socioeconomic status. It is possible that students with more educated mothers and fathers have their needs met, due to which they have a higher self-esteem. In addition, students may also derive a sense of pride with having educated parents.

Working Parents | Beyond the Status of Occupation

Also, students with fathers working in other domains, being self-employed, or working as labourers had higher self-esteem. However, research shows that self-esteem of students is not influenced by the low or high status of occupation held by parents (29).

Self-Esteem and Family Type | Nuclear Family Over Joint Family

Students living in nuclear families had higher self-esteem than those in joint families. This could possibly be due to the independence and freedom that individuals in nuclear families have to express themselves. Although studies regarding the self-esteem of students in joint or nuclear families were limited, Alami, Khosravan, Sadegh Moghadam, Pakravan, and Hosseini (2014) showed the self-esteem of adolescents in single parent window families to be less than that of adolescents living in nuclear settings with both parents. Nagar, Sharma, and Chopra (2008) found a positive association between family type and self-esteem with girls living in nuclear families having a higher self-esteem than those in joint families.

Self-Esteem And Non-Working Mothers

Despite research showing the working status of mothers to have no significant influence on adolescent self-esteem (32), the present study showed students of non-working mothers to have a higher self-esteem. Singh and Kiran (2014) posited the children of non-working mothers to receive more attention, due to which they are more skilled, punctual, responsible, and intelligent when making decisions.

Need for Broadening and Deepening Research | Call for Action

Future studies reporting on the self-esteem of students should focus on variations in self-esteem specific to different educational streams, as well as its association with different socio-demographic variables, in order to effectively identify populations vulnerable to a low self-esteem during COVID 19 Pandemic. By doing this, necessary education and interventions can be given to these vulnerable populations like equipping them with the much-needed life skills intervention to face the challenges.

Conclusion

Overall, self-esteem was found to be higher among Arts and Science students than Engineering students. Furthermore, a statistically significant difference was observed in the self-esteem of the students based on their gender, parent education levels, father's occupation, working status of mother, and family type during COVID 19 pandemic.

Recommendations

- More research in this field is required to identify students with low self-esteem from diverse educational streams.
- Further research is also required to confirm these findings, and to identify ways to improve self-esteem among vulnerable populations.

- Counselors need to be made available at all times so the students needing support can avail their services.
- Life skills training needs to be incorporated as a preventive measure as a part of the curriculum itself to face the existing and new challenges.

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