



## Differences in Student Behavior based on Gender, Sector, and Class Size

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### ARTICLE INFO

#### Article History:

Received: October 28, 2021

Revised: January 31, 2022

Accepted: February 07, 2022

Available Online: February 13, 2022

#### Keywords:

Student Behavior

Gender

Class Size

Primary Schools

### ABSTRACT

Student behavior is one of the essential but complex phenomena to comprehend by even highly skilled and experienced educators. Understanding and managing student behavior effectively is rewarding as it positively affects student learning outcomes, student retention, personality building, student engagement, and student satisfaction (Akey, 2006; Luckner & Pianta, 2011; Shah, 2019). This study examined the differences in student behavior based on gender, sector, and class size in primary schools in Lahore, Pakistan. The study was quantitative, where data was collected using a stratified random sampling technique from 600 students (369 male and 231 female) from 14 primary schools (7 public and 7 private) located in Lahore. The participants filled out the self-report version of the Strengths and Difficulties Questionnaire designed by Goodman (1997). Statistical analyses included descriptive (frequency, percentage, mean, and standard deviation) statistics and inferential (independent-sample t-test, one-way ANOVA, Tukey HSD). Results indicated significant differences in student behavior between male and female students in primary schools. Significant differences were also observed between public sector students and private sector students. However, students studying in different class sizes (i.e., small, medium, and large) showed no statistically significant differences in their behavior.

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## 1. Introduction

Behavior is defined as how a person acts or conducts themselves, especially when dealing with other people. Every student possesses different behavior depending on their habits, needs, skills, and interests (Gunathilaka, Fernando, & Pasqual, 2017). Students with strong motivating learning behavior show better performance than the students having poor learning behavior (Hwang, Shadieff, Wang, & Huang, 2012). Students' relationships with their peers and teachers also play a significant role in developing social behavior among students (Pavelka, 2016; Vannatta, Gartstein, Zeller, & Noll, 2009). Marzano and Marzano (2003) claim that the student-teacher relationship is important in changing student behavior. Hattie (2003) states that teacher behavior significantly transforms student behavior, especially when teachers show high respect, care, and commitment towards learners. The family and home environment also influence the social, emotional, and learning behavior of students (Wang, Hu, & Wang, 2018).

For many educators and school leaders, a well-disciplined and properly managed classroom is essential for a successful school. It is believed that effective teaching and learning cannot be attained without appropriate behavioral management of students. Effective teachers are expected to have the ability and skill of appropriately understanding and managing their students' behavior in classrooms (Obenchain & Taylor, 2005). However, the number of students per class could affect student behavioral management. Class size is linked with the

behavior of students in educational institutes (Cortes, Moussa, & Weinstein, 2012; Marais, 2016).

Class size is the number of students studying in one classroom under the authority of one teacher. It can be measured by dividing the total number of students studying in a certain school with the total number of classes there. Class size has a strong and direct influence on the behavior of students (Yusuf, Onifade, & Bello, 2016). Filges, Sonne-Schmidt, and Nielsen (2018) also view class size as a vital element for the educational process strongly affecting the behavioral development of students. Proper and appropriate class size helps to achieve educational goals and objectives and to solve behavioral issues of students (Skalická, Belsky, Stenseng, & Wichstrøm, 2015). It also makes the education process easy, interesting, simple, and effective for both the teachers and the students (Tian, Bian, Han, Gao, & Wang, 2017). Many parents make the decision of choosing schools for their children based on class sizes (Mustafa, Mahmoud, Assaf, Al-Hamadi, & Abdulhamid, 2014).

## **2. Literature Review**

The literature on student behavior revolves around certain themes; some of them are discussed below.

### **2.1. Learning Behavior of Students**

Gunathilaka et al. (2017) studied students' learning behavior to discover their educational skills, needs, and interests. The study revealed that the performance of students was influenced by the learning behavior of students and the learning environment. Different students exhibited different learning behaviors because every student was different in his/her memory, interests, skills, needs, knowledge, motivation, and habits from others. Eventually, the learning behaviors of students helped the instructors to create a learning environment by developing such strategies. Analysis of data revealed that maximum gain from education was possible only when instructional material was designed according to the learning behaviors of students.

Kwon et al. (2018) conducted an investigation on three types of learning behaviors of students which were collaborative, inquiry, and productive behaviors. This study recommended that more focus should be paid on inquiry behavior of students rather than collaborative and productive behaviors to enhance student knowledge.

### **2.2. Social Behavior of Students**

Positive social behavior assists students to make themselves familiar with their learning environment (Yukay Yuksel, 2013) and get higher grades (DeVries, Rathmann, & Gebhardt, 2018). Interaction of teachers with students as well as with parents and different strategies adopted by schools enable teachers to develop emotional behavior of their students according to their identified needs (Goldberg et al., 2019).

Vannatta et al. (2009) investigated the influence of peer relationships on the social behavior of students by exploring the factors affecting peer acceptance. The researchers analyzed the social skills of students through the analysis of student's personal traits such as their physical appearance, physical skills possessed by athletes, and qualities of academic success. The study revealed that the relationship of students with peers played an important role in developing social skills among students. Students' personal attributes were the basic factors behind their acceptance or rejection from peers. Students who were accepted by their peers showed healthy social behavior enabling them to communicate with others confidently. Students rejected by their peers hesitated to share their opinions with others due to poorly developed social behavior. Moreover, students could capture others' attention based on their physical appearance, physical skills, and academic success.

Yukay Yuksel (2013) studied the relationship of students' social behavior with gender, academic score, learning ability, and learning problems using a sample of 166 primary school students (99 boys and 67 girls). High social competency was observed in girls while high anti-social behavior was recorded in young boys. Learning ability and learning problems developed the social/anti-social behavior among students influencing their academic performance. Yukay Yuksel (2013) recommended the educators to develop good relationships with their students

and design suitable activities to control learning problems by enhancing social behavior among younger students.

Pavelka (2016) examined the effect of teacher-student interaction on the social behavior of students. Good relationships and friendly conversation between teachers and students played a constructive role in shaping the social behavior of students. Positive social behavior of students developed due to good quality of teacher-student interaction enabled the students to make adjustments in schools and better academic performance.

### **2.3. Emotional Behavior of Students**

Garn, Kulinna, Cothran, and Ferry (2010) inquired about the skills required for the development of the emotional behavior of students. The researchers recorded significant differences in the emotional behavior of students based on gender, grade, and culture. Strong emotional behavior skills were found in girls as compared to boys.

Wang et al. (2018) examined the impact of students' personal and family factors on their emotional behavior on Chinese students. It was found that classroom problems arose due to poorly developed emotional behavior of students. Family influence and teacher-student interaction had a dominant impact on the development of the emotional behavior of students. The communication gap between teachers and students was identified as a big hurdle in developing positive emotional behavior among students.

Shah (2019) performed a qualitative study to explore the factors affecting emotional behavior of students. The home effect was recorded as a dominant factor for developing the emotional behavior of students. A collaboration of teachers with students and parents was found to be the second major influential factor enabling the teachers to handle emotional conflicts of students effectively. Interaction of teachers with students and parents helped the teachers to make learning more effective by identifying the needs of students by assessing their emotional behavior. The well-developed emotional behavior of students resulted in better academic performance of students. It was also recommended to conduct more training for teachers on students' emotional behavior. It was further concluded that poorly developed emotional behavior resulted in a low attendance rate and a high drop-out rate of students.

Students get new skills and information through playing and interaction in the recess period/playtime which enable them to develop their personality (Barros, Silver, & Stein, 2009), classroom behavior (Ridgers, Carter, Stratton, & McKenzie, 2011), and social behavior (Marouf, Che-Ani, & Tawil, 2016) by taking responsibilities willingly and performing assigned tasks effectively in free time (McKenzie, Crespo, Baquero, & Elder, 2010).

### **2.4. Class Size**

Class size refers to the "number of students" assigned for a specific classroom or a given course to conduct the teaching-learning process (Kelleher & Weir, 2016). Class size is also defined as the student-teacher ratio in the educational sector at different levels (Borland, Howsen, & Trawick, 2005). Class size strongly influences decision making as well as resource management of school (Bennett, 1996), teachers' practices (Blatchford, Moriarty, Edmonds, & Martin, 2002), challenges and opportunities faced by students (Hornsby & Osman, 2014), student-teacher ratio (Kelleher & Weir, 2016), and sustainable effective teaching-learning (Akpomi, 2017).

Students of small class sizes regularly attend schools which results in better learning (Fredriksson, Öckert, & Oosterbeek, 2013; Ho & Kelman, 2014). Small-sized classes encourage students to engage in classroom activities and effective teaching-learning process (Cundell & Pierce Jr, 2009) and built a strong teacher-student relationship through regular interactions (Allen et al., 2013; Blatchford, Bassett, & Brown, 2011; Folmer-Annevelink, Doolaard, Mascareño, & Bosker, 2010). Picus and Odden (2011) consider small-sized classes expensive, and sometimes a burden on school budgets in critical economical conditions.

Khan and Iqbal (2012) explored the reasons for overcrowded classrooms in developing countries like Pakistan. They indicated that large class sizes act as an evil in the educational sector as school management increases student enrollment keeping the same number of teaching employees to beat the financial crisis. Ndethiu, Masingila, Miheso-O'Connor, Khatete,

and Heath (2017) discovered lack of teacher training, excessive workload, and scarce resources as the major issues faced by the teachers in large class sizes. Some other determinants of large class sizes are dissatisfaction among teachers regarding their jobs (Okeke & Mtyuda, 2017; Undie & Nike, 2016), lack of student-student interaction (Bai & Chang, 2016; Majanga, Nasongo, & Sylvia, 2011), and poor discipline in classrooms (Ajayi, Audu, & Ajayi, 2017; Erdogan et al., 2010; Jacob, Olawuyi, & Jacob, 2016). However, Filges et al. (2018) claim that large class sizes help to cut down unnecessary burdens on schools' finance without affecting student learning.

Aransi (2017) conducted an investigation on senior secondary school students in Nigeria to explore the impact of large class sizes over students' accomplishments based on gender and observed no impact of large class size on male and female students. Gary-Bobo and Mahjoub (2013) inquired around 16,000 students to identify the effects of class size on student academic performance in French high schools. They reported that the increase or decrease in class size did not play a vital role in improving or declining the performance of senior class students. Woessmann (2016) studied the factors contributing to the academic achievement of students and highlighted that class size did not affect students' accomplishments.

## **2.5. Student Behavior, Class Size, and gender**

Englehart (2006) conducted an inquiry to find the teachers' opinions about the importance of class size for developing students' behavior in classes of small and large sizes. Semi-structured interviews were conducted to collect data from male and female teachers from middle school. Findings noted that the allocation of available resources per student and chance to participate in the assigned task were reduced due to more students in large class sizes. Englehart (2006) claimed that large class sizes adversely affect student behavior.

Cortes et al. (2012) compared student achievement in large-sized classes with the learners in small-sized classes and concluded that student performance is mostly affected by disciplinary and behavioral problems in large classes. De Giorgi, Pellizzari, and Woolston (2012) did an inquiry about the academic performance by considering class size, class composition, and gender on 1500 college students in Italy. A significant relationship of class size with the educational attainment of male and female students was observed.

Ho and Kelman (2014) examined the achievement gap among male and female students in small and large size classes. In a small size class, a slight difference was observed in the achievement of both male and female students. Classes of small size developed a good understanding among students. While in a large size class, a vast difference between male and females' performance was reported. It was suggested that the gap in the performance of both male and female students can be reduced by adopting appropriate teaching methodologies.

Hirschfeld (2016) highlighted positive behavior of students in large-sized classes. He claimed that large classes provide more opportunities to students to share and interpret their ideas with others, encourage the habit of listening, and the ability of patience among students. This study concluded that large class size played an important role in the development of positive behavior among students by providing more chances for collaboration and coordination.

Nandrup (2016) analyzed the performance of the students in different grade levels by keeping the focus on class size and gender. Nandrup (2016) concluded that there was a negative impact of large class sizes at students of primary level. Although, the researcher also observed that there was no effect of large class size at the accomplishment of girls and boys.

Aransi (2017) studied the impact of class size, class classification, and gender on 189 senior secondary school students' accomplishments. Findings reported a significant difference in students' accomplishments regarding class classification. However, no differences in students' achievement in Mathematic and English language were observed regarding class size and gender.

## **2.6. Problem Statement**

The Government of Pakistan is eager to increase student enrollment in primary, elementary, and secondary schools, which could result in overcrowded classrooms throughout the country. In the current situation, the Government of Pakistan has decided to provide one teacher over forty students to deal with a large number of students that has changed the concept of class size in schools. In the Pakistani context, no new inquiry was conducted for finding the effect of class sizes on students' behavior and overall performance.

The primary level in any educational institution is important for students because a child's behavioral development, character building, and deep learning take place at this early stage of life. Bengali (1999) stated that the role of primary education could not be ignored in nation-building. Benz (2012) identified several problems of the public education sector including high dropout rate and high teacher-student ratio at the primary level in Pakistan.

Lahore is a highly populated city of Pakistan. There are better health, educational, recreational, and other facilities in this historic city, which forces people to migrate to Lahore on a large scale from many neighboring towns and villages. This city is also providing better-earning facilities to a wider population as compared to other cities of Pakistan. It is a common observation that the number of people shifting towards Lahore increases each year. With this migration rate, many new problems are arising in this city in almost every field. Especially in the education sector, our public institutions are becoming more congested in order to accommodate the larger population. This study will contribute to identifying the issues relating to class strength and behavioral issues among primary school students.

Previously conducted studies did not investigate different aspects of students' behavior. Most of the studies examined the connection of class size with academic performance of students by considering their learning behavior (Chapman & Ludlow, 2010; Fredriksson et al., 2013; Gary-Bobo & Mahjoub, 2013; Gunathilaka et al., 2017; Hwang et al., 2012; Kwon et al., 2018; Woessmann, 2016). Few studies explored the effect of class size upon students' emotional behavior (Garn et al., 2010; Goldberg et al., 2019; Wang et al., 2018). Some researchers studied students' social behavior in classes of various sizes (Allen et al., 2013; Bai & Chang, 2016; Beattie & Thiele, 2016; Blatchford et al., 2011; DeVries et al., 2018; Nandrup, 2016; Pavelka, 2016).

Limited studies were administered to identify the disruptive behavior of students in different class sizes (Ajayi et al., 2017; Bradshaw, Waasdorp, & Leaf, 2012; Kent et al., 2011). Playing behavior of students was also investigated by making a comparison between small and large class sizes (Barros et al., 2009; Marouf et al., 2016; McKenzie et al., 2010; Ridgers et al., 2011).

There is a lack of studies in the literature that consider different aspects of student behavior simultaneously in a single study. Therefore, this study was administered to investigate if different class sizes influence students' academic, social, emotional, playing as well as disruptive behavior in a single study to get a more comprehensive view of student behavior. Moreover, student gender as well as the educational sector was also kept into consideration to get the holistic view of understanding student behavior in Pakistani schools.

## **2.7. Purpose of the Study**

The purpose of the current study is to examine the differences in the behavior of male and female students of both public and private primary schools. It will also explore the differences in the behavior of students studying in different class sizes.

## **2.8. Research Objectives**

The main objectives of this study are:

- To determine the differences in male and female student behavior in primary schools of Lahore
- To identify the differences in student behavior in public and private primary schools
- To find out the differences in the behavior of students in different class sizes (i.e., small, medium, and large)

## **2.9. Research Questions**

Four research questions were formulated for this study.

- Is there any significant difference in the behavior of male and female students in primary schools of Lahore?
- What is the difference in the behavior of students in public and private primary schools?
- Is there any significant difference in the behavior of students in different class sizes (i.e., small, medium, and large)?

## **3. Methodology**

### **3.1. Research Design and Procedure**

The present study was quantitative in nature where a survey questionnaire was used to gather data from the selected sample. Fourteen primary schools (7 public and 7 private) were selected through a stratified random sampling technique. Stratified sampling is a type of probability sampling in which the sample is selected through simple random sampling from different subgroups of the population. Six primary schools having small class sizes, four primary schools with medium-sized classes, and four primary schools having large-sized classes were selected for the current study. The classes having less than 25 students were considered as small-sized classes, classes with 25 to 40 students were considered as medium-sized classes, and large classes were the classes accommodating more than 40 students in the same room. A total of 600 primary students including 369 male and 231 female students participated in this study.

### **3.2. Instrumentation**

To measure the behavior of students, the Strengths and Difficulties Questionnaire developed by Goodman (1997) was adopted. Parents, teachers, and self-report versions of this questionnaire were available; however, only self-report versions were used for the current investigation. This questionnaire consisted of five scales namely; Emotional Problem Scale, Conduct Problem Scale, Hyperactivity Scale, Peer Problem Scale, and pro-social Scale. The Academic Problem Scale was added to this questionnaire to get a more comprehensive view of student behavior in schools. The questionnaire consisted of 30 items (five items for each scale). These items were rated on a five-point Likert scale with 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5 = Always.

The respondents were required to select one of the five alternatives to each statement on the questionnaire. In the Pakistani context, English is not a national language, therefore, the questionnaire was translated into the Urdu language for the maximum understanding of the participants.

The Strengths and Difficulties Questionnaire (SDQ) was used in various studies and reported good reliability and validity. Koskelainen, Sourander, and Kaljonen (2000) used SDQ to investigate the emotional and behavioral problems of 7 to 15 years old children and reported Cronbach's alpha of 0.71 ensuring satisfactory internal consistency of the instrument. Lai et al. (2010) confirmed good reliability and validity of SDQ by mentioning Cronbach's alpha as greater than 0.80 while studying children of age 6 to 12 years in the Chinese context. DeVries et al. (2018) studied the social behavior of students by using SDQ reporting 0.60 internal consistency of the instrument for peer problem and 0.71 internal consistency of the instrument for the pro-social scale. The present study reported Cronbach's alpha as 0.71.

### **3.3. Data Analysis and Interpretations**

The analysis of the data included both descriptive as well as inferential statistics. For descriptive statistics, frequencies, percentages, means, and standard deviation were calculated while for inferential statistics, independent-samples t-test, One-Way ANOVA (Analysis of Variance), and Tukey HSD were performed.

### **3.4. Differences in Behavior of Students based on gender**

Table 1 presents the descriptive statistics of male and female primary school students on subscales of the Strengths and Difficulties Questionnaire.

**Table 1: Descriptive Analysis regarding the Behavior of Male and Female Students**

Dimensions of Behavior of Students	Male N=369		Female N=231	
	Mean	S.D	Mean	S.D
<b>Emotional Problems Scale</b>	2.53	0.68	2.68	0.71
<b>Conduct Problems Scale</b>	2.23	0.72	1.98	0.68
<b>Hyperactivity Scale</b>	2.45	0.66	2.31	0.62
<b>Peer Problems Scale</b>	2.68	0.64	2.45	0.73
<b>Pro-Social Scale</b>	4.04	0.71	4.37	0.57
<b>Academic Problems Scale</b>	3.72	0.73	3.92	0.62

(N=600)

Table 2 shows the results of an independent-samples t-test that was conducted to compare mean scores for male and female students regarding different dimensions of behavior. Significant differences were observed between male and female students on all six dimensions of behavior. Female students showed positive social behavior (M = 4.37, SD = 0.57) as compared to male students (M = 4.04, SD = 0.71). Male students felt less academic issues (M = 3.72, SD = 0.73) more hyperactivity (M = 2.45, SD = 0.66) and peer problems (M = 2.68, SD = 0.64) as compared to their female counterparts. On an emotional problems scale, female students (M = 2.68, SD = 0.71) faced more issues than male students (M = 2.53, SD = 0.68).

**Table 2: Comparison of Student Behavior on Basis of Gender**

Dimensions of Student Behavior	Gender	N	Mean	SD	t-values	df	Sig.
<b>Emotional Problems Scale</b>	Male	369	2.53	0.68	-2.522	598	.012
	Female	231	2.68	0.71			
<b>Conduct Problems Scale</b>	Male	369	2.23	0.72	4.295	598	.000
	Female	231	1.98	0.68			
<b>Hyperactivity Scale</b>	Male	369	2.45	0.66	2.418	598	.016
	Female	231	2.31	0.62			
<b>Peer Problems Scale</b>	Male	369	2.68	0.64	3.985	598	.000
	Female	231	2.45	0.73			
<b>Pro-Social Scale</b>	Male	369	4.04	0.71	-6.152	598	.000
	Female	231	4.37	0.57			
<b>Academic Problems Scale</b>	Male	369	3.72	0.73	-3.540	598	.000
	Female	231	3.92	0.62			

(N = 600)

### 3.5. Differences in Behavior of Students based on sector

Table 3 presents the descriptive analysis for the behavior of public and private primary school students.

**Table 3: Descriptive Analysis regarding the Behavior of Students in Public and Private Primary Schools**

Dimensions of Behavior of Students	Public N=326		Private N=274	
	Mean	S.D	Mean	S.D
<b>Emotional Problems Scale</b>	2.71	0.61	2.46	0.75
<b>Conduct Problems Scale</b>	2.22	0.70	2.05	0.72
<b>Hyperactivity Scale</b>	2.54	0.58	2.25	0.68
<b>Peer Problems Scale</b>	2.74	0.61	2.44	0.72
<b>Pro-Social Scale</b>	4.08	0.68	4.25	0.67
<b>Academic Problems Scale</b>	3.66	0.61	3.93	0.75

(N = 600)

Table 4 shows the results of an independent-samples t-test that was conducted to make a mean score comparison of public sector students and private sector students on six dimensions of behavior. Statistically significant differences were noted in the behavior of students in public and private primary schools on all subscales of behavior.

The overall results indicated that the students of the public sector felt more behavioral problems on emotional problems scale (M = 2.71, SD = 0.61), conduct problems scale (M = 2.22, SD = 0.70), hyperactivity (M = 2.54, SD = 0.58), and problems with peers (M = 2.74, SD = 0.61) as compared to the students studying in private sector. However, private school students highlighted more academic problems (M = 3.93, SD = 0.75) than the students of public sector (M = 3.66, SD = 0.61). Students in private schools showed stronger pro-social behavior (M = 4.25, SD = 0.67) when compared to the public sector students (M = 4.08, SD = 0.68).

**Table 4: Comparison of Student Behavior on Basis of Sector**

Dimensions of Student Behavior	Sector	N	Mean	SD	t-values	df	Sig.
<b>Emotional Problems Scale</b>	Public	326	2.71	0.61	4.432	598	.000
	Private	274	2.46	0.75			
<b>Conduct Problems Scale</b>	Public	326	2.22	0.70	2.810	598	.005
	Private	274	2.05	0.72			
<b>Hyperactivity Scale</b>	Public	326	2.54	0.58	5.420	598	.000
	Private	274	2.25	0.68			
<b>Peer Problems Scale</b>	Public	326	2.74	0.61	5.404	598	.000
	Private	274	2.44	0.72			
<b>Pro-Social Scale</b>	Public	326	4.08	0.68	-3.106	598	.002
	Private	274	4.25	0.67			
<b>Academic Problems Scale</b>	Public	326	3.66	0.61	- 4.908	598	.000
	Private	274	3.93	0.75			

(N = 600)

### 3.6. Differences in Behavior of Students based on Different Class Sizes (Small, Medium, and Large)

Table 5 presents the descriptive analysis of different dimensions of student behavior in small, medium, and large class sizes. The students studying in medium-sized classes showed better social behavior (M = 4.25, SD = 0.64) than students studying in large-sized classes (M = 4.16, SD = 0.68) and/or small-sized classes (M = 4.10, SD = 0.72). The students studying in medium-sized classes felt more academic problems (M = 3.88, SD = 0.65) and more peers problems (M = 2.62, SD = 0.66) as compared to students studying in small-sized and large-sized classes. The overall results indicated that the students studying in small-sized classes had more behavioral issues as compared to the students studying in medium-sized and large-sized classes.

**Table 5: Descriptive Analysis of Behavior of Students in Different Class Sizes (Small, Medium, and Large)**

Dimensions of Behavior of Students	Small Class Size, N=190		Medium Class Size, N=173		Large Class Size, N=237	
	Mean	S.D	Mean	S.D	Mean	S.D
<b>Emotional Problems Scale</b>	2.66	0.71	2.45	0.69	2.65	0.67
<b>Conduct Problems Scale</b>	2.22	0.79	2.03	0.64	2.15	0.70
<b>Hyperactivity Scale</b>	2.44	0.65	2.31	0.55	2.43	0.72
<b>Peer Problems Scale</b>	2.59	0.73	2.62	0.66	2.56	0.68
<b>Pro-Social Scale</b>	4.10	0.72	4.25	0.64	4.16	0.68
<b>Academic Problems Scale</b>	3.76	0.75	3.88	0.65	3.75	0.69

(N = 600)

To analyze the differences in three different class sizes (i.e., small, medium, and large), One-Way ANOVA and Tukey HSD test were conducted. Participants were divided into three groups according to class size (Group 1: Small Class Size; Group 2: Medium Class Size; Group 3: Large Class Size). Table 6 shows the mean score comparison of six dimensions of student behavior in small, medium, and large class sizes.



The results indicated no significant differences in the behavior of students in small, medium, and large class sizes on Hyperactivity Scale, Peer Problems Scale, Pro-Social Scale, and Academic Problems Scale.

There was a statistically significant difference at the  $p < .05$  in Emotional Problems scores for the three class sizes [ $F(2, 599) = 5.79, p = .003$ ]. Despite reaching statistical significance, the actual difference in mean scores between the groups was small. The effect size, calculated using eta squared, was 0.02. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 2 ( $M = 2.45, SD = 0.69$ ) was significantly different from Group 1 ( $M = 2.66, SD = 0.71$ ) and Group 3 ( $M = 2.65, SD = 0.67$ ). Group 1 did not differ significantly from Group 3.

There was a significant difference in Conduct Problems Scale for the three class sizes [ $F(2, 599) = 3.52, p = .03$ ]. The effect size, calculated using eta squared, was 0.01. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 ( $M = 2.22, SD = 0.79$ ) was significantly different from Group 2 ( $M = 2.03, SD = 0.64$ ). Group 3 ( $M = 2.15, SD = 0.70$ ) did not differ significantly from either Group 1 or Group 2.

**Table 6: Comparison of Student Behavior on basis of Class Size (Small, Medium, and Large)**

Dimensions of Student Behavior		Sum of Squares	df	Mean Square	F	Sig.
Emotional Problems Scale	Between Groups	5.58	2	2.79	5.79	.003
	Within Groups	287.67	597	.48		
	Total	293.25	599			
Conduct Problems Scale	Between Groups	3.61	2	1.81	3.52	.030
	Within Groups	305.92	597	.51		
	Total	309.53	599			
Hyperactivity Scale	Between Groups	2.26	2	1.13	2.67	.070
	Within Groups	252.50	597	.42		
	Total	254.76	599			
Peer Problems Scale	Between Groups	.35	2	.17	.36	.695
	Within Groups	285.77	597	.48		
	Total	286.11	599			
Pro-Social Scale	Between Groups	2.52	2	1.26	2.69	.069
	Within Groups	279.25	597	.47		
	Total	281.76	599			
Academic Problems Scale	Between Groups	2.12	2	1.06	2.16	.116
	Within Groups	292.99	597	.49		
	Total	295.12	599			

(N = 600)

#### 4. Results and Findings

Independent-samples t-test results were significant in showing that the behavior of male students differs from female students in primary schools. Female students are more social as compared to male students. Male students are more hyperactive and feel more issues in conduct but face fewer issues in academics. Females are however, more emotionally stressed in primary schools unlike the findings of Garn et al. (2010) who claim that female students are emotionally stronger than male students are. The findings of the current study regarding the significant differences in the overall behavior of male and female students were supported by the previous studies (De Giorgi et al., 2012; Ho & Kelman, 2014).

Behavior of public school students is significantly different from private school students. Students of the public sector show weaker emotional behavior. They are more hyperactive and face issues in conduct and dealing with their peers. However, students studying in private schools perceive academics as more challenging. Private sector students are more pro-social as compared to public school students.

Behavior of students do not differ significantly in small, medium, and large class sizes on most of the dimensions of behavior except emotional problems scale, and conduct problems scale. This finding is contrary to the study conducted by Yusuf et al. (2016) that claims that

class size significantly influences student attitude and behavior. Some researchers assert that an increase or decrease in class size do not significantly affect the behavior of students especially if the teachers are efficient enough to handle student behavior by using suitable strategies (Filges et al., 2018; Picus & Odden, 2011).

## 5. Conclusion and Recommendations

The present research was a comparative study intended to examine the differences in student behavior based on gender, sector, and class sizes. The results indicated that significant differences in behavior exist between male and female students at primary level. Similarly, public school students and students who attend private schools behave significantly differently on almost all the subscales of behavior. However, class size has no significant effect on student behavior among primary school students.

Male students possess strong emotional behavior but poor conduct, peer, and pro-social behavior. Male students are more hyperactive, and less academically stressed as compared to their counterparts. Female students show better social behavior. Public sector students face emotional strain, conduct problems, and difficulty with peers. Students in private schools are socially adjustable but academically stressed.

Students of small, medium, and large class sizes show similar levels of hyperactivity, peer problems, pro-social problems, and academic problems but students studying in small-sized classes exhibit weak emotional behavior and conduct might be due to getting less chances of interaction with peers.

This study will be beneficial, not only for the teachers but for all the stakeholders in the educational sector including principals, parents and guardians. This study was conducted in primary schools where data was taken from students using self-reported instruments. Further studies could include elementary and secondary school students and also include teachers and guardians for assessing student behavior for more accurate analyses. The current study used quantitative mode only for data gathering. Qualitative research methods such as open-ended questions, observation, and interviews for data collection could assist in further in-depth exploration on the topic.

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