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Analysis of Selected Physiological Aspects of Government, Private and Residential School's Adolescent Children-A Comparative Study

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Abstract

The purpose was to "Analyse the Physiological aspects of Government, Residential and Private school adolescent children". The subjects were randomly selected from 8th to 10th Standard within the age group of 13 to 15 years. The subjects for the study were selected from three different types of schools, 100 boys and 100 girls were selected separately from government, residential and private high schools each for the present study. The physiological variables selected were assessed by standard procedure. Descriptive statistics was used to analyse the data. The government school girls had lowest systolic blood pressure when compared to other two schools. The government school girls had lowest diastolic blood pressure when compared to other two schools. The residential school girls had highest pulse rate when compared to other two schools. The vital capacity of government school was lesser than the other school girls.

Keywords: Physiological, Adolescent Children, School.

Introduction

Adolescence is a period when rapid physiological changes and demands for new social roles take place. The adolescents, due to these changes often face a number of crises and dilemmas. Emotional development is at peak and there is no emotional stability in general. It is a period demanding significant adjustment to the physical and social changes which distinguish childhood behaviour from adult behaviour. The onset of puberty brings physical changes among adolescents. These changes are often accompanied by emotional tensions. The adolescent is exposed to new social situations, patterns of behaviour and societal expectations which bring a sense of insecurity. Adolescents have to face a lot of adjustment problems. Many mental health problems emerge in late childhood and early adolescence. Adolescents are prone to recklessness and risk taking behaviours, which can lead to substance abuse, accidents, unsafe sex and youth crime. The adolescent struggles to develop his individuality while still conforming to societal norms. Rapid urbanization and modernization have exposed them to changes in society. The resultant breakdown in family structure, excessive or minimal control confuses the adolescent and makes him/her especially vulnerable to maladaptive patterns of thinking and behaviour. Healthy adulthood depends upon successful resolution of these emotional and behavioural problems. Treading on this tight rope, most adolescents go through to adulthood normally. All adolescents may not be so fortunate, to get the ideal support for this smooth transition. Some develop maladaptive patterns in emotional and behavioural spheres.

Materials and Methods

The purpose was to "Analyse the Physiological aspects of Government, Residential and Private school adolescent children". The subjects were randomly selected from 8th to 10th Standard within the age group of 13 to 15 years. The subjects for the study were selected from three different types of schools, 100 boys and 100 girls were selected separately from government, residential and private high schools each for the present study. The physiological variables selected were assessed by standard procedure. Descriptive statistics was used to analyse the data.

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Results

Table 1
Average scores and standard deviation scores of the physiological variable systolic blood pressure among the government, private and residential school Boys and Girls respectively.

Particulars	Boys			Girls		
	N	Mean	S.D	N	Mean	S.D
Govt.School	100	101.70	6.04	100	103.30	5.87
Pvt.School	100	105.38	11.67	100	104.10	5.16
Res. school	100	108.36	9.12	100	106.36	6.07

The average scores across the physiological variable systolic B P among the government, private and residential secondary school boys were 101.70, 105.38 and 108.36 respectively, number of subjects being 100. The standard deviations were 6.04, 11.67 and 9.12 respectively. When the average scores of the physiological variable systolic BP were compared, the residential school boys tended more towards the normal systolic blood pressure when compared to the other two school boys. The systolic blood pressure among government school boys was lesser than the other schoolboys. The average scores across the physiological variable systolic blood pressure among the government, private and residential secondary school girls were 103.30, 104.10 and 106.36 respectively, number of subjects being 100. The standard deviations were 5.87, 5.16 and 6.07 respectively. When the average scores of the physiological variable systolic blood pressure were compared, the residential school girls tended more towards normal than the other two school girls. The government school girls had lowest systolic blood pressure when compared to other two schools.

Figure I
Average scores of the physiological variable systolic blood pressure among the government, private and residential school Boys and Girls respectively

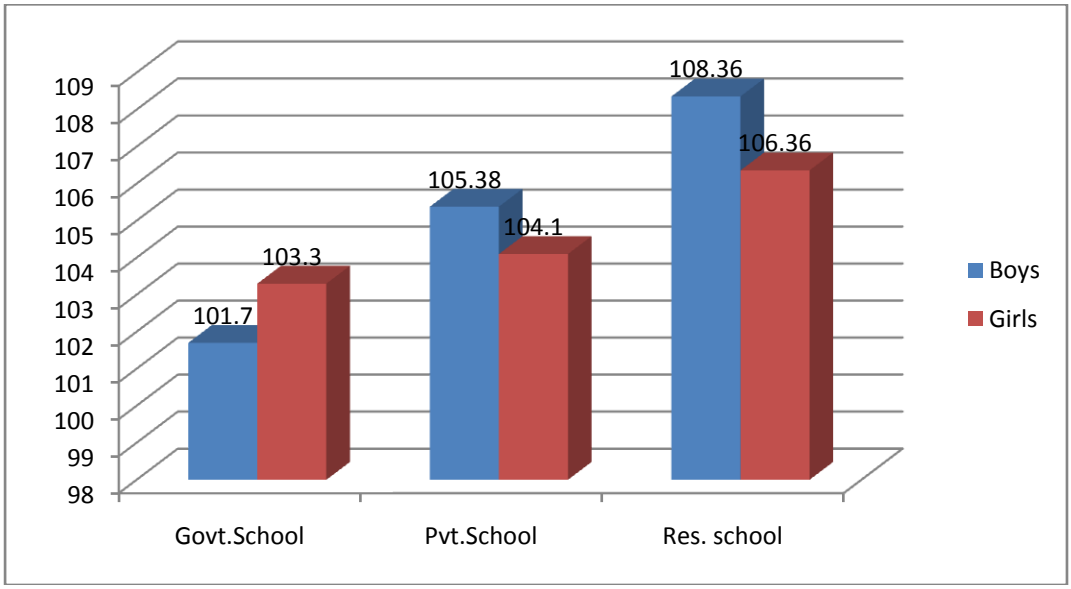


Table 2
Average scores and standard deviation scores of the physiological variable diastolicblood pressure among the government, private and residential school Boys and Girls respectively

Particulars	Boys			Girls		
	N	Mean	S.D	N	Mean	S.D
Govt.School	100	69.22	9.48	100	64.00	4.92
Pvt.School	100	69.36	7.58	100	64.30	4.98
Res. school	100	69.18	7.65	100	68.80	6.97

The average scores across the physiological variable diastolic blood pressure among the government, private and residential secondary school boys were 69.22, 69.36 and 69.18 respectively, number of subjects being 100. The standard deviations were 9.48, 7.58, and 7.65 respectively. When the average scores of the physiological variable diastolic blood pressure were compared, the private school boys tended better towards the normal range when compared to the other two school boys. The differences in the diastolic blood pressure among different school's boys were quite less and the government school boys had lesser diastolic blood pressure when compared to all other schools. The average scores across the physiological variable diastolic BP among the government, private and residential secondary school girls were 64.00, 64.30 and 68.80 respectively, number of subjects being 100. The standard deviations were 4.92, 4.98, and 6.97 respectively. When the average scores of the physiological variable diastolic blood pressure were compared, the residential school girls tended more towards normal than the other two school girls. The government school girls had lowest diastolic blood pressure when compared to other two schools.

Figure II
Average scores of the physiological variable diastolicblood pressure among the government, private and residential school Boys and Girls respectively

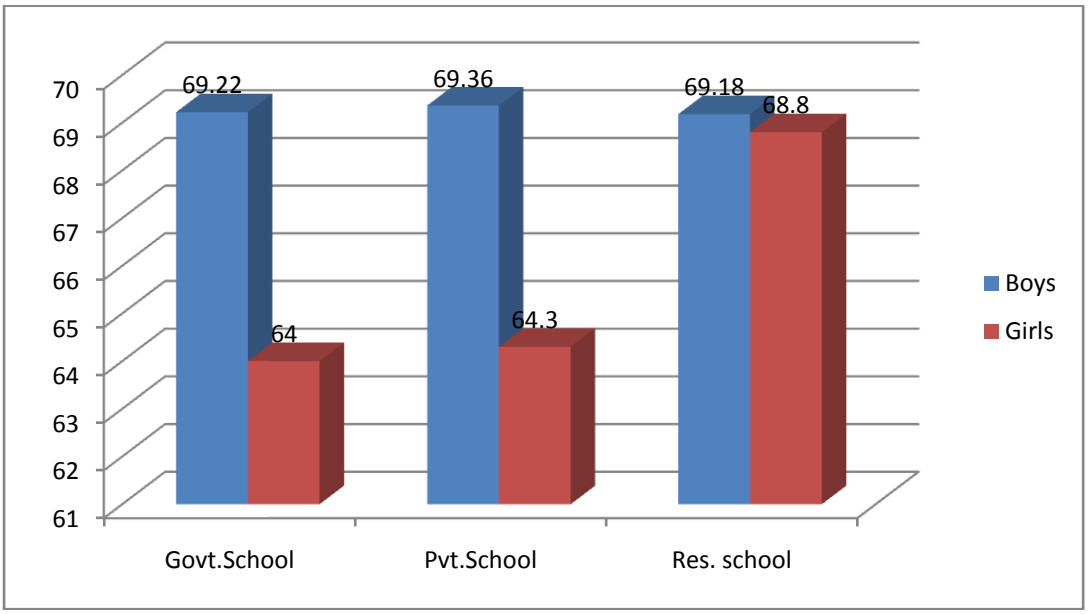


Table 3
Average scores and standard deviation scores of the physiological variable pulse rate among the government, private and residential school Boys and Girlsrespectively

Particulars	Boys			Girls		
	N	Mean	S.D	N	Mean	S.D
Govt.Schl	100	72.17	9.72	100	71.35	5.96
Pvt.Schl	100	75.62	4.88	100	74.3	4.58
Res. Schl	100	76.05	4.34	100	73.40	4.81

The average scores across the physiological variable pulse rate among the government, private and residential secondary school boys were 72.17, 75.62, and 76.05 respectively, number of subjects being 100. The standard deviations were 9.72, 4.88, and 4.34 respectively. When the average scores of the physiological variable pulse rate were compared, the government school boys tended more towards the normal range when compared to the other two school boys. The residential school boys had higher pulse rate when compared to other two schools. The average scores across the physiological variable pulse rate among the government, private and residential secondary school girls were 71.35, 74.32 and 73.40 respectively, number of subjects being 100. The standard deviations were 5.96, 4.58, and 4.81 respectively. When the average scores of the physiological variable pulse rate were compared, the government school girls tended more towards normal than the other two school girls. The residential school girls had highest pulse rate when compared to other two schools.

Figure III
Average scores of the physiological variable pulse rate among the government, private and residential school Boys and Girls respectively

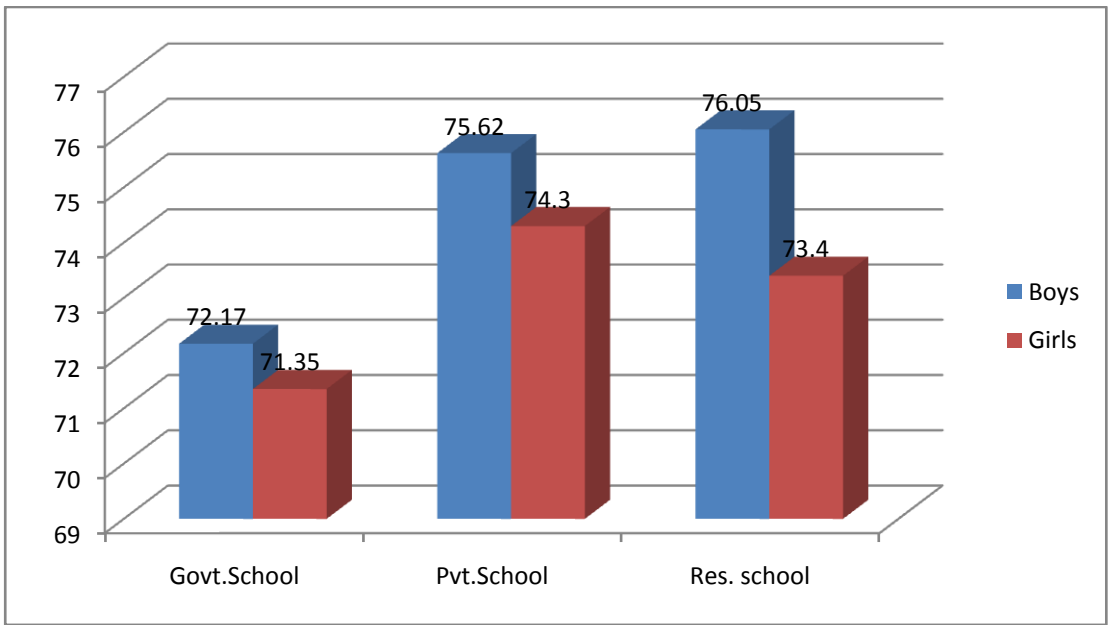
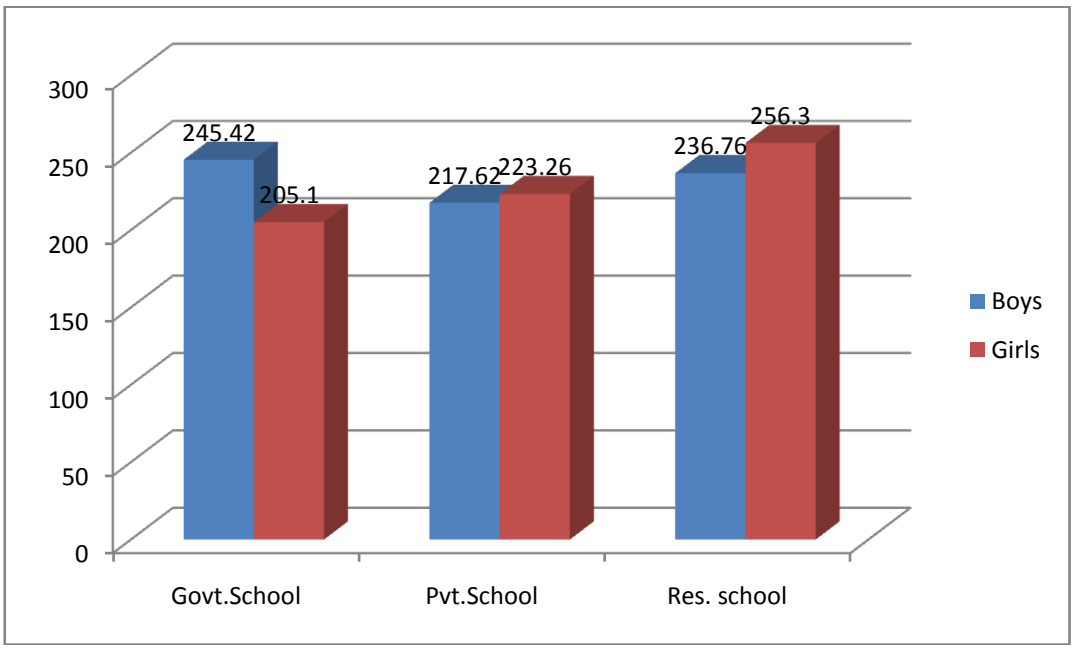


Table 4
Average scores and standard deviation scores of the physiological variable vitalcapacity among the government, private and residential school Boys and Girlsrespectively

Particulars	Boys			Girls		
	N	Mean	S.D	N	Mean	S.D
Govt.Schl	100	245.42	53.24	100	205.10	44.35
Pvt.Schl	100	217.62	50.13	100	223.26	39.66
Res. Schl	100	236.76	56.40	100	256.30	29.60

The average scores across the physiological variable vital capacity among the government, private and residential secondary school boys were 245.42, 217.62, and236.76 respectively, Number of subjects being 100. The standard deviations were 53.34, 50.13, and 50.40 respectively. When the average scores of the physiological variable vital capacity were compared, the government school boys had superior vital capacity when compared to the other two school boys. The private school boys had lesser vital capacity than the other two school boys. The average scores across the physiological variable vital capacity among the government, private and residential secondary school girls were 205.10, 223.26 and 256.26 respectively, number of subjects being 100. The standard deviations were 44.35, 39.66, and 29.60 respectively. When the average scores of the physiological variable vital capacity measuring the lungs capacity were compared, the residential school girls were superior to the other two school girls. The vital capacity of government school was lesser than the other school girls.

Figure IV
Average scores of the physiological variable vitalcapacity among the government, private and residential school Boys and Girlsrespectively.



Results

1. When the average scores of the physiological variable systolic blood pressure were compared, the residential school girls tended more towards normal than the other two school girls. The government school girls had lowest systolic blood pressure when compared to other two schools.
2. When the average scores of the physiological variable diastolic blood pressure were compared, the residential school girls tended more towards normal than the other two school girls. The government school girls had lowest diastolic blood pressure when compared to other two schools.
3. When the average scores of the physiological variable pulse rate were compared, the government school girls tended more towards normal than the other two school girls. The residential school girls had highest pulse rate when compared to other two schools.
4. When the average scores of the physiological variable vital capacity measuring the lungs capacity were compared, the residential school girls were superior to the other two school girls. The vital capacity of government school was lesser than the other school girls.

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