DISCUSSIONS
DISCUSSION

In the present study a total of 840 children aged 5 to 11 years were surveyed in different schools of Jhansi. 453 students were examined from municipal schools and 387 children from convent schools.

Of the total 840 children surveyed 52.98 percent were male and the rest of the 47.02 percent were female. Number of children studied in each school were almost equal.

Of the total children studied, children belonging to scheduled caste 10.0 percent, backward caste 33.0 percent and others 56.90 percent. 80.36 percent of children in convent schools belonged to others class as compared to 36.87 percent in municipal school. 2.06 percent children belonged to scheduled caste, 17.57 percent to backward class in convent schools as compared to 16.77 percent, 46.35 percent respectively in municipal schools. Mullick et al (1991) reported that 56.18 percent belonged to upper caste and remaining to scheduled (28.96 percent) and backward caste (14.84 percent). 92.30 percent of children in convent schools belonged to upper class and 7.70 percent to scheduled and backward classes. In municipal schools only 5.71 percent children were form upper class and 94.24 percent belonged to scheduled and backward classes.

Of the total children surveyed, hindu children formed a majority (70.95 percent), rest of them belonged to muslim (21.92 percent) and other religion (7.14 percent). In municipal schools 38.85 percent children were muslim as compared to 2.06 percent in convent schools. Mullick et al (1991) reported that hindu children formed a 80 percent of total children examined. The remaining belonged to muslim (16.68 percent) and other religions (2.74
percent). There were 33.7 percent muslim children in municipal schools as compared to only 4.6 percent in convent schools.

3.33 percent of fathers and 33.69 percent of mothers were illiterate. 56.58 percent of children of convent schools had father who were educated upto intermediate as compared to 35.50 percent in municipal schools. 60.92 percent of mothers and 5.51 percent of fathers in municipal schools were illiterate as compared to 1.80 percent mother and 0.78 percent fathers in convent school, it was because of poverty, ignorance and lack of opportunity. Mullick et al (1991) observed that fathers of 10.81 percent children were illiterate and 47.75 percent had professional/graduate fathers. Children having illiterate mothers were 25.02 percent and 30.61 children had mothers who were professional/graduate.

Fathers of 48.09 percent children were in service/business, 22.02 percent were in agriculture and 28.93 percent were labourer/skilled worker. In convent schools 78.03 percent had fathers who were in service and 21.96 percent had fathers who were in business. In municipal schools 30.02 percent had fathers in agriculture, 16.77 percent were labourer and 36.86 percent were skilled worker and only 3.75 percent had father who were in business. Mothers of 81.07 percent children were housewives/agriculture. In convent school 71.83 percent of children had mothers who were housewives/agriculture as compared to 88.96 percent in municipal school. Mullick et al (1991) observed that fathers of 30.96 percent children and mothers of 18.05 were in service. 34.64 percent children had fathers in business. Rest 34.91 percent had fathers who were in agriculture, labourer and in skilled jobs. Mothers of 53.84 percent children were housewives and rest were labourer and skilled worker (14.57 percent).
39.29 percent children were from social class I, 5.83 percent from social class II, 27.78 percent from social class III, 25.83 percent from social class IV and 7.26 percent children form social class V. 85.27 percent children from convent schools belonged to social class I and only 14.72 percent belonged to social class II and III. In convent schools there was no child belonging to social class IV and V while in municipal schools 38.63 percent children belonged to social class III, 48.0 percent from social class IV and 13.46 percent from social class V. Mullick et al (1991) reported that 53.07 percent children belonged to social class I and remaining to social class II (4.12 percent), social class III (15.57 percent), social class IV (23.09 percent) and social class V (8.43 percent). In convent schools, most of the children (91.03 percent) belonged to social class I and only 9 percent to social class II and III. In municipal schools 76.21 percent belonged to social class IV and V and the remaining 35.16 percent belonged to social class III. This figures is similar with that of a present study.

36.07 percent children had good personal hygiene, 27.97 percent had fair and 35.95 percent had poor personal hygiene. 66.66 percent had poor personal hygiene in municipal school children, while fair personal hygiene was observed in 33.33 percent of children. In contrast, 78.29 percent of children in convent school had good personal hygiene and 21.70 percent had fair personal hygiene. Dhar et al (1979) observed that the overall personal hygiene was unsatisfactory among 53.7 percent children. Agarwal et al (1999) reported that the common health problems noted in school girls were related to personal hygiene (62.2 percent). The unsatisfactory personal hygiene of municipal school could be due to lack of awareness of value of good hygiene on parts of their parents and their economic backwardness.
61.90 percent of children having vegetarian diet as compared to non-vegetarian 38.09 percent. In both the schools children having vegetarian diet were more than children having non-vegetarian diet. This difference was found to be statistically significant. Similar finding was reported by Mullick et al (1991), vegetarian children were observed in 52.42 percent and non-vegetarian in 47.57 percent of children. The difference was statistically significant \((p < 0.001)\).

75.23 percent had BCG scars, 74.28 percent had immunized against Polio and DPT, 57.26 percent against measles, 0.24 percent against measles, mumps, rubella and 0.71 percent against Hepatitis B. Children belonging to municipal school 67.77 had BCG scars and 68.65 percent were immunized against polio and DPT and 45.69 percent against measles. The corresponding percentages were much higher for convent school children, 83.97 percent, 80.88 percent and 70.80 percent. 0.62 percent children against measles, mumps, rubella and 1.5 percent against hepatitis B were immunized in convent schools as compared to none in municipal schools. The low vaccination rates in the municipal school children could be due to illiteracy, ignorance, unawareness of the parents about these vaccine or may be due to unavailability of these vaccine locally for immunization. Patodi et al (1977) observed that the immunization status of school children against BCG was 37.6 percent while immunization against diphtheria, pertussis, tetanus and polio was not satisfactory. Dwivedi et al (1978) reported that BCG coverage in rural and urban area was 28.7 percent and 56.2 percent respectively. Yaima et al (1981) observed that the immunization against BCG was 20.0 percent and against DPT/DT 20.0 percent. Sharma et al (1984) reported that coverage of BCG was higher among hindus (94.40 percent) as compared to Muslims (88.58 percent). Better vaccination
coverage in the present study than the studies carried out previously is due to increase in awareness and better immunization programme.

Mean weight of all male and female children in both types of school had higher value when compared to ICMR standards. It was also observed that mean weight of convent schools boys and girls had higher values than the municipal schools boys and girls for all ages. Similar finding were reported by Malaviya et al (1969); Patodi et al (1977); Dhar et al (1979); Rao et al (1984); Parvathi et al (1991) and Chatterjee et al (1994) whereas Dwivedi et al (1978); Sood and Kochar (1993); Chandla, and Sehgal (1994) and Singh et al (1996) found contrary to the present study. The reason for dissimilarity of the present study with the other study quoted may be due to natural variation as this study performed in different field area and in different socio-economic group.

The average height of all children increased with increasing age in the present study. In case of convent schools children mean height of children aged 5-11 years was higher than ICMR standard. Similar finding were seen in case of municipal school children. The average height of convent school children was higher than the municipal school children. These findings are similar to Malaviya et al (1969); Dhar et al (1979) Rao et al (1984); Bhasin et al (1990); Kumar et al (1990) and Balgir et al (1998). Where as Patodi et al (1977); Dwivedi et al (1978); Parvathi et al (1991) and Chandna and Sehgal (1994) and Singh et al (1996) reported that mean height of children are significantly lower than ICMR value. The lower height values of children could be due to low socio-economic and poor nutritional status.

The mid-arm circumference values of the present study reveals that mean mid-arm circumference values of both boys and girls were found to be higher than ICMR standards but did not come upto the wolanski standard.
Study also reveals that mean mid-arm circumference of children of convent schools was higher when compared to their counterparts in municipal schools for both sexes in all age groups. Dhar et al (1979); Parvathi et al (1991) and Chandna and Sehgal (1994) has also reported similar findings. This suggests the presence of protein gap in the dietary intake of these children under study.

In municipal school children, signs of nutritional deficiencies showed a higher prevalence than convent school children and the difference was found to be statistically significant. Signs of vitamin B complex deficiency and vitamin C deficiency were higher in municipal school children as compared to convent school children. Clinical Anemia was seen in 20.97 percent of municipal school children and 14.99 percent of convent school children. Overall prevalence of clinical anemia was observed in 42.14 percent of total children examined. Higher prevalence of nutritional anemia in municipal school children could be due to lack of green leafy vegetables, milk, fruits and other protective foods in the diet of all these children. Patodi et al (1977) in a study of primary school children reported that iron deficiency anemia accounts for 6.70 percent of total children studied. Dwivedi et al (1978) observed that anemia was present in 11.38 percent of school children. Sharma et al (1984) observed that pallor was seen in 20.56 percent cases with almost equal sex ratio. Indirabai et al (1976) in a study of boys 6-12 years reported that pallor was present in 49.5 percent of boys. The variation in different studies is due to factor viz, utilization of iron, a low dietary intake of iron, high prevalence of parasitism.

Of the nutritional deficiency disorder signs of vitamin A deficiency were observed more in municipal school children. They were 0.25 percent in convent schools children and 4.62 percent in municipal school children.
This can be attributed to poor socio-economic status, poor nutritional intake in municipal school children. Malaviya et al (1964) observed that out of 516 students, signs of vitamin A deficiency was seen in 52.48 percent of children. Of this hyperkeratosis of skin was present in 25.53 percent, bitot’s spot in 13.83 percent, corneal xerosis in 3.54 percent, night blindness in 2.83 percent and corneal opacity was seen in 1.77 percent. Patodi et al (1977) reported that prevalence of vitamin A was seen in 11.58 percent of school children. Sharma et al (1984) reported that prevalence of vitamin A was seen in 24.42 percent cases and was more prevalent in children from low socio-economic classes and among children from large sized families. Sharma et al (1991) reported that highest prevalence of bitot’s spot (8.5 percent) was seen in boys 6-11 years in Uttar Pradesh and lowest (less than 2 percent) in children of Karnataka. Bapat et al (1992) observed that vitamin A deficiency was present in 16.86 percent of school children. Agarwal et al (1999) observed that signs of vitamin A deficiency were limited to conjunctival xerosis or bitot’s spot and none had night blindness. Vitamin A deficiency was seen in 7.2 percent of total children studied. Decreased prevalence of vitamin A deficiency in the present study may be probably due to intense vitamin A deficiency control programme.

In the present study it has been found that vitamin B-complex deficiency in the form of angular stomatitis was the most common manifestation, effecting 15.89 percent children in municipal school and 5.94 percent children in convent schools. The difference in deficiency of vitamin B in municipal and convent schools children can be attributed to poor socio-economic status and poor diet. Patodi et al (1977) reported prevalence of vitamin B-complex in 6.96 percent of students. Sharma et al (1991) reported highest prevalence of angular stomatitis 32.0 percent was seen in boys of Andhra Pradesh and lowest (less than 1.0 percent) in children of
Karnataka. Chhabra et al (1996) reported signs of vitamin B-complex deficiency in the form of cheilosis, angular stomatitis and glossitis were seen in 2.6 percent of boys.

Total prevalence of vitamin C deficiency in the present study was 7.73 percent. Prevalence was 11.25 percent and 6.2 percent in municipal and convent school children respectively. Malaviya et al (1969) reported that the prevalence of spongy and bleeding gums is 11.29 percent.

Vitamin D deficiency signs were seen in 4.18 percent children from the municipal schools and 1.81 percent children from convent schools. The difference was not statistically significant. Sharma et al (1984) reported that vitamin D deficiency was seen in 8.38 percent of cases. Similar results were observed by Dhingra et al (1977), observed 8.1 percent children of corporation school and 2.8 percent children of private school having deficiency of vitamin D. These nutritional deficiencies were more prevalent in the municipal school children because of their diets deficient in calories, vitamins and minerals leading to chronic malnutrition. It can also be attributed to poor environmental conditions, chronic paediatric infections and repeated worm infestations. Their diets were also lacking in green leafy vegetables.

Morbidity pattern as observed clinically in the present study, it was found that skin diseases were the commonest disorder (37.97 percent) followed by dental disorder (23.57 percent). Skin infections were more prevalent in children of municipal school. Diseases of eye, ear and behaviour problems were also found to be more in them. Disorder of respiratory system, cardiovascular system, genitourinary system and skeletal system were found to be equally prevalent in both groups. Average number
of disorder per child was found to be 1.76 in municipal school children and 0.95 in convent school children.

On systemic examination, disorder of GIT were maximum. A total of 19.27 percent of the children had one or the other disorder of gastro-intestinal system. Worm infestation was observed in 10.95 percent and diarrhoea in 6.31 percent. Prevalence of GIT disorder was 22.51 percent in municipal school children and 16.04 percent in convent school children. Of this, worm infestation and diarrhoea was found to be more prevalent in municipal school children (11.92 percent and 7.28 percent) than in convent schools children (9.81 percent and 5.17 percent). This may be attributed to poor socio-economic status, poor environmental hygiene, poor personal habits and non availability of soap and insufficient water in case of municipal school children. There is also lack of piped water supply and sanitary latrine in homes of children of municipal schools.

A total of 12.91 percent children had disorders of the respiratory system. Of this 10.59 percent children had upper respiratory tract infections. Disorders of respiratory system were also more prevalent in municipal school children (14.21 percent) as compared to convent school children (11.37 percent). Dhingra et al (1977) observed 5.5 percent children of public school and 7.7 percent children of corporation school had respiratory disorder. Chhabra et al (1996) reported that total prevalence of respiratory tract infection was 8.7 percent of children. Agarwal et al (1999) reported that respiratory disease in the form of bronchial asthma was present in 6.6 percent of children. It was not unexpected, as Mumbai has hot and humid climate with heavy pollution.

Only 0.11 percent of the children examined had disorder of the cardiovascular system. These disorder present in 0.22 percent of municipal
school children. Merchant et al (1975) in a study of children observed that functional murmurs was present in 7.4 percent children, congenital heart diseases in 1.2 percent and constrictive pericarditis in 0.12 percent children. Agarwal et al (1999) reported that cardiac diseases account for 0.5 percent of cases. Among six cardiac lesion, two were rheumatic in origin.

Disorders of genitourinary system were present in 1.07 percent children. Of these 1.32 percent children in municipal school and 0.26 percent children in convent school gave a history of chronic UTI. Undescended testis were observed in only 0.44 percent of municipal school children. Gangadharan (1977) observed that chronic UTI was present in 0.57 percent of children. Dhingra et al (1977) observed 0.6 percent disease of urogenital system in corporation school as compared to nil in public school of Delhi. Sundaram et al (1978) observed undescended testis in 0.1 percent private school children. Agarwal et al (1999) observed that UTI was present in 0.4 percent of cases.

Disorders of CNS and skeletal system in the present study were observed in 7.50 percent children. Of these one child from municipal school (0.22 percent) gave a history of poliomyelitis with residual paralysis of lower extremities. Flat feet was observed in 7.38 percent children. Gangadharan (1977) observed that 0.52 percent children were having musculoskeletal disease (residual polio in 0.13 percent of children). Sundaram et al (1978) observed residual polio in 0.2 percent corporation school children as compared to 0.1 percent in private school. Yaima et al (1981) observed muscula-skeletal disorder in 0.3 percent school children.

Lymphadenopathies were observed in 4.76 percent children, of these, 5.28 percent of children were from municipal school and 4.14 percent children were from the convent school. Patodi et al (1977) observed that the
lymphadenitis accounts for 0.78 percent of total children studied. Gangadharan (1977) in a study of school health service in Kerala observed cervical lymphadenopathy in 2.43 percent of school children. Joseph (1977) observed lymphadenopathy in 2.1 percent of school children. Chhabra et al (1996) observed that lymphadenopathy accounts for 5.2 percent of cases. Rao et al (1984) in a study of rural primary school children observed that 2.6 percent school children had submandibular gland enlargement and 4.0 percent had cervical gland enlargement. Agarwal et al (1999) observed that the cervical lymphadenopathy was present in 1.1 percent of cases. Yaima et al (1981) reported that lymphadenopathy was present in 9.2 percent of total children studied.

37.93 percent children were found to be suffering from skin diseases. Of these, 10.23 percent children had pyoderma, 8.09 percent children had pediculosis, 7.02 percent children had dryness of skin, 4.04 percent children had dermatitis, 3.45 percent had phrynoderm, 3.80 percent had prickly heat, 0.59 percent children had tinea and fungus, 0.47 percent children had scabies and leucoderma was present in 0.24 percent. Skin diseases were found to be significantly more in municipal school children because of overcrowding, lack of personal hygiene, large family size and economic backwardness. Patodi et al (1977) observed that the out of 35.12 percent skin disorders among school children, majority of them suffered from multiple boils (9.37 percent), dermatitis (8.39 percent) and pediculosis (6.38 percent). Sharma et al (1984) observed that the skin diseases were seen in 18.63 percent in urban school children. Chhabra et al (1996) observed in a study that the skin disease was the commonest morbidity. This finding is similar with the present study. Gangadharan et al (1977) reported the prevalence of skin infection as 23 percent in rural school children. Rao et al (1984) reported a prevalence of 12 percent in rural school children. This
difference may be because of living conditions, personal hygiene and climatic variation. Agarwal et al (1999) reported that prevalence of skin infections accounts for 7.0 percent of total children studied.

In the present study ophthalmic disorders were observed in 16.78 percent children. Eye diseases were found to be more (25.93 percent) in municipal school children as compared to (9.26 percent) in convent schools. This may be attributed to poor personal hygiene and lack of knowledge in the former group. Of the total ophthalmic disorder, conjunctivitis was the most prevalent (8.5 percent) followed by defective vision (4.64 percent). Patodi observed conjunctivitis in 7.09 percent children, defective vision in 8.54 percent, stye in 2.80 percent children. Dwivedi et al (1978) reported diseases of eye in rural and urban area were 12.17 percent and 12.37 percent respectively. Yaima et al (1981) reported that total prevalence of eye disease was 6.1 percent.

In the present study E.N.T. disorder were observed in 15.82 percent. Municipal school children showed high prevalence of E.N.T. disorder (17.88 percent) compared to convent school children (13.42 percent). Amongst the E.N.T. disorder tonsillitis was the most prevalent disorder (5.0 percent). Prevalence of tonsillitis was higher (8.0 percent) in convent school children as compared to (2.43 percent) in municipal school children. Otorrhoea was present in 1.43 percent school children. Patodi et al (1977) observed that E.N.T. disorder contributed to 20.68 percent. Dwivedi et al (1978) reported that disease pattern of E.N.T. disorder was almost similar in both rural and urban area and this finding found contrary to present study. Chhabra et al (1996) observed that total prevalence of E.N.T. disorder was 7.8 percent. Yaima et al (1981) reported that prevalence of E.N.T. disorder was 1.7 percent. The reasons for dissimilarity of present study with other
study quoted may be natural variations as this study performed in different field areas.

In this study dental defect were observed in 23.52 percent children, in which 28.23 percent children were from municipal schools and 19.39 percent children were from convent schools. Percentage of mottled enamel, dental caries, enamel erosion and enamel hypoplasia was more in municipal school children (14.47 percent, 5.66 percent, 1 percent and 0.25 percent) as compared to convent school children (5.51 percent, 4.85 percent, 0.22 percent and 0.22 percent). On statistical analysis this difference was found to be significant (p < 0.05). Malocclusion was present in 4.04 percent and pyorrhoea in 0.59 percent of total children. The increase in incidence of dental caries in convent school children can be attributed to the habit of eating in between meals and also more consumption of sweets, chocolates and refined sugar food stuff as compared to children from municipal school.

Sharma et al.(1984) observed that poor dental hygiene was seen in 40.40 percent cases. Mottling of teeth in 8.44 percent, dental caries in 10.44 percent case. Chhabra et al (1996) observed that caries teeth was present in 10.9 percent and periodontal disease in 5.2 percent cases. Venugopal et al (1998) reported dental caries in 35.6 percent cases. Prevalence of caries was low in well nourished children and with vegetarian type of diet. Chhabra et al (1979) reported higher prevalence of caries among higher socio-economic groups whereas Verma et al (1987) reported higher prevalence in low socio-economic group. Ann et al (1991) reported significant association between dental caries and frequency of consumption of sugary food. Agarwal et al (1999) reported dental caries in 61 percent. Rao et al (1993) observed that dental carries was found in 16.5 percent. Periodontal disease were prevalent among children who clean their teeth
with ash, coal and manjan. Ganga et al (1991) reported that 36.4 percent had one or more missing teeth, 1.8 percent had filled teeth. The variation in different studies is due to difference in social, cultural and economic factor.

Behaviour problems were observed in 20.58 percent of children. In the present study, the prevalence of behaviour problems were more in municipal school children (25.58 percent) as compared to convent school (14.70 percent). Nail biting in 10.81 percent, thumb sucking 4.85 percent, and enuresis in 1.98 percent children of municipal school while prevalence of nail biting in 8.78 percent, thumb sucking in 1.80 percent and enuresis in 1.80 percent children of convent school. This variation in both type of school is due to difference in social, cultural, economic factor apart from large family size in municipal school children. Shrivastava et al (1978) observed that number of children having behaviour problems in public school was 31.57 percent and that in govt school was 37.67 percent. Nocturnal enuresis was present in 26.24 percent children and 34.51 percent children respectively. Agarwal et al (1999) observed that behaviour problems are common due to excessive stress, competitiveness, high parental expectations and consequent anxiety. In their study most of problem seen i.e. nail biting, vague aches and pain, thumb sucking etc. indirectly indicate highly stressful and anxiety related behaviour. Reported prevalence of nail biting was present in 6.5 percent, vague aches and pains in 3.4 percent, pica in 3.2 percent, thumb sucking 1.1 percent, nocturnal enuresis 0.8 percent, miscellaneous 0.6 percent of cases.

In the present study the IQ of males was higher than females in both types of schools. But this difference was not statistically significant. Of the total 96 children of municipal schools 21 (21.87 percent) had IQ between 91-100 and 3.12 percent had IQ between 126-130. Similarly in convent
schools children 13 (11.40 percent) had IQ between 91-100 and 30 (26.32 percent) had IQ between 126-130).

9.99 percent children from municipal schools and 8.77 percent children from convent schools had IQ level between 81-90, higher level of IQ (120-130) was observed in 3.31 percent of municipal schools and 26.31 percent of convent schools children. Dhingra et al (1977) reported that mean IQ of public schools children was significantly higher in public schools children.

In the present study it was found that higher level of IQ was seen in children of social class I and II while lower level of IQ was seen in children of social class IV and V. Dhingra et al (1977) reported that children of class I had an IQ between 121-130 where as social class IV had and IQ of 100 or below. Majority of social class III children (83.7 percent) were found having IQ between 91-100.

Higher IQ levels were found in children whose fathers and mothers were graduate and professional. Children of illiterate father and mother were showing lower level of IQ. On statistical analysis this difference was found to be significant. The genetic contribution of father and mother towards the children can be taken as equal and subsequently their influence and association during early childhood.

Children were classified according to their height, standard height was taken as fiftieth percentile of Harvard standard for age. Significant association could not be established between IQ and height of children. Darrel, et al (1986) in a study of children observed that the IQ increased with increasing height.
In the present study it was seen that children of nourished group performed better than the malnourished group. IQ of malnourished children was found to decrease with the degree of malnutrition. On statistical analysis, the IQ level were found to be highly associated with nutritional status of children. Gupta et al (1975) observed that children from nourished group performed better as compared to malnourished group on the Standford Binet test of intelligence. All the children in nourished group had their IQs more than 90. Puri et al (1984) observed that adequate quantity of good quality protein does enhance IQ. Kadam et al (1984) observed that if malnutrition is severe and occur early may result in reduced mental development. Chaturvedi et al (1987) observed that upper intellectual grade IQ ≥ 110 were greater in ICDS sample of children who were better nourished. Srivastava et al (1988) observed in a study of school children, using Ravan coloured progressive matrices, that the median IQ of nourished children was found to be 112.5 and for malnourished children was 94.5. median IQ of malnourished children was found to be decrease with increase in the degree of malnutrition. Similar findings were reported by Sharma et al (1991).

In the present study, it was found that with higher levels of IQ, the percentage of children getting promoted was more and number of children failing decreased. A highly significant association was obtained between school performance of children and their IQ levels. Mullick et al (1991) also reported the similar findings.

Proper school sanitation will help in promoting health of the children studying in a school. In the present study it was observed that the municipal school like Basic D.C. Talpura and Arya Kanya Inter College were situated in insanitary surrounding. These schools were located in crowded area, near
public health hazards such as mosquito and fly breeding places, heavy traffic dust and other nuisance. In contrast, the convent schools which included Christ the King for boys and Kendriya Vidhalaya No.2 were located in sanitary surroundings away from traffic, noise, market, factory etc.

The building of convent schools were two storied and well maintained. There were adequate number of class rooms, administrative offices and a common room. In contrast, the municipal school building were single storied and not well maintained.

In convent schools class rooms were adequate in number with smooth flooring, free from dust, damp and noise windows, doors and ventilator were adequate in number. The rooms were well ventilated and lighted. Class rooms were provided with wooden furniture and there was an arrangement for artificial lighting such as bulbs and tube lights. In municipal schools class rooms were inadequate in number and faulty lighting, ventilation and improper sitting arrangement was there. Some of the classes were being conducted in open verandahs. There was no furniture for students and children used to sit on floor mats. There was no arrangement for artificial lights and fans.

Water supply of convent school was safe, continuous and well distributed by taps. The lavatories were clean, adequate and separate for boys and girls. Sources of water supply in municipal schools were from hand pump and stored water. The lavatories were not clean, inadequate in number, service type and there was no separate arrangement for boys and girls.

First-aid and emergency care facilities were available in convent schools. These schools had an doctor on call in case of emergency. School
doctor carried out regular health check-ups and maintained a health record of every child. Health education classes were held in these schools. In contrast, municipal schools had no facilities for emergency and first-aid. Facilities for recreation in the form of games, music, library, computer in convent school were available. But in municipal school such facilities were not available. Sundaram et al (1979) also reported the similar findings.