Hospitals are the major social and organizational setup committed to provide healthcare services to sick and needy persons. Hospitals are constituted by a variety of professional and auxiliary personnel. Nursing is a major component of any hospital and nurses make up the largest employment group within these institutions. Nursing services are necessary for virtually every patient seeking healthcare services; in addition nurses are the only persons who work more closely with the patients than any other health professional i.e. seven days a week and 24 hours a day. Nursing care is such an important part of any hospital that success of any such institution depends upon nurse’s participation in delivering a quality patient care, which is an important determinant of overall patients’ satisfaction with healthcare.

Nursing care administration is therefore an integral part of any health care organization that strives to provide organized nursing care services to group of patients for the purpose of delivering a quality nursing care. If nursing care will not be of high quality the hospital would fail in its responsibilities, so a hospital has to be well equipped and soundly organized to deliver quality nursing care (Jean Barrett, 1998).

Nursing care practices are patient driven and patient centered. A patient constantly interacts with nurses throughout their stay in the hospital. Therefore, patients’ satisfaction with healthcare facilities largely depend on nursing care received and kind of ward facilities/services experienced by them. Satisfied patients are more likely to comply with treatment and therefore ought to have a better health outcome. Patient satisfaction data can help to identify ways of improving nursing care practices and ward facilities/services, which will ultimately lead to better quality care and happier patients with better health outcome. (Lin CC, 1996). Patients’ satisfaction is thus a key sensitive nursing care outcome indicator to analyze quality of care being provided to patients (Morin, 1999). Therefore, patients’ satisfaction has been strongly advocated by nursing professionals, as an important indicator of quality of nursing care delivery and type of healthcare facilities/services provided.
This study is a modest attempt to study “Nursing Care Administration: A study of patients’ satisfaction in selected government and private hospitals”. This was made possible by studying four hospitals at Ludhiana; that is, two private hospitals (Christian Medical College and Hospital and Dayanand Medical College and Hospital), and two government hospitals (Civil Hospital and ESI Hospital) with following objectives.

**Objectives**
1. To study nursing administration of selected hospitals.
2. To describe ward management of general wards in selected hospitals.
3. To assess the patients’ satisfaction with selected ward facilities/services.
4. To assess the patients’ satisfaction with nursing care.
5. To determine effect of patients’ socio-demographic characteristics on their satisfaction with ward facilities/services and nursing care.
6. To determine effect of selected variables (type and mode of admission, type of illness, history of surgery, number of hospitalizations, perceived level of pain, anxiety, patients’ self rated health status, prior contact with hospital, hospital’s image, and cost of care) on patients’ satisfaction with ward facilities/services and nursing care.
7. To study the relationship between patients’ satisfaction with nursing care and willingness to continue healthcare services from same hospital or to recommend to others.
8. To suggest remedial measures to improve nursing administration, ward management and patients’ satisfaction with ward facilities/services and nursing care.

**Hypotheses**

The above said objectives were tested through the following hypothesis. The broad hypotheses of present study were to assess existing nursing care administration and patients’ satisfaction with ward facilities/services and nursing care in selected public and private hospitals. Following are the detailed hypotheses, which were tested during the course of study.

1. Nursing administration in private hospitals is better placed than government hospitals.
1.1 Location and facilities of nursing administrative office are better placed in private hospitals.
1.2 Organizational structure of nursing administration is better organized in private hospitals.
1.3 Staffing pattern in selected hospitals lacked the basic recommendations of Indian Nursing Council.
1.4 Nurse patient ratio is better in private hospitals.
1.5 Staff recruitment policies in selected hospitals are not in accordance with the recommendations of the Indian Nursing Council.
1.6 Promotional opportunities are better in private hospitals.
1.7 Staff training is better placed in private hospitals.
1.8 Staff wages and fringe benefits are better in government hospitals.
1.9 There is higher attrition rate among nursing personnel in private hospitals.
1.10 Job satisfaction among nurses is high in government hospitals.

2. Ward management is better placed in private hospitals than government hospitals.

2.1 Classification, location and layout of the wards are better placed in private hospitals.
2.2 Supportive service areas are better in wards of private hospitals as compared to government hospitals.
2.3 Sanitary facilities are in poor state in wards of the selected government and private hospitals.
2.4 Management of ward environment is better in wards of private hospitals.
2.5 Ancillary area is not given due place in government as well as private hospitals.
2.6 Miscellaneous ward facilities are better in private hospitals.
2.7 Nursing care is better organized in wards of private hospitals.

3. Patients’ satisfaction with ward facilities/services is low.

3.1 Overall patients’ satisfaction with ward facilities/services is low in selected hospitals.
3.2 Patients' satisfaction with ward facilities/services is better in private hospitals as compared to government hospitals.

3.3 Patients' satisfaction with ward facilities/services can not be similar in different wards of the selected hospitals.

3.4 Patients' satisfaction with ward facilities/services is high in all the wards of private hospitals as compared to government hospitals.

3.5 The main areas of patients’ dissatisfaction with ward facilities/services are sanitary facilities, cleanliness, linen supply, waste segregation practices, drinking water facilities, and recreational facilities.

3.6 Patients’ satisfaction with all the selected ward facilities/services is more in private hospitals as compared to government hospitals.

3.7 Socio-demographic characteristics have significant effect on patients’ satisfaction with ward facilities/services.

   a) **Age:** Aged patients are more satisfied with ward facilities/services.

   b) **Gender:** Male patients are more satisfied with ward facilities/services.

   c) **Marital status:** Married patients are more satisfied with ward facilities/services as compared to unmarried, divorced and widows/widowers.

   d) **Habitat:** Rural patients are more satisfied with ward facilities/services.

   e) **Nativity:** Migrated patients are more satisfied with ward facilities/services as compared to local native patients.

   f) **Religion:** Religion does not effect the patients' satisfaction with ward facilities/services.

   g) **Educational status:** Illiterate or less educated patients are more satisfied with ward facilities/services.

   h) **Occupation:** Professionals and businessmen are less satisfied with ward facilities/services.

   i) **Type of family:** Patients belonging to joint families are more satisfied with ward facilities/services.

   j) **Per capita income:** Poor patients are more satisfied with ward facilities/services.
3.8 Patients’ illness and hospitalization variables also have significant effect on patients’ satisfaction with ward facilities/services.

a) **Type of admission**: Patients admitted through planned mode are more satisfied with ward facilities/services.

b) **Mode of admission**: Referred patients are more satisfied with ward facilities/services.

c) **Type of illness**: Type of illness does not affect the patients’ satisfaction with ward facilities/services.

d) **History of surgery**: Operated patients are more dissatisfied with ward facilities/services.

e) **Total number of hospitalization**: More the number of hospitalization, higher the patients’ satisfaction with ward facilities/services.

f) **Number of hospitalization in the same hospital**: More the number of prior hospitalizations in the same hospital, higher the patients’ satisfaction with ward facilities/services.

g) **Pain**: Pain perception of patient reduces their satisfaction with ward facilities/services.

h) **Anxiety**: Anxious patients are less satisfied with ward facilities/services.

i) **Self rated health status**: Better the self rated health status of patients, higher the satisfaction with ward facilities/services.

j) **Total expenses on treatment**: Higher the cost of care, lesser the patients’ satisfaction with ward facilities/services.

k) **Preadmission hospital’s image**: Better the patients’ preadmission hospital image, higher the satisfaction with ward facilities/services.

4. Patients’ satisfaction with nursing care is low

4.1 Overall patients’ satisfaction with nursing care is low in selected hospitals.

4.2 Patients’ satisfaction with nursing care is high in private hospitals as compared to government hospitals.

4.3 Patients’ satisfaction with nursing care can not be similar in different clinical specialties.
4.4 Patients are more dissatisfied with communication and emotional support dimensions of nursing care.

4.5 Patients’ satisfaction in all the dimensions of the nursing care is high in private hospitals as compared to government hospitals.

4.6 Socio-demographic characteristics have significant effect on patients’ satisfaction with nursing care.

a) **Age:** Aged patients are more satisfied with nursing care.

b) **Gender:** Male patients are more satisfied with nursing care.

c) **Marital status:** Married patients are more satisfied with nursing care.

d) **Habitat:** Rural patients are more satisfied with nursing care.

e) **Nativity:** Migrated patients are more satisfied with nursing care as compared to local native patients.

f) **Religion:** Religion does not effect the patients’ satisfaction with nursing care.

g) **Educational status:** Illiterate or less educated patients are more satisfied with nursing care.

h) **Occupation:** Professionals and businessmen are less satisfied with nursing care.

i) **Type of family:** Patients belonging to joint families are more satisfied with nursing care.

j) **Per capita income:** Poor patients are more satisfied with nursing care.

4.7 Patients’ illness and hospitalization variables also have significant effect on patients’ satisfaction with nursing care.

a) **Type of admission:** Patients admitted through planned mode are more satisfied with nursing care.

b) **Mode of admission:** Referred patients are more satisfied with nursing care.

c) **Type of illness:** Type of illness does not affect the patients’ satisfaction with nursing care.

d) **History of surgery:** Operated patients are more dissatisfied with nursing care.
e) **Total number of hospitalization:** More the number of hospitalizations, higher the patients’ satisfaction with nursing care.

f) **Number of hospitalization in the same hospital:** More the number of hospitalizations in the same hospital, higher the patients’ satisfaction with nursing care.

g) **Pain:** Pain perception of patient reduces their satisfaction with nursing care.

h) **Anxiety:** Anxious patients are less satisfied with nursing care.

i) **Self rated health status:** Better the self rated health status of the patients, higher the satisfaction with nursing care.

j) **Total expenses on treatment:** Higher the cost of care, lesser the patients’ satisfaction with nursing care.

k) **Preadmission hospital’s image:** Better the patients’ preadmission hospital image, higher the satisfaction with nursing care.

5. Higher the patients’ satisfaction with nursing care, more is the willingness to continue their health care services from the same hospital and to recommend to others.

**Methodology**

Ludhiana has two major private hospitals (DMC and CMC hospital) and two government hospitals (ESI and Civil hospital). These hospitals were purposively selected since they are the main hospitals, which are catering to health care needs of a large segment of population, for which a study was planned to assess the existing nursing care administration and to identify patients’ satisfaction with selected ward facilities/services and nursing care in government and private hospitals at Ludhiana.

Nursing administration was studied in each selected hospital by interviewing nursing administrators, nurses and reviewing nursing administrative office records. A case study was also conducted on 80 nurses from selected hospitals to examine selected variables like promotional opportunities, training, and intent to leave the organization.

Ward management was studied through observations, review of ward records, interview of nurses and patients in general wards of selected hospitals.
Patients’ satisfaction related data was collected from in-patients in four types of general wards (Medical, Surgical, Orthopedics and Maternity) of each selected hospital. Study sample of patients was selected by following inclusion and exclusion criteria.

**Inclusion criteria**
- Conscious patients who were willing to participate in study.
- Patients with more than one week stay in hospital.
- Patients admitted in general wards (medical, surgical, orthopedic, and maternity).
- Patient above the age of 18 years and who gave verbal consent to participate in study.

**Exclusion criteria**
- Patient/ family not willing to participate in study.
- Patients with sensory impairment.
- Disoriented patients.
- Patients with associated mental illness.

Total 1200 patients were selected by using convenient sampling technique, where 300 patients were selected from each hospital by taking 75 patients from each ward i.e. Medical (75), Surgical (75), Orthopedics (75) and Maternity (75).

Collected data was analyzed by using a Statistical Package of Social Science (SPSS) data processing program and presented in the form of tables and charts. Appropriate statistical tests like t-test, Chi Square test and ANOVA were applied to draw inferences. Micro level data and major findings of the present study with detailed discussions and inferences are presented in Chapter 2, 3, 4, and 5.

**Main Observations**

**Hypothesis-I.1:** Location and facilities of nursing administrative office are better placed in private hospitals.

Nursing administrative office of CMC hospital was located in the administrative block, while in other three selected hospitals it was located away from the administrative block. In CMC hospital, significant number of nurses were satisfied with location of nursing administrative office, while in other three hospitals majority
of them were not satisfied with location of the office. In private hospitals, nursing administrative office was well equipped with storage facility, telephone, and computer/typewriter etc. While, most of these necessities were lacking in government hospitals. The facility of ministerial staff was available in nursing administrative office of private hospitals but in government hospitals even the clerical work was accomplished by nurses. Majority of the respondents were satisfied with the existence of basic facilities in nursing administrative office in CMC hospital, while in other three hospitals they were not satisfied in this account.

*Hence this hypothesis is partially accepted.*

**Hypothesis-1.2:** Organizational structure of nursing administration is better organized in private hospitals.

*Organizational structure:* Organizational structure in selected government and private hospitals was not uniform. Line organizational structure was observed in these hospitals, where authority was concentrated at top administrative level. In addition, existing organizational structure of nursing departments at selected government and private hospitals was not in accordance with Indian Nursing Council guidelines like Matron is no more a designation considered by INC, but in both government hospitals, nursing department was headed by Matron. In addition, Auxiliary Nurse Midwives can not be placed at equal level to that of Staff Nurses in hierarchy but in DMC hospital they were placed at equal level in hierarchy and were promoted for the next higher position as same that of staff nurses.

*Span of control:* Span of control was satisfactory in selected hospitals. In private hospitals, at higher level 2 to 6 subordinates (Nursing sisters) were supervised by one supervisor, while in government hospitals one supervisor supervised about 4 to 8 subordinates (Nursing sisters). At operational level, one nursing sister supervised 12 to 16 staff nurses in private hospitals, while in government hospitals one nursing sister supervised 7 to 13 staff nurses. Hence at operational level, span of control in government hospitals was relatively better than private hospitals. Majority of respondents were satisfied with span of control in government hospitals, while in private hospitals only half of them were satisfied with it.

*Communication:* In private hospitals, nursing department used written, face-to-face and telephone communication methods, while in selected government hospitals major part of organizational communication was accomplished through face-to-face mode.
The telephone facility was not available in nursing administrative office of government hospitals. Majority of respondents in private hospitals expressed satisfaction with communication system in their organization, while in government hospitals majority of them were dissatisfied.

*Coordination:* Good amount of coordination existed in nursing department and other departments of private hospitals. On the contrary, in government hospitals nurses expressed dismay. There was delay in responses from other departments. Some of the causes for this poor coordination were callous attitude of the employer, lack of team spirit, lack of resources and inadequacy of manpower.

*Hence this hypothesis is partially accepted.*

**Hypothesis-L3:** *Staffing pattern in selected hospitals lacked the basic recommendations of Indian Nursing Council.*

Staffing pattern in all the selected hospitals has been evaluated as per the recommendations of INC. In CMC hospital, the higher positions like Chief Nursing Officer, Deputy Nursing Superintendent and Assistant Nursing Superintendent were less in number, while in DMC hospital, several positions were laying vacant. Interestingly, the staff positions at the middle management level in both hospitals (CMC and DMC hospital) were excess in number. Staff nurses were close to the recommendations of Indian Nursing Council. However, in government hospitals shortage of nursing staff was as high as whooping 62.1 percent in ESI hospital and 43.8 percent in Civil hospital.

*Hence this hypothesis is accepted.*

**Hypothesis-L4:** *Nurse patient ratio is better in private hospitals.*

In private hospitals, nurse patient ratio was either close to recommendations or was more than recommendations of Indian Nursing Council, while in government hospitals shortage of nursing staff was very high.

*Hence this hypothesis stands accepted.*

**Hypothesis-L5:** *Staff recruitment policies in selected hospitals are not in accordance with recommendations of Indian Nursing Council.*

In selected hospitals, there was lack of uniformity in recruitment policies. Furthermore, none of the selected hospitals exactly followed the recruitment policies.
laid down by Indian Nursing Council for recruitment of nursing personnel. Recruitment of lower level staff viz. staff nurses was done through direct mode in selected hospitals. Higher positions were usually filled through promotion. The staff nurses were primarily recruited on the contract basis. Majority of contract staff was not satisfied with their pay and benefits they received since they were not getting full salary and leave benefits from their respective organization.

*Hence this hypothesis stands accepted.*

**Hypothesis-1.6: Promotional opportunities are better in private hospitals.**

In private hospitals, there were more number of promotions on different positions as compared to government hospitals in last five years. In addition, it was found that average time taken in first promotion in government hospitals was more than three times of private hospitals. In government hospitals, nurses were working on same position even though they had put on 30 years of service.

*Hence this hypothesis stands accepted.*

**Hypothesis-1.7: Staff training is better placed in private hospitals.**

A compulsory orientation program was organized for newly recruited nurses in private hospitals, while such programs did not exist in government hospitals. In addition, it was found that none of the selected hospitals had a system of providing on-the-job training to nurses. However, few workshops were organized for nurses on current nursing topics in private hospitals, while in government hospitals no such training activities were organized during last five years. In a case study, it was found that in private hospitals majority of nurses had an opportunity to attend one or more training activities, but in government hospitals only few of them availed these opportunities. This clearly highlighted difference was found statistically significant (p<0.001). Furthermore, majority of nurses were willing to attend training activities as well as they were understanding its importance to improve the quality of patient care. While, only a few of them were considering it as a paid holiday. Interestingly, in government hospitals, nurses were even not given any official leave to attend training activities as well as staff shortage was also considered another obstruction in this concern.

*Hence this hypothesis is accepted.*
**Hypothesis-1.8:** Staff wages and fringe benefits are better in government hospitals.

Basic pay scale, dearness allowance, dearness pay, interim relief and house rent allowance were nearly same in selected hospitals, while other allowances like washing allowance, city compensatory allowances and fixed medical allowances, were more in government hospitals as compared to private hospitals. While, fringe benefits were not much difference in the selected hospitals.

*The hypothesis is partially accepted.*

**Hypothesis-1.9:** There is higher attrition rate among nursing personnel in private hospitals.

During last five years, more number of nurses left the private hospitals as compared to government hospitals. The attrition was happening at the lower level only while there was no resignation from senior positions. In addition, it was also found that close to half of the nurses in private hospitals, were in process to migrate to other developed countries, while in government hospitals there were only a few.

*Hence this hypothesis is accepted.*

**Hypothesis-1.10:** Job satisfaction among nurses is high in government hospitals.

Job satisfaction among nurses in government hospitals was low, as compared to that of private hospitals, where majority of the nurses were satisfied with their job. The main determinants of job satisfaction among nurses in government hospitals were pay and leaves they received, while in private hospitals it was professional development and good working conditions.

*The hypothesis is rejected.*

**Hypothesis-2.1:** Classification, location and layout of the wards are better placed in private hospitals.

*Classification of wards:* Wards in selected hospitals were mainly categorized as general as well as specialized wards. General wards in CMC, ESI and Civil hospital were categorized on the basis of gender and medical specialty viz. male medical and female surgical wards etc., while in DMC hospital, wards were classified on the basis of medical specialty only. As such male and female patients of similar medical diagnosis were placed in the same ward. Majority of the patients and nurses preferred classification of the wards according to medical specialty as well as on the basis of gender.
**Location of wards:** Emergency/trauma wards were located on ground floor in selected hospitals and rest of the wards lacked uniformity in their location. In private hospitals, wards were located away from noise sources and were in close proximity with the supportive services, while wards of government hospitals were lagging behind in these positive features.

**Layout of the wards:** Wards were large in size to accommodate 50-60 patients in CMC and Civil hospital, while in DMC and ESI hospital wards were small in size to accommodate 20-40 patients. Patients and nurses preferred small sized wards. Wards of CMC hospital were built with double corridor design. Single corridor design wards were available in DMC and ESI hospital, while in Civil hospital, courtyard design was used to build wards. None of the ward designs were found satisfactory by the nurses. Space available per bed in selected hospitals was as short as fifty percent. Majority of nurses were not satisfied with available space for each bed and overall layout of wards in selected hospitals.

*Hence this hypothesis is rejected.*

**Hypothesis-2.2:** Supportive service areas are better placed in wards of private hospitals as compared to government hospitals

**Ward Pantry:** Ward pantry was not available in wards of selected hospitals. However, a hotplate or electric heater was lying near the nursing station, but these heating devices were mostly used for preparing hot beverages (tea/ coffee) for ward staff. Majority of the patients desired to have pantry facility in the wards; however the nurses did not support this view point.

**Ward store room:** Store rooms were available in only few wards of selected hospitals and they were very small in size in order to accommodate ward inventory. Ward store rooms in government hospitals were poorly organized and were filled with condemned material. Majority of nurses were not satisfied with existing store room facilities in wards. Ideally lockers were needed for patients to keep their belongings, but this facility was not available in store rooms of the selected hospitals. In addition, good number of nurses felt the need of lockers for patients, because patients were storing their belongings at bedside, which was giving poor aesthetic look to the ward. However, majority of patients had divergent opinion and wanted to keep their belongings at their bedside only.

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Clean utility: There was no clean utility in wards of selected hospitals. However, clean storage was done in cupboards available at nursing station. Majority of nurses verbalized adequacy of clean utility supply in wards of private hospitals but in government hospitals majority of nurses were finding clean utility supply inadequate in wards. Linen supply was significantly short in wards of government hospitals, while in private hospitals it was found satisfactory. Interestingly, wards of government hospitals were totally deficit with nursing care articles, whereas in private hospitals few nursing care articles were available in wards. Drugs and disposable supply was provided free of cost in ESI hospital, in Civil hospital, it was supplied by hospital as well as purchased by patients from market during non-availability. However, in private hospitals drugs and disposable items were purchased by patients from hospital pharmacy. Interestingly, patients in private as well as government hospitals were willing to get these supplies from hospitals because they were scared of getting poor quality from market.

Treatment room: Separate treatment/procedure room was not found in wards of selected hospitals. Minor procedures were performed at bedside only. In addition, emergency trolley, dressing and medication trolley, suction facility and oxygen supply was found satisfactory in wards of private hospitals but wards of government hospitals were not well equipped with these facilities. Inadequacy of these facilities would compromise the quality of care. Majority of nurses were satisfied with treatment room related facilities in wards of private hospitals but in government hospitals, it was just the opposite, where majority of them were not satisfied with treatment room related facilities in their wards.

Dirty utility: Separate dirty utility facility was not available in wards of selected hospitals. However, in Civil hospital, a small room labeled as dirty room was available but was only used for storing dirty linen till it was sent for laundry. Dirty utility material was stored in corners of the wards close to sanitary facilities. This was considered as major risk of hospital acquired infections. Overwhelming majority of nurses expressed the need for dirty utility in wards of selected hospitals.

Hence this hypothesis is partially accepted.

Hypothesis-2.3: Sanitary facilities are in poor state in wards of selected government and private hospitals.

The sanitary facilities in wards of selected hospitals were in pathetic condition. Cleanliness of these facilities was very poor in government hospitals, while in private
hospitals it was found satisfactory. Majority of patients were critical about cleanliness of sanitary facilities in wards of government hospitals. However, in private hospitals situation was slightly better, where about fifty percent of patients were found satisfied with cleanliness of sanitary facilities.

Size of bathrooms and toilets was very small to accommodate a dependent patient along with the helper; the doorways of bathrooms and toilets were too narrow to accommodate patients on wheelchair. Alarm call systems were also not available in these sanitary facilities and in government hospitals latches were not available on doors of bathrooms and toilets. In addition, basic amenities like hot water supply, buckets, mugs, tissue paper, dustbins, racks etc were lacking in the bathrooms of the selected hospitals. Shortage of washbasins was found in wards of selected hospitals. Moreover, the washbasins were small in size, the taps were hand operable and paper towels were not available for drying hands.

Hence this hypothesis is accepted.

**Hypothesis-2.4: Management of ward environment is better in wards of private hospitals.**

**Ventilation:** Wards were ventilated naturally with large windows in government hospitals. However, in private hospitals wards were ventilated through windows as well as exhaust fans. Majority of nurses experienced adequate ventilation in wards of selected hospitals, which was slightly more with naturally ventilated wards as compared to mechanically ventilated wards. Naturally ventilated wards were considered better than mechanically ventilated wards as they provide better air exchange which leads to patients comfort as well as control of infection in wards.

**Temperature control:** Air conditioning facility was not available in wards of selected hospitals. However, fans were available in wards to comfort patients during summers. In private hospitals, few air coolers were also available in wards but this facility was lacking in wards of government hospitals. Furthermore, blowers or room heaters were present in wards of private hospitals to make the patient feel warm during winter. However, these facilities were not available in wards of selected government hospitals. Majority of nurses were not satisfied with temperature control in wards of selected hospitals, while satisfaction was slightly better in private hospitals as compared to government hospitals.
**Lighting:** Wards of private hospitals were lighted with wall mounted white tubes with backup of generator and emergency lights during power failures. In government hospitals also wall mounted white tubes were used for lighting the wards but generator backup or emergency lights were not available. Furthermore, none of the ward in selected hospitals had provision of dim lights to be used during night to facilitate sleep among patients. Majority of patients and nurses were not satisfied with lighting facilities in the wards of government hospitals. However, in private hospitals majority of nurses were satisfied with lighting facilities in wards but fifty percent patients were dissatisfied because of absence of dim light during night.

**Noise Control:** The noise control was poor in wards of selected hospitals. Noise level during day time or night time was found almost double than the recommendations set by WHO. Majority of nurses expressed their displeasure with the noise level in the wards of selected hospitals. Lack of privacy and inadequate ward space were the main factors of high level noise in wards of private hospitals. Whereas, in government hospitals, plenty of visitors, improper location of wards and inadequate ward space were the main perceived factors responsible for high level of noise. Noise warning sign devices were not available in the wards of selected hospitals.

**Infection control practices:** Inadequate hand washing facilities were observed in wards of selected hospitals. Bar soaps were used for hand-washing and cloth towels or hospital linens were used for drying the hands, which were against the latest empirical evidences of hand-washing practices. The facility of alcohol rub for performing dry hand-washing was available in wards of private hospitals, but it did not exist in government hospitals. Majority of nurses were not satisfied with existing hand washing facilities in wards of government hospitals, while in private hospitals slightly more than half of the nurses were satisfied with existing hand washing facilities in wards. Floor mopping, terminal disinfection and surface disinfection practices were found satisfactory in wards of private hospitals but in government hospitals terminal disinfection was not performed. Surface disinfection and floor mopping was done with soap and/or plain water only. Periodic fumigation practices were found only in CMC hospital. However, other three selected hospitals did not have record of such practices during last five years. Overall cleanliness of wards in private hospitals was satisfactory on subjective observation but in government hospitals cleanliness of wards was in poor state.
**Waste segregation:** Hospital waste segregation in wards of private hospitals was done according to the recommendations of Government of India. However, government hospitals used their own colour coding for hospital waste segregation. Needle cutters were available in wards of selected hospitals, but puncture proof containers were not available. Infected waste was disinfected with one percent hypochlorite solution in wards of private hospitals but this practice was not followed in government hospitals. Furthermore, healthcare professionals had poor knowledge of biomedical waste segregation in wards of selected hospitals.

*Hence this hypothesis is partially accepted.*

**Hypothesis-2.5:** Ancillary area is not given due place in government as well as private hospitals.

Day space, visitor’s waiting area and multipurpose rooms were not available in wards of selected hospitals. The stay facility for patient’s relatives was available in selected private hospitals to accommodate about 20-30 relatives, while this facility was not available in government hospitals. Therefore, patient’s relatives were using corridors or open space for this purpose. Majority of nurses expressed the dire need to have day-space facility, visitor’s waiting area, multipurpose room and also the stay facility for the relatives of patients in selected hospitals.

*Hence this hypothesis is accepted.*

**Hypothesis-2.6:** Miscellaneous ward facilities are better in private hospitals.

**Basic amenities:** Adequate number of beds, medicine and utility lockers were available for patients in wards of private hospitals and ESI hospital. However in Civil hospital, these facilities were not available for each patient. Standpipe and hose system as well as portable fire extinguishers were available in wards of private hospitals, while in government hospitals, only portable fire extinguishers were available but there was no record about their regular maintenance and functioning status. Majority of nurses were satisfied with existing basic amenities in wards of private hospitals, but situation in government hospitals was just opposite.

**Wheelchairs:** On an average about one to two wheelchairs were available in each ward of private hospitals and ESI hospital. Majority of the nurses found them adequate for patients. However, in Civil hospital wheelchairs were not available in wards but used from emergency department during need and therefore patients waited...
for longer period to get transfer from wards. In addition, majority of nurses also found wheelchairs inadequate in Civil hospital. Cushioned comfortable wheelchairs were available in wards of private hospitals but in government hospitals rigid metallic type of wheelchairs were available. Wheelchair bays were not available in wards of selected hospitals; wheelchairs were kept in corridor, which hindered the smooth movement of people in corridor.

Recreational facilities: Wards of selected hospitals were deficit of recreational facilities, except a television in few wards of CMC hospital. Majority of patients expressed the need of recreational facilities in wards of selected hospitals, while nurses were not in favor to have recreational facilities in wards but suggested to have a day space equipped with recreational facilities.

Drinking water facility: There was provision of safe and potable drinking water supply in wards of private hospitals and ESI hospital. However, in private hospitals drinking water supply was inadequate. While in wards of Civil hospital, safe and potable drinking water was not available for patients; water from bathrooms was only utilized for the drinking purpose.

Hence this hypothesis is partially accepted.

Hypothesis-2: Nursing care is better organized in wards of private hospitals.

Nursing care team: On an average there was about one nurse for six patients in CMC hospitals. In DMC hospital, one nurse cared for about nine patients during each shift in general wards. While in government hospitals, nurse patient ratio was very poor viz. 1:14 and 1:30 in Civil and ESI hospital, respectively. Clerical staff was only available in CMC hospital, other three selected hospitals did not have clerical staff in wards. In private hospitals, one ward aid was caring for about 15 to 20 patients, while in government hospitals one ward aid cared more number of patients (30-35). Similar situation existed for sweepers, where in private hospitals on an average one sweeper was available for each ward, whereas in government hospitals one sweeper was shared by several wards. Shortage of ward aid and sweepers was alarming in government as well as in private hospitals, where this category staff was even less than one fourth of the recommendations.

Methods of patient care assignment: In private hospitals, patient care was assigned by case assignment method, while in government hospitals functional assignment method was used for the patient care. Case assignment method was preferred by nurses as
well as patients. However, due to shortage of nurses in government hospitals, nurses felt compulsion to use functional assignment method.

*Nursing station:* Centralized nursing station design was available in the wards of selected hospitals. Designated floor area for nursing stations was found adequate in government hospitals, whereas in private hospitals nursing stations were placed in small area (only 36-50 sq ft). Toilet facility for nurses, close to nursing station was not provided in wards of selected hospitals. Distance of farthest bed from nursing station was more in wards of CMC and Civil hospital because wards were large in size, while it was adequate in wards of DMC and ESI hospital, because wards were small in size. Because of large sized ward with centralized nursing station in CMC and Civil hospital, nurses experienced long walking distance between beds and nursing station and poor direct observation of patients. Whereas in DMC and ESI hospital, wards were small in size with centralized nursing station, therefore nurses did not experience above said problems but they were critical about privacy and storage facilities at nursing station. Majority of nurses were not satisfied with existing nursing stations in wards of selected hospitals.

*Nurses’ rest room:* This facility was only available in only few wards of selected private hospitals. However, these facilities were lacking in basic amenities and upkeep was very poor. Therefore, these facilities failed to satisfy its users. While in government hospitals, nurses’ rest rooms were not available in wards and so nursing stations were used for this purpose. Overwhelming majority of nurses expressed the need to have nurses’ rest room facility in wards.

*Nursing care documentation:* Nursing care documentation was very poor in wards of government hospitals, where except vital signs; no nursing care record was maintained by nurses. However, they maintained other several ward related records. While in private hospitals, nursing care documentation practices were relatively better, where nurses mentioned some of the nursing care records like nurse’s notes, patients assignment record, vital signs record, medication record etc. Interestingly, in selected hospitals, about majority of records were incomplete, lacking in appropriateness, and that records had poor organization of entries, cutting and overwriting. However, in private hospitals quality of record maintenance was better as compared to government hospitals.

*Hence this hypothesis is partially accepted.*
Hypothesis-3.1: Overall patients’ satisfaction with ward facilities/services is low in selected hospitals.

Majority of patients were dissatisfied with ward facilities in government hospitals. Similarly in private hospitals, about half of the patients were dissatisfied with ward facilities/services.

Hence this hypothesis is accepted.

Hypothesis-3.2: Patients’ satisfaction with ward facilities/services is more in private hospitals as compared to government hospitals.

Mean patients’ satisfaction score with ward facilities/services was low in government hospitals, while in private hospitals it was better. This difference in score was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Hypothesis-3.3: Patients’ satisfaction with ward facilities/services can not be similar in different wards of selected hospitals.

Patients’ satisfaction score with ward facilities/services was nearly similar in different wards viz. medical, surgical, orthopedic and maternity. There was only slight difference, which was not found statistically significant (p<0.001).

Hence this hypothesis is rejected.

Hypothesis-3.4: Patients’ satisfaction with ward facilities/services is more in all the wards of private hospitals as compared to government hospitals.

Relatively more number of patients were satisfied with ward facilities/services in wards of private hospitals as compared to government hospitals and this difference was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Hypothesis-3.5: The main areas of patients’ dissatisfaction with ward facilities/services are sanitary facilities, cleanliness, linen supply, waste segregation practices, drinking water facility and recreational facilities.

Least patients’ satisfaction score was found for sanitary facility, recreational facility, waste segregation practices, linen supply and drinking water supply in wards of selected hospital.
In private hospitals, least patients’ satisfaction score was found for sanitary facilities and recreational facilities, while in government hospitals least patients’ satisfaction score was found for sanitary facilities, recreational facilities, linen supply, drinking water facilities and cleanliness of wards.

*Hence this hypothesis is accepted.*

**Hypothesis-3.6:** Patients’ satisfaction with all the selected ward facilities/services is more in private hospitals as compared to government hospitals.

Patients’ satisfaction with ward facilities/services like organization of wards, noise control, availability of basic amenities, maintenance of equipments, privacy in wards, availability of beds and comfort devices, storage facilities, drinking water facilities, ventilation, temperature control, recreational facilities, linen supply, toilets, bathrooms, hand washing facilities, waste segregation practices, staffing of wards, dietary supply and patient transportation facilities was more in private hospitals as compared to government hospitals, which was found statistically significant in all the instances (p<0.001).

*Hence this hypothesis is accepted.*

**Hypothesis-3.7 (a):** Aged patients are more satisfied with ward facilities/services.

More number of old age patients were satisfied with ward facilities/services as compared to young patients, which was found statistically significant (p<0.05).

*Hence this hypothesis is accepted.*

**Hypothesis-3.7 (b):** Male patients are more satisfied with ward facilities/services.

More number of female patients were satisfied with ward facilities/services as compared to their male counterparts. This difference in satisfaction among two genders was found statistically significant (p<0.05).

*Hence this hypothesis is rejected.*

**Hypothesis-3.7 (c):** Married patients are more satisfied with ward facilities/services as compared to unmarried, divorced and widows/widowers.

Nearly similar number of married, unmarried, divorced/widow patients were satisfied with ward facilities/services. This slight difference in satisfaction was not found statistically significant (p>0.001).

*Hence this hypothesis is rejected.*
Hypothesis-3.7 (d): Rural patients are more satisfied with ward facilities/services.

More number of urban patients were satisfied with ward facilities/services as compared to rural patients. This difference was found statistically significant (p<0.05).

Hence this hypothesis is rejected.

Hypothesis-3.7 (e): Migrated patients are more satisfied with ward facilities/services as compared to local native patients.

Punjabis were comparatively more dissatisfied with ward facilities/services, followed by patients belonging to Uttar Pradesh, Bihar, Himachal Pradesh and other states. Hence migrated people were more satisfied with ward facilities/services as compared to local native patients. This difference in satisfaction was found statistically significant (p<0.05).

Hence this hypothesis is accepted.

Hypothesis-3.7 (f): Religion does not have effect on patients’ satisfaction with ward facilities/services.

Significant number of Muslims and Christians were satisfied with selected ward facilities/services, followed by Hindus. However, Sikhs were least satisfied with ward facilities/services. This difference in satisfaction was found statistically significant (p<0.001).

Hence this hypothesis is rejected.

Hypothesis-3.7 (g): Illiterates or less educated patients are more satisfied with ward facilities/services.

Illiterate patients were relatively more satisfied with ward facilities/services as compared to educated patient with graduation and above. Hence educational status is inversely proportional to patients’ satisfaction with ward facilities/services and this was found statistically significant (p< 0.001).

Hence this hypothesis is accepted.

Hypothesis-3.7 (h): Professionals and businessmen are less satisfied with ward facilities/services.

More number of non-working patients were satisfied with ward facilities/services, followed by non-skilled workers, skilled workers. However, very
few professionals and businessmen were satisfied with ward facilities/services, which
was found statistically significant (p< 0.001).

Hence this hypothesis is accepted.

**Hypothesis-3.7 (i): Patients belonging to joint families are more satisfied with ward facilities/services.**

Patients belonging to joint families were relatively more satisfied with ward facilities/services as compared to patients from nuclear families, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

**Hypothesis-3.7 (j): Poor patients are more satisfied with ward facilities/services.**

Financial status of patients was found inversely proportional to their satisfaction with ward facilities/services, where patients with lower per capita income had higher satisfaction with ward facilities/services as compared to patients with higher per capita income, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

**Hypothesis-3.8 (a): Patients admitted through planned mode are more satisfied with ward facilities/services.**

Patients admitted through emergency were relatively more satisfied with ward facilities/services as compared to patients with planned admission, which was found statistically significant (p < 0.05).

Hence this hypothesis is rejected.

**Hypothesis-3.8 (b): Referred patients are more satisfied with ward facilities/services.**

Satisfaction was high among patients who were referred by their primary doctor to the respective hospitals, followed by who were admitted to hospitals by themselves. However, there was least satisfaction in patients who were admitted in hospitals under advice of their family members or friends, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

**Hypothesis-3.8 (c): Type of illness does not affect the patients’ satisfaction with ward facilities/services.**
Patients with acute illness had relatively less satisfaction with ward facilities/services as compared to patients with physiological and chronic entity, which was found statistically non significant (p>0.001).

Therefore this hypothesis is accepted

**Hypothesis-3.8 (d):** Operated patients are more dissatisfied with ward facilities/services.

More number of operated patients were satisfied with ward facilities/services as compared with non-operated patients, which was found statistically significant (p<0.001).

Therefore this hypothesis is rejected.

**Hypothesis-3.8 (e):** More the number of hospitalizations, higher the satisfaction with ward facilities/services.

The level of satisfaction increased with the increased in number of admissions viz. maximum the number of admissions higher the satisfaction. Thus patients having more than five times hospitalization were at a higher level of satisfaction. While least satisfaction was found in patients having first time admission in hospital, which was found statistically significant (p < 0.001).

Therefore this hypothesis is accepted.

**Hypothesis-3.8 (f):** More the number of prior hospitalizations in same hospital, higher the satisfaction with ward facilities/services.

More number of patients were satisfied with ward facilities/services, who had having more than five times of hospitalization in the same hospital, while least satisfaction with ward facilities/services was found in patients who were admitted for the first time in hospitals, which was found statistically significant (p<0.001).

Therefore this hypothesis is accepted.

**Hypothesis-3.8 (g):** Pain perception of patients reduces their satisfaction with ward facilities/services.

Significantly more number of patients were dissatisfied with ward facilities/services, who were experiencing pain as compared to patients who were free from pain, which was found statistically significant (p < 0.05).

Therefore this hypothesis is accepted.
Hypothesis-3.8 (h): Anxious patients are more dissatisfied with ward facilities/services.

Significant number of anxious patients were dissatisfied with ward facilities/services, while dissatisfaction was slightly low in non-anxious patients, which was statistically significant (p<0.05).

Hence this hypothesis is accepted.

Hypothesis-3.8 (i): Better the self rated health status of patients; more the satisfaction with ward facilities/services.

Majority of the patients were satisfied with ward facilities/services who rated self health status as good, while satisfaction was poor in patients with poor rated self health status, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Hypothesis-3.8 (j): Higher the cost of care, lesser the satisfaction with ward facilities/services.

More number of patients were satisfied with ward facilities/services who had received healthcare free of cost, while satisfaction was low in the patients who have spent more amount for their treatment, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Hypothesis-3.8 (k): Better the patients’ preadmission hospital’s image, higher the satisfaction with ward facilities/services.

Majority of the patients were satisfied with ward facilities/services who had good image of hospital before their admission. However, satisfaction with ward facilities/services was least among patients who had poor image or were uncertain about hospital image before admission, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Hypothesis-4.1: Overall patients’ satisfaction with nursing care is low in selected hospitals.
Overall mean patients' satisfaction score with nursing care was significantly high. More than ninety percent patients expressed satisfaction with nursing care in selected hospitals.

*Hence this hypothesis is rejected.*

**Hypothesis-4.2:** Patients' satisfaction with nursing care is high in private hospitals as compared to government hospitals.

Mean patients' satisfaction score with nursing care was high in private hospitals as compared to government hospitals, which was found statistically significant (p<0.001).

*Hence this hypothesis is accepted.*

**Hypothesis-4.3:** Patients' satisfaction with nursing care can not be similar in different clinical specialties.

Patients' satisfaction with nursing care was nearly similar in different clinical specialties of selected government and private hospitals. Slight observable difference in satisfaction was not found statistically significant (p>0.001).

*Hence this hypothesis is rejected.*

**Hypothesis-4.4:** Patients are more dissatisfied with communication and emotional support dimensions of nursing care.

High patients' satisfaction was found with clinical skills, followed by professionalism, attentiveness, professional knowledge, availability and interpersonal relationship dimensions of nursing care, while least satisfaction was found with emotional support and communication dimensions of nursing care. Nearly similar trend was observed in government and private hospitals regarding patients' satisfaction with different dimensions of nursing care.

*Hence this hypothesis is accepted.*

**Hypothesis-4.5:** Patients' satisfaction in all the dimensions of the nursing care is high in private hospitals as compared to government hospitals.

Patients' satisfaction score with all the dimensions of nursing care was observed to be high in private hospitals as compared to government hospitals, which was statistically significant for each dimension (p<0.001).

*Hence this hypothesis is accepted.*
**Hypothesis-4.6 (a):** Aged patients are more satisfied with nursing care.

Aged patients were slightly more satisfied with nursing care as compared to young patients, which was not found statistically significant (p>0.001).

*Hence this hypothesis is rejected.*

**Hypothesis-4.6 (b):** Male patients are more satisfied with nursing care.

Female patients were slightly more satisfied with nursing care as compared to their male counterparts, which was found statistically significant (p<0.05).

*Hence this hypothesis is rejected.*

**Hypothesis-4.6 (c):** Married patients are more satisfied with nursing care.

Slightly more number of married patients were satisfied with nursing care as compared to unmarried and divorced/ widowed. However, this difference was not found statistically significant (p>0.001).

*Hence this hypothesis is rejected.*

**Hypothesis-4.6 (d):** Rural patients are more satisfied with nursing care.

More number of rural patients were satisfied with nursing care, as compared to urban patients, which was found statistically significant (p<0.001).

*Hence this hypothesis is accepted.*

**Hypothesis-4.6 (e):** Migrated patients are more satisfied with nursing care as compared to local native patients.

More number of patients were satisfied with nursing care, who were belonging to other states as compared to native Punjabis, which was found statistically significant (p<0.001).

*Hence this hypothesis is accepted.*

**Hypothesis-4.6 (f):** Religion does not have effect on patients’ satisfaction with nursing care.

More of Muslim and Christian patients were highly satisfied with nursing care as compared to Hindus and Sikhs, which was found statistically significant (p<0.05).

*Hence this hypothesis is rejected.*

**Hypothesis-4.6 (g):** Illiterate or less educated patients are more satisfied with nursing care.
More number of illiterate patients were satisfied with nursing care. Educational status was found inversely proportional to patients’ satisfaction with nursing care, which was found statistically significant (p<0.001).

_Hence this hypothesis is accepted._

**Hypothesis-4.6 (b): Professionals and businessmen are less satisfied with nursing care.**

Satisfaction with nursing care was found more among non working, non-skilled workers and skilled workers as compared to professionals and businessmen, which was found statistically significant (p<0.001).

_Hence this hypothesis is accepted._

**Hypothesis-4.6 (i): Patients belonging to joint families are more satisfied with nursing care.**

Patients belonging to joint families were more satisfied with nursing care as compared to patients from nuclear families, which was found statistically significant (p<0.001).

_Hence this hypothesis is accepted._

**Hypothesis-4.6 (i): Poor patients are more satisfied with nursing care.**

Financial status of patients was found inversely proportional to their satisfaction with nursing care, where patients with lower per capita income had higher satisfaction with nursing care as compared to patients with higher per capita income, which was found statistically significant (p<0.05).

_Hence this hypothesis is accepted._

**Hypothesis-4.7 (a): Patients admitted through planned mode are more satisfied with nursing care.**

Patients admitted with planned means were more satisfied with nursing care as compared to patients who were admitted in emergency, which was found statistically significant (p<0.001).

_Hence this hypothesis is accepted._

**Hypothesis-4.7 (b): Referred patients are more satisfied with nursing care.**

High satisfaction with nursing care was found in patients who were admitted with the reference of their primary physician as compared to the patients admitted on
their own or on the advice of their family members and friends, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

**Hypothesis-4.7 (c):** Type of illness does not affect the patients' satisfaction with nursing care.

Patients with acute illness were more dissatisfied with nursing care as compared to patients with chronic or physiological entity, which was found statistically significant (p<0.001).

Hence this hypothesis is rejected.

**Hypothesis-4.7 (d):** Operated patients are more dissatisfied with nursing care.

Patients who underwent surgery were more dissatisfied with nursing care as compared to the non operated counterparts, which was found statistically significant (p< 0.001).

Hence this hypothesis is accepted.

**Hypothesis-4.7 (e):** More the number of hospitalizations, higher the satisfaction with nursing care.

The level of satisfaction with nursing care increased with the increased in number of admissions viz. maximum the admissions, higher the satisfaction. Thus patients having more than five times hospitalization were at a higher level of satisfaction. While least satisfaction was found in patients having first time admission in hospital, which was found statistically significant (p < 0.001).

Hence this hypothesis is accepted.

**Hypothesis-4.7 (f):** More the number of prior hospitalizations in same hospital, higher the satisfaction with nursing care.

More number of patients were satisfied with nursing care, who were having more than five times prior hospitalization in the same hospital, while least satisfaction with nursing care was found in patients who were admitted for the first time in hospital, which was found statistically significant (p < 0.001).

Hence this hypothesis is accepted.
**Hypothesis-4.7 (a):** Pain perception of patient reduces the satisfaction with nursing care.

Patients’ satisfaction with nursing care was not much different among the patients who were either experiencing pain or were free from pain. Slight difference in satisfaction was not found statistically significant (p > 0.001).

*Hence this hypothesis is rejected.*

**Hypothesis-4.7 (h):** Anxious patients are more dissatisfied with nursing care.

Significant number of anxious patients were dissatisfied with nursing care, while dissatisfaction was slightly low in non-anxious patients, which was statistically significant (p < 0.05).

*Hence this hypothesis is accepted.*

**Hypothesis-4.7 (i):** Better the self rated health status of the patients more the satisfaction with nursing care.

Majority of the patients were satisfied with nursing care who rated self health status as good, while satisfaction was poor in patients who rated their health status poor, which was found statistically significant (p < 0.001).

*Hence this hypothesis is accepted.*

**Hypothesis-4.7 (j):** Higher the cost of care, lesser the satisfaction with nursing care.

More number of patients were satisfied with nursing care who received healthcare free of cost, while satisfaction was low among patients who spent more amount for their treatment. Hence cost of care and patients’ satisfaction with nursing care were inversely proportional, which was found statistically significant (p < 0.05).

*Hence this hypothesis is accepted.*

**Hypothesis-4.7 (k):** Better the patients’ preadmission hospital’s image, higher the satisfaction with nursing care.

Majority of the patients were satisfied with nursing care who had good image of hospital before their admission. However, satisfaction with nursing care was least among patients who had poor image or were uncertain about hospital image before admission, which was found statistically significant (p < 0.001).

*Hence this hypothesis is accepted.*
Hypothesis-5: Higher the patients' satisfaction with nursing care, more the patient’s willingness to continue services from same hospital and to recommend to others.

Majority of patients were willing to continue the healthcare services from same hospital who were highly satisfied with nursing care. While majority of dissatisfied patients with nursing care were not willing to continue the healthcare services from same hospital. Similar finding were found for patients’ satisfaction with nursing care and willingness to recommend hospitals to others, which was found statistically significant (p<0.001).

Hence this hypothesis is accepted.

Suggestions

1. Regarding Nursing Administration

- Nursing administrative office in DMC and government hospitals may be located in administrative block. Further in government hospitals, nursing administrative office may have clerical staff, computer/typewriter, telephone facility, and adequate storage facility. Nursing administrative office of selected hospitals may be equipped with computerized record system and internet facility.

- In selected hospitals with existing line organizational structure, an alternative arrangement may be made to enhance upward communication in organization like installing suggestion boxes, conducting small group face to face meetings and taking regular feedback from staff.

- Nursing administrative office of government hospitals may be equipped with latest communication facilities like telephones and/ or mobile phones etc. to enhance smooth exchange of information.

- Government hospitals may recruit more number of nurses to improve nurse patient ratio as per the national recommendations.

- The hospitals may adopt the recruitment policies laid down by Indian Nursing Council, so as to establish the uniformity in recruitment of nurses. In addition, hospital may preferably recruit the nurses on a permanent basis, or other wise provide equal pay, benefits and leaves to contract staff.
• In addition to Assured Career Progression Scheme there is an urgent need to plan some alternative means of promotion so as to solve the problem of stagnation in career of nurses in government hospitals.

• The authorities may give special attention towards training of nurses in government hospitals.

• Nursing administrators need to impress upon the management/senior hospital administrators, the significance to initiate training programs for the nurses. They need to formulate training policies at the behest of the management.

• The authorities in government hospitals may consider providing official leaves to nursing staff while they attend training programs. To overcome the obstacle of shortage of nurses in training activities, hospital authorities may have an association with private nursing institutes, so that nursing interns might take care of patients when the selected nurses are away to attend training programs.

• Nursing Superintendents/Matrons of selected hospitals may arrange some of the training activities within an organization by the help of doctors and nursing experts. They should also endeavour to motivate the nursing staff to undergo various training programs, so as to refresh their skills and knowledge.

• The private hospitals, authorities may provide better job opportunities and working conditions for the existing nurses to retain them in organization, so as to check the higher attrition rate.

• Government hospitals may offer better working conditions, professional training and development and promotional opportunities; shortage of nursing staff may also be bridged in government hospitals to enhance the job satisfaction among nurses. In private hospitals, authorities may consider of providing suitable pay with allowances according to workloads, give sufficient number of leaves to the nurses.

2. Regarding Ward Management

• There is an urgent need to rearrange the beds, in the wards, so that every bed gets at least 70 sq. ft. floor area, this will not only provide better privacy to patients, but will also facilitate hassle free working for healthcare workers. Above all, it will reduce the risk of hospital acquired infection.
• Special consideration should be given for cleanliness of wards in government hospitals by ensuring that floor is mopped at least two times in every shift with Phenol solution.

• In government hospitals it should be ensured that every patient gets basic amenities like beds, utility lockers and comfort devices.

• The existing large wards in CMC and Civil hospitals may be supplemented with the portable decentralized nursing stations to reduce the nurses walking distance between beds and nursing station. The time saved in this process could be productively used for direct patient care.

• Future wards may be build to accommodate 25-30 patient beds with modified corridor design. It will facilitate nurses to have better visibility of patients from nursing station, as well as will reduce the walking distance between beds and nursing station.

• Wards may have a small area earmarked for pantry facility, which can meet certain basic needs of the patients like provision of hot water, facility to prepare hot beverages, provision of a refrigerator to store patient’s diets etc. Someone from the staff may regulate the use of this facility.

• Future wards in selected hospitals may be given due space for store rooms, clean utility, dirty utility and optional treatment room. These facilities may be created in existing wards also in a phased manner.

• The authorities may ensure that wards may have sufficient supply of medicines, disposable and sterile items and linens in government hospitals.

• The wards of government hospitals may also be equipped with sufficient nursing care articles, emergency trolley and dressing/ medication trolleys.

• Special attention may be given to cleanliness of sanitary facilities and one unit of such sanitary facility may be modified, so as to accommodate the patient on wheelchair.

• Dim lights may be installed in the wards, so as to facilitate sleep and comfort to the patients especially at night.

• There is an urgent need to control the rush of visitors. Moreover, noise warning signs may be installed to keep noise under control in wards.

• Adequate hand washing facilities may be provided for healthcare workers to combat the spread of infection in the wards. Hand washing facilities may have
• Healthcare workers may be educated and motivated with latest protocols of hospital waste segregation to improve their knowledge and practices of waste segregation. The government hospitals may follow the waste segregation guidelines laid down by Government of India.
• Based on hospital policies or recommendations of healthcare organizations, periodic fumigation of wards may be done, at least once in a year.
• In future wards, provision of day space; visitor’s waiting area, and multipurpose rooms may be provided.
• The government hospital wards may have heating and cooling facilities to provide comfort for patients and staff during temperature variations. The private hospitals may also improve the existing facilities.
• The wards in government hospitals may have generator backup and emergency lights to meet power needs during power failure/cuts.
• The wards may have adequate supply of safe, potable drinking water.
• The wards in government hospitals may have adequate comfortable and safe wheelchairs for timely and safe transfer of patients.
• The wards may be staffed with adequate supportive staff like ward boys, sweepers, to assist the nursing staff. In addition, there is an urgent need of more nursing staff in wards of government hospitals.
• Patient care may be done by adopting case assignment method viz. complete care of few patients by a particular nurse. This was equally preferred by nurses and patients.
• The private hospitals may provide at least 100 sq. ft. area for nursing station. Moreover, nursing stations in wards may have provision of attached toilet.
• Nursing stations in wards of government hospitals may have adequate storage and telephone facilities.
• The nurses’ rest room facility is of dire necessity in all the wards.
• Nurses in selected hospitals may be trained for the proper maintenance of nursing care documentation in wards, while nurses in government hospitals need to pay more attention in this regard.
- Wards of DMC and government hospitals may be provided with a clerical cum housekeeping staff, so that nurses’ time may be used in direct patient care.

3. Regarding patients’ satisfaction with ward facilities/services and nursing care
- Patients’ satisfaction with ward facilities/services was not very high. The wards of the selected hospitals therefore, need to be made more conducive to further enhance the patients’ satisfaction.
- The hospitals need to strive to provide safe and adequate drinking water, clean and proper sanitary facilities and appropriate recreational facilities in wards. The cleanliness of wards and adequate linen supply are the two other grey areas, which needed immediate attention in government hospitals.
- Though majority of the patients were satisfied with nursing care in wards of selected hospitals, but certain dimensions of nursing care required improvements like communication and emotional support to patients. Hence, there is a need to strengthen these dimensions of nursing care. Therefore, some appropriate training programs need to be planned for nurses to improve their knowledge and skills of communication and use of emotional support measures for the patients.
- Patient’s socio-demographic and illness-hospitalization characteristics affect the level of satisfaction, therefore that needs to be kept in consideration, while offering the care and facilities or when evaluating patients’ satisfaction.

Recommendations
Based on primary and secondary data, following recommendations are provided regarding nursing administration, ward management and patients’ satisfaction.

- Every nursing department of healthcare facility should have its own objectives, short-term and long term goals based on institution’s philosophy for effective functioning.
- Nursing administrative office should be located in administrative block of the hospital, which should be well equipped with latest technology and having sufficient space and facilities to accommodate visitors.
- Nursing administrative office must have adjoining facility of conference/meeting room, education cell and clerical staff office.
• Organizational structure of nursing department should be such that it facilitates better coordination, communication and span of control. In addition, each nursing administrator should not have more than five to eight subordinates at higher level and ten to fifteen at lower level for efficient coordination, communication and supervision.

• There is a dire need to recruit more nursing staff in government hospitals. Moreover, nurses should be recruited on permanent basis; if recruited in contract, they should be given equal pay and other benefits.

• Management/authorities should plan better promotional policies for nurses to prevent stagnation in their career.

• Hospitals should develop a sound policy for various training programs of nurses; like 3-7 days mandatory orientation program and regular on-the-job and off-the-job training. Further, nurses may be motivated to attend such training programs by making it mandatory for their next promotion and providing them paid leaves to attend off-the-job training programs.

• Hospitals should provide better job opportunities, higher salaries and benefits to nurses for preventing brain drain to developed nations.

• Preferably general wards should be built with modified corridor design to accommodate maximum of 25-30 patients, where each bed gets at least 70 sq. ft floor area.

• Layout of the ward should be such that maximum distance between nursing station and farthest bed should not be more than 65 ft. to facilitate patients’ visibility from nursing station, and minimizing nurses walking time between beds and nursing station.

• Hospitals should ensure that each patient is provided with basic amenities like beds, utility lockers, linens and comfort devices.

• Each hospital ward should have ward pantry, store room, clean utility and dirty utility facilities. Medical and nursing procedures may be accomplished at bedside with effective privacy, therefore treatment/procedure room may be optional, based on the need of ward.

• Hospital wards should be equipped with necessary emergency drugs, equipments and must have adequate supply of medicines, disposable and sterile item and linens.
• The wards should have minimum one toilet, bathroom and washbasin facility for 8-10 patients. Generally these facilities should be cleaned at least two to three times in a shift with phenol. If sanitary facility is used by a patient with infectious disease (HIV/AIDS, hepatitis-C and Hepatitis-B etc.), it should be cleaned with two percent hypochlorite solution.

• The wards should be naturally ventilated, having ceiling illumination lights, generator backup, provision of alternative dim lights. Temperature of wards should not be more than 25° C.

• Noise level in wards should be kept up to 45 decibel during day time and less than 35 decibels during night time.

• Sufficient number of hand washing facilities should be provided to healthcare workers to reduce incidence of hospital acquired infection.

• The ward floor should be cleaned at least twice in a shift with phenol and ward must be fumigated once in every year to ensure effective cleanliness, so as to reduce the chances of cross infection.

• Hospital should follow the waste management guidelines recommended by Ministry of Forest, Government of India.

• Each ward should have day space, visitors’ waiting area and multipurpose room.

• Hospitals should have facilities for the accommodation of patients’ relatives to stay in day or over night in form of ‘sarai’ etc.

• The general wards should have a day space equipped with recreational facilities like TV, news papers, magazines and indoor games, which stable patients may use to prevent boredom.

• The general wards should have minimum following staff in each shift.

  - Resident medical officer : 1 for 30 beds
  - Registered Nurse : 1 for 9 beds
  - Ward assistant : 1 for 10 beds
  - Sweeper : 1 for 15 beds

• Patient care may be done by adopting case assignment method viz. complete care of few patients by particular nurse, this is usually preferred by nurses and patients.
• Nursing station in wards should be built in 100 sq. ft. floor area with toilets. It should be closely located to patient beds and have adequate hand washing facilities. In addition to nursing station, each ward also has a nurses' rest room.

• The hospital wards should focus on basic requirements like clean, adequate linen supply, safe and adequate drinking water supply, proper sanitary facilities and appropriate recreational facilities to ensure higher patients' satisfaction with ward facilities/services.

• Nurses should provide effective communication and emotional measures to further enhance the patients' satisfaction with nursing care.

• Patient's socio-demographic and illness-hospitalization characteristics should be considered while measuring patients' satisfaction, since these are determinants in this regard.

The present research is a modest attempt to study administration, ward management and patients' satisfaction with ward facilities/services and nursing care. Since this field is very divergent, therefore, there may be certain gaps. The same are bridged and hopefully the present study would act as stimuli for future researches.

References: