

## ***Health Care and Cleanliness in Tertiary Care Hospitals in Peshawar, Khyber Pakhtunkhwa***

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### ***Abstract:***

*The present study was conducted to probe the cleanliness in the tertiary healthcare hospitals in Peshawar-Pakistan. The data was collected through a structured questionnaire from 600 sampled respondents admitted in three tertiary healthcare hospitals in Peshawar i.e. Khyber Teaching hospital, Hayatabad Medical Complex and Lady Reading Hospital through proportional allocation method. The patients were very critical about the healthcare and cleanliness in the above three major hospitals of Khyber Pakhtunkhwa. The Bi-variate analysis was made and the results reveal that hospital has clean and hygienic environment ( $P=0.006$ ), Medical OPD,s were clean and tidy ( $P=0.000$ ), wards were clean and well maintained ( $P=0.000$ ), Toilets were clean and well maintained ( $P=0.000$ ). The study recommended that hospital administration should keep focus on cleanliness in washroom, clean water and clean food to the patients.*

*Key words: Health care, tertiary hospitals, Cleanliness, infrastructure and food*

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### **Introduction:**

Health has been declared as a basic human right under the Universal Declaration of Human Rights 1948. In the way to provide the foremost human rights, the perception of health would be understood and well-defined at national level. According to the definition of World Health Organization, health is a state of complete physical, mental and social wellbeing, and not merely the absence of disease.<sup>1</sup> In another definition of medical dictionary healthcare is defined as “the prevention, treatment and management of illness, the preservation of mental and physical wellbeing through the amenities provided by the medical and allied professionals”.<sup>2</sup>

Healthcare is a principal right of every individual of any nation which arises in social sector conveniences usually delivered by the state. Healthcare is deliberated as one of the fundamental requirements of social beings; sick

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individual having further familiar awareness as well as abilities would not be innovative and a strong person of the society, without appropriately cured and it is only feasible in one way when he had been provided compulsory amenities of physicians along with proper care by the nurses. Healthcare comforts embrace simple services for normal disorder and particular services such as operations and treatment of inveterate disease. Hospitals are the main units of healthcare facilities; well established with professionals, staff, medicines, machines etc.<sup>3</sup>

Hospitals are the basic organization of our society with the aim to indorse the health of the members of the society. World Health organization defines hospital as “an integral part of a social and medical organization, which provide complete health care both curative and preventive and whose outpatient services reach out to the family in its home environment”. The main function of the hospital is to provide care for many people, provide access to specific care, and achieves as center for health education, investigation and a set of standards for general health structures at large.<sup>4</sup>

Tertiary care is particular system of consultative health care, particularly for inpatients. Patients but also contains ambulatory as well as emergency patient. A high number of these patients are referred to a tertiary care facility on recommendation from either a primary or secondary healthcare professional. In the developed countries the term “tertiary care hospital” usually refers to main hospital that has employees and infrastructure for progressive medical investigation, diagnosis and treatment.<sup>5</sup>

A clean and hygienic hospital is a symbol of clean environment for the patients. Cleanliness and healthy environment in the hospital depends on state if wards, labs, operation theaters, canteen, food provided to the patients and equipment's used in the hospital. Proper management and cleanliness of all not only help in providing proper treatment but also the control of diseases. Patients expect to get care in clean, tidy and comfortable environments and if a hospital that seems dirty, untidy and uncared for may lead patients to believe that the care offers by it will be also poor. A quality health care environment is not a luxury but it is an important part of good health care and needs to be supported with the proper standards. Standards of cleanliness have been found very poor in too many hospitals. To improve the cleanliness system the NHS has introduced National Standards for the first time in the hospitals. According to NHS Patients assume that wards should be clean and furnishings to be neat. They have a right to think a welcoming environment, particularly at a time when they might be in pain and feel threatened by unaware environments. Healthcare buildings are the ‘shop window’ for the people of any country. Accurately or mistakenly, people will evaluate the quality of the services by the way it presents itself at first glance.<sup>6</sup>

### **Literature Review:**

Many studies have been conducted by the scholar and showed the importance of clean environment on patients' satisfaction in their studies. It was perceived in a study that in health care services clean and hygienic environment of the hospital

has a high relation with patient satisfaction.<sup>7</sup> The factors which were cleanliness in washrooms and cleanliness in wards were found associated with patients' perception.<sup>8</sup> In many studies it was found that clean and hygienic environment, clean and pure food and cleanliness in the labs and wards of the hospital found positively associated with patients' satisfaction.<sup>9</sup>

Several studies were done in the china and it was found that clean and hygienic environment of the hospital was associated with patients' satisfaction.<sup>10</sup> It was concluded from the findings of the study that clean and pure food, clean medical equipment's and cleanliness in the premises of hospital were the dimensions which had impact on patients' satisfaction.<sup>11</sup> It was concluded in a study conducted in America that hospital clean and hygienic environment was found associated with patients' satisfaction.<sup>12</sup>

In the past literature it was illustrated in a research that cleanliness in the wards and cleanliness in waiting areas were the factors which have a significant influence on patients' satisfaction.<sup>13</sup> From the findings of the study it was concluded that cleanliness of bed sheets and pillow covers was found associated with patients' satisfaction.<sup>14</sup> In one of the study it was concluded that cleanliness in the wards has the great influence on patients' satisfaction.<sup>15</sup>

### **Objectives**

1. To understand the thoughts/feelings and emotions of patients' regarding healthcare and cleanliness in tertiary care hospitals in Peshawar.
2. To see the awareness of the patients' about cleanliness in the hospitals.
3. To suggest recommendations for the improvement of cleanliness in the hospitals.

### **Methods & Materials:**

The present study explores the health care and cleanliness in tertiary care hospitals in Peshawar, Khyber Pakhtunkhwa. The data was collected from three tertiary hospitals i-e. Khyber Teaching Hospital, Lady Reading hospital and Hayatabad Medical Complex, Peshawar. A sample size of 600 respondents was taken from three hospitals determined through proportional allocation method. The study was based on both the primary and secondary data. Primary data were obtained through a pretested questionnaire which was developed on the basis of study objectives, research questions, conceptual framework and other required information and secondary data was obtained through theses, books, research articles and daily reports in the news.

After collecting the data it was edited and entered into SPSS software. The data was processed and explore through SPSS to know about the results through frequencies and percentages. Further, in order to assess the association between the dependent variable and independent variables, Chi –Square and Fisher Exact tests were also used.

**Results & Discussions:**

This section describes the results after the analysis of data. It starts with the explanation of the perception of sampled respondents about cleanliness in the hospitals and followed by measuring the association between the dependent variable i-e Patients satisfaction with the independent variable i-e the cleanliness.

**Perception of the sampled Respondents about Cleanliness in the Hospital:**

The results indicates that 51.8% of the respondents were of the view that hospital has clean and hygienic environment, 39.7% the respondents were against this statement, along with 8.5% of the respondents had no idea about the above statement. The findings of Subedi (2014)<sup>16</sup> were in contrast with the findings of present study because he mentioned that the patients were not satisfied from the cleanliness in the tertiary care hospital, Kathmandu. On other side the findings of Marley, et al. (2004)<sup>17</sup> were similar with the findings of present study because they pointed out that patients were highly satisfied from the hospital clean and hygienic environment. Clean environment in the hospitals can also affect the satisfaction of the patients anywhere in the world. Similarly, 60.3% of the respondents reported that medical OPD,s are clean and tidy, while 34.4% of the respondents were not in favor of this statement and 5.3% of the respondents didn't reply to this statement. In contrast Diab (2015)<sup>18</sup> reported that there was no cleanliness in the medical OPD,s of Egyptian hospital and the patients were dissatisfied from cleanliness in this regard. On other side the patients in Pakistan were satisfied because they reported that medical OPD,s were clean in the hospitals because the present government has given little bit preference on health side. Moreover, 32.8% of the respondents agreed that the wards were clean and well maintained in the hospital, while majority 62.7% of the respondents were not agreed with the above statement along with 4.7% of the respondents were uncertain. The findings of Patavegar, et al, (2012)<sup>19</sup> and Soleimanpour, et al, (2011)<sup>20</sup> from the previous literature also showed the similar results that large number of patients were highly dissatisfied from the cleanliness in the wards at tertiary care hospital, Pune. In public hospitals of Pakistan in the present study also showed high dissatisfaction about the cleanliness in the wards because the wards were clean just in the early morning and then no care about the cleanliness in the wards.

Likewise, 27.0% of the respondents reported that toilets were clean and well maintained in the hospital, a high proportion 67.0% of the respondents were not in favor of the above statement while 6.0% of the respondents didn't respond to the above statement. The below findings were supported by Soleimanpour, Et al, (2011)<sup>21</sup> who argued that level of dissatisfaction of patients was very high regarding cleanliness of toilets in the Imam Reza public Hospital, Tabriz, Iran. The patients also reported that there was no water in the washrooms and the patients faced to many problems. In Pakistani hospitals the washrooms were also in poor conditions and no care about the cleanliness. The washrooms were just cleaned once in a week reported by the patients and then lot of dirtiness occurred

in the washrooms. Similarly, 54.0% of the respondents responded that labs are clean and well maintained in the hospital while 38.7% of the respondents showed negative response to this statement and 7.3% of the respondents had no idea about it. However, 73.4% of the respondents confirmed that Operation Theater has clean environment in the hospital, followed by 18.8% of the total respondents showed negative response with it and 7.8% of the respondents were remain uncertain. However, 38.7% of the respondents were of the view that canteen environment was clean and comfortable in the hospital, 55.1% of the respondents had rejected the above statement while on other side 6.2% of the respondents remain uncertain. Similarly, 70.4% of the respondents accepted that there was cleanliness in the emergency department of the hospital, along with 23.2% of the respondents rejected the above statement while 6.3% of the respondents had no answer regarding this statement. Moreover, 30.2% of the respondents agreed that the food was pure, clean and fresh available in the hospital, while more than half 62.5% of the respondents were not in favor of the above statement while 7.3% of the respondents didn't reply to the above statement. The findings had been supported from the previous literature by Kulkarni, Et al, (2011),<sup>22</sup> Modebe A. I, Et al, (2014)<sup>23</sup> and Param (2014)<sup>24</sup> who concluded in their studies that the patients were not satisfied from the quality of food in the hospitals of India, Nigeria and Singapore. They reported that the food bad taste and other problems in food. The same situation was found in the hospitals of Pakistan because they complained that the food was not fresh, clean and more than half of the patients were found dissatisfied from the quality of food available in the canteens of the hospitals. Almost, 78.8% of the respondents responded that all the equipment's in the labs were clean in the hospital, 12.2% of the respondents didn't agree with this statement and 9.0% of the respondents had no idea about this statement. In addition, 17.5% of the respondents were agreed that drinking water was clean and pure in the hospital, 78.5% of the respondents were found against this statement along with 4.0% of the respondents were uncertain.

**Table 1.1 Perception of the sampled Respondents about Cleanliness in the Hospital**

| S.# | Response towards cleanliness/ sanitation    | Agree     | Strongly Agree | Uncertain | Disagree  | Strongly Disagree |
|-----|---|-----------|----------------|-----------|-----------|-------------------|
| 1   | Hospital has clean and hygienic environment | 225(37.5) | 86(14.3)       | 51(8.5)   | 127(21.2) | 111(18.5)         |
| 2   | Medical OPD is clean and tidy               | 245(40.8) | 117(19.5)      | 32(5.3)   | 118(19.7) | 88(14.7)          |
| 3   | Wards are clean and well maintained         | 116(19.3) | 81(13.5)       | 28(4.7)   | 191(31.8) | 184(30.7)         |
| 4   | Toilets are clean and well maintained       | 107(17.8) | 55(9.2)        | 36(6.0)   | 166(27.7) | 236(39.3)         |
| 5   | Labs are clean and well maintained          | 212(35.3) | 112(18.7)      | 44(7.3)   | 117(19.5) | 115(19.2)         |

|    |  |           |           |         |           |           |
|----|--|-----------|-----------|---------|-----------|-----------|
| 6  | Operation Theater has clean environment      | 301(50.2) | 139(23.2) | 47(7.8) | 63(10.5)  | 50 (8.3)  |
| 7  | Canteen environment is clean and comfortable | 165(27.5) | 67(11.2)  | 37(6.2) | 202(33.7) | 129(21.5) |
| 8  | Cleanliness in the Emergency department      | 307(51.2) | 115(19.2) | 38(6.3) | 74(12.3)  | 66(11.0)  |
| 9  | Food is pure, clean and fresh                | 130(21.7) | 51(8.4)   | 44(7.4) | 161(26.8) | 214(35.7) |
| 10 | All the equipment's are clean in the labs    | 314(52.3) | 159(26.5) | 54(9.0) | 42(7.0)   | 31(5.2)   |
| 11 | Drinking water is clean and pure             | 69(11.5)  | 36(6.0)   | 24(4.0) | 180(30.0) | 291(48.5) |

### Associations between Cleanliness and Patients' Satisfaction

The below results state that a significant ( $P=0.006$ ) association was found between patients' satisfaction and with a statement that hospital has clean and hygienic environment. The findings from the previous literature have been inferred by Tomes (1995),<sup>25</sup> Camilleri and O'Callaghan, (1998),<sup>26</sup> and Fang Yichong et al., (2008)<sup>27</sup> mentioned in their findings that clean and hygienic environment of the hospital has significant impact on patients' satisfaction. A noteworthy ( $P=0.000$ ) relationship was illustrated between medical OPD,s are clean and tidy and patients' satisfaction. Correspondingly, a noteworthy ( $P=0.000$ ) relationship was stated between patients' satisfaction and with a statement that wards are clean and well maintained. The similar findings were concluded by Sultana, Et al, (2009)<sup>28</sup> and Hasin et al., (2001)<sup>29</sup> and found cleanliness in the wards associated with patients' satisfaction. Likewise, a significant ( $P=0.000$ ) relationship was stated between patients' satisfaction and toilets are clean and well maintained. The current findings were found similar with the findings of June et al., (1998)<sup>30</sup> and Reidenbach and SandiferSmallwood, (1990)<sup>31</sup> because they mentioned in their studies that cleanliness in washrooms has a significant relation with patients' satisfaction. The results indicates that a important ( $P=0.000$ ) association described between patients' satisfaction and labs are clean and well maintained. The findings of current study were at line with the findings of Hasin et al., (2001)<sup>32</sup> who concluded in their study that cleanliness in the laboratories was found associated with patients' satisfaction. An insignificant ( $P=0.147$ ) relation was found between operation theater has clean environment and patients' satisfaction. Moreover, a noteworthy ( $P=0.001$ ) association was described between patients' satisfaction and with a statement that canteen environment is clean and comfortable. Similarly, a significant ( $P=0.000$ ) relationship between cleanliness in the emergency department and patients' satisfaction was found. Moreover, a noteworthy ( $P=0.000$ ) association was stated between patients' satisfaction and with a statement that food is pure, clean and fresh in the canteen. The current

findings of the study were supported by Shi & Singh (2005)<sup>33</sup> because they found that quality of food have a great impact on patients' satisfaction. Again, an important (P=0.000) relation was found between patients' satisfaction and with a statement that all the equipment's are clean in the labs. The similar findings were concluded by Meterko and Rubin (1990)<sup>34</sup> who described that clean and new equipment's has high influence on patients' satisfaction. However, a nonsignificant (P=0.078) association was found between drinking water is clean and pure and patients' satisfaction.

**Table 1.2 Associations between Cleanliness and Patients' Satisfaction**

| S. # | Statement                                   | Perception        | Patients satisfaction |                |           |          |                   | Chi-Square<br>(P-Value)        |
|------|---|-------------------|-----------------------|----------------|-----------|----------|-------------------|--------------------------------|
|      |   |                   | Agree                 | Strongly Agree | Uncertain | Disagree | Strongly Disagree |                                |
| 1    | Hospital has clean and hygienic environment | Agree             | 39(17.3)              | 36(16.0)       | 18(8.0)   | 71(31.6) | 61(27.1)          | $\chi^2 = 33.819$<br>(P=0.006) |
|      |   | Strongly Agree    | 11(12.8)              | 14(16.3)       | 9(10.5)   | 32(37.2) | 20(23.3)          |                                |
|      |   | Uncertain         | 12(23.5)              | 5(9.8)         | 11(21.6)  | 12(23.5) | 11(21.6)          |                                |
|      |   | Disagree          | 17(13.4)              | 12(9.4)        | 16(12.6)  | 40(31.5) | 42(33.1)          |                                |
|      |   | Strongly Disagree | 31(27.9)              | 15(13.5)       | 7(6.3)    | 41(36.9) | 17(15.3)          |                                |
| 2    | Medical OPD,s clean and tidy                | Agree             | 37(15.1)              | 30(12.2)       | 17(6.9)   | 76(31.0) | 85(34.7)          | $\chi^2 = 85.465$<br>(P=0.000) |
|      |   | Strongly Agree    | 12(10.3)              | 18(15.4)       | 6(5.1)    | 41(35.0) | 40(34.2)          |                                |
|      |   | Uncertain         | 3(9.4)                | 5(15.6)        | 5(15.6)   | 13(40.6) | 6(18.8)           |                                |
|      |   | Disagree          | 31(26.3)              | 19(16.1)       | 10(8.5)   | 41(34.7) | 17(14.4)          |                                |
|      |   | Strongly Disagree | 27(30.7)              | 10(11.4)       | 23(26.1)  | 25(28.4) | 3(3.4)            |                                |
| 3    | Wards are clean and well maintained         | Agree             | 15(12.9)              | 10(8.6)        | 12(10.3)  | 53(45.7) | 26(22.4)          | $\chi^2 = 55.987$<br>(P=0.000) |
|      |   | Strongly Agree    | 19(23.5)              | 10(12.3)       | 3(3.7)    | 33(40.7) | 16(19.8)          |                                |
|      |   | Uncertain         | 6(21.4)               | 7(25.0)        | 0(0.0)    | 9(32.1)  | 6(21.4)           |                                |
|      |   | Disagree          | 38(19.9)              | 29(15.2)       | 9(4.7)    | 53(27.7) | 62(32.5)          |                                |
|      |   | Strongly Disagree | 32(17.4)              | 26(14.1)       | 37(20.1)  | 48(26.1) | 41(22.3)          |                                |
| 4    | Toilets are clean and well maintained       | Agree             | 8(7.5)                | 5(4.7)         | 7(6.5)    | 41(38.3) | 46(43.0)          | $\chi^2 = 65.569$<br>(P=0.000) |
|      |   | Strongly Agree    | 9(16.4)               | 12(21.8)       | 4(7.3)    | 18(32.7) | 12(21.8)          |                                |
|      |   | Uncertain         | 3(8.3)                | 6(16.7)        | 1(2.8)    | 17(47.2) | 9(25.0)           |                                |
|      |   | Disagree          | 38(22.9)              | 25(15.1)       | 14(8.4)   | 39(23.5) | 50(30.1)          |                                |
|      |   | Strongly Disagree | 52(22.0)              | 34(14.4)       | 35(14.8)  | 81(34.3) | 34(14.4)          |                                |
| 5    | Labs are clean and                          | Agree             | 37(17.5)              | 38(17.9)       | 19(9.0)   | 65(30.7) | 53(25.0)          | $\chi^2 = 45.657$<br>(P=0.000) |
|      |   | Strongly Agree    | 12(10.7)              | 14(12.5)       | 15(13.4)  | 43(38.4) | 28(25.0)          |                                |

|    |  |                   |          |          |          |           |          |                                |
|----|--|-------------------|----------|----------|----------|-----------|----------|--------------------------------|
|    | well maintained                              | Uncertain         | 11(25.0) | 4(9.1)   | 7(15.9)  | 11(25.0)  | 11(25.0) |                                |
|    |  | Disagree          | 13(11.1) | 11(9.4)  | 15(12.8) | 36(30.8)  | 42(35.9) |                                |
|    |  | Strongly Disagree | 37(32.2) | 15(13.0) | 5(4.3)   | 41(35.7)  | 17(14.8) |                                |
| 6  | Operation Theater has clean environment      | Agree             | 56(18.6) | 47(15.6) | 31(10.3) | 89(29.6)  | 78(25.9) | $\chi^2 = 21.868$<br>(P=0.147) |
|    |  | Strongly Agree    | 25(18.0) | 16(11.5) | 14(10.1) | 52(37.4)  | 32(23.0) |                                |
|    |  | Uncertain         | 11(23.4) | 4(8.5)   | 7(14.9)  | 13(27.7)  | 12(25.5) |                                |
|    |  | Disagree          | 6(9.5)   | 6(9.5)   | 4(6.3)   | 23(36.5)  | 24(38.1) |                                |
|    |  | Strongly Disagree | 12(24.0) | 9(18.0)  | 5(10.0)  | 19(38.0)  | 5(10.0)  |                                |
| 7  | Canteen environment is clean and comfortable | Agree             | 31(18.8) | 19(11.5) | 27(16.4) | 55(33.3)  | 33(20.0) | $\chi^2 = 39.925$<br>(P=0.001) |
|    |  | Strongly Agree    | 16(23.9) | 8(11.9)  | 3(4.5)   | 25(37.3)  | 15(22.4) |                                |
|    |  | Uncertain         | 2(5.4)   | 8(22.9)  | 6(17.1)  | 10(28.6)  | 11(31.4) |                                |
|    |  | Disagree          | 44(21.8) | 30(14.9) | 6(3.0)   | 66(32.7)  | 56(27.7) |                                |
|    |  | Strongly Disagree | 19(14.5) | 17(13.0) | 19(14.5) | 40(30.5)  | 36(27.5) |                                |
| 8  | Cleanliness in the Emergency department      | Agree             | 43(14.0) | 33(10.7) | 39(12.7) | 131(42.7) | 61(19.9) | $\chi^2 = 87.460$<br>(P=0.000) |
|    |  | Strongly Agree    | 21(18.3) | 13(11.3) | 6(5.2)   | 45(39.1)  | 30(26.1) |                                |
|    |  | Uncertain         | 12(31.6) | 6(15.8)  | 0(0.0)   | 3(7.9)    | 17(44.7) |                                |
|    |  | Disagree          | 16(21.6) | 13(17.6) | 5(6.8)   | 9(12.2)   | 31(41.9) |                                |
|    |  | Strongly Disagree | 18(27.3) | 17(25.8) | 11(16.7) | 8(12.1)   | 12(18.2) |                                |
| 9  | Food is pure, clean and fresh in the canteen | Agree             | 20(15.4) | 11(8.5)  | 25(19.2) | 41(31.5)  | 33(25.4) | $\chi^2 = 45.958$<br>(P=0.000) |
|    |  | Strongly Agree    | 9(17.6)  | 5(9.8)   | 5(9.8)   | 17(33.3)  | 15(29.4) |                                |
|    |  | Uncertain         | 3(6.8)   | 3(6.8)   | 4(9.1)   | 25(56.8)  | 9(20.5)  |                                |
|    |  | Disagree          | 39(24.2) | 30(18.6) | 7(4.3)   | 38(23.6)  | 47(29.2) |                                |
|    |  | Strongly Disagree | 39(18.2) | 33(15.4) | 20(9.3)  | 75(35.0)  | 47(22.0) |                                |
| 10 | All the equipment's are clean in the labs    | Agree             | 57(18.2) | 54(17.2) | 41(13.1) | 85(27.1)  | 77(24.5) | $\chi^2 = 45.563$<br>(P=0.000) |
|    |  | Strongly Agree    | 37(23.3) | 15(9.4)  | 11(6.9)  | 50(31.4)  | 46(28.9) |                                |
|    |  | Uncertain         | 6(11.1)  | 8(14.8)  | 0(0.0)   | 27(50.0)  | 13(24.1) |                                |
|    |  | Disagree          | 6(14.3)  | 8(19.0)  | 3(7.1)   | 21(50.0)  | 4(9.5)   |                                |



|    |                                  |                   |          |          |          |          |          |                                |
|----|----------------------------------|-------------------|----------|----------|----------|----------|----------|--------------------------------|
|    |                                  | Strongly Disagree | 4(12.9)  | 2(6.5)   | 1(3.2)   | 13(41.9) | 11(35.5) |                                |
| 11 | Drinking water is clean and pure | Agree             | 8(11.6)  | 9(13.0)  | 7(10.1)  | 26(37.7) | 19(27.5) | $\chi^2 = 24.582$<br>(P=0.078) |
|    |                                  | Strongly Agree    | 8(22.2)  | 5(13.9)  | 1(2.8)   | 17(47.2) | 5(13.9)  |                                |
|    |                                  | Uncertain         | 3(12.5)  | 3(12.5)  | 1(4.2)   | 13(54.2) | 4(16.7)  |                                |
|    |                                  | Disagree          | 40(22.2) | 23(12.8) | 17(9.4)  | 63(35.0) | 37(20.6) |                                |
|    |                                  | Strongly Disagree | 51(17.5) | 42(14.4) | 35(12.0) | 77(26.5) | 86(29.6) |                                |

### Conclusion:

From the results it was concluded that the patients were satisfied from hospital environment, cleanliness in medical OPDS, well equipped and clean in labs, cleanliness in Operation Theaters, cleanliness in emergency but they were highly unsatisfied from the cleanliness in wards, bad conditions in washrooms, poor quality of food and unfit drinking water. The patients and their relatives were not happy from the cleanliness in the washroom and cleanliness in the wards. They pointed out the old and poor condition of the washrooms in the wards of the hospitals.

### Recommendations:

From the results of the study the researcher put some recommendation for the improvement of cleanliness system in the hospitals which are the following.

- The hospital administration should give preference on the cleanliness in all aspects because the patients are the consumers of the hospital.
- Clean and pure water should be provided to the patients in the hospital because the water was not fit for drinking.
- The hospital administration should renovate the washrooms and give special focus on the cleanliness of it.
- They should also provide the clean and pure food system in the hospital.

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