**Attitude and perception of healthcare ethics among healthcare technicians**

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**Abstract:**

All health care personnel should be aware of ethical principles like human dignity, privacy and confidentiality in order to deliver quality health care services. There is a paucity of data regarding the perception and attitude of health care technicians towards human dignity, privacy and confidentiality, hence we conducted this study among this population in a tertiary care hospital. An 18 item questionnaire was distributed to 106 health care technicians working in different departments of the hospital after obtaining a written informed consent. The data was analyzed using descriptive statistics and Chi square test. The perception and attitude of health care technicians with regard to patient privacy, dignity and confidentiality was far from adequate. There was a significant difference in attitude and perception of human dignity between different age groups and gender (P=0.017; 0.047; 0.025; 0.041). There is a need for inclusion of a structured curriculum for teaching ethics among technicians.

**Introduction:**

All health care professionals dealing with patients have certain moral obligations while they practise their profession. Some of the ethical principles like human dignity, privacy and confidentiality should be known to all health care professionals in order to deliver a quality health care service. These days the health care setup is relying on technicians for many services hence it is necessary for them to have an awareness about their moral obligations towards patients. The change from clinical examination-based to investigations-based treatment has increased the roles and responsibilities of paramedical staff (1). According to the World Medical Association, some procedures, formerly performed by physicians, are now routinely done by medical technologists, nurses, and paramedics (2). During their training these health care technicians are not commonly taught about healthcare ethics in their curriculum. In this transforming situation of increasing inter-disciplinary team work between health care professionals at different levels of the organization, students of paramedical courses should be trained in certain basic principles of clinical ethics in order to help them maintain an ethical conduct towards patients. Also, data regarding patients is being computerized and its accessibility to healthcare professionals makes it necessary for them to be sensitive towards confidentiality issues. It is the responsibility of all health care professionals working in a hospital to not only maintain confidentiality (3) but respect patients’ privacy and dignity.

There are studies reporting the awareness of bioethics among doctors and nurses (4, 5) but there is a paucity of data regarding the knowledge and attitude of other health care professionals regarding clinical ethics hence we undertook this study with the objective of assessing the perception and attitude towards human dignity, privacy and confidentiality among health care technicians working in a tertiary care hospital.

**Materials and Methods:**

Assuming that 50% of participants would have knowledge about the ethical principles, with 95% confidence interval and 10% absolute precision the sample size was calculated to be 96. Providing for 10% nonresponse, the final sample size was estimated to be 106. The questionnaire of this descriptive cross sectional survey was distributed to 106 health care technicians of radiography, X-Ray technology, dialysis technology, radiation therapy, laboratory technology, operation theatre technology, anesthesia, ophthalmology and urology working in a tertiary care hospital, by approaching them individually at their work station and after taking their written informed consent. The self-administered questionnaire was collected after half an hour in order to ensure that they did not approach their professional colleagues or other sources for answering.

The questionnaire used in the survey was developed based on an extensive literature review. The tool was content validated and revised after obtaining feedback from three subject experts. The first part of the questionnaire contained demographic details like age, gender, department, duration of experience as a health care technician, formal training in bioethics (as a subject during the B.Sc/Diploma course), and experience of any ethical dilemmas during their carrier. The second part of the questionnaire (Table 1) contained eighteen items to know their perception and attitude towards human dignity, privacy and confidentiality. The responses to the first 16 items were graded using a 3-point Likert scale and for the last 2 items respondents had to tick the best response to the given scenario. The survey was conducted after approval by the institutional ethics committee and after obtaining a written informed consent from the participants. Permission was also obtained from the Medical Superintendent of the hospital.

**Table 1: Study questionnaire**

|  |  |  |
| --- | --- | --- |
|  | Human dignity cannot always be maintained therefore can be compromised in modern health care. | Disagree,  Not sure,  Agree |
|  | Failure to safe guard the computerized (electronic data) health information of patients by healthcare professionals may result in criminal or financial penalties. | Disagree,  Not sure,  Agree |
|  | A patient suffering from HIV is waiting for a non-invasive procedure to be done, along with many other patients. You will keep him waiting solely on account of his HIV status till all other patients finish their turn. | Disagree,  Not sure,  Agree |
|  | A colleague of yours discusses about a dead patient loudly in the hospital canteen. You think this behavior is appropriate since all the people in the canteen are health care professionals working in the same institute. | Disagree,  Not sure,  Agree |
|  | Confidentiality is central to good medical practice as a lack of it would result in decreased trust between patient and health care professional | Disagree,  Not sure,  Agree |
|  | Dignity is equal to all human beings irrespective of being disabled or a criminal. | Disagree,  Not sure,  Agree |
|  | A young woman engaged to a friend of yours comes to the hospital for some investigations. The results of investigations reveal that she is suffering from a life threatening disease. You feel you are justified in informing the diagnosis to your friend as it is your responsibility to protect him. | Disagree,  Not sure,  Agree |
|  | As a health care professional you can refuse to handle patients suffering from psychiatric illness. | Disagree,  Not sure,  Agree |
|  | Health information of a patient is the private property of the doctor and the institute in which he is being treated | Disagree,  Not sure,  Agree |
|  | Privacy of patients should be maintained only during emergency situations. | Disagree,  Not sure,  Agree |
|  | Dignity in context to health care is respecting each individual as sole, and caring for him or her as an individual, never as a mere object. | Disagree,  Not sure,  Agree |
|  | A man married for 2 months visits the hospital for some illness and is diagnosed to be HIV positive. The doctor is justified in disclosing this information to the patient’s wife without the knowledge of the patient, as it is the doctor’s duty to protect the wife. | Disagree,  Not sure,  Agree |
|  | It is common for a terminally ill patient, dependent on others for all the day to day work to have a feeling of threat to dignity. | Disagree,  Not sure,  Agree |
|  | In response to an unsolicited (unofficial) enquiry you can provide personal information of a patient since no harm is intended. | Disagree,  Not sure,  Agree |
|  | A healthcare professional can disclose relevant information of a patient without seeking the patient’s consent if the court warrants and insists for it. | Disagree,  Not sure,  Agree |
|  | A patient is treated for a mental illness in a hospital. The patient’s distant relative enquires about the illness without the knowledge of the patient. As a healthcare professional you have access to the patient’s file and may disclose the relevant information to the relative. | Disagree,  Not sure,  Agree |
|  | An unconscious patient recovering after general anesthesia is being shifted; the patient’s body is not covered properly. How would you react after noticing this?   1. This is a common issue happening in busy operation theaters and does not require any action. 2. Ensure the patient is covered properly. 3. Inform the concerned staff and carry on with your work. | |
|  | When a patient needs to change to a hospital gown before a procedure, you will ensure the patient’s privacy by   1. Leaving the room till the patient is ready for the procedure 2. Drawing the curtains of the room but continuing to do your work elsewhere in the room 3. Leaving the room and re-entering at any time 4. It is difficult to ensure privacy for all patients in a busy health care setup, hence the patient should forego their desire for privacy | |

**Statistical analysis:** Data was analyzed using SPSS 16.0 software. The data was expressed using descriptive statistics. Test of association was carried out with regards to factors like gender, experience and age group using Chi square test. *P* value less than 0.05 was considered statistically significant.

**Results:**

Questionnaires were distributed among 106 technicians working in different departments of a tertiary care hospital, among which 78 questionnaires were returned, response rate was 73.6%. The demographic details of the respondents is given in Table 2. The age of the respondents ranged from 18 to 56 years, where among 78 respondents data about age was missing in 9. Among 69 available data regarding age 69. 6% were in the age group of 19 to 37 years and 30.4% were in the age group of 38 to 60 years. Out of 72 available data regarding gender, 51 (65.4%) were females and 21 (26.9%) were males. The respondents were grouped into five groups based on their years of experience in their respective departments. Among 77 available data 53.8% of them had experience in the range of <1 to 5 years (N = 42); 5 (6.4%) had experience in range of >5 to 10 years; 5 (6.4%) had experience in range of >10 to 15 years; 9 (11.5%) had experience in range of >15 to 20 years and 16 (20.5%) had more than 20 years of experience. Among 70 available data 62 (79.5%) had no formal training in ethics, whereas 8 (10.3%) had studied ethics during their course. Among 72 respondents 62 (79.5%) had never faced any ethical dilemma during their career while 12 (12.8%) faced some kind of ethical dilemma during their career. Among 74 respondents 63 (80.8%) were willing to undergo training related to ethics in future and eleven (14.1%) were not willing for the same.

**Table 2: Demographic characteristics of the respondents**

|  |  |  |
| --- | --- | --- |
|  | Respondents (N = 78) | Missing data |
| Age (years), mean ± SD | 30.23±9.78616 | 9 |
| Female gender, N (%) | 51(65.4%) | 6 |
| Work experience (years), mean ± SD | 9.78 ± 9.42 | 1 |

**Table 3: Perception of technicians about patient privacy, dignity and confidentiality**

|  |  |
| --- | --- |
| **Key for the statements** | **Correct response (%)** |
| Maintaining human dignity | 37.2 |
| Failure to safe guard the computerized health information | 47.5 |
| The result of lack of confidentiality | 64.1 |
| Dignity is equal to all human | 78.2 |
| Health information of a patient is the private property of the doctor and the hospital | 12.8 |
| Privacy should be maintained only in emergency situations | 79.5 |
| Dignity is respecting and caring each individual | 78.2 |
| Providing personal information of a patient to an unsolicited enquiry | 65.4 |
| Disclosing relevant information of a patient if the court warrants and insists | 41.1 |

Correct responses to statements on privacy, dignity and confidentiality is expressed as percentage and is shown in table 3. Only 37.2% of the respondents disagreed that human dignity cannot always be maintained therefore can be compromised in modern health care. 38.4% disagreed and 12.8% were not sure that failure to safe guard the computerized health information may result in criminal or financial penalties. Only 12.8% disagreed that the health information of a patient is the private property of the doctor and the institute in which he is being treated, the rest (87.2%) either agreed or were not sure. 38.4% disagreed and 17.9 were not sure that a healthcare professional can disclose relevant information of a patient without seeking the patient’s consent if the court warrants and insists for it.

**Table 4: Attitude towards patient privacy, dignity and confidentiality**

|  |  |
| --- | --- |
| Key for the statements | Correct response (%) |
| Dignity of HIV patients | 59 |
| Discussion about a dead patient loudly in the hospital canteen | 79.5 |
| Disclosing health information to third person | 23.1 |
| Refusing to handle psychiatric patients | 43.6 |
| Disclosing HIV status to the patient’s wife without his knowledge | 44.9 |
| Dignity in terminally ill patient | 32.1 |
| Revealing details of patients mental illness to the relative | 48.8 |
| Unconscious patient recovering from general anesthesia | 76.6% |
| Privacy of a patient who needs to change to a hospital gown | 36.4% |

Correct response to statements on the attitude of health care technicians with regard to privacy, dignity and confidentiality are expressed as percentage and shown in table 4. With regard to a statement on disclosing the health information of a patient to a third person, only 23.1% gave the correct response. Only 43.6% respondents disagreed, 32% were not sure and 23% agreed with the statement ‘As a health care professional you can refuse to handle patients suffering from psychiatric illnesses’. To the statement about disclosing HIV status to the patient’s wife without his knowledge an equal percentage of respondents agreed and disagreed (44.9%) while 10.3% were not sure of it. To the statement ‘it is common for a terminally ill patient, dependent on others for all the day to day work to have a feeling of threat to dignity’ only 32% respondents agreed, 28.2% were not sure and 39.8% disagreed. In response to a statement on revealing details of patients’ mental illness to the relative 37.2% gave incorrect response and 14.1 were not sure of it. Correct response to item 17 and 18 (Table 1) framed to assess the attitude of respondents to patient privacy which was a multiple choice type question was 76.6% and 36.4% respectively.

**Table 5: Influence of age on knowledge, attitude and perception of ethics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Key for the statement | Age group | Agree | Disagree | *P* value |
| Maintaining human dignity | 19 to 37 | 12  9 | 21  7 | 0.079 |
| 38 to 60 |
| Failure to safe guard the computerized health information | 19 to 37 | 20  13 | 23  5 | 0.375 |
| 38 to 60 |
| Dignity of HIV patients | 19 to 37 | 20  4 | 24  14 | 0.373 |
| 38 to 60 |
| Discussion about a dead patient loudly in the hospital canteen | 19 to 37 | 10  4 | 39  16 | 0.934 |
| 38 to 60 |
| The result of lack of confidentiality | 19 to 37 | 26  16 | 19  2 | 0.131 |
| 38 to 60 |
| Dignity is equal to all human | 19 to 37 | 38  16 | 5  2 | 0.623 |
| 38 to 60 |
| Disclosing health information to third person | 19 to 37 | 36  10 | 9  8 | 0.268 |
| 38 to 60 |
| Refusing to handle psychiatric patients | 19 to 37 | 12  4 | 14  14 | 0.017\* |
| 38 to 60 |
| Health information of a patient is the private property of the doctor and the hospital | 19 to 37 | 36  13 | 6  3 | 0.752 |
| 38 to 60 |
| Privacy should be maintained only in emergency situations | 19 to 37 | 7  2 | 39  17 | 0.856 |
| 38 to 60 |
| Dignity is respecting and caring each individual | 19 to 37 | 38  14 | 2  2 | 0.547 |
| 38 to 60 |
| Disclosing HIV status to the patient’s wife without his knowledge | 19 to 37 | 20  8 | 25  9 | 0.834 |
| 38 to 60 |
| Dignity in terminally ill patient | 19 to 37 | 16  6 | 22  7 | 0.753 |
| 38 to 60 |
| Privacy should be maintained only in emergency situations | 19 to 37 | 13  1 | 29  15 | 0.389 |
| 38 to 60 |
| Dignity is respecting and caring each individual | 19 to 37 | 17  8 | 24  5 | 0.171 |
| 38 to 60 |
| Disclosing HIV status to the patient’s wife without his knowledge | 19 to 37 | 22  6 | 20  11 | 0.275 |
| 38 to 60 |

\**P*<0.05, Chi square test

There was significant difference in the attitude and perception (*P* = 0.017) among the two age groups with regard to a statement about human dignity (table 5). Most of the individuals in the age group 38 to 60 years gave a correct response when compared to individuals of age group 19 to 37 years. There was no difference in the attitude and perception among the two age groups with regard to rest of the items.

**Table 6: Influence of gender on attitude and perception of ethics**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Key for the statement | Gender | Agree | Disagree | *P* value |
| Maintaining human dignity | Male | 7  17 | 11  17 | 0.047\* |
| Female |
| Failure to safe guard the computerized health information | Male | 8  20 | 10  24 | 0.977 |
| Female |
| Dignity of HIV patients | Male | 8  16 | 11  30 | 0.825 |
| Female |
| Discussion about a dead patient loudly in the hospital canteen | Male | 2  12 | 8  39 | 0.563 |
| Female |
| The result of lack of confidentiality | Male | 12  32 | 7  14 | 0.888 |
| Female |
| Dignity is equal to all human beings | Male | 19  38 | 1  6 | 0.025\* |
| Female |
| Disclosing health information to third person | Male | 11  38 | 8  9 | 0.135 |
| Female |
| Refusing to handle psychiatric patients | Male | 1  15 | 11  19 | 0.041\* |
| Female |
| Health information of a patient is the private property of the doctor and the hospital | Male | 13  38 | 3  7 | 0.257 |
| Female |
| Privacy should be maintained only in emergency situations | Male | 3  7 | 17  40 | 0.789 |
| Female |
| Dignity is respecting and caring each individual | Male | 18  37 | 1  3 | 0.061 |
| Female |
| Disclosing HIV status to the patient’s wife without his knowledge | Male | 6  24 | 10  25 | 0.049\* |
| Female |
| Dignity in terminally ill patient | Male | 3  20 | 14  16 | 0.083 |
| Female |
| Providing personal information of a patient to an unsolicited enquiry | Male | 4  11 | 15  31 | 0.854 |
| Female |
| Disclosing relevant information of a patient if the court warrants and insists | Male | 8  19 | 11  19 | 0.163 |
| Female |
| Revealing details of patients mental illness to the relative | Male | 9  20 | 9  24 | 0.113 |
| Female |

\**P*<0.05, Chi square test

Total number of men and women who participated in the study were 21 and 51 respectively. With the statement related to maintaining human dignity greater proportion of men (52.4%) responded correctly compared to women (33.3%); with *P* = 0.047. With another statement related to dignity, ‘dignity is equal to all human beings’ 90.5% of men answered correctly when compared to 74.5% of the women respondents with a significant difference, *P* = 0.025. With regard to a statement about handling psychiatric patients’ greater proportion of men 52.4% answered correctly when compared to women technicians (37.3%) with a significant difference, *P* = 0.041. There was a significant gender difference in the attitude and perception of respondents with regard to disclosing HIV status to the patient’s wife without his knowledge (*P* = 0.049), women technicians faired (49.1%) better than men (47.6%).

Item number 17 and 18 framed to assess the attitude of respondents to patient privacy was multiple choice, single best response type, one option being correct and others wrong. When analysed for influence of gender, item number 17 showed that 38 women out of 50 and 19 men out of 21 answered correctly (N=71), with no significant difference. There also was no significant difference in response to item 17 in two different age categories. When item number 18 was analyzed it showed only 15 out of 50 women answered correctly and 12 men out of 21 answered correctly. A greater proportion of men (57.1%) gave correct answer than women (30%) with significant difference, *P* = 0 .031. Thewas no significant difference in response to item 18 in the two age categories.

**Discussion:**

This survey conducted among health care technicians working in a tertiary care hospital designed to analyze the attitude and perception with regard to relevant core principles of health care ethics like patient dignity, patient privacy and confidentiality is the only survey of its kind in our region. Various surveys conducted among doctors and nurses show a difference in opinion with respect to health care ethics, which warrants a need for appropriate training among all health care workers to sensitize them about health care ethics at the work place (6).

This study was a cross sectional questionnaire based survey conducted in health care technicians of different age groups and experience working in a tertiary care hospital. As mentioned in Table 2 the respondents were between 19 to 56 years old, majority of them being women with work experience ranging from less than 1 year to 34 years. It is noteworthy that 79.3% of the respondents had no formal training in ethics. In this changing situation of increasing interdependence between different set of health care providers at the hospital setting, certain ethical principles need to be inculcated in students of medical, nursing, and paramedical courses so that the organization holds together and stays trustworthy, while still delivering a personal approach to its patients(1). It is necessary to design a structured curriculum including necessary syllabus of ethical principles in order to raise the standards of patient care.

With regard to the statement “Human dignity cannot always be maintained therefore can be compromised in modern health care” which was intended to assess the perception of respondents about patient dignity, 37.2% of respondents agreed to this, on the contrary only 37.2% of them disagreed to this statement. There was a significant gender difference in the perception with relation to this statement, with more women opining that dignity cannot be maintained and can be compromised.

The statement for assessing respondents’ perception about patient privacy, “Failure to safe guard the computerized (electronic data) health information of patients by healthcare professionals may result in criminal or financial penalties” was disagreed by 38.4% of respondents, agreed by 47.5% of individuals while 12.8% were not sure. This shows that respondents had inadequate knowledge regarding the issue. There was no influence of gender or age with regard to this statement.

The attitude and perception on the statement of human dignity, “As a health care professional you can refuse to handle patients suffering from psychiatric illness” showed a significant difference in two different age groups with older technicians of age >38 performing better by disagreeing with the statement. This shows that older individuals with more experience would have encountered these ethical dilemmas and are in a better position to handle these situations ethically. There was a significant difference in opinion about the above statement among men and women as well, with a larger percentage of men disagreeing with the statement.

Maintaining and protecting dignity is the duty of all health care professionals. In this survey the statement “Dignity is equal to all human beings irrespective of being disabled or a criminal” was correctly answered by a larger proportion of men when compared to women. A survey conducted by A.M. Mohamed et. alshowed 94% of the physicians agreed that they respected and maintained the dignity of their patients(5).

There was gender difference in opinion with regard to attitude and perception of confidentiality in HIV patients, women performing better than men. Physician’s knowledge and perception on confidentiality (5, 7) has been studied but studies regarding confidentiality among paramedical staff is scarce. The attitude of respondents with regard to ensuring patient privacy while a patient changes to a hospital gown was below expectations. This may be due to the attitude within individuals as influenced by culture.

Literature shows that most physicians are aware of and are sensitive to human dignity, privacy and confidentiality as ethical principles (4, 5, 7), however, in the present day healthcare set up, technicians’ interaction with patients in tertiary care hospitals has increased. Hence they too need to be aware and sensitive towards patients’ dignity and privacy. Our study explored this aspect and found that perception and attitude of health care professionals, other than doctors and nurses, regarding ethical principles is far from adequate. Technicians too should be educated regarding ethical principles in medical practice.

**Conclusion:**

The knowledge regarding various issues of health care ethics is not adequate among the healthcare technicians. It was seen that gender and age influenced the opinion regarding various issues of health care ethics among respondents. There is a need for inclusion of structured curriculum for teaching ethics in technicians during their course.

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