

## Original Research

### Examining the Aspects of Truth-Telling to Patients with the Diagnosis of Amputation: A Cross-Sectional Descriptive Study

Mojtaba Ghaedi<sup>1</sup>, Mohammad Sadegh Sanie Jahromi<sup>2</sup>, Negin Zare<sup>3</sup>, Lohraseb Taheri<sup>4\*</sup>

1. Assistant Professor of Surgery, Jahrom University of Medical Sciences, Jahrom, Iran.
2. Associate Professor of Anesthesiology, Medical ethic research center, Jahrom University of Medical Sciences, Jahrom, Iran.
3. Student research committee, Jahrom University of Medical Sciences, Jahrom, Iran.
4. Assistant Professor, Medical ethic research center, Jahrom University of Medical Sciences, Jahrom, Iran.

\* **Corresponding author: Lohraseb Taheri**, Assistant Professor of Surgery, Medical ethic research center, Jahrom University of Medical Sciences, Jahrom, Iran. Email: [l.taheri@jums.ac.ir](mailto:l.taheri@jums.ac.ir). Orcid: 0000-0002-3702-2778

#### Abstract:

**Background:** Amputation of the limbs has been reported to be a significantly stressful event since it is generally associated with disability and affects patients' quality of life. Therefore, being aware of this problem in the treatment process is considered bad news. Truth-telling in the medical profession is necessary since it enables patients to make correct decisions regarding the treatment and healthcare process. **Materials and Methods:** This is a descriptive cross-sectional study. It is conducted randomly among students, medical professors, and medical staff, with two years of clinical experience. The demographic information questionnaire and the truth-telling questionnaire of Ajzen were used here.

**Results:** Out of 86 participants in this research, 45 (52.3%) were men and 41 (47.7 %) were women. The average age was  $25.31 \pm 8.1$  years. Patients' general opinion completely agreed with truth-telling and its areas. The highest level of agreement of the respondents with different dimensions of truth-telling, respectively, belongs to the behavioral dimension with an average of 4.7, the tendency dimension with 4.6, and the attitude dimension with 4.3. Furthermore, there was no significant relationship between this component and its dimensions with the variables of gender, age, place of service, and being a physician or medical staff.

**Conclusion:** Truth-telling and the desire to provide diagnostic and treatment information to patients is associated with many complications, which is necessary due to the support of research, legal duties, and patients' rights. Physicians must acquire sufficient skills in communicating with patients and providing them with information and prognosis. This issue requires permanent training in the field of presenting bad news. Therefore, in addition to the skill of physicians, patients, and their relatives should also have proper preparation to face this stage in the treatment process, public health information and awareness of the patient's rights in this field can also be valuable.

**Keywords:** Truth-telling, Amputation, Medical Ethics, Patients

Submitted: 20 December 2022, Revised: 14 Jan 2023 , Accepted: 23 Jan 2023

## Introduction

Amputation is considered as a physical disability. Regarding rehabilitation, amputation is a type of defect that results in disability in the person and causes social and psychological problems (1). The most common reason for amputation in the world is mellitus and peripheral vascular disease. However, one of the most important reasons for amputation at a young age is due to the impact and trauma inflicted on the limb (2, 3). Lower limb amputation in patients causes a decrease in their life quality due to movement problems and also affects the patient's social status (4). The impact of disability on the psychological state and family and social relationships, including suicide and going towards social abnormalities such as drug and alcohol consumption is undeniable (5, 6). Not knowing the prognosis and the course of the disease can cause moral dissatisfaction among the health care providers to the patients. During the treatment process, the patient must give informed consent to the required actions. The decision-making process requires the patient's adequate understanding of the relevant diagnostic information. But the truth that is expressed by physicians mostly faces moral dilemmas (7, 8). Truth-telling in the medical profession means providing the necessary information to the patient to create the ability to make informed decisions about medical care and other aspects of life and to inform him about his situation (9). One of the most difficult professional aspects of the medical profession is the responsibility of announcing unpleasant conditions, and bad news to the patient and relatives (10). Since expressing or concealing the truth, in addition to ethical issues, also creates problems legally, the correct way to deal with this issue is very important, especially in incurable diseases (11). The model of planned behavior is one of the most reliable models of behavior prediction, which,

due to its structures that pay attention to important behavioral dimensions, can be used in examining opinions, values, and attitudes within the truthfulness. The planned behavior theory is a cognitive and social theory that is designed to understand and predict whether to perform human behavior and is developed based on the theory of reasoned action. The planned behavior theory, proposed by Ajzen, is based on the theory of reasoned action. This theory predicts the occurrence of a special behavior and examines the person's intention (12). Out of four hundred physicians who were asked about the truth-telling related to patients suffering from incurable diseases, Kazamian et al. (2015) finds out that in most cases, the decision depends on the conditions that are mainly determined based on the opinion of the attending physician (9). In Derekhshan et al.'s research (2017), which was conducted on the subject of truth-telling in medicine, they find out that it is the art of the physician who, by teaching and learning, practices constructive communication methods with the patients in such a way that the right of the patient is properly respected, respecting their autonomy and right to know, and that the principle of benefiting and not harming the patient should not be harmed (13). Furthermore, at the opposite point of these studies, in another study by Atrak et al. (2013), who did it with a benevolent motive about lying to the patient, they acknowledged that in a situation where telling the truth is necessary to continue the treatment, gain cooperation and obtain the patient's satisfaction, telling the truth is necessary despite possible losses. However, if telling the truth is harmful to the patient, it is permissible to hide the truth and even lie to prevent the patient from losing his life (14). Since telling the truth is a moral issue in all matters, and by telling the truth, you can gain patients' trust, it has a significant role in medicine and treatment. If the patient trusts the

physician, the treatment process can be done with progress, and telling the facts by the physician and informed decision making by the patient are one of the important steps and measures to establish this trust. In incurable diseases, such as amputation, due to the patient's severe emotional and psychological involvement, as well as the emergence of social and family issues for the patient and even the change of life path for this group of patients, the patient's decision-making, to give informed consent for his treatment measures, requires telling the truth by the physician and the medical staff. Therefore, this research aimed to investigate the aspects of truth-telling by the medical staff to the patients with the diagnosis of amputation who were referred to the hospitals of Jahrom University of Medical Sciences.

### Materials and Methods

This is a descriptive cross-sectional study. After obtaining permission from the Research Council and Ethics Committee of Jahrom University of Medical Sciences (IR.JUMS.REC.1401.139) and introducing the researcher and his goals, the research was done. A simple random sampling was done among students, medical professors, and medical staff, with two years of clinical work experience in the hospital and dealing with amputated patients. The participants who did not agree to complete the questionnaire and cooperate in the study, or who answered the questionnaire questions incompletely, were excluded from the research. The data collection tool was a two-part questionnaire including questions related to demographic characteristics and demographic information, and the second part was the Ajzen questionnaire. This questionnaire was previously used in Akbari et al.'s study, and the alpha coefficients to determine its reliability were 0.76, 0.67, and 0.51, respectively, for attitude, tendency, and

behavior (15). The questions related to the attitude, tendency, and behavior of the respondents were about telling the truth to patients, and these questions are designed based on Ajzen's theory of planned behavior (15-16). The "attitude" section was evaluated with 11 questions, "tendency" with three questions, and "behavior" with two questions. The questions in this section will be evaluated in the form of a five-point Likert scale, from completely disagree (1) to completely agree (5). The grading method was ascending and according to the Likert scale.

To analyze the data, descriptive statistics (mean, percentage, and standard deviation (SD)) and inference (Student's t-test and analysis of variance and SPSS statistical software, version 22 IBM, Armonk, NY, USA) were used and the significance level was considered  $P < 0.05$ .

### Results

The participants of this research were 86 medical personnel and physicians of hospitals of Jahrom University of Medical Sciences. Among the respondents, 45 patients (52.3%) were men and 41 patients (47.7%) were women. Also, 25 patients (29.1%) of these patients had nursing professions, 15 patients (17.4 %) worked in the operating room, and 46 patients (53.5%) were physicians. The average age of the respondents was  $25.31 \pm 8.1$ , the youngest participant was 20 and the oldest was 60.

The questionnaire of this research included 17 five-choice items that were scored on a five-point Likert scale, from completely disagree (1) to completely agree (5). The field of "attitude" was evaluated with eleven questions, "tendency" with three questions, and "behavior" with three questions, and the total score of truth-telling aspects was evaluated with all the questions of the questionnaire. Therefore, the score of each of these variables

is between 1 and 5, and a higher score indicates a greater willingness to tell the truth to the patient. The range of the average score of each variable, is divided into five equal parts, completely disagree (average 1 to 1.8), disagree (average 1.8 to 2.6), somewhat agree (average 2.6 to 3.4), agree (average 3.4 to 4.2) and completely agree (average between 4.2 and 5). Table (1) shows the results. It can be seen that the average score of all variables is higher than 4.2, and therefore the general opinion of the patients present in the research is completely in agreement with truth-telling and its areas. The highest level of agreement of the respondents with different dimensions of truth-telling, respectively, belongs to the behavioral dimension with an average of 4.7, the tendency dimension with 4.6, and the attitude dimension with 4.3.

The score of truth-telling aspects and its areas among physicians, nurses and operating room staff was investigated using a one-way analysis of variance at a significance level of 0.05. According to the results, no significant difference was observed between the attitudinal, behavioral, and dispositional scores of truth-telling, and finally, between the overall scores of truth-telling aspects, among different fields of therapeutic activity (physicians, nurses, and operating room staff).

Furthermore, the score of truth-telling aspects and its areas between men and women was investigated using t-test at a significance level of 0.05. The results showed that there is no significant relationship between gender and dimensions of truth-telling and the overall score of truth-telling aspects. This issue was investigated in relation to the age of the participants using the Pearson correlation coefficient, and no significant statistical relationship was observed between this variable and the different dimensions of truthfulness and its overall score.

## Discussion

Lower limb amputation is a common surgery that is performed for various clinical reasons such as: peripheral vascular disease, diabetes, trauma, and malignancy. The psychological response to limb loss is complex and unstable and causes depression, anxiety, and a wide range of other psychological responses (17). On the other hand, one of the most difficult professional aspects of the medical profession is the declaration of diagnostic and clinical facts related to each patient and those around him, by a physician or other medical staff, especially in a situation where the customs of life, traditional values, social habits, etc. evaluate those diagnostic and clinical facts as "bad news" and "unpleasant conditions" and find them unpleasant and show a reaction indicating a feeling of dissatisfaction towards hearing or facing them (18-21).

The participants in this research, completely agreed with telling the truth to the patients with an average of 4.42. This issue has been confirmed in Grassi et al.'s research (2000), which showed that about 45%. Basically, patients should always be informed about the diagnosis. Physicians with a surgical specialty working in general hospitals were more likely to endorse diagnosis disclosure than general practitioners and older physicians (22).

In the research where patients were the target group, most of the patients preferred to hear the truth. Bandari et al. (2022), in a cross-sectional study, which they conducted on 200 patients referred to outpatient clinics, the National Cancer Institute of Cairo University, concluded most patients (89.5%) preferred to know the diagnosis and of these, 94.4% were willing to receive this information from the attending physician (23). It seems that the views of the students and physicians participating in the current research are derived from the patient's desires and background knowledge regarding the patients' rights to know about the disease

and clinical diagnoses. In this research, although there was no significant difference between the different dimensions of attitude, tendency and behavior, observing the highest level of agreement in the behavioral dimension, with an average of 4.7, compared to the other two dimensions, shows the pragmatic approach of the participants in presenting the truth to the patients, which, of course, is different from the research of Grassi et al. Because in that study, only 25% reported that they always disclose the diagnosis in practice. This disagreement can be due to the difference in the cultural background and the provided training among the target groups (22). The results of the present study are consistent with the survey of Akbari et al. (2017), which stated the general trend of the participants in the tendency to tell the truth at 87.6% (15). However, the difference between amputation and cancer diagnosis should not be ignored. A cancer diagnosis is an extremely life-changing event that is seen by most patients as very stressful, which causes unresolved anxiety, shock, grief, withdrawal, and denial (24).

Providing information and telling the truth to patients can be used to obtain informed consent from patients. This process is an extension of shared decision-making and is currently considered the best method in clinical care (25). Truth-telling, in the field of medicine, can be defined as a window in diagnosis and prognosis (26) and generally, it refers to the disclosure of bad news (27), which is defined as any information that severely change the recipient's current and future life expectations (28). In Europe, receiving complete information about one's condition is accepted as a patient's right (29) and in Iran, according to the general guide of professional ethics for practitioners, the medical profession and affiliated with the Medical System Organization of the Islamic Republic of Iran, in the sixth chapter, with The title of honesty and

integrity in articles 52 to 59 refers to the issue of telling the truth. In Article 52, it is stated that the medical and related professions must strive to maintain patients' trust in the health profession. In this context, it is necessary to provide the patients' required information in all stages of diagnosis and treatment and to avoid direct or indirect speech or behavior that involves deceiving patients (even with the intention of benefiting the patient). Also, Article 57 refers to the issue that it is necessary for medical and affiliated professions while make compassionate efforts to alleviate the worries and fears of patients, to give realistic information and hope to the patient, his family, and relatives, and to refrain from giving false promises or hopes to the patient (30).

Research shows that there is no evidence to support this idea and that hiding the truth helps patients feel better. Conversely, the research emphasizes high levels of anxiety and depression among patients who are not properly informed of their prognosis (31). In fact, the research shows that intimate communication with patients, especially those who are seriously ill and have an unfavorable prognosis, is beneficial for psychological adjustment, coping and patient satisfaction with treatment (32). Although truth-telling truth is considered a clinical task, there is uncertainty about this duty, especially in patients with cognitive disorders, such as dementia, which is a debatable issue. In general, hiding information from some patients and not telling the truth to patients who seem unable to accept information or have cognitive defects is justified (33). It can also be claimed that telling the truth is only an initial commitment. In other words, when it conflicts with other obligations, another obligation can be ignored (34).

The current research did not report a significant difference between the variables of gender, age, place of service, and being a physician or

medical staff in relation to the general confrontation with truth-telling and its dimensions, which in the field of age and gender, it is in line with the study of Akbari et al.(15). But in terms of the place of service, it has reported a significant difference with Akbari et al.'s research. However, it should be noted that in their study, the place of service does not mean different departments of a hospital, rather, it means a public hospital, private hospital, or both, and this variable has only a verbal commonality compared to the current study, which refers to the service location of different departments of the hospital. Therefore, according to the background knowledge of the participants regarding the issue, age and gender did not play a role in this area.

### Conclusion

Truth-telling, the desire to provide diagnostic and treatment information to patients, is associated with many complications, which is necessary due to the support of research, legal duties and patient's rights, and physicians should acquire sufficient skills in communicating with patients, providing them with information and prognosis. This issue requires permanent training in the field of presenting bad news. In addition to the skill of physicians, patients and their relatives should have proper preparation to face this stage in the treatment process, and public health information and awareness of the patient's rights can be valuable in this area as well.

### Acknowledgments

We would like to thank the Clinical Research Development Unit of Paymanieh Educational and Research and Therapeutic Center of Jahrom University of Medical Sciences for providing facilities for this work.

### References

- 1.Khademi M, Gharib M, Rashedi V. Prevalence of depression in the amputated patients concerning demographic variables. Iran J War Public Health 2012; 4 (2) :12-17
- 2.Johannesson, A., G. Larsson, and T. Öberg, From major amputation to prosthetic outcome: a prospective study of 190 patients in a defined population. Prosthetics and orthotics international, 2004. 28(1): p. 9-21.
- 3.Schoppen, T., et al., Physical, Mental, and Social Predictors of Functional Outcome in Unilateral Lower-Limb Amputees1. Archives of physical medicine and rehabilitation, 2003. 84(6): p. 803-811.
- 4.Desmond, D. and M. MacLachlan, Psychological issues in prosthetic and orthotic practice: a 25 year review of psychology in Prosthetics and Orthotics International. Prosthetics and orthotics international, 2002. 26(3): p. 18.١٨٨-٢
- 5.Gauthier-fiagnon, C., M.-C. Grise, and D. Potvin, Predisposing factors related to prosthetic use by patients with a transtibial and transfemoral amputation. JPO: Journal of Prosthetics and Orthotics, 1998. 10(4): p. 99-109.
- 6.Turner, J.B. and R.J .Turner, Physical Disability, Unemployment, and Mental Health. Rehabilitation Psychology, 2004. 49(3): p. 241.
- 7.Rising, M.L., Truth telling as an element of culturally competent care at end of life. Journal of Transcultural Nursing, 2017. 28(1): p. 48.٥٥-
- 8.Chiu, T.-Y., et al., Prevailing ethical dilemmas in terminal care for patients with cancer in Taiwan. Journal of Clinical Oncology, 2009. 27(24): p. 3964-3968.
- 9.Kazamian A, Parsapour A. *Examining the opinion of doctors regarding the statement of facts related to patients with incurable diseases. Ethics in Science and Technology.* 2007;1:61-67

10. Ozdogan, M., et al., *Factors related to truth-telling practice of physicians treating patients with cancer in Turkey*. Journal of palliative medicine, 2006. 9(5): p. 1114-1119.
11. Akbari R, Aghili M. Analysis of the effective factors in physician's truth telling to cancer patients in Iran. Tehran Univ Med J 2017; 75 (3) :219-227
12. Vahdaninia M, Montazeri A. Truth-telling to cancer patient: a cross-sectional study. Payesh 2003;2(4):259-68.
13. Derekhshan Z, Shamsi Koshki E. Truth telling in medicine: a systematic review. IJMEHM. 2016;8(7): 159.
14. Atrak, H. and M. Mollabakhshi, *Lying to patients from benevolent motives*. Journal of Medical Ethics and History of Medicine, 2012. 5(4): p. 1-13.
15. Akbari R, Aghili M. Analysis of the effective factors in physician's truth telling to cancer patients in Iran. Tehran Univ Med J 2017; 75 (3) :219-227.
16. Elwyn, T.S., et al., *Cancer disclosure in Japan: historical comparisons, current practices*. Social science & medicine, 1998. 46(9): p. 1151-1163.
17. Cansever A., Uzun O., Yildiz C., Ates A., Atesalp A.S. Depression in men with traumatic lower part amputation: a comparison to men with surgical lower part amputation. Mil. Med. 2003 Feb;168(2):106–109.
18. Pélacier N. Breaking bad news: cancer diagnosis. Rev Prat 2006; 56(18): 1997-2003.
19. Voelter V, Mirimanoff RO, Stiefel F, Rousselle I, Leyvraz S. Breaking bad news. Rev Med Suisse 2005; 1(20): 1352-3.
21. Abdolhassan Kazemi, (2008). Medical Environment, Patient and Bad News, Strides in Development of Medical Education, 4(2), 133. [magiran.com/p528526](http://magiran.com/p528526)
22. Grassi L, Giraldi T, Messina EG, Magnani K, Valle E, Cartei G. Physicians' attitudes to and problems with truth-telling to cancer patients. Support Care Cancer. 2000 Jan;8(1):40-5. doi: 10.1007/s005209900067. PMID: 10650896.
23. Bendary MM, Sherif GM, Ibrahim AS, Gadallah MA. Truth-telling in Oncology: Egyptian Patients' Attitudes and Preferences. Asian Pac J Cancer Prev. 2022 Dec 1;23(12):4227-4231. doi: 10.31557/APJCP.2022.23.12.4227. PMID: 36580005; PMCID: PMC9971476.
24. Chittem M, Norman P, Harris PR. Relationships between perceived diagnostic disclosure, patient characteristics, psychological distress and illness perceptions in Indian cancer patients. Psychooncology. 2013;6:1375–80.
25. Geppert C. The Balance of Truth-Telling and Respect for Confidentiality: The Ethics of Case Reports. Fed Pract. 2022 Feb;39(2):60-61. doi: 10.12788/fp.0233. Epub 2022 Feb 8. PMID: 35444386; PMCID: PMC9014934.
26. Kazdaglis G., Arnaoutoglou C., Karypidis D., Memekidou G., Spanos G., Papadopoulos O. Disclosing the truth to terminal cancer patients: A discussion of ethical and cultural issues. East. Mediterr. Health J. 2010;16:442–447. doi: 10.26719/2010.16.4.442 .
27. Tang W.-R., Fang J.-T., Fang C.-K., Fujimori M. Truth telling in medical practice: Students' opinions versus their observations of attending physicians' clinical practice. Psycho-Oncology. 2012;22:1605–1610. doi: 10.1002/pon.3174.
28. Fan Z., Chen L., Meng L., Jiang H., Zhao Q., Zhang L., Fang C.-K. Preference of cancer patients and family members regarding delivery of bad news and

- differences in clinical practice among medical staff. *Support. Care Cancer*. 2018;27:583–589.
29. Council of Europe Convention for the Protection of Human Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine. ((accessed on 23 March 2018));1997 Available online:
30. Medical Council of Islamic Republic of Iran,(NGO)- General guide of professional ethics for medical professionals and affiliates of the medical system organization of the Islamic Republic of Iran ((accessed on 2 February 2022)). Available online: <https://irimc.org/>
31. Ghandourh W.A. Palliative care in cancer: Managing patients' expectations. *J. Med. Radiat. Sci.* 2016;63:242–257. doi: 10.1002/jmrs.188.
32. Abazari P., Taleghani F., Hematti S., Ehsani M. Exploring perceptions and preferences of patients, families, physicians, and nurses regarding cancer disclosure: A descriptive qualitative study. *Support. Care Cancer*. 2016;24:4651–4659. doi: 10.1007/s00520-016-3308-x.
33. Drane JF. Honesty in medicine: Should doctors tell the truth? *Am J Bioeth.* 2002;2:14–17.
34. Beauchamp TL, Childress JF. Principles of biomedical ethics. 5th ed. New York: Oxford University Press; 2001.

## Table

**Table 1. Descriptive statistics of the overall score of truth-telling aspects and behavioral, attitudinal and tendency areas**

| Variable                                 | Mean | Standard deviation | Minimum | Maximum | The overall opinion of the respondents |
|------------------------------------------|------|--------------------|---------|---------|----------------------------------------|
| Attitudinal dimension of truth-telling   | 4.3  | 0.41               | 3.55    | 5       | Completely agree                       |
| Dispositional dimension of truth-telling | 4.6  | 0.35               | 4       | 5       | Completely agree                       |
| Behavioral dimension of truth-telling    | 4.7  | 0.35               | 4       | 5       | Completely agree                       |
| General aspects of truth-telling         | 4.42 | 0.34               | 3.82    | 5       | Completely agree                       |