Listening understanding and acting (lung): focus on communicational issue in thoracic oncology

Claudia Yvonne Finocchiaro[1], Alessandra Rota[1], Vito Barbieri[2], Anna Bettini[3], Roberto Bianco[4], Gloria Borra[5], Lucio Buffoni[6], Alessandra Bulotta[7], Annamaria Carta[8], Diego Cortinovis[9], Raffaele Costanzo[10], Antonio Cusmai[11], Romano Danesi[12], Ettore D'Argento[13], Alessandro Del Conte[14], Tindara Franchina[15], Marina Gilli[16], Vanesa Gregorc[7], Luciana Irtelli[17], Lorenza Landi[18], Francesco Malorgio[19], Gianfranco Mancuso[20], Olga Martelli[21], Paola Mazzanti[22], Barbara Melotti[23], Maria Rita Migliorino[24], Vincenzo Minotti[25], Michele Montrone[26], Alessandro Morabito[27], Elisa Roca[28], Giampiero Romano[29], Antonio Rossi[30], Giuseppa Savio[31], Marcello Tiseo[32], Ivano Boscardini[33], Lorenzo Piccolo[34], Sara Pilotto[35], Umberto Malapelle[36]

[1]Medica Editoria e Diffusione Scientifica, Milano, Italy; [2]UO Oncologia Medica, AOU "Mater Domini", Germaneto, Catanzaro, Italy; [3]ASST Papa Giovanni XXIII, UO Oncologia, Bergamo, Italy; [4]AOU Federico II, UOC Oncologia Medica, Napoli, Italy; [5]AOU Maggiore della Carità di Novara, Novara, Italy; [6]AOU San Luigi Orbassano, Oncologia Medica, Torino, Italy; [7]Dipartimento di Oncologia Medica, IRCCS Ospedale Scientifico San Raffaele, Milano, Italy; [8]AOB Cagliari, UO Oncologia Medica, Ospedale Businco, Cagliari, Italy; [9]Struttura Semplice Lung Unit, Ospedale San Gerardo, ASST Monza, Monza, Italy; [10]UO Complessa di Oncologia medica Toraco-Polmonare, Istituto Nazionale Tumori, Napoli, Italy; [11]ASL Bari Ospedale S. Paolo, Bari, Italy; [12]Dipartimento di Medicina Clinica e Sperimentale, Università di Pisa, Pisa, Italy; [13]UOC di Oncologia Medica, Fondazione Policlinico Universitario A. Gemelli IRCCS, Roma, Italy; [14]IRCCS, Centro di Riferimento Oncologico, SOC Oncologia Medica e dei Tumori Immunocorrelati, Aviano (PN), Italy; [15]Dipartimento di Patologia Umana "G.Barresi", Università degli studi di Messina, Messina, Italy; [16]AORN dei Colli, UOSD DH PNL Oncologico, Napoli, Italy; [17]Clinica Oncologica, ASL Lanciano Vasto Chieti, Chieti, Italy; [18]Unità Operativa di Oncologia ed Ematologia, AUSL Romagna, Ravenna, Italy; [19]Dipartimento di Oncologia, ASL Pescara, Pescara, Italy; [20]Oncologia Medica, Casa di Cura "La Maddalena", Palermo, Italy; [21]AO Complesso Ospedaliero San Giovanni-Addolorata, Roma, Italy; [22]UO Clinica Oncologica, Ospedali Riuniti di Ancona, Ancona, Italy; [23]Oncologia Medica, Azienda Ospedaliera S.Orsola-Malpighi, Bologna, Italy; [24]UOSD di Pneumologia Oncologica Azienda Ospedaliera San Camillo-Forlanini, Roma, Italy; [25]Divisione Struttura Complessa Oncologia Medica, Ospedale S. Maria della Misericordia Perugia, Perugia, Italy; [26]SSD Oncologia Medica per la Patologia Toracica, IRCCS Istituto Tumori "Giovanni Paolo II" di Bari, Bari, Italy; [27]Struttura Complessa Oncologia Medica Toraco-Polmonare, Divisione di Oncologia Medica, Istituto Nazionale Tumori Fondazione Pascale, Napoli, Italy; [28]Oncologia Medica, Spedali Civili di Brescia, Brescia, Italy; [29]UO Oncologia, ASL Lecce, Ospedale "Vito Fazzi", Lecce, Italy; [30]Divisione di Oncologia Medica, Fondazione IRCCS Casa Sollievo della Sofferenza, S. Giovanni Rotondo, Foggia, Italy; [31]UO Oncologia, A.R.N.A.S. Civico, Palermo, Italy; [32]Dipartimento di Medicina e Chirurgia, Università degli Studi di Parma, Parma, Italy; [33]Docente di tecniche di comunicazione, CREMS Centro di Ricerca in Economia e Management in Sanità e nel Sociale, Università Cattaneo LIUC, Castellanza, VA, Italy; [34]Reverb Srls, Comunication Section, Milan, Italy; [35]Università degli Studi di Verona, UO Oncologia Medica, AOUI Verona, Verona, Italy; [36]Anatomia Patologica, Dip.to di Sanità Pubblica, Università degli Studi di Napoli Federico II, Naples, Italy

Contributions: (I) Conception and design: CY Finocchiaro, A Rota, S Pilotto, U Malapelle; (II) Administrative support: A Rota; (III) Provision of study materials or patients: All authors; (IV) Collection and assembly of data: CY Finocchiaro, A Rota, S Pilotto, U Malapelle; (V) Data analysis and interpretation: CY Finocchiaro, A Rota, S Pilotto, U Malapelle; (VI) Manuscript writing: All authors; (VII) Final approval of manuscript: All authors.

Correspondence to: Claudia Yvonne Finocchiaro, PsyD. Medica Editoria e Diffusione Scientifica, Milano, Italy. Email: claudia.finocchiaro@gmail.com.

Background: In the field of oncological assistance, nowadays we have to deal with a complex scenario where patients got used to obtain a huge amount of information through internet or social media and to apply them in performing their health-related decisions. This landscape requires that clinicians become able to handle therapeutical approaches and adequate skills in communication tools to satisfy the current needs. Our project aimed to build a communication model based on clinical oncologists' real experiences in order to find a simple way to share with patients all the innovative therapeutical opportunities today available in lung cancer. The final goal is to design a flexible and personalized model adaptable to clinician's personal characteristics and to the specific patient he is facing. We applied both traditional

educational tools and innovative techniques in order to make the results effective and applicable to support peer learning.

Methods: The first step consisted in a Board synthesized the definition of the diagnostic process, the identification of treatment strategies and any potential communication barrier clinicians may face dealing with patients. The second step consisted in teamwork including a theoretical part and a training part. In the third step we produce five training videos and video interviews regarding communication praxis and a "Small communication manual". The last step consisted in the publication of the produced material on website and its diffusion through the social media.

Results: In medicine, the universal application of a single model of communication does not represent the optimal solution. By contrary, the availability of simple and practical suggestions to improve the communicative style could allow clinicians to abandon stereotyped formulas identically repurposed to all patients. The "from bottom to top" training, starting from real-life to take advantage of the clinician's experience, give the clinicians the possibility to meditate about their own communicative style and to train in the context of a protected environment. Applying these rules, we design an effective communication model, based on healthcare humanization, which could represent a fundamental support for the patient in order to be gently driven by the clinician to the most appropriate therapeutical choice, balancing efficacy and quality of life. The relational training may improve the quality of clinician-patient communication and could be widespread to other clinicians through the media.

Conclusions: Considering the innovative therapeutical options available, particularly for lung cancer patients, and the increasing access of health-related information through internet or social media the clinician-patient communication has become crucial to support the achievement of the most appropriate therapeutical choice for the patient, facing the intricate illness experience. Building a shareable and easy-to-apply communication model represents a challenge aimed to help clinicians and including technology not as a threat, but as a positive tool.

Introduction

Strengthening the relevance of humanization of healthcare, particularly in the field of oncological assistance, an increasing attention towards the enrichment of clinician-patient communication emerged. In this regard indeed, it appears crucial the definition of appropriate strategies allowing the clinician to effectively perceive the patient's status, which is only partially based on his medical condition, and includes also his psychological profile, familiar and social background (1,2). This universally recognized unmet need has probably become stronger nowadays with the growing availability of innovative oncological treatments (targeted therapy, immunotherapy, etc.), particularly for lung cancer patients (3). Therefore, the clinician-patient communication has become a crucial tool helping to support the achievement of the most appropriate therapeutical choice.

In fact, nowadays we have to deal with a complex scenario where patients got used to obtain a huge amount of information through internet or social media and to apply them in performing their health-related decisions (4-6). Nevertheless, the commonly shared unclear or 'fake' knowledge may lead patients to develop unrealistic and inappropriate expectations (7,8). A potential solution is the exploitation of internet as a positive resource for health professionals, in order to appropriately drive the scientific information through social media and medical apps (9,10). This landscape requires that clinicians become able to handle not only the innovative therapeutical approaches, but also the changes in communication tools, which require adequate skills to satisfy the current needs. In oncological assistance, several theories and protocols about communication skills were developed, together with support interventions and workshops to effectively train

clinicians worldwide (11). Although an increasing interest in clinician-patient communication emerged, it appears still far the definition of practical guidelines, going beyond the above-mentioned theoretical models, able to support health practitioners and render communication an effective ally for cancer care. This more realistic approach should take into consideration human subjectivity. In particular, nature of communication depends from different variables as environmental context, patient's state of mind, clinician's predisposition in term of flexibility, experience and emotional resources (12-14).

Considering this evolving scenario, we designed and realized a project aimed to build a communication model in which clinicians can recognize themselves. It should be widely diffusible, easy to apply, immediate and intuitive as the tools patients currently use to obtain information through the media. We have applied a bottom-up communication technique with clinical oncologists acting as consultants for building a flexible model based on their real experiences in order to find an easy and simple way to share with patients all the innovative therapeutical opportunities today available in lung cancer. Our main objective is the validation of an innovative model, applying both traditional educational tools and innovative techniques, in order to make the results produced by expert clinicians effective and applicable to support peer learning.

Methods

Thirty-two medical oncologists with expertise in lung cancer were invited to take part in the project. They work in public oncological centres, private or academic hospitals, allocated in Southern (41%), Central (31%) or Northern (28%) Italy.

The project started from the need to identify an easy and effective tool to communicate the innovative therapeutical opportunities nowadays available for lung cancer patients. The workflow was structured in sequential steps.

(I) The first step consisted in a half-day Board involving seven oncologists, a pharmacologist, a process facilitator and a graphic facilitator. The Board synthesized the definition of the diagnostic process, the identification of treatment strategies and any potential communication barrier clinicians may face dealing with patients. The graphic expert applied a technique able to simplify extremely complicated discussion topics in large-scale imagery (tree-like graphs, drawings, concept maps). In this

way, he conducted the visual process translating the Board's activity into a one-minute video, able to summarize the whole workflow;

(II) Starting from the plan established during the first Board, the second step was planned. It consisted in three one-day workshops, conducted in different cities throughout Italy, involving: two trainers, a clinical psychologist, an expert in communication, nine clinicians and a screenwriter who took inspiration from teamwork to have material for the next steps. To make the theoretical starting point homogeneous, the workshop program started with the sharing of the graphic animation movie built with the contribution of the Board in the first step. Afterwards, the workshop included a theoretical part about SPIKES communication model (15), the emotions management (16,17), the recognition and characterization of patients (18,19) and a practical part of role play. Role play is the act of pretending to be someone else, especially as part of learning a new skill (https://dictionary.cambridge.org/dictionary/english/role-play). In our model, role play was performed on the basis of ad hoc structured scripts specifically tailored for the training of pulmonary oncologists. Meaningful clinical cases described patients with a strong emotional component to manage, usually related to news about innovative treatments and in contradiction with the oncologist's proposal. Therefore, role play represented the daily clinical oncology practice of those clinicians involved in the project. Role play was fully audio and video recorded;

(III) The third step involved specialists with different backgrounds: a screenwriter, a director and some actors. The objective of this step was to use the collected material in order to produce five training videos of 5 minutes maximum about communication praxis, built with the words, contexts and events happening in everyday clinical practice. Board's members were also subjected to video interviews regarding the topic of communication and a "Small communication manual";

(IV) The fourth and last step consisted in the publication of the produced material on agency's website and its diffusion through the social media. The goal of this phase is to help a wide public of pulmonary clinical oncologists with practical and fast to apply suggestions.
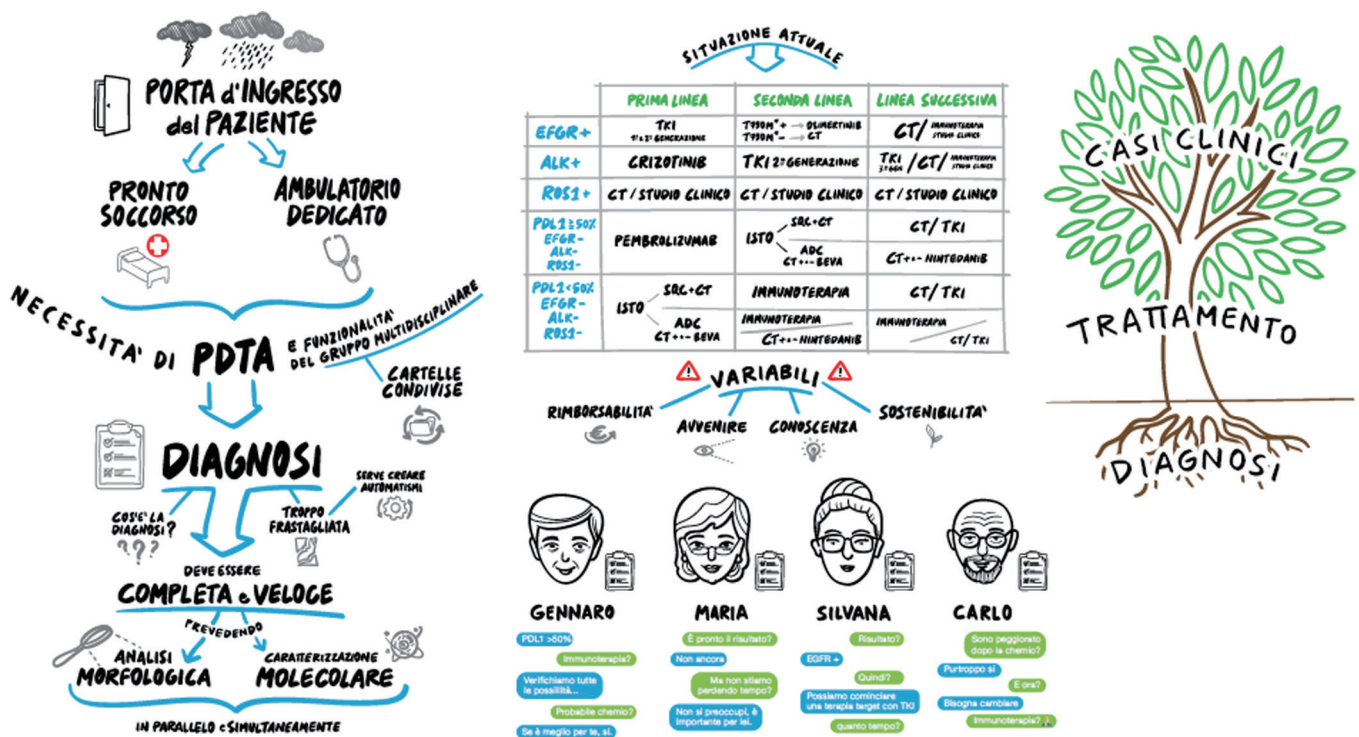
Figure 1 Graphical representation of the workflow emerged during the Board of pulmonary oncologists.

Statement of ethics approval

Ethics approval was not required because this study did not involve patients and human research. All participants gave their permission to be part of the described project.

Results

The result of the first step of the project consisted in the reworking of those reflections and considerations emerged during the Board of pulmonary oncologists coordinated by a trainer and a graphic facilitator, who supported the workflow summarizing the main theme. The Board's participants read and approved the produced material (*Figure 1*) that is available as an Italian animated video lasting one minute at the link http://www.medicacom.it/site/lung-la-videoanimazione/.

The graphic animation provided a realistic perspective of the current situation. In fact, going through the diagnostic-therapeutic process, the video highlighted the potential hurdles, as well as the opportunities that patients and oncologists face together.

In the second phase, including the presentation and discussion of theoretical topics about patient communication and management, physicians highlighted some critical aspects, which represented an essential point of consideration for further steps. Specifically, three main problematic areas emerged: organization, personal-relational setting and communication. In term of work organization, oncologists mainly complained about the insufficient time available for each patient, considering the growing pressure from institutions managers in order to increase the workload. Moreover, there is a relevant shortage of supporting professional caregivers, such as nurses and specialized health workers, able to support the physicians during the visits. Finally, the excess in bureaucratic stuffs, further complicated by slow and outdated computer systems, contribute to absorb a considerable part of the time that should be devoted to communication with patients. The personal area includes elements of concern about work-related anxiety that doctors daily experience. Specifically, the main hurdles derive from the maintenance of an appropriate balance between work and personal life, together with the sensation to be insufficiently support by colleagues or working group and the widespread loss of prestige of the role of doctors in contemporary society. Regarding the relational area, physicians feel difficulty in communicating the diagnosis and especially the therapeutic decisions to both patient and relatives, due to the ever-increasing impact of internet and social media

in sharing unclear and sometimes "fake" health-related knowledge, which may lead patients to develop unrealistic and inappropriate expectations. In this regard, patients and their relatives often rely on online health information got through medical or general search-engines, asking the clinician to prescribe specific treatments that may not be appropriate for that patient in that particular disease stage. Moreover, relatives and patients often become intrusive overusing emails and private numbers for obtaining immediate answers. Typically, close relatives ask for a preferential communication channel with the doctor in order to bypass the patient. Finally, the oncologists complain about the inadequate university training in terms of communication and relationship skills. This second phase of the project was further enriched with role plays that demonstrated the importance of communication in its verbal, para-verbal and mainly non-verbal component, potentially giving indications about how to build an effective connection. It clearly emerged that there are no universally applicable rules, but the clinician should be in line with the patient and caregivers in order to modify the communication register and customize it to the interlocutor. The recorded material from role plays was then used in the third step.

In the third phase, five video-training pills were recorded off-line, entitled:

(I)   "The interview has already started", highlighting the importance to be in line with the patient and to give him all the attention, from the moment he enters the clinic;

(II) "What is your idea?" where it emerges the importance of understanding the patient's perception of his disease and to modulate the communication according to his emotional tools;

(III) "Conflict" about what behaviors should be applied to manage a conflict;

(IV) "Information" that reiterates the importance of calibrating the quantity and type of information according to the patient's ability to receive and handle it;

(V)   "Objectives", highlighting how to share with the patient common objectives, promoting an effective dialogue.

The video pills were published together with the interviews to the Board's members and the "Small communication manual" on the website http://www.medicacom.it.

In the fourth step, the produced material was shared online.

Summarizing the main remarks described by the participants, it clearly emerged the crucial impact of the online-achieved medical information in influencing the clinician-patient relationship and therefore the emerging perspective of exploiting internet and social media to interact with patients, but using rigorous modalities. In details, specialized doctors with dedicated time to the online counselling may proactively gather information about state of health, pharmacological treatment and quality of life of the patients. Furthermore, the participants believe that the implementation in the relationships with patient advocacy could facilitate the circulation of more reliable and professional information among patients.

Discussion

Considering the innovative therapeutical options available, particularly for lung cancer patients (3), and the increasing access of health-related information through internet or social media (6), the clinician-patient communication has become crucial to support the achievement of the most appropriate therapeutical choice for the patient, facing the intricate illness experience.

Building a shareable and easy-to-apply communication model represents a challenge aimed to simplify the training approach and render it a major resource to help clinicians, finally including technology not as a threat, but as a positive tool (9,10). In agreement with previous reports (12-14), in the second step of our project clearly emerged that the training model for communication should be flexible, realistic, shaped on the clinician's individuality, the different contexts and the peculiar patient's features. In this regard, other authors highlighted the impact of doctor's temperament in influencing the clinician-patient relationship and, in particular, how a condition of stress may limit empathy during communication, impairing the clinical reasoning (20-23). In our analysis, clinicians reported high levels of work-related stress mainly due to the short time available, further limited by the increasing amount of bureaucratic issues, stealing precious minutes and mental energies from the clinician-patient relationship. Similarly, De Vries *et al.* described how the quality of clinician-patient communication strongly depends on clinician's ability of regulating his emotional background (in terms of defense mechanisms, stress, alexithymia, etc.) and on patient's state of mind (mainly related to feelings of stress and sadness) (24). The experience and training focused on the relational aspects may also improve the quality of clinician-patient communication. Therefore, it is becoming increasingly crucial to "take care of those who care" through strategies aimed to support and simplify the overall work, taking into account the doctor's needs and predispositions, together

with those of the patient.

Speaking about communication in medicine, the universal application of a single model does not represent the optimal solution. By contrary, the availability of simple and practical suggestions to improve the communicative style could allow clinicians to abandon stereotyped formulas identically repurposed to all patients. The final goal is to design a flexible and personalized model that may adapt to clinician's personal characteristics and to the specific patient he is facing. Working on clinician-patient communication represents a crucial point also because it has been demonstrated that a good and appropriate interaction with oncological patients improves their quality of life by decreasing the levels of anxiety and depression, as well as by promoting a better adaptation to the disease (25).

In steps 3 and 4 of the project, we developed and shared a clinician-patient communication model based on the collected experience, directly translating the language of clinicians into real-life situations. Considering the lack of specific guidelines and universally applicable rules regarding communication, we proposed this idea of building a "from bottom to top" training, starting from real-life to take advantage of the clinician's experience in order to realize an effective interpersonal behavior. What is crucial is that clinicians have the possibility to meditate about their own communicative style and to preliminarily train in the context of a protected environment, not directly exposed to patients and caregivers. Applying these rules, we aim to design an effective communication model, mainly based on the healthcare humanization, which could represent a fundamental support for the patient in order to be gently driven by the clinician to the most appropriate therapeutical choice, always balancing efficacy and quality of life.

Conclusions

Nowadays, considering the innovative therapeutical options available for oncological patients and the increasing amount of health-related news shared through internet and social media, the definition and validation of a flexible and personalized clinician-patient communication model able to guarantee a positive information exchange became crucial. In this light, our project welcomes the challenge, producing an innovative idea harmonized with the current reality. The obtained results highlight the importance of a "from bottom to top" model, directly starting from clinicians' considerations and generating suggestions (thanks to practical examples) that can be spread through internet and social media, becoming easily accessible by the other clinicians facing the same hurdles. In this context, it acquires growing importance the peculiar clinician's predispositions, including the level of stress in interacting with institutions, in order to assure the patient an adequate connection in terms of time and quality. All these points are crucial to allow a healthy clinician-patient collaboration, driven by doctor's skills and experiences that are available for the patient with the common aim to achieve an effective and appropriate treatment decision.

Footnote

Provenance and peer review: The article was commissioned by the editorial office, *Translational Cancer Research* for the series "Targeted Therapy and Non-Small Cell Lung Cancer: A New Era?". The article has undergone external peer review.

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at http://dx.doi.org/10.21037/tcr.2018.12.32). The series "Targeted Therapy and Non-Small Cell Lung Cancer: A New Era?" was commissioned by the editorial office without any funding or sponsorship. UM served as the unpaid Guest Editor of the series. The authors have no other conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Ethics approval was not required because this study did not involve patients and human research. All participants gave their permission to be part of the described project.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-

References

1. Stiefel F. Communication in Cancer Care. Berlin Heidelberg: Springer-Verlag, 2006.
2. Yang LY, Manhas DS, Howard AF, et al. Patient-reported outcome use in oncology: a systematic review of the impact on patient-clinician communication. Support Care Cancer 2018;26:41-60.
3. Banna GL, Passiglia F, Colonese F, et al. Immune-checkpoint inhibitors in non-small cell lung cancer: A tool to improve patients' selection. Crit Rev Oncol Hematol 2018;129:27-39.
4. Eysenbach G. The impact of the Internet on cancer outcomes. CA Cancer J Clin 2003;53:356-71.
5. Kelly B, Hornik R, Romantan A, et al. Cancer information scanning and seeking in the general population. J Health Commun 2010;15:734-53.
6. Rutten LJ, Arora NK, Bakos AD, et al. Information needs and sources of information among cancer patients: a systematic review of research (1980-2003). Patient Educ Couns 2005;57:250-61.
7. Di Cerbo A, Pezzuto F, Laurino C, et al. Web Babel Syndrome and false expectations during own multimedia oncological search. Clin Ter 2014;165:e225-9.
8. Fishman J, Ten Have T, Casarett D. Cancer and the media: how does the news report on treatment and outcomes? Arch Intern Med 2010;170:515-8.
9. Santoro E. Social media and medical apps: how they can change health communication, education and care. Recenti Prog Med 2013;104:179-80.
10. Street RL Jr. Mediated consumer-provider communication in cancer care: the empowering potential of new technologies. Patient Educ Couns 2003;50:99-104.
11. Oliveira VC, Refshauge KM, Ferreira ML, et al. Communication that values patient autonomy is associated with satisfaction with care: a systematic review. J Physiother 2012;58:215-29.
12. Langewitz W. Beyond content analysis and non-verbal behaviour - what about atmosphere? A phenomenological approach. Patient Educ Couns 2007;67:319-23.
13. Salmon P, Young B. Creativity in clinical communication: from communication skills to skilled communication. Med Educ 2011;45:217-26.
14. Stiefel F, Bourquin C. Communication in oncology: now we train - but how well? Ann Oncol 2016;27:1660-3.
15. Baile WF, Buckman R, Lenzi R, et al. SPIKES-A six-step protocol for delivering bad news: application to the patient with cancer. Oncologist 2000;5:302-11.
16. Goleman D. Emotional Intelligence. New York: Bantam, 1995.
17. Ekman P, Davidson R. The Nature of Emotion: Fundamental Questions. New York: Oxford University Press, 1994.
18. Ekman P. Emotions Revealed: Understanding Faces and Feelings. London: Phoenix, 2004.
19. Sifneos PE. Affect, emotional conflict, and deficit: an overview. Psychother Psychosom 1991;56:116-22.
20. De Vries AM, de Roten Y, Meystre C, et al. Clinician characteristics, communication, and patient outcome in oncology: a systematic review. Psychooncology 2014;23:375-81.
21. Neumann M, Wirtz M, Bollschweiler E, et al. Determinants and patient-reported long-term outcomes of physician empathy in oncology: a structural equation modelling approach. Patient Educ Couns 2007;69:63-75.
22. Passalacqua SA, Segrin C. The effect of resident physician stress, burnout, and empathy on patient-centered communication during the long-call shift. Health Commun 2012;27:449-56.
23. Pottier P, Dejoie T, Hardouin JB, et al. Effect of stress on clinical reasoning during simulated ambulatory consultations. Med Teach 2013;35:472-80.
24. De Vries AMM, Gholamrezaee MM, Verdonck-de Leeuw IM, et al. Physicians' emotion regulation during communication with advanced cancer patients. Psychooncology 2018;27:929-36.
25. De Lorenzo F, Ballatori E, Di Costanzo F, et al. Improving information to Italian cancer patients: results of a randomized study. Ann Oncol 2004;15:721-5.