NARRATIVE MEDICINE (NM) AND DIGITAL NARRATIVE MEDICINE (DNM) IN MEDICAL EDUCATION

MEDICINA NARRATIVA E MEDICINA NARRATIVA DIGITALE NELLA FORMAZIONE DEI PROFESSIONISTI SANITARI

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ABSTRACT

NM trains health professionals in an authentic care relationship. Using narration in the conversation with the doctor, the patient becomes aware of his condition and recognizes the need to seek medical attention. This encounter can help the patient restore the previous state of well-being or result in the acceptance of a chronic disease. The practitioner develops a reflection on himself and on the way in which he practices his profession and can develop a conscious professional action. The DMN expresses new possibilities for remote clinical work.

La MN forma i professionisti della salute ad un'autentica relazione di cura. Usando la narrazione nel colloquio con il curante, il curato diventa consapevole della sua condizione e del bisogno di aiuto e confronto con un esperto. Ciò può condurre al ritorno allo stato di benessere precedente o all'accettazione di una malattia cronica. Il curante sviluppa una riflessione su sé stesso e sul modo in cui esercita la sua professione e può maturare un agire professionale consapevole. La DMN esprime nuove possibilità per il lavoro clinico a distanza.

KEYWORDS
Narrative based medicine, digital narrative medicine, medical education
Medicina narrativa, medicina narrativa digitale, formazione in medicina

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Introduction

The biomedical model, which defines the disease solely as a consequence of the deviation from the biological component, is now superseded by the bio-psycho-social model.

Kleinmann (1988), combining the anthropological tradition with the clinical one, focuses on people suffering from chronic diseases; uses anthropological analysis to show how cultural values and social relationships shape the perception of the body and of illnesses; demonstrates how some medical approaches isolate chronically ill patients from those who assist them, making a distinction between the term "disease", seen as an organic dysfunction due to the deviation from the normal biological component, and "illness", seen as a collection of stories, tales, narratives of illness. He therefore designates the narrative practices with which people talk about their experience of the disease or of a person close to it. Good (2006) specifies that narration is not just a finished story: in order for it to become narration, the reader must make his own. Whoever is the narrator of the disease, the patient or the healthcare professional, plays a main role in the stories which change with the progress of events. The narrator also offers past and present reading and looks to the future with anxiety and hope.

Based on these principles, a movement of international interest has developed, spreading from North America to Europe and other continents. Charon (2006), at the beginning of the 1990s, launched a program of narrative medicine that defines medicine practiced with skills that allow us to recognize, understand, interpret illness stories and react to them appropriately. This allows healthcare professionals to better identify the illness, transmit knowledge and respect, and collaborate with colleagues to accompany the patient, together with his family, along the suffering. The confluence of human sciences, narratology and research on the doctor-patient relationship has produced concrete knowledge that helps understand the experience of patients and healthcare professionals in order to offer more ethical and effective treatments.

In Italy, in 2015, a document was produced in which key points are set for the definition of narrative medicine and its importance within the training courses of healthcare personnel is underlined. Thus the final draft: "Consensus Conference. Guidelines for the use of Narrative Medicine in the clinical-care setting, for rare and chronic-degenerative diseases". The term Narrative Medicine refers to a clinical-assistance intervention methodology based on a specific communicative competence. Storytelling is the fundamental tool for acquiring, understanding and

integrating the different points of view of those involved in the disease and in the treatment process. The aim is the shared construction of a personalized treatment path (treatment history). Narrative Medicine (NBM) combines with the Evidence-Based Medicine (EBM) taking into account the plurality of perspectives, which are effective and appropriate. The narration of the patient and of those who take care of him is an essential element of contemporary medicine, based on the active participation of the subjects involved in the choices. Through their stories, people become protagonists of the healing process (Corea et al., 2015).

1. Forms of the NM

NM is designed as a medicine that makes diagnosis and research starting from the stories of patients who are empowered to communicate their experience of the illness as protagonists of this path, to research and treat the nature of the meanings related to health and illness

An experience of illness must be understood for its uniqueness, not only for its scientific traits. In order to understand an illness it is necessary to develop adequate observational and interpretative to properly construct its meaning: a profound analysis is necessary that requires careful observation of the patient, of the pathological phenomenon, of the signs and symptoms with which it presents. Understanding an illness story beyond the medical symptoms requires developing a narrative skill. By identifying the problems and physical and psychological suffering of the patient, priorities are established by implementing valid treatment and support interventions. Medicine must be practiced with those narrative skills that help the healthcare professional recognize, making their own, interpret and be empathic with the stories of illness in a new dimension of care that offers the possibility to the often-fragmented healthcare system to become more effective. The disease is treated by knowing and respecting the patient and supporting the practitioner: the descriptions of the disease bring us closer to the problems; the interpretation of the patient's autobiography facilitates diagnostic and therapeutic choices.

Illness stories educate patients and providers since NM becomes a fundamental element of the diagnostic and treatment act: it enriches the treatments through the attention and therapeutic use of the stories, enhancing the vision of the illness.

The narrative based clinical encounter co-constructs a history of illness. The narrative paradigm takes on greater value in the approach to subjects with chronic-degenerative diseases, where the patient and his family are the protagonists and co-authors of the treatment path.

Understanding an individual implies understanding his world, emerging from the plots of stories and words: listening to these narratives offers the possibility of entering a complex reality, which cannot be defined through the traditional medical approach.

Patients have their own history which can be decisive and understanding its aspects lies in the ability of the doctor to adopt a welcoming attitude. Listening provides information and data that will subsequently guide decision-making processes. The patient should be able to open up to the doctor by expressing himself widely, providing a global picture of the person and the context, of the biological, social and psychological aspects. There are five aspects that constitute the narrative elements in the relationship with the patient (Charon, 2006): temporality (development of the patient's history over time); uniqueness (each experience of illness is as unique as the person); causality (identification of event/element connections in a plot that gives meaning to the disease); intersubjectivity (encounter narrator/listener in a complex text containing images, silences, postures, words); ethics (respectful/attentive attitude in welcoming the story; not forcing the narration). The conversation between the doctor and the patient on the experiences of the disease, the communication and discussion of doubts and difficulties of the disease, the written and communicated story of the patient on his experience of the disease are basic tools in NM. Physicians make use of parallel charts, which include the description of the patient and his story, in order to examine experiences/feelings/emotions characterizing the work of care.

Charon (ib.) uses them for educational purposes. In her experimentation, she transcribes the stories of the most problematic patients or those who were challenging for her. This led to deepening her knowledge of herself and of the patient by submitting these writings to the patients themselves, defining her writings as hypotheses of a form of intersubjective research that only the patient can test, reading the script and giving a reference if the story is correct. It also offers the practitioner the possibility of activating a reflective and self-understanding path regarding the therapeutic relationship.

2. NBM and EBM

The historical-narrative approach of NM combines with the logical-formal one the Evidence Based Medicine (EBM), an expression coined in the early 1990s by a group led by Guyatt (1990) referring to the medicine based on evidence of effectiveness, results of studies that demonstrate with scientific certainty the usefulness of a given medical treatment.

EBM is a practice that requires the integration of clinical experience and the evaluation of the individual patient case with the best evidence deriving from research; it is based on the analysis and observation of the clinical symptoms of the disease. The term Narrative Based Medicine (NBM) is from Greenhalgh and Hurwitz (1998, 1999), Hurwitz (2000) who demonstrate the non-contradictory nature of the two approaches and the need for their integration for a better quality of care.

According to Launer (Frank, 2019) illness, disability and death require careful listening and care and support actions: NBM helps the doctor to become aware of his social role, of the power he has over the patient and his family, dwelling on the language used and finalizing the dimension of the story to an operational aspect of the treatments. Regarding the relationship between time availability and NBM, Zannini (2008) points out that in NBM the time dedicated to storytelling must be proportionate to the complexity of the treatment path.

3. Storytelling in the learning experience

The training experience through narration is a process of construction of meaning, acquisition of knowledge, a clinical training attitude that faces situations to understand their dynamics. Narrative learning implements constant restructuring of one's knowledge through learning by discovery, continuous construction of meanings that interpret the healthcare reality starting from one's own experiences of care in an innovative perspective.

In any healthcare training, primary importance is given to scientific skills; the training in the methodology of narration develops in the work of care and is aimed at decreasing the complexity of the biomedical language.

The attention to reflective practices in this training expands the discussion on the use of methodologies and tools that support learning, enhancing the experience of clinical practice. In caring for patients, professionals must reflect on their own life experience, and this leads them to become more available and helpful, increasing their empathy.

Feelings and thoughts of students in the experience with patients come together in reflective diaries, teaching tools aimed at bringing out significant aspects of the strictly personal experience. These annotations hold and use the experience in a perceptive-reflective position different from the usual professional one, re-elaborating, amplifying and bringing what happened back to a questioning of oneself. For Charon (ib.), NBM is a type of healthcare practice characterized by skills in recognizing, understanding and being touched by illness stories, in response to a healthcare system that places bureaucratic and corporate interests above the needs of patients who feel alone and unheard.

Cavicchi (2007) argues that healthcare personnel are author-kings, a word made up of autonomy and responsibility. This conception is strengthened by the NBM, in which the patient and the healthcare professional are both narrators. The patient who tells his story can become an actor in the narration: if the doctor is able to listen and analyze him, without reducing him to a clinical framework, his words can perfect treatment and diagnosis.

Patient and practitioner are supporting actors in a common action in a dialogic relationship (Bachtin, 2023): inserting them within the narrative production means placing them on the same level in the therapeutic relationship. The patient becomes the author of health; storytelling confers human dignity. The value and growth dimension of narration, which forms the narrator and the listener, favors authoring: thoughts and intentions that emerge are like the work of a literary writer, from which the personality of man and his thought emerge. The patient has his own history and personality and should not be identified with the bed number.

The NBM makes it possible to clarify and delimit responsibilities and to take control over situations and contexts: this must be rooted in the awarness of caregivers through training which, by resetting the teaching of medical sciences, orients them towards a balance between natural sciences and sciences of 'man. Some Italian medicine departments already offer humanitarian courses (psychology, pedagogy, sociology, ethics…). Training at the NBM means getting out of healthcare self-referentiality, learning from reality and setting up the therapeutic pact.

The NBM fits into different disciplines giving space to narrative sequences of teachers and students in an interpretative dynamic. In the training of the practitioner, this gives space to subjectivity and opens up the possibility of measuring one's abilities according to genetic-evolutionary parameters by making one tell his own emotions and reactions.

The patient recounts his being ill within a biography, the doctor recounts his being a therapist within a personal story. The anamnesis in NBM has a discursive nature: forms and contents depend on the characteristics of the patient/doctor relationship. Discovering the network of meanings of the assisted will allow its full understanding by enriching the professional work of the providers. During the data collection, the doctor should reconnect the patient's point of view to the theory-practice medicine. Understanding and communicating the patient's narrative messages are strong parts of the treatment. The patient's situation has always been defined as precarious: through the NBM he repositions himself, regaining his dignity as a person linked to being the author of a narrative that begins in the encounter with medicine and has its roots in real life. NBM also helps the practitioner to deeply understand himself and his motivations.

The patient, as the author of his narration, exposes the part of knowledge that belongs to him, his life and the course of the disease. The narration implies time and attention: when the patient is asked to narrate, he enters the therapeutic action by assuming and sharing responsibilities with the doctor.

By training providers in NBM, the patient's ability to pay attention and representation increases, a human bond is created with the people who have told each other and shared stories, an affination (Charon, ib.). The effect of this is mutual parenting, understood as a profound responsibility built on listening and storytelling. The training of health professionals starts from the maturation of their humanity and psycho-emotional balance. For this reason, NBM should be introduced into university curricula. Helping those who suffer and making wise decisions is a responsibility of health professionals who should be aware of the complex reality of the narrator and are expected to be thoughtful and capable of empathetic relationships.

3.1 The health professional's experience of illness

Serious or chronic illness involves a radical life change. The confrontation with the sick person eradicates existential certainties and awakens questions about the meaning of life and pain. To avoid emotional involvement, the most common attitude is detachment, which is only apparently useful for the doctor: the effort of

removal involves the same neural costs and, in addition, tends to isolate the patient, causing him further suffering. Those who lack adequate training and are not able to allow emotional sharing in a differentiated and mature way face the relationship with the sick person in an often improvised way, based on their own personality, human availability and personal experience of the disease.

When the practitioner falls ill, especially if seriously ill, he understands the disease better: he experiences the condition of dependence on himself. Professional competence makes him aware of his illness and its evolution, but his human being makes him feel the need to be reassured. In these circumstances he feels closer to sick people: he relives the significant moments of his professional activity, questions his own work, seeks meaning in life, illness and death.

The narratives of doctors who tell their own experience of illness are precious, important and effective documents for spreading the culture of a medicine centered on the person, attentive to human and relational aspects. The sick provider understands the limits of medical science, the need and the right of patients to be listened to, understands how important communication is in the relationship with patients, their dependence on those who have their lives in their hands and are afraid of death, especially in the terminal stage. These feelings represent a point of union with the sick patient. In the event of illness, the healthcare professional experiences a conflict between his human nature and professional awareness: he can respond rationally and rely on an esteemed colleague or irrationally, underestimating the signals that he himself, in the case of a patient, would consider alarming. He is a patient like any other who experiences even greater emotions, since his professional competence, in the event of serious illnesses, makes him more critical of healthcare facilities, more sensitive in his relationships with colleagues, less confident in the efficacy of treatments. From this experience he can draw important lessons and his testimony can be useful for the training of future health professionals, in particular for the aspects of communication and relationships.

We agree with Gadamer (1994) aside from medical knowledge we need to consider the role of pain which unites, beyond the roles, doctor and patient. In the treatment process, the healthcare professional must never think of himself as separate from his aspect of patient; excluding this pole he would arrive at the conviction of having nothing to do with the disease. Similarly, when a person falls ill, it is important that the figure of the patient-doctor comes to light, that is, the healing factor inside the patient, whose healing action supports that of the doctor who appears on the

external scene. If it is not activated, a sadly known situation is created: on the one hand, the healthy and strong doctor, on the other the sick and weak patient.

Is narrative medicine the medicine of the future? Yes, in a perspective in which the autobiographical and clinical aspects are inseparable, as a way of recognizing the situations in which patients find themselves and of inviting providers to demonstrate empathy towards the suffering by supporting them in the daily struggle towards healing, acceptance of illness or approaching death.

4. Educational potential of storytelling

The use of narration has the aim of developing new attitudes about oneself and the functions performed, learning to reflect on the ways in which the relationship with the patient, the experiences of illness and death are lived, in order to promote in the learners an encounter with latent elements of their training history and care work and carry out individually or in groups a shared process of reading, deconstructing and reflecting on the contents that emerge.

The educational method of storytelling in the health professions helps develop the ability to listen in treatments, in work groups and with users and favors the analysis of educational and training experiences in care work, allowing for personal growth and professional.

In university education, narration makes it possible to recall the experiences of training and contact with the patient's body, with illness and death, and to explore motivational aspects related to one's professional choice. Storytelling is proven to be particularly useful for encouraging the elaboration of experiences, bringing out the problems experienced on a daily basis by assisting people and helping them to reflect on the difficulties of their work. Even listening to the stories of families and providers allows the treating team to reflect on their own care commitment.

4.1 The reflective diary

The narration can be written through a personal biographical dossier, aimed at the reconstruction and presentation of one's professional history. Such narrative practices support the creation of a continuous laboratory for trainers and professionals as a space for reflection on daily practices and as a supervisory tool in work contexts.

In experiential learning, the use of diaries is developing, which can be used for ongoing experiences, such as internships in clinical contexts; diary writing accompanies the student's daily activity and helps him to work in a reflective way; its use allows to develop observation and documentation skills of clinical practice, promoting self-understanding and self-awareness (Garrino, 2010).

The discussion of the diaries takes place every week and foresees eventual closer meetings. Students have a set amount of time to write and present their work to their tutor, who comments on the work individually or in groups. In the training course, narration allows mutual knowledge and enrichment, the expression of different points of view, the comparison of one's own experiences.

The narratives, collected through individual mandates, are designed and studied on the basis of the objectives of the course and oriented towards exploring aspects concerning personal and professional experience. The narrative mandate can be followed by the delivery of an analysis grid, with which the student deconstructs the experience and submits the text to an analysis in first person and then with the small group. The complexity of the narration requires careful planning and definition of the learning objectives aimed at the needs of the trainees.

The educator guarantees individual freedom, without forcing and obligations: the mandate to narrate can generate a sense of inadequacy which must be accepted by de-dramatizing and providing examples that allow to overcome the blockage.

The reflective diary tells, questions and provides meaning to one's experience by seeking the meaning of one's intentionality; it is an instrumental place for the safekeeping of one's own experience where one can return more incisively.

The use of diary writing in the nursing professions means perceiving one's existence in a situation and noticing how one's experience changes with respect to the initial meaning. Writing provides a first meaning: re-reading can make one grasp meanings other than those already identified, in a circuit including experience, experience, writing, reflexivity and experience. In diary writing we have multiple modes of writing: intimate, experiential and problematic; the process of abstraction in diary writing goes from narrating to providing meaning, to verifying changes along the way.

To a cumulative type of learning where knowledge is added up and stored in a linear way, from simple to complex, there is added the understanding of the meaning of the existential, professional and cultural experience which describes the essence of the subject, lived as a set of dynamic relationships between self, other and world.

This writing practice opens up to an intersubjective relationship. In the nursing professions, attention is transformed into sensitivity to the patient's problem, with an integration of looks. Grasping the problem of the other is a training practice. Writing is a way of monitoring the path of self-knowledge: subject, existence, training, caring professions and diary writing intersect in a training device; the implementation of care practices is itself training, coinciding with our existence.

Healthcare professions also face situations of existential crisis and of unexpected events that are reflected in the training experience but which diary writing can transform into a resource. The body of the sick patient is the main resource for medical training. The educational value is based on the ability of being able to describe the difference between what I am and what I appear to others. Giving a new and different reinterpretation of oneself implies recognizing a continuity in what was and what can be significant in the change produced by the reflection.

The places suitable for analysis to be considered in order to use the diary as a reflective tool: the temporal, stylistic, content, reflective, self-informative areas and the ego area (Madrussan, 2007). The first is transversal. The act of writing is a temporary stop in which a reflection between past and present takes place and in which meanings normally taken for granted are re-evaluated. In this way, one assumes the formative and self-formative possibility given by the awareness of one's past, reinforcing or not the continuity of oneself in the discontinuity of events.

The writing can take the form of notes, descriptions, drawings, considerations, poems or collages, adopting, if one wishes, even an impersonal style similar to a neutral register of activities.

The diary may or may not be anonymous: it is important that as a training tool it avoids manipulation or the creation of a privileged relationship between learner and trainer. It is a tool that dwells on an experience, and is reflective because it involves its intimate existence.

The content area identifies the description of the experience followed by a first significant analysis open to reflection and highlighting the critical points. Self-change outlines a self-training area that brings back reflection and deconstructs experience. Writing, starting from the description of the context, the situation and the experiences, produces a judgment as a result of reflexivity.

The diary is a circular path: it starts from the experience and returns to it, reworking it through the writing, reading and re-reading phase. This device of reflexivity makes experiences explicit in order to reuse them in future experiences. In the

dimension of training practice, it must be assumed as an element of surprise and unpredictability; as a didactic tool it is neither a task nor a repetitive and coercive practice.

In this sense, the educational act cannot be measured or reconstructed. The reflective diary suggests a consideration on the role of the educator, if he is exclusively the one who implements practices, skills, or is also a guide and bearer of lived experiences and therefore, if the educator can assume the figure of pedagogue or that of the liberator. However, the use of the narrative device requires further developments and insights, also in terms of evaluating the impact of treatment.

5. Digital health e Digital Narrative Medicine (DNM)

In recent decades psychology, anthropology, narratology, neuroscience and media studies have highlighted how the invention of the web has changed the new ways of writing and using stories. In fact, starting from the digital turn of the late twentieth century, there has been a hierarchization of the media and a transformation of the forms of storytelling, of the methods of using and reading stories which has given rise to the genesis of new distinct cognitive processes. The explosion of the Internet has led to the birth of e-terms, i.e. products, services, applications usable through the Internet.

E-health (digital health) is defined by the World Health Organization as the cost-effective use of information and communication technologies to support health and related fields. Digital health solutions should complement and improve health services, strengthening them and contributing to improved population health and equity.

As we have seen, narrative medicine corresponds to the application of a method that uses narratives for specific clinical objectives, aiming at the construction of a personalized therapeutic path: digital could become a tool for the dissemination of this approach.

Digital narrative medicine (DNM)[2] is narrative medicine declined through new digital applications. The birth of this phenomenon is connected to the birth of

[2] www.centerfordigitalhealthhumanities.com/.it

web 2.0, the second phase of development and diffusion of the Internet, characterized by high interaction between users, simple and intuitive, which gives rise to a reality of actors who characterize the social space. The therapeutic and palliative role of narration has thus emerged: to date there are many health information sites and reviews of health services where people can narrate, share and narratively re-elaborate their own illness narrative.

In order to aggregate all the activities that revolve around the social, economic, therapeutic impact of new health technologies, the Center for Digital Health Humanities was born, founded by a team and the interdisciplinary skills of Eikon Strategic Consulting, a communication and research, leader in web measurement and in the design of innovative communication activities, centered on storytelling.

Digital Narrative Medicine[3] was also born, the first digital platform for the application of narrative medicine in clinical practice. Local Health Authorities, scientific societies, hospitals, health professionals, allowing the improvement of the doctor-patient relationship, can use it. It is a web and mobile tool that the therapeutic team offers to the patient to tell his story, through a guided narrative path in order to make the most of the digital potential and at the same time preserve the privacy and confidentiality of health data, as it is accessed by invitation only. The platform offers advanced features that allow the patient to write his illness history by choosing some narrative stimuli that are proposed at defined time intervals.

The platform also includes a story interpretation methodology called Illness Digital Storymap (IDS), which is useful for care professionals as it provides a map for navigating within each patient's personal story, through the identification of five different narrative acts that correspond to the stages of the disease and treatment process. This is useful in order to facilitate the formulation of a therapeutic objective based both on the clinical course of the disease and on the patient's experience and expectations.

The phases are: chaos (disease discovery phase); liminality (the person who falls ill is uncertain waiting for decisions made by others); normalization (crucial phase which corresponds to a narrative climax: once the critical moment has been overcome, the patient can resume some daily habits; restitution (narrative flashback relating to the conditions preceding the illness and to ex post considerations); appropriation (phase of coexistence or recovery from illness, in

[3] www.digitalnarrativemedicine.com/it

which the person returns to a state of equilibrium, even if different from the previous one.) The IDS methodology also reconstructs the emotional context of the story.

Another initiative of the DNM is the *Viverla Tutta*[4] portal and the related Facebook page. The portal was initially born as a communication campaign promoted by the pharmaceutical company Pfizer in 2011, with the involvement of the scientific community and institutions, to give a voice to the stories of the disease, to their protagonists, assigning them value from a social and therapeutic. It later became a stable meeting point on the web for narrating the self and the experience of illness. Users tell their illness narratives and can receive feedback from other users, or it is possible to interact on the respective Facebook page.

6.1 The digital storytelling

A study of Hollinda, Daum, Rios Rincón, Liu (2023) explored and described elements of digital storytelling facilitation with persons living with dementia using a secondary analysis of qualitative data from a primary study that took place across three Canadian cities. Three elements were identified during digital storytelling facilitation with persons living with dementia: communicating, building collaborative relationships, and using technology. Digital storytelling facilitators employ the three elements to weave together a person's narrative with meaning. The communication, relational, and technological elements of digital storytelling may be employed by facilitators from varying professional backgrounds and lived experiences to create meaningful digital stories for persons living with dementia.

Rios Rincon, Cruz, Daum, Neubauer, Comeau, Liu (2022) have conducted a systematic literature review (34 studies) to examine the range and extent of the use of digital technologies for facilitating storytelling in older adults (a half with mild cognitive impairment) and their care partners, and to identify the processes and methods, the technologies used and their readiness levels, the evidence, and the associated outcomes using eight electronic databases: Medline, EMBASE, PsycINFO, CINAHL, Abstracts in Social Gerontology, ERIC, Web of Science, and Scopus. The findings indicate that the most common use of digital storytelling was to support older adults' memory, reminiscence, identity, and self-confidence.

A study by Anderson and Cook (2015) on a sample of sixteen young people between the ages of 9 and 17 with Post Traumatic Stress Disorder caused by

[4] www.viverlatutta.it

domestic violence showed how digital storytelling, alongside trauma-centered cognitive behavioral therapy, can facilitate in children and adolescents the restoration of traumatic memory in chronological order and according to a cause-effect relationship. In fact digital narration allows a gradual exposition of traumatic experiences through the use of the storyboard, the "table of the story", a graphic organizer that allows you to order the different scenes which will then compose an audiovisual work.

In a study of Chatzara et alii (2012, 2014), conducted with the Digital Structured Storytelling for Autism (DiSSA) software on a group of four children between 7 and 11 years old with mild ASD, some social stories are showed in a sequence of images with the aim of providing teachings such as crossing the street, washing hands, opening a gift. In a second moment, the same scenes are re-proposed in random order and the user must rearrange them according to the logical order-random and chronological. The method has produced positive results on personal autonomy and logical skills.

6.2 The Dnmlab

Digital health has revolutionized and facilitated the clinical path, in making a set of measurement tools available to the individual, directly on the smartphone. Measurements together with shared stories aim at building a more personalized and involving medicine that makes greater proximity possible: start-ups and devices for remote monitoring of clinical parameters are increasingly numerous.

The co-construction of a personalized treatment path needs a place in which to take place, we are therefore talking about a protected setting, in which the individual can feel protected and speak freely with his or her doctor. It is a space in which he is the subject and not the object of care. A space on your smartphone, computer or tablet where there are no queues or waiting rooms, full of emotions, fears, expectations of life and death at the same time.

The digital tools for collecting stories can be many, from e-mails, to social media, to online communities dedicated to caring, but they can be inadequate for building a personalized treatment path that values the privacy and narration of the individual. To encourage the application of narrative medicine in clinical practice, the DNMLab was launched in Italy in 2016, the first digital platform designed for this purpose developed by a team of anthropologists and psychologists with the advice of doctors and narrative medicine experts. The platform's functions are designed starting from the "Guidelines on narrative medicine of the Istituto Superiore di Sanità" (ib.) and aim to enhance the potential

offered by digital, while preserving the confidentiality of the individual and of health data.

The DNBMLab platform makes it possible to adapt the narrative path to the specific needs of patients and doctors and can also involve caregivers, who are invited by the doctor to tell the story. It provides numerous narrative stimuli designed for specific therapeutic objectives, which can occur all together or gradually, according to a schedule established by the doctor. The patient can decide to ignore some stimuli, proceeding freely in the narration, also including videos and images. The doctor can also share the story with other colleagues, through the platform, by exchanging notes and messages. These notes are not shared with the patient. The doctor can decide to discuss the story with the patient during scheduled face-to-face meetings or interact with the patient exclusively through the platform. It is also possible to involve a group of patients in a guided narrative journey, thus enriching the experiences of other patients.

In Italy, various digital narrative medicine courses have been launched, involving hundreds of doctors and patients in very different contexts: epilepsy, diabetes, cardiology, oncology, Alzheimer's disease.

Studies show that through the analysis of patients' stories it is possible to acquire otherwise undetectable cognitive elements and better personalize the treatment relationship. Patients also have a positive evaluation, as they are able to reflect better on themselves, being able to communicate more information. The digital tool is considered easy to use, even for elderly patients, as well as being safe.

The negative aspect of using digital tools in a clinical setting lies in the fact that the treating team does not always participate in a unitary and coherent way in the process.

Conclusions

By reconstructing the theoretical and practical foundations of narrative medicine, the advantages deriving from its implementation consist in perfecting clinical practice and improving the relationship between doctor, healthcare professionals, patient, caregiver, enhancing the perceived service and the curative strategy.

Narrative Medicine teaches how important it is to focus on listening and demonstrating empathy to enter the world of the other and to improve it. Narration and storytelling become therapeutic tools of considerable potential because not only focusing on the patient's body but on the individual uniqueness and his inner life, they also lead the professional to human and professional growth.

Health, as we have seen, is not exempt from the digital revolution, from which considerable advantages can be drawn in the health care pathway. Digital methodologies facilitate the integration of narrative medicine within clinical practice: digital health places the doctor and patient in a close relationship in cyberspace, providing a personal, intimate space in which the patient opens up to greater sharing of his own story feeling protected and listened to, without the anxiety and worry of the waiting room.

What happened in the pandemic period is the practical testimony of how Digital Narrative Medicine can be a resource for healthcare personnel and individuals. Digitization has in fact made it possible to reach remote patients, offering support and expert advice, thus avoiding the expansion of the contagion. Greater training in these areas and related tools is needed in Italy. In this sense, the Italian Society of Narrative Medicine (SIMeN)[5] offers various training courses to facilitate the development of skills and narrative methodologies, including digital ones, in healthcare organizations.

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