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VOL. 22, N. 1, 2023: 47 - 60
DOI: 10.13135/1971-8551/7114

The importance of the doctor-patient relationship in transplantology for improving adherence: a proposal for integrating medical curricula.

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ABSTRACT

Adherence in transplanted patients is a very important issue for transplant success. To date, many transplanted patients present with non-adherence, ranging from non-adherence to lifestyle and substance use advice, to non-adherence to immunosuppressive drugs. The doctor-patient relationship also plays a key role with regard to adherence in transplantology, but so far little consideration has been given to training in this area in medical and surgical degree courses. The aim of this paper is to propose an implementation of medical curricula in the field of relationship training in transplantology as well, in the light of the data on adherence in transplant patients and the critical issues concerning the doctor-patient relationship in this field.

Keywords: Doctor-patient relationship; medical education; adherence; non-adherence; transplantation

ABSTRACTI

L'aderenza nei pazienti trapiantati è una questione molto importante per il successo del trapianto. Ad oggi, molti pazienti trapiantati presentano non-aderenza, che va dalla non-aderenza alle indica-

zioni sullo stile di vita e sull'uso di sostanze, alla non-aderenza ai farmaci immunosoppressori. Il rapporto medico-paziente gioca un ruolo fondamentale anche per quanto riguarda l'aderenza in trapiantologia, ma finora la formazione in questo ambito è stata poco considerata nei corsi di laurea in medicina e chirurgia. L'obiettivo di questo lavoro è quello di proporre un'implementazione dei curricula medici nel campo della formazione alla relazione anche in ambito trapiantologico, alla luce dei dati sull'aderenza nei pazienti trapiantati e delle criticità relative alla relazione medico-paziente in questo ambito.

Parole chiave: relazione medico paziente; medical education; aderenza; non-aderenza; transplantation

TAKE-HOME MESSAGE

(1) the doctor-patient relationship is a key element in improving adherence in transplant patients
(2) the doctor-patient relationship in transplantology is an underdeveloped element in medical curricula
(3) it is necessary to implement medical curricula with training in the doctor-patient relationship in transplantation to improve adherence

INTRODUCTION

The World Health Organization defines adherence as "the extent to which a person's behaviour - taking a medication, following a diet and/or making lifestyle changes - corresponds to the recommendations agreed upon by a health professional" (WHO, 2003). A Consensus conference held in 2009 sought to better define compliance, concordance, adherence and non-adherence to treatment. Compliance is defined as "the extent to which a patient's behaviour corresponds to the doctor's recommendations". Concordance is "an agreement reached after a negotiation between a patient and a healthcare professional that respects the patient's beliefs and wishes in determining whether, when and how medication should be taken". These definitions, however, tend not to clarify a particularly relevant element when it comes to adherence to prescribed therapies, namely clinical outcome. Satisfactory adherence to medication is achieved when the difference between what the patient takes and what is prescribed has no effect on the therapeutic outcome. This definition emphasises therapeutic outcome as opposed to specific drug intake or drug level. In this sense, a good definition of non-adherence could be “deviation from the prescribed drug regimen sufficient to adversely affect the intended effect of the

regimen" (Fine at al., 2009). Non-adherence to the prescribed treatment regimen in the case of solid organ transplantation (chronic immunosuppressive therapies) is an important cause of transplant failure, with rejection of the transplanted organ and a high cost in several areas (Rodrigue et al., 2013; Pruette et al., 2020; Fine et al., 2009). Prevalence of non-adherence ranges from 6,7% to 50% or higher, with higher prevalence in kidney recipient and adolescents (Fine et al., 2009; Oliveira et al., 2016; Rodrigue et al., 2013; Pruette et al., 2020; Gokoel et al., 2020).

According to the WHO, there are five interdependent dimensions that determine adherence to treatment: socio-economic factors, disease-related factors, treatment-related factors, patient-related factors and health system-related factors (WHO, 2003). With regard to therapy-related factors, these may include the type of therapy, duration, side effects and complexity of taking it. With regard to the disease or potential disease, these factors may concern the symptoms, the severity or disability it may entail, and its duration. Patient-related factors may concern the patient's personality and psychopathology, as well as the patient's socio-economic and demographic conditions. Furthermore, less specified by the WHO, an essential factor is the quality of the doctor-patient relationship (Grassi and Riba, 2021; Mathes et al., 2014; Gast and Mathes, 2019).

Until now, transplantology training for medical students has been limited to the surgical and purely biological field, neglecting the relational aspects in particular. The aim of this work is to propose an implementation of the medical curricula in order to improve therapy adherence in transplant patients by means of training in the doctor-patient relationship in the specific field of transplantation.

IMPORTANCE OF THE DOCTOR-PATIENT RELATIONSHIP IN CLINICAL PRACTICE

The doctor-patient relationship is at the heart of the concept of patient-centred care.

It is outlined according to a number of fundamental points (Mead and Bower, 2000):

1) The adoption of a biopsychosocial perspective, which does not only dwell on biomedical aspects but also takes into account the cultural, economic, social and psychological factors that characterise and influence the patient's health (Engel, 1977);
2) The vision of the patient as a person and the understanding of the subjective meaning that illness takes on in his or her experience;
3) The sharing of power and responsibility, so that, overcoming the paternalistic model, not only the doctor's competence and clinical opinion are respected, but also the patient's decision-making autonomy;
4) The therapeutic alliance, a concept developed and studied mainly in the field of psychotherapy, but also applicable to other health fields, which envisages a collaborative effort between patient and therapist, the existence of an affective bond between the two, and mutual agreement on the treatment objectives, correlated with the results obtained

during therapy (Martin et al., 2000; Horvath and Symonds, 1991);

5) The importance of also considering the health professional as a person, as someone who participates in the relationship and influences its course.

The doctor-patient relationship is a relevant element in terms of outcomes and adherence in several diseases (Riedl et al., 2017; Zolnierek et al., 2009; Kim et al., 2004; Deniz et al., 2021; Derksen et al., 2013; Stavropoulou, 2011). For example, a good doctor-patient relationship correlates with patient satisfaction with treatment, reduced severity of symptoms and improved quality of life (Birkhäuer et al., 2017). Furthermore, a study from 2021 found that a good doctor-patient relationship, in particular good communication and quality of information, improves self-management skills in patients with chronic diseases (Brenk-Franz et al., 2021). Going into more detail, we can observe how the doctor-patient relationship is relevant for improving outcomes and adherence in several chronic diseases, such as diabetes (Soyoon et al, 2022; Hojat et al., 2011; Giocanti-Aurégan et al, 2022), HIV (Flickinger et al., 2015), hypertension (Dalal et al., 2021), cancer (Grassi et al., 2017), asthma (Fan et al., 2021), tuberculosis (Chen et al., 2020; Pandia et al., 2019) and rheumatological diseases (Georgopolou et al., 2020; Balsa et al., 2021).

Although less investigated, some studies report that a good doctor-patient relationship is also relevant for improving adherence in transplanted patients, whether adults, children or adolescents (Pumilia, 2002; Zawadzka et al., 2016; Fredereicks et al., 2010; Kleinknecht et al., 2012).

CRITICALITIES IN THE DOCTOR-PATIENT RELATIONSHIP IN TRANSPLANTS CANDIDATES AND RECIPIENTS

The doctor-patient relationship in transplantology is complicated by a number of critical issues concerning patients and healthcare personnel.

Several studies show that there is a higher prevalence of substance use and psychiatric and psychological disorders in patients awaiting transplantation and in transplanted patients. As far as the liver is concerned, the number of patients coming to transplantation for alcohol-related problems is increasing (Bataller et al., 2019). Also in the post-operative period, alcohol seems to be one of the main causes of transplant failure (Listabarth et al., 2020; Dew et al., 2008). The use of other substances also seems to be more prevalent in transplant patients, such as the use of cannabis in renal transplant candidates, who also have a higher prevalence of other substance abuse (Stark et al., 2019). In general, substance use is a major cause of failure following transplantation and one of the risk factors for non-adherence (Dew et al., 2008). With regard to psychological and psychiatric issues, there is evidence of increased prevalence in patients on the waiting list for liver transplantation (Saracino et al., 2018), who have received liver transplantation in adulthood (Zhu et al., 2020) or paediatrics (Ünay et al., 2019), who have received renal transplantation (Zachciał et al., 2022) or heart transplantation (Loh et al., 2020).

The problem of substance abuse and psychiatric co-morbidities is exacerbated by the high prevalence of stigma towards substance use disorder and mental disor-

ders by health professionals. Stigma is a multidimensional construct characterised by a range of negative attitudes, beliefs and behaviours that lead to the exclusion, rejection, blaming or devaluation of a person or group (Balasanova et al., 2020; NASEM, 2016). Several studies have highlighted how stigma towards substance use disorder is particularly present in the general population and healthcare professionals (NASEM, 2016; Yang et al., 2017; van Boekel et al., 2013), leading to isolation and devaluation of patients with these issues, worsening clinical outcomes, increasing self-stigma and reducing demand for treatment. Stigma towards patients with substance use disorder has also been highlighted in medical students and proposals have been made to improve the curriculum in the direction of reducing stigma (Balasanova et al., 2020; Moses et al., 2021). Also with regard to mental health, several studies have shown that there is a high prevalence of stigma and reduced knowledge of these issues in both health professionals and medical students (Gervas et al., 2020; Riffel and Chen, 2020). Again, stigma can cause a reduction in the detection of these issues in patients and a reduction in access to care, with a worsening of outcomes and, in transplant patients, a reduction in adherence to treatment (Demian et al., 2021).

A PROPOSAL FOR THE IMPLEMENTATION OF THE MEDICAL CURRICULUM

To the best of our knowledge, only a few universities in Italy currently offer training in the doctor-patient relationship during the course of medicine and surgery, whereas training in the medical humanities is offered by most universities, albeit with a reduced number of training credits (Orefice et al., 2019).

With regard more specifically to the field of transplantology, several attempts to implement medical curricula with regard to knowledge in this field have been reported in the literature to date (Edwards et al., 2005; Highet et al., 2021; George et al., 2017; Radunz et al., 2015; Patel et al., 2013; Feinsteint et al., 2019), but few with regard to training in the management of transplant patients (Coe et al., 2021).

In order to improve adherence and in light of the aforementioned critical issues and peculiarities of transplant patients and the healthcare professionals who care for them, we believe that an implementation of the curricula of medical and surgical degree courses towards relationship training in the field of transplantology is necessary.

Relationship training with transplant patients should take into account the critical issues mentioned above, seeking to reduce stigma and implementing training on substance use disorders (Moses et al., 2021) and mental disorders (Kunkle et al., 2022). Furthermore, relationship training should seek to improve empathy, as defined by Hojat and colleagues in 2002 (Hojat et al., 2002), which has been shown to be a key element in improving clinical outcomes and adherence (Kim et al., 2004).

The aim of a specific course on the doctor-patient relationship in transplantology will be to improve knowledge about the characteristics of transplant patients and to improve the quality of the relationship, so that greater adherence in transplant candidates and recipients can be achieved. To do this, our proposal for the implementa-

tion of medical curricula would involve a course comprising theoretical lectures and an experiential component, which has been shown to be effective in learning about mental disorders and also in reducing the stigma associated with them (Deb et al., 2019; Pandhi et al., 2020). Furthermore, the course should seek to promote the active participation of students, with brain storming moments and sharing of personal experiences, considering the possibility of a more practical learning part, with simulations of clinical cases in small groups with role-plays, as well as training in communication skills, which have been shown to be effective in increasing empathy (Batt-Rawden et al., 2013; Fragkos and Crampton, 2020), also in learning about adherence (Stojan et al., 2017).

Finally, in order to assess the effectiveness of the course in improving knowledge, students' attitude towards the patient, particularly towards patients with mental disorders and substance abuse, and in implementing empathy, we propose the use of some tests widely used in the literature: the Patient-Practitioner Orientation Scale (PPOS), a scale developed by Edward Krupat and colleagues (Krupat et al., 2000), is intended to assess the patient-centred approach, which is more inclined towards the relationship with the patient; the Jefferson Scale of Empathy - Students (JSE-S), developed by Mohammadreza Hojat (Hojat and Gonnella, 2015), consists of 20 items, divided into three domains (Perspective Taking, concerning understanding of the other's point of view; Compassionate Care, concerning compassion in care; Walking in Patient's Shoes, which explores the ability to participate in and understand others' emotional experiences); the Mental Illness Clinicians Attitudes (MICA2), developed by Kassam and colleagues (Kassam et al., 2010), a 16-item scale to investigate stigma towards patients with mental disorders and also towards psychiatric specialisation; the Substance Abuse Attitude Survey (SAAS), a scale widely used in medical education to assess students' attitudes towards people with substance abuse problems (Chappel et al., 1985).

At the end of the training, we expect an improvement in empathy, a greater propensity for patient-centred care and more knowledge regarding the critical issues surrounding non-adherence in transplant patients, coupled with a reduction in stigma regarding mental health and substance abuse.

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