

Short Communication

# Digital Health Opportunities and Risks: The Psychological Field

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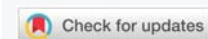
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## Summary

The digital transformation in the health sector represents an extraordinary challenge not only concerning patient care and assistance processes but also for the purpose of promoting new models capable of responding to the growing complexity of the environment and its impact on health. Psychological services are among the non-medical healthcare services heavily invested by this radical transformation. The constant increase in online psychology demand by users follows the need to carefully regulate its practice since this digital space, virtually a non-place, is the focus of large commercial interests. Being a part of the application of digital technologies to psychological performance, the aim of the paper was to emphasize clinical work, especially focused on childhood and adolescence with the need of identifying the limits and problems of digital health psychology in this group of subjects. Considering also that the massive use of digitization in healthcare also raises considerations of a bioethical nature regarding the priority of the principle of patient autonomy in the complex and articulated process of healthcare and protection. In conclusion, although TM is spread in our area in an uneven way, the representations of TM are mostly positive. However, it seems to emerge a picture in which part of some professionals still look to be too cautious and resist this new way.

## Introduction

The digital transformation in the health sector represents an extraordinary challenge not only concerning patient care and assistance processes but also for the purpose of promoting new models capable of responding to the growing complexity of the environment and its impact on health [1,2].

The SARS-COVID-19 emergency and the radical transformation of lifestyles have shown the need to make the use of electronic communication infrastructures and digital innovations easier. In the health field, we have moved from a “physical” model to a “digital” one of personal autonomy and responsibility, thanks to countless innovative tools that seek to satisfy every new need both in assistance and in care. Patients are the core, having emancipated themselves from the paternalistic model of the previous doctor-patient relationship, and have become increasingly independent and responsible for their own health/illness, in a scenario of desolate loneliness [2,3].

Psychological services are among the non-medical healthcare services heavily invested by this radical transformation. The term of office of the psychologist is to activate and drive virtuous processes of change to improve the

quality of life, and individual and collective well-being, starting from intra and interpersonal relationships in an increasingly “virtual” real world [4]. The psychological intervention mediated by the new technologies is of strategic interest for a series of reasons and implications that require an in-depth epistemological, deontological, and empirical analysis. This growing demand for online psychology (from assessment to therapy) is favored by some advantages including easy accessibility able to eliminate architectural barriers, and those related to stigma and prejudices which very often affect access to treatment. This flexibility, associated with the globalization of work and the possibility offered to maintain relational continuity with one’s environment, has favored the use of such practices even in those who used to meet in the traditional way [5]. The psychological intervention mediated by the new technologies lends itself to being an excellent field of experimentation and also in the field of psychological research in the context of studies on the effectiveness of the mechanisms underlying the processes of change [6].

Despite the numerous qualities inherent in the modalities of psychological intervention mediated by the new digital technologies, many critical issues remain [7,8]. Psychological intervention has always been characterized by some implicit premises such as a shared space/time in a physical place



in which to experience the contact and physical proximity necessary for the construction of an effective relationship between psychologist and patient. These were the foundations of what was called a good match, indispensable to the success of psychological performance. The absence of this closeness has aroused a lot of disbelief and above all skepticism with respect to the effectiveness of online interventions, whose efficacy assessment on the patient's quality of life seems still insufficient. Other critical factors concern the poor knowledge of the phenomenon and its diffusion, the inadequate digital skills necessary for the effective management of the therapeutic relationship as well as the protection of the patient's privacy, and the absence of one regulation [7,9].

### Our experience

As part of the application of digital technologies to psychological performance, we wanted to emphasize clinical work, especially aimed at childhood and adolescence. A large and multi-problem target, whose focus of privileged psychological intervention is not only the individual but the whole family. In our experience, the need to innovate the classic clinical approach using more complex communication tools has appeared increasingly evident and the advent of the SARS-COVID-19 pandemic has made it extremely necessary.

The epidemic has spread throughout the world forcing us to experience tight lockdowns which, in addition to preventing access to treatment, have forced patients to live with their psycho-social problems [10]. Psychological performances have therefore become extremely important and at the same time impossible to achieve "live". To remedy this shortcoming, the use of multimedia tools has been encouraged through non-dedicated IT platforms, such as "Teleconsultation", through which diagnostic-therapeutic procedures can be activated starting from patient clinical data. Teleconsultation, video calls, messenger systems, etc., have made it possible to maintain not only the functionality of psychological services but also the ethical commitment and health responsibility. This has been possible by activating a technological control network in full compliance with the rules of privacy and information security of the patient and his family.

The activities were rescheduled through correct communication to users on the times of the service (hours and days of the week) and the indication of ways to have access to what is necessary at times when the service was not active. All the information on data processing and on the methods by which to give informed consent have also been provided. The only critical point was the limitation of connection on the part of the patient, who often had to manage and share it with other family members. The synchronous and asynchronous modalities of the psychological interventions involved not only the patient but the entire family, especially his parents, in order to guarantee the monitoring of particular problems of the patient and assure an effective impact on the psychological well-being of the entire family.

The most frequently faced manifestations of psychological distress occurred in various ways, ranging from forms with mild symptoms to severe forms of psychopathology. The most common symptoms included anxiety, insomnia, somatizations, eating disorders, depression, and delirious thoughts. The intervention requests were for counseling and prevention of psychological distress, including support and parental training activities for the families of the users in the various moments of treatment, above all, during the behavioral crises of the children. The care pathways have been structured from a systemic-relational perspective, providing for both direct interventions with the patient and indirect interventions through interviews, environmental assessments, and sharing of objectives between parents, the patient, and other operators. All psychological services had therefore been transformed into telemedicine activities for the fulfillment of clinical-therapeutic interventions without distinguishing between deferrable and non-deferrable ones. All users already in charge have continued their courses and there has been no drop-out. Only the first non-urgent visits were postponed but gradually reactivated in electronic mode and, subsequently, mixed when it was possible to carry out activities in presence.

The methods of intervention were synchronous in the form of direct video calls with the patient through online platforms, and in that of family training and asynchronous with parents through psychoeducational counseling to improve self-esteem and parental self-efficacy not only during the child's crisis moments. These new modalities have made it possible to carry out an intense and constant intervention with the parents, significantly expanding the usual parental-training possibilities and allowing step-by-step monitoring of the activities. The main objectives of this reorganization were to ensure continuity of care and effective and intensive therapeutic responses to children/teenagers and their families.

The onset of the emergency led to numerous doubts about the possibility of continuing the clinical and therapeutic activities of the service in telematic mode since these interventions were strongly based on direct relationships. However, the thought effort made allowed a change of perspective which led to the identification of appropriate and effective methods for remote intervention, at least in most cases.

The engagement of patients and caregivers was gradual but increasingly specific and took advantage of the possibility of sharing numerous support materials produced in the individual paths. The experimentation of the new method of intervention and of the tools was made possible thanks to the continuous multi-professional and organizational comparison, by the openness of families and young people who, in the fatigue of prolonged time spent at home, made themselves available for alternative therapeutic interventions. Although



there was a fear that the closure situation would reinforce in some patients the withdrawal methods already in place before the health emergency, it was instead observed that these users benefited most from carrying out psychological activities remotely. More generally, many young people, protected in their physical and mental “rooms”, far from the dangers of the pandemic, through online interviews have shown good attention, participation, and self-experimentation skills, managing to share significant elements with the family of their own psychic and emotional experience. The active involvement and the empowerment of families was essential cornerstone for the success of the interventions. The major criticalities were determined by both contextual and logistical aspects, i.e. factors such as the size of the house, the availability of suitable space, technological devices, and a good Wi-Fi network.

The methodological tools used were the same as those already used in other sectors of medicine during the SARS-COVID-19 pandemic and applied to the context of clinical psychology of childhood and adolescence. This has made it possible to plan interventions by reducing urgent and emergency visits to intervene before the patient’s clinical conditions worsen in the short to medium term, with a significant decrease in waiting lists in public facilities and above all in dropouts. These new synchronous and asynchronous modes of psychological treatment seem to have had the best effects on those users who had numerous failed attempts at therapeutic adherence. In particular, this type of approach has been functional for those who, burdened by the need to be supported in their motivation for the intervention, are at greater risk of drop-out in the early stages of taking charge, including adolescents and their families. The remote management of the psychological intervention facilitated the participation of the caregivers, who, saving the time of travel and the consequent efforts, was able to reconcile the sessions with the organization of family life. As an example, we can state that the remote psychological treatment experienced during the pandemic phases could be applied to all those family situations in which psychological decompensation, opposition, and social withdrawal affect compliance and therapeutic engagement and for which close-home interventions would be needed. The use of telemedicine in standardized psychodiagnostic evaluations appears more complex, not due to real impossibility, but due to the need to readapt the standardizations of the individual tests to conditions different from those initially foreseen [11].

### General remarks

The massive use of digitization in healthcare also raises considerations of a bioethical nature regarding the priority of the principle of patient autonomy in the complex and articulated process of healthcare and protection [7,9]. It seems right to ask whether the constant monitoring of the patient’s body and mind with the invasive presence of

the medicine in his life can produce forms of addiction and multiple life management [12]. The centrality of the patient within the therapeutic relationship and his relative autonomy are at the heart of a bioethical debate, made even more alive by the digital revolution [13]. In this context, the therapeutic relationship between doctor and patient is further redesigned, redefining the boundary between the patient’s dependence on medical science and his autonomy from it. Digital healthcare seems to increase the opportunities for the patient to exercise autonomy but at the same time produces the opposite and converse effect [14]. For this reason, it seems appropriate to ask whether the widespread presence of medical applications in the life of the subject does not create the propensity to medicalize life, placing the body, mind, and health at the center of the whole [6,7]. Moreover, digital healthcare has, by democratizing the practice of medical science, transformed the sense of medicine, which risks focusing on the body and its individual parts from the holistic view of the patient [15]. This observation appears even more important when applied to the care and protection of mental health. The accessibility and ease of use of apps have isolated the patient in his pathology or in any case in health research, questioning the therapeutic dualism based on the values of trust, support, and reassurance, superseded by the categories of informed, autonomous and responsible subject, constantly invited to monitor the body which is at the same time an object of care and an instrument of information and knowledge [5]. For example, better technical infrastructure is needed to allow VC to become routine with respect to an expected increase in requests for such services, although, for complex or particular problems, face-to-face consultations remain preferable [16].

## Conclusion

People who request psychological support online appear even more vulnerable and easily manipulable by a multitude of offers of polymedia “cures” that end up medicalizing their lives even more, exacerbating the psychological indisposition in the illusion of control and independence [17]. In this way, the patient ends up living an experience of desolating solitude [18] in which the paradoxical interweaving of autonomy and dependence ends up subjecting him to a sort of somatization of existence. In this context, the most fragile, i.e. patients suffering from mental and/or psychiatric disorders and their families, are the easiest victims, in themselves unable to manage the complex and ambiguous interweaving between autonomy and independence.

## References

1. Bottari C. The health of the future. Perspectives and new challenges of health law, Bologna University Press, Bologna, 2020.
2. Fletcher G, Griffiths M. Digital transformation during a lockdown. *Int J Inf Manage.* 2020 Dec;55:102185. doi: 10.1016/j.ijinfomgt.2020.102185. Epub 2020 Jul 3. PMID: 32836642; PMCID: PMC7333595.
3. Foucault M. The politics of health in the eighteenth century. In Dal Lago A. *Foucault Archive.* Milano: Feltrinelli. 2: 1997.



4. Dores AR, Geraldo A, Carvalho IP, Barbosa F. The Use of New Digital Information and Communication Technologies in Psychological Counseling during the COVID-19 Pandemic. *Int J Environ Res Public Health*. 2020 Oct 21;17(20):7663. doi: 10.3390/ijerph17207663. PMID: 33096650; PMCID: PMC7589044.
5. Ruberto MG. Medicine in the time of the web. Doctor and patient in e-Health: Doctor and patient in e-Health. Franco Angeli, 2011.
6. Garvin CA. Bias Regarding the Quality of Therapeutic Alliance in Technology-Mediated Psychological Intervention (Doctoral dissertation, William James College, 2020).
7. Criteria of clinical, technological and structural appropriateness in the assistance of the complex patient. *Papers of the Ministry of Health*. 2013; 23:1-133.
8. Smoktunowicz E, Barak A, Andersson G, Banos RM, Berger T, Botella C, Dear BF, Donker T, Ebert DD, Hadjistavropoulos H, Hodgins DC, Kaldo V, Mohr DC, Nordgreen T, Powers MB, Riper H, Ritterband LM, Rozental A, Schueller SM, Titov N, Weise C, Carlbring P. Consensus statement on the problem of terminology in psychological interventions using the internet or digital components. *Internet Interv*. 2020 Jun 2;21:100331. doi: 10.1016/j.invent.2020.100331. PMID: 32577404; PMCID: PMC7305336.
9. Bucci S, Schwannauer M, Berry N. The digital revolution and its impact on mental health care. *Psychol Psychother*. 2019 Jun;92(2):277-297. doi: 10.1111/papt.12222. Epub 2019 Mar 28. PMID: 30924316.
10. Buzzi C, Tucci M, Ciprandi R, Brambilla I, Caimmi S, Ciprandi G, Marseglia GL. The psycho-social effects of COVID-19 on Italian adolescents' attitudes and behaviors. *Ital J Pediatr*. 2020 May 24;46(1):69. doi: 10.1186/s13052-020-00833-4. PMID: 32448323; PMCID: PMC7245982
11. Körtner UH. Ethics in medicine: Challenges in the 21st century. *HTS Teologiese Studies/Theological Studies*. 2023; 79(2).
12. Gracia D, Spinsanti S. Foundations of bioethics: Historical development and method. Sao Paulo, 1993.
13. Marcolino MS, Oliveira JAQ, D'Agostino M, Ribeiro AL, Alkmim MBM, Novillo-Ortiz D. The Impact of mHealth Interventions: Systematic Review of Systematic Reviews. *JMIR Mhealth Uhealth*. 2018 Jan 17;6(1):e23. doi: 10.2196/mhealth.8873. PMID: 29343463; PMCID: PMC5792697.
14. Hoffman L, Wisniewski H, Hays R, Henson P, Vaidyam A, Hendel V, Keshavan M, Torous J. Digital Opportunities for Outcomes in Recovery Services (DOORS): A Pragmatic Hands-On Group Approach Toward Increasing Digital Health and Smartphone Competencies, Autonomy, Relatedness, and Alliance for Those With Serious Mental Illness. *J Psychiatr Pract*. 2020 Mar;26(2):80-88. doi: 10.1097/PRA.0000000000000450. PMID: 32134881; PMCID: PMC7135933.
15. Kraus S, Schiavone F, Pluzhnikova A, Invernizzi AC. Digital transformation in healthcare: Analyzing the current state of research. *Journal of Business Research*. 2021; 123: 557-567.
16. Donaghy E, Atherton H, Hammersley V, McNeilly H, Bikker A, Robbins L, Campbell J, McKinstry B. Acceptability, benefits, and challenges of video consulting: a qualitative study in primary care. *Br J Gen Pract*. 2019 Aug 29;69(686):e586-e594. doi: 10.3399/bjgp19X704141. PMID: 31160368; PMCID: PMC6617540.
17. Hollmann K, Allgaier K, Hohnecker CS, Lautenbacher H, Bizu V, Nikola M, Wewetzer G, Wewetzer C, Ivarsson T, Skokauskas N, Wolters LH, Skarphedinsson G, Weidle B, de Haan E, Torp NC, Compton SN, Calvo R, Lera-Miguel S, Haigis A, Renner TJ, Conzelmann A. Internet-based cognitive behavioral therapy in children and adolescents with obsessive compulsive disorder: a feasibility study. *J Neural Transm (Vienna)*. 2021 Sep;128(9):1445-1459. doi: 10.1007/s00702-021-02409-w. Epub 2021 Aug 25. PMID: 34432173; PMCID: PMC8386338.
18. Womble D, Kincheloe C. Introductory mental health nursing. Lippincott Williams & Wilkins. 2019.
19. Guglielmetti C, Piccardo MA, Zulato E, Infante G. Beyond space and time: the social representations of telemedicine. *Franco Angeli*. 2023; 233-233.