

Review Article

Digital Mental Health and Use in Psychiatric Nursing

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Summary

The use of digital technologies in mental health, development, well-being and management of mental illnesses has recently become a prominent issue in contemporary psychiatric nursing. Digital mental health interventions provide patients and healthcare professionals with new treatment options to increase access to mental health services by supplementing existing traditional services or providing new services to those in need. Videoconferencing, a widely used digital mental health intervention, is a good option for patients living in rural areas who travel long distances to meet with a psychiatrist. In this way, access, accessibility and service quality of mental health services increase. Therefore, the purpose of this review is to examine the effectiveness of digital mental health interventions and their use in psychiatric nursing. Studies show that digital mental health interventions increase patients' medication and treatment compliance, quality of life, social functionality and verbal communication skills, while reducing disease symptoms, hospital readmission and length of stay. In this context, it is recommended to disseminate digital health practices in psychiatry and psychiatric nursing, to conduct research examining the effectiveness of the practices, to meet the information needs about the practices and to train health professionals.

Keywords: Digital mental health; Tele-psychiatry; Tele-nursing; Psychiatric nursing

Introduction

Rapidly developing technology-based innovations are an important element of healthcare transformation and patient-centered, evidence-based services. Various social media platforms, smartphone applications, and smart objects; It can be used to collect data in health and medical fields, to access and share medical information, to provide health services and to monitor the health-related activities, diseases and epidemics of individuals [32]. Accordingly, new concepts such as tele-medicine, tele-health, tele-nursing have emerged. Telemedicine is the application of information and communication technologies by all healthcare professionals to improve the health of all individuals and communities, for the exchange of valid information for the diagnosis, treatment, prevention, research and evaluation of disease and injury, continuing education of healthcare providers, and for promoting the health of all individuals and communities where distance is a critical factor. It is the provision of health services using the [33]. It is stated that the scope and quality of the provision of health services will increase with tele-medicine applications, and the vision of "widespread health care" can be fulfilled for everyone, anytime and anywhere, as time, place and other restrictions are eliminated [29]. In this context, digital technologies help individuals improve their health and make better decisions [32].

The use of digital technologies in the promotion of mental health and the management of mental illnesses has recently become a subject of attention [2,27]. Interviewing with videoconferencing, a widely used digital mental health intervention, is a good option for patients living in rural areas and traveling long distances to meet with a psychiatrist [3]. In this way, access to mental health services, accessibility and service quality increase [15,20].

Computer and information technology also play a significant role in contemporary psychiatric nursing. It can be said that the application of informatics is in the nature of contemporary psychiatric nursing, as it is used in the stages of the nursing process such as data collection and diagnosis performed by psychiatric nurses in a clinical setting [25]. Studies show that digital mental health interventions increase patients' medication and treatment compliance, quality of life, social functionality, and verbal communication skills, while reducing disease symptoms, hospital readmission and hospitalization times [1,5,10,11,18,19,21,30,31]. For this reason, in this review, it is aimed to examine the effectiveness of digital mental health interventions and their use in psychiatric nursing.

The Concept of Digital Mental Health and Digital Mental Health Interventions

Digital mental health is defined as the promotion of mental well-being and the application of technology in the assessment, monitoring, and treatment of mental illness [27]. Digital mental health interventions offer new treatment options to patients and health professionals to increase access to mental health services by supplementing existing traditional services or by providing new services to those in need [14]. Digital mental health interventions; It includes online and mobile phone interventions for practical and organizational tasks, Telecare, smartphone and tablet applications, online information resources, social media and online social networks, electronic traditional psycho-social therapies and technology-based new therapies [14,27]. Adapting and translating psychotherapeutic interventions into digital formats increases the effectiveness, effectiveness and efficiency of psychotherapeutic interventions by facilitating access to psychological support, evidence-based mental health services and resources [4,13,14]. Thus, interventions can help to overcome the investment and resource problems required for the delivery of mental health services and other problems such as lack of available services, stigma, difficulties in providing services, and geographical or time limitations [4]. The effects of digital mental health interventions have also been demonstrated by evidence-based studies. It has been reported that mobile applications used in the care of patients with schizophrenia contribute to the clinical course and symptom management of patients, strengthen patients, and provide patients with an environment free from stigma [10]. The "ClinTouch" mobile application used in the study of Palmier-Claus et al. (2012) was used. Patients with schizophrenia were asked to report their symptoms when they received a warning on their phone during the day. At the end of the study, it was revealed that ClinTouch application was effective in symptom management and clinical picture follow-up. Ben-Zeev et al (2014) developed the FOCUS smartphone intervention to provide disease management support to schizophrenic patients. Significant reductions in psychotic symptoms, depression, and general psychopathology were found after one month of use of FOCUS in the patients' own setting. In the study of Kuzman et al. (2018), the side effects of antipsychotic use were monitored and psychoeducation was conducted in patients with schizophrenia and bipolar disorder with the "PsyLOG" application. The patients reported the side effects of their medications for four months, and at the end of the study, it was seen that the mobile application was more effective in reporting side effects compared to the standard psychiatric scales. In the study of Schlosser et al (2018), PRIME application was used for 12 weeks in schizophrenia patients; As a result of the study, it has been seen that PRIME is a feasible and effective intervention that increases social functioning and motivation. In addition to all these positive effects, digital mental health interventions also have some disadvantages. Interventions can cause a gap between research and practice, as they often do not fit into the daily work of individuals. For healthcare settings, the differences between digital and traditional mental health services make adaptation and integration more difficult [13,14].

Tele-Psychiatry Concept and Tele-Psychiatry Practices

Tele-psychiatry is a form of tele-medicine adapted to the field of psychiatry, which means the delivery of mental health services via videoconferencing [3,15] (Çam et al 2018). Focusing on tele-psychiatry mental health practices, it provides sharing

of health-related information from one place to another through electronic communication in order to improve the clinical health status of the patient [20].

Tele-psychiatry practices are especially beneficial in facilitating the access of individuals living in isolation to mental health services, reducing the gaps in their treatment and the feeling of isolation, and increasing their commitment to treatment (Çam et al 2018). Tele-psychiatry has as great a potential as face-to-face care in eliminating mental health inequalities, increasing access to care and quality of service by providing access to mental health services in their own living environments for individuals living in rural areas or who have otherwise limited access to mental health services [3,8,15,20,28]. Tele-psychiatry can positively affect the treatment and course of mental illnesses that cannot apply for treatment due to fear of stigmatization or that have not been treated due to financial difficulties [20]. For example, it can initiate the process of psychological support for people who have problems in face-to-face treatments due to social phobia and shyness, who cannot go out because of agoraphobia and who do not accept face-to-face psychological treatment [7].

Tele-psychiatry applications include videoconferencing, fixed and mobile phone lines, computer-based internet tools, telehealth telephone at home and communication systems connected with additional devices. Videoconferencing is the most widely used technology among tele-psychiatry applications [20]. The effectiveness of mental health services offered through videoconferencing has also been proven by studies. In the study of Choi et al (2013), 43 out of 121 home-based elderly people with low-income depression attended a six-week telehealth problem-solving therapy session (tele-PST), and 42 attended a six-week face-to-face problem-solving therapy session (PST) and 36 were also randomized to the six-week phone call group. Conducted via tele-PST, videoconference; At the end of the intervention, there was a decrease in the depressive symptoms of the elderly who attended the sessions compared to the group that received telephone support. In the study of Kessler et al. (2009), web-based cognitive behavioral psychotherapy was applied to 113 patients with depression for 4 months; At the end of the intervention, the depressive symptoms of the patients decreased and their quality of life improved, and the effect of the program was maintained for 8 months.

Digital Mental Health and Psychiatric Nursing

Depending on the developments in technology and the increase in the elderly population, the expansion of the number of chronic patients and the scope of home care services also affect the way nursing services are delivered [24,25]. In this context, it is recommended that nurses know and apply the developing information technologies in order to increase the quality of care they apply (Çam et al 2018). One of the different service areas that emerged with the development of technology and its widespread use in the field of health is tele-nursing. Tele-nursing is defined as "the use of communication technologies in nursing to improve patient care". With tele-nursing applications, demanded health services are fulfilled, individuals are trained, high-risk groups are counseled, and communication is maintained with individuals with chronic diseases [24]. Psychiatric nurses use the internet, e-mail, websites, tele-psychiatry, tele-health, electronic medical record, portable computers, computer graphics, distance education, online learning, automated drug delivery systems, and other knowledge to establish and maintain therapeutic relationships with their patients.

uses technology formats [25,34]. Psychiatric nurses see mobile application as a convenient, reliable and useful tool for use in the prevention and treatment of mental illnesses [10]. It is stated that rural mental health services improve when psychiatric nurses use tele-psychiatry through education and training to individuals with mental illness for the provision of health services to underserved rural areas [12]. It has been determined that tele-nursing practices prolong the time spent by schizophrenia patients in the community, reduce the length of days they spend in the hospital after each re-hospitalization and the number of admissions for re-hospitalization. At the same time, it has been found that it increases social functionality with adherence to medical treatment and decreases psychiatric symptoms in the post-discharge period [1,21,30,31]. In the study of Montes et al (2010), 456 schizophrenic patients followed in TRSMs were called once a month for 4 months. After the intervention, there was an increase in patients' adherence to drugs and their adherence to antipsychotic drugs. In the study of Montes et al (2012), daily SMS reminders were sent to patients to take their medications for three months. As a result of the SMS-based intervention, improvements were observed in the psychiatric symptoms of patients with schizophrenia, their attitudes and compliance with medication. In the study of Beebe and Tian (2004), a Telephone Problem Solving Intervention and face-to-face interviews were applied to schizophrenic patients once a week for a total of six weeks; After the intervention, it was determined that the phone call time of the patients was longer, the number of emotional expressions was twice as much, and the number of one-word answers was half as low.

In the study of Darvish et al (2019), 33 veterans with PTSD symptoms were administered a text messaging-based psychiatric nursing program for six months; At the end of the study, it was observed that the severity of symptoms of the veterans decreased and their quality of life increased. In addition, it has been revealed that depression, stress perception, family burden and emotional expression of the caregivers decreased, the level of knowledge about the disease increased, and the perception of social support improved with the interventions made by web-based, video conference and telephone [22].

Conclusion and Suggestions

The development, adoption, and implementation of a wide variety of digital mental health interventions has enabled it to improve quality of care and collaboration, reduce healthcare errors and hospital adherence, promote the adoption of healthy behaviors, facilitate access to information and follow-up of chronic diseases. Digital mental health interventions have made it easier for individuals to meet their needs wherever and whenever they want, by shortening physical distances, and to provide health services to populations in low-cost and limited access to health care services in a short time. At the same time, the use of technology-based applications can facilitate the delivery of health services in cases where there is a shortage of personnel. When the studies are evaluated; Technological interventions applied by psychiatric nurses increase patients' medication and treatment compliance, quality of life, social functionality, and verbal communication skills; It is seen that it reduces the symptoms of the disease, hospital readmission and length of stay. In this context, it is recommended to disseminate digital health practices in psychiatry and psychiatric nursing and to conduct research examining the effectiveness of the practices, to meet the information needs about the practices, and to train health professionals.

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