

Mobile application: a tool that helps in the applicability of integrative community therapy

Aplicativo móvel: uma ferramenta que auxilia na aplicabilidade da terapia comunitária integrativa

Aplicación móvil: una herramienta que ayuda en la aplicabilidad de la terapia comunitaria integrativa

RESUMO

Objetivo: desenvolver um aplicativo móvel, multiplataformas de referência para Terapia Comunitária Integrativa. Método: A partir de uma pesquisa metodológica, entre março de 2019 e janeiro de 2020, sendo o aplicativo desenvolvido em etapas, utilizando a programação voltada para dispositivos móveis de design instrucional contextualizado, incluindo as tecnologias em HTML, CSS e JavaScript. Resultado: foram desenhadas 16 telas do aplicativo no software Adobe XD. O protótipo foi produzido para ser executado em tablets e smartphones Android e IOS, visando à simulação do funcionamento do aplicativo através de navegações entre todas as telas. Conclusão: compreende-se, que o desenvolvimento de aplicativos móveis relacionados a pesquisas científicas é importante, pois os conteúdos tendem a ser analisados e testados por profissionais que conhecem as reais necessidades dos usuários finais.

DESCRIPTORIOS: Aplicativos Móveis; Tecnologia da Informação; Atenção Primária a Saúde; Terapias Complementares; Redes Comunitárias.

ABSTRACT

Objective: to develop a mobile application, cross-platform reference for Integrative Community Therapy. Method: From a methodological research, between March 2019 and January 2020, the application was developed in stages, using programming aimed at mobile devices with contextualized instructional design, including technologies in HTML, CSS and JavaScript. Result: 16 application screens were designed in Adobe XD software. The prototype was produced to run on Android and IOS tablets and smartphones, aiming at simulating the application's operation through navigation between all screens. Conclusion: it is understood that the development of mobile applications related to scientific research is important, as the contents tend to be analyzed and tested by professionals who know the real needs of end users.

DESCRIPTORS: Mobile Applications; Information Technology; Primary Health Care; Complementary Therapies; Community Networks.

RESUMEN

Objetivo: describir el desarrollo de una aplicación móvil, multiplataforma, de referencia para la Terapia Comunitaria Integrativa. Método: A partir de una planificación para el desarrollo por etapas, se construyó la aplicación utilizando programación dirigida a dispositivos móviles, incluyendo Android e IOS utilizando tecnologías HTML, CSS y JavaScript. Resultado: Se diseñaron 16 pantallas de aplicaciones en el software Adobe XD (imagen x). El prototipo fue producido para correr en tabletas y smartphones Android e IOS, con el objetivo de simular el funcionamiento de la aplicación a través de la navegación entre todas las pantallas. Conclusión: se entiende que el desarrollo de aplicaciones móviles relacionadas con la investigación científica es importante, ya que los contenidos tienden a ser analizados y probados por profesionales que conocen las necesidades reales de los usuarios finales.

DESCRIPTORIOS: Aplicaciones Móviles; Tecnología de la información; Primeros auxilios; Terapias complementarias; Redes comunitarias.

RECEBIDO EM: 20/03/2023 APROVADO EM: 03/04/2023

Carolina da Cunha Lima Pedrosa Mangueira

Nurse. Master in Family Health. Nova Esperança Faculties. João Pessoa.
ORCID:0000-0003-3585-2898

Elisângela Braga de Azevedo

PhD in Nursing. Mental Health Nurse at the University Hospital Lauro Wanderley.
ORCID: 0000-0002-9529-0316

Vilma Felipe Costa de Melo

Coordinator of the Psychology course. Nova Esperança Colleges (FACENE/FAMENE).
ORCID: 0000-0001-5721-3240

Cleyton Cézar Souto Silva

PhD in Nursing. Graduate Program in Family Health.
Nova Esperança Colleges (FACENE/FAMENE).
ORCID: 0000-0002-6187-0187

Sônia Mara Gusmão Costa

Doutora em Enfermagem. Faculdades Nova Esperança (FACENE/FAMENE).
ORCID: 0000-0002-9433-2932

Vagna Cristina Leite da Silva Pereira

PhD in Nursing. Deputy Coordinator of the Graduate Program
in Family Health. Nova Esperança Faculties (FACENE/FAMENE)
ORCID: 0000-0002-8831-3620

INTRODUCTION

The World Health Organization (WHO) advocates that health promotion initiatives should be developed through sustainable, balanced and multi-strategic programs, policies and activities, seeking to achieve the principles of individual and community empowerment with the implementation and evaluation of a holistic view of physical, mental, social and spiritual health.⁽¹⁾

In Brazil, in reference to health policies, a great advance happened with the publication of the Brazilian Constitution in 1988, which started to guarantee achievements of social rights.⁽²⁾ Along the way to building the SUS, it was necessary to rethink new strategies, with more humanized care, expanding the vision of care with more effective and resolving actions.⁽³⁾

As a way of superimposing the proposed model, an expanded view of the health-disease process was essential, seeking the global/comprehensive promotion of human care, especially self-care.⁽⁴⁾ In this context, non-allopathic therapeutic practices, developed in different regions of the country, were included, being instituted by the Unified Health System (SUS) through the National Policy of Integrative and Complementary Practices (PNPIC - Política Nacional de Práticas Integrativas e Complementares) with the perspective of disease prevention and health promotion and

recovery, with an emphasis on primary care, focused on continued, humanized and comprehensive health care.⁽⁵⁾

This policy was implemented in the SUS network, with the objective of contributing to the strengthening of the fundamental principles of the health system, in order to guarantee integrality in health care, through the incorporation and insertion of the PICS.⁽⁶⁾

In the State of Paraíba, more precisely in the municipality of João Pessoa, the organization of the PNPIC in health took place through Municipal Law nº 1.665 of July 2008, through the Municipal Health Secretariat (SMS - Secretaria Municipal de Saúde), which sought to prepare health professionals for the different services available.⁽⁷⁾ However, it was not until 2012 that the Centers for Integrative and Complementary Practices (CPICS - Centros de Práticas Integrativas e Complementares) were created in the municipality, thus strengthening the implementation of the aforementioned National Policy.⁽⁸⁾

Among the PICS carried out, the Integrative Community Therapy (ICT) deserves to be highlighted, which is configured as a light care tool, which has been disseminated and adopted by many health professionals in the most differentiated national contexts. It is a care technology that enables a space for talking and sharing experiences, aiming to share coping strategies for the emotional suffering that is being experienced. A technique that allows its participants to experience new experiences

that allow them to seek solutions to conflicts within the scope of individual, family and social relationships.⁽⁹⁾

The PNPIC enabled the inclusion of Integrative Community Therapy (ICT) in the Family Health Strategy, which enabled the Ministry of Health to recognize the effectiveness of the practice. At the time, it was considered an effective care tool, presenting itself as a possibility of treatment and prevention in primary care.⁽¹⁰⁾

The PNPIC enabled the inclusion of Integrative Community Therapy (ICT) in the Family Health Strategy, which enabled the Ministry of Health to recognize the effectiveness of the practice. At the time, it was considered an effective care tool, presenting itself as a possibility of treatment and prevention in primary care.

The practice of ICT in public health services deserves attention, with regard to incentives for the propagation of an effective and economical therapeutic modality. Therefore, the development of an application for mobile services was envisaged by understanding the ease of this resource to guide, store and bring together networks of professionals in the most different contexts, throughout the national territory. Thus, this study proposes to present a technological tool widely used in the perspective of generating support networks for Community Therapists.

In an attempt to contribute to the strengthening of the ICT network in Brazil, the following objective was set: to develop a mobile application, multiplatform, of reference for Integrative Community Therapy.

METHOD

This is a methodological research for the development of a mobile application offering the network of Community Therapists a software that contributes to the dynamism and execution of TCI Circles in services of the public health network.

This study was developed in three stages: initially, an integrative review was carried out, between January and November 2019, as a theoretical support for the formulation of the technology. For this, a survey was carried out of Ministry of Health manuals and scientific articles available in databases, such as Medline/PubMed and CAPES Periodicals. The initial universe was 152 articles, published in five years (2014-2019), using the descriptors: complementary therapies, technology, health and applications; combined by the Boolean AND connector in English, Portuguese and Spanish languages. From the identified studies, those that met the criteria for inclusion were selected, considering the reading of titles, abstracts, articles published in full, available free of charge and electronically. Editorials, letters to the editor, theses, dissertations, monographs and works whose main areas or subjects were not related to the subject studied were excluded. Based on this study, the mobile application was defined as the most robust technology to assist in the applicability of the ICT.

After this phase, a new search was carried out to identify existing applications related to ICT and available on the market. Virtual stores were consulted Google play (<https://play.google.com/store/apps>) for cell phones with the Android operating system, and Apple Store (<https://itunes.apple.com/br/genre/ios-medicina/id6020?mt=8>) for devices with iOS operating system. In both, the health category was selected and the search for mobile applications in the therapy area that were available for installation on tablets and/or smar-

tpphones was started. The search started in March 2019 until January 2020.

The second step was the requirements survey, a phase that encompasses the software development stages. This step was essential and consisted of an analysis of the requirements, that is, phase to identify, quantify, define, prioritize and classify the main problems that the future software could present.

The third step was for the development of the TCI app, available in virtual stores based on a logo, created by the developer through graphic design platforms: CorelDraw X8; Adobe Illustrator CC2017 and Adobe Photoshop. The visual identity was defined from a web and a colored wheel, images that represent characteristics and theoretically symbolize the foundations of ICT.⁽¹¹⁾

The elaboration of the prototype was based on the Contextualized Instructional Design model. In short, the development of the application followed the steps described below: Planning; Requirements analysis; Coding and Development.⁽¹²⁾

In order to promote a better usability of the product, the basic principles were also taken into account: minimum user effort; more function recognition than user memory requirement; minimal frustration during handling; increase usage from work patterns and habits; observe tolerance for differences between the people who will use the system; observe changes in the possible environments in which the system will be used; presence of communication interfaces for reporting problems; maximum support for these tasks by the system.⁽¹³⁾ The application was completed with 16 screens in Adobe XD software. All stages were carefully designed and developed, considering deadlines and budget to finalize with the delivery of the TCIapp.

The prototype was produced to run on Android and IOS tablets and smartphones, aiming at simulating the application's operation through navigation between all screens. The application will then be available on the Apple

Store and Google Play Store with the following registration ID: (tciapp.media4all.com.br). The application was developed by Media4all, a company from Paraíba specialized in the market of systems and technologies for education in the city of João Pessoa/PB.

The development of the TCIapp prototype and elaboration of the main content was also possible due to the researcher's experience with extension projects for Nursing students with ICT wheels in a Center for Integrative and Complementary Practices (CPICS) in the same municipality.

RESULTS

By surveying the integrative review, 152 studies were identified, and of these, 100 were excluded after analyzing the title, since they did not describe aspects related to the research object, thus keeping 52 studies for analysis of abstracts. It ended with: 16 articles, 8 dissertations, 2 theses, 12 books and 14 manuals and policies prepared by the Ministry of Health, which were read in full and used for the scientific basis of the TCIapp application.

The search for therapy apps available in smartphone stores was carried out in 5 steps: reading the title, accessing the app and describing the present requirements. After this analysis, the existing tools were organized by application name, authorship, description and last update. Four therapy-related applications were selected, although none of them were specific to ICT (Figure 1).

After defining and elaborating the content raised through an integrative review, the data were presented in an appropriate format to later be coded in computational language and embedded in the software, in an integrated development environment, according to the definitions conceived in the planning phase. The object-oriented programming language paradigm was used, observing the precepts of encapsulation, polymorphism and inheritance of the

Java language (Figure 2).

The technological product resulted in an application with 16 screens, developed with the proposal to meet the demands of a group of professionals who lack an accessible and versatile technology. Figure 3 presents three examples of TCIapp application screens: ⁽¹⁾ initial screen – user registration; ⁽²⁾ registration of the TCI wheel; ⁽³⁾ therapists' reports.

Other screens also present the following functionalities: confirmation of registration; expansive menu - My Profile, Therapy Wheels, News, Communities, Contacts, Locations, Help and Settings; information about wheels held; news – registration and consultation of stored information; space for sharing ideas and suggestions between therapists; community registry; chat – interaction with the administrator, suggestions and user questions.

The development of technological tools such as the TCIapp application thus enables accessibility, integration and greater management of the therapy wheel. With the advancement of the inclusion of technologies in the health scenario, there will be a greater positive impact on the assistance provided, making it safer and more assertive.

DISCUSSION

Technological tools in the current context have become indispensable in the field of work of PICS professionals. The applications developed for the health area have contributed satisfactorily, allowing the immersion of users in a virtual environment, providing safe information and without additional costs. In this context, digital tools are presented as new possibilities, new resources or procedures, to facilitate the organization and agility in health services. ⁽¹⁴⁾

In Brazil, the implementation of the National Technology Policy has contributed to advances in the area of Information and Communication Technologies (ICTs), allowing positive changes in several areas of knowledge, with emphasis on the field of care and health promotion that has benefited from the possibilities offered. In recent years, it

Figure 1 – Survey of mobile applications developed for the health area on the topic of therapy. João Pessoa, Paraíba, 2020.

APPLICATION NAME	AUTHOR	DESCRIPTION	LAST UPDATE
ZENKLUB – se conhecer	ZENKLUB – Tecnologias, Ltda	Tests, tips, exercises and experts in health and emotional well-being.	2020
Terapia App	Grupo Viceri	Innovating, renovating, making it more flexible, in order to meet the needs of Human Beings, become important actions in the foundation of effective care.	2020
Consultório Virtual Seguro	Casa dos Insights Ltda, ME	Secure Virtual Office is a secure audio and video care platform that enables therapists to deliver technology-enabled care.	2020
Cíngulo: terapia guiada	Lara e Ottoni Ltda	Your guided therapy app for anxiety, stress, self-esteem, insecurity, mood, focus and much more.	2019

Source: Research data, 2020.

has identified a relevant movement that has promoted an integral and participatory view of the individual, facilitating greater involvement and responsibility in treatment, and health technologies favor and encourage this process. ⁽¹⁵⁾

The appropriation of information, especially with regard to health and its practices, whether individual, group or institutional, promote changes and actions that culminate in the evolution and strengthening of actions capable of enriching the knowledge of those involved in the process. This enrichment makes those involved multipliers of knowledge, while influencing the teaching-learning relationship and promoting health education. ⁽¹³⁾

Associated with this context, technologies have promoted the development and strengthening of health education actions and care management. There are possibilities for the use of

various technological devices, such as applications embedded in mobile devices, which can help in the development and dissemination of health education information, in a playful, committed and serious way. In this way, the ease of access to the applications becomes visible due to their availability in different operating systems that facilitate the download and use by several people. ⁽¹⁶⁾

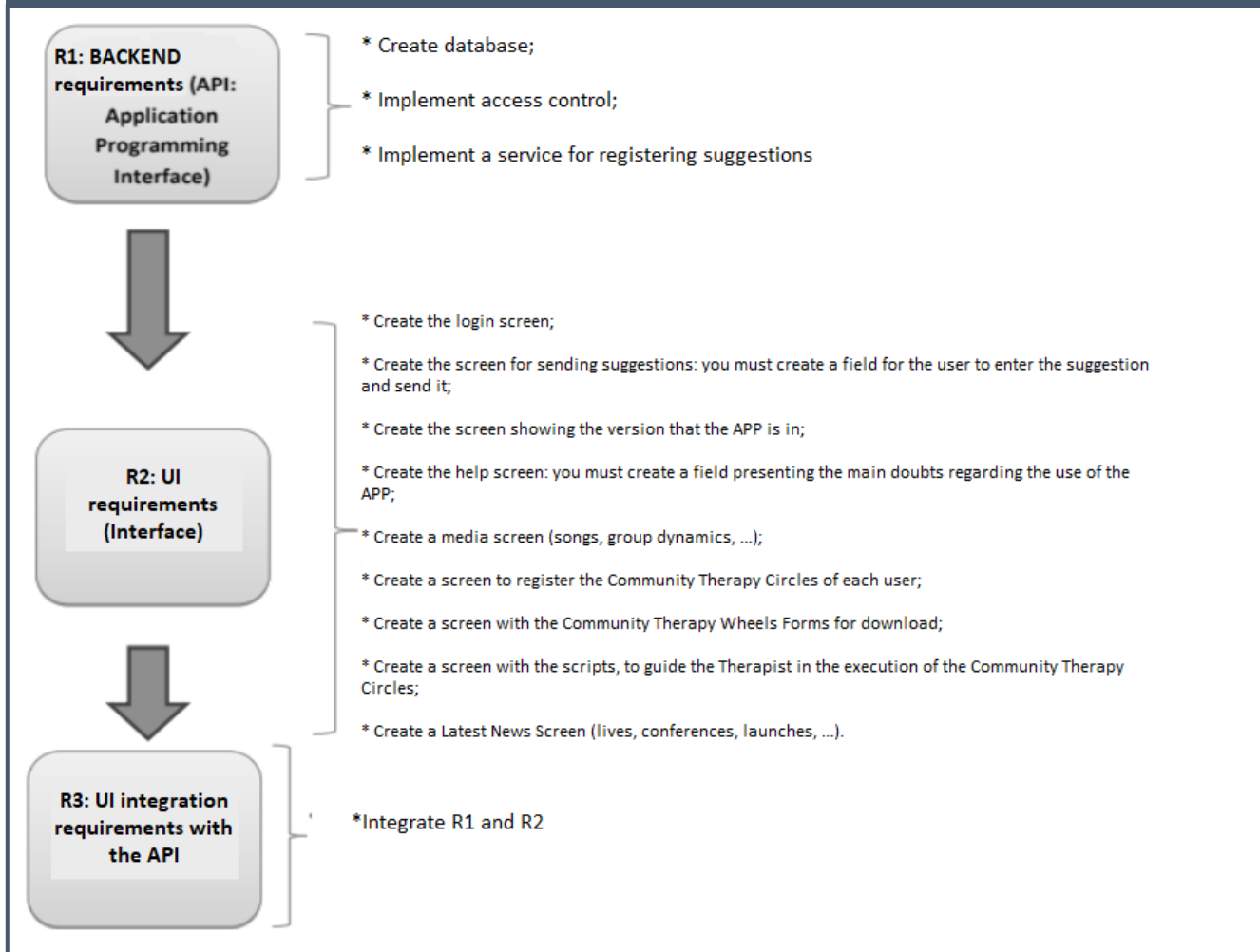
Software aimed at health care is being developed with several possibilities for therapies. The use of applications of this nature has worked to help promote health care, mainly due to greater access to information, together with the user's participation in their treatment. On the other hand, the teaching-learning interface, regarding the health-disease process, is still little explored. ⁽¹⁵⁾

Virtual technologies do not have restrictions or limitations and, as they are characterized in this way, they become

Artigo Original EN

Carolina C. L. Pedrosa Manguieira, Elisângela B. Azevedo, Vilma F. C. Melo, Cleyton César S. Silva, Vagna C. L. S. Pereira
 Mobile application: a tool that helps in the applicability of integrative community therapy

Figure 2 – Application Requirements. João Pessoa, Paraíba, 2020.



Fonte: Própria da pesquisa, 2020.

an extremely favorable means to be explored due to the possibility of training and guiding professionals and the general population with topics related to the health area.⁽¹⁷⁾

The availability of ICTs for primary health care is a qualifying factor for public health services, as it improves not only the dynamics of services, with the reduction of operating expenses for the government, reducing the demand for health actions, as well as improving the quality of life of members of the assisted community.⁽¹⁸⁾ In this logic, the results of a research that describes the development of a mobile application for multi-platforms show that the use of technologies by professionals is increasing and assists in their assistance by allowing ac-

Figure 3 – Examples of TClapp application screens



Fonte: Própria da pesquisa, 2020.

cess to evidence-based content anywhere, benefiting professional practice.⁽¹⁹⁾

The use of technologies to monitor, promote care and greater adherence to health treatments is already a reality and facilitates greater integration between the multidisciplinary team and users. There is a continuous flow permeated by the constant exchange of information between the agents involved in this process. This functionality was made possible by the progress of technology in health, associated with the use of applications for smartphones, which have, among their characteristics, easy use and greater access to information by users, which can favor the teaching-learning binomial.

In this way mobile applications work as support tools, which provide differentiated learning and entertainment experiences for their user. When used in association with therapeutic measures, they can bring benefits to the treatment, without compromising the quality of care, implying a greater apprehension of knowledge by users, professionals and researchers.⁽¹⁹⁾

The virtual space has no restrictions or limitations and, as it is characterized in this way, it becomes an extremely favorable means for health education practices that can occur through various media resources, such as: images, videos and sounds, loaded with important contents.⁽¹⁸⁾

Thus, the mobile technology development stage requires the researchers involved to deepen the theory and master the technology to be elaborated, but it is not the completeness of the technology development process. As mentioned, it is just an initial step that will allow the design of the product and will require evaluation of the self-manage-

ment functions, adherence measures, loyalty, continuous use, in order to confirm the benefits and effectiveness.⁽²⁰⁾

A scope review mapped all health technologies that have been developed, and identified as main results that applications have a prevalence of 22%, with greater expression in the types of technology, although assistance-related ones predominate (32%) and are mostly intended for users of health services.⁽²¹⁾

In this way, applications have been developed to assist health processes, such as a sex education app built to prevent sexually transmitted infections (Prev-IST) in public schools⁽²²⁾, and another mobile application to expand information on integrative and complementary health practices in the SUS (APP PICS).⁽²³⁾

However, ICT has also been modernizing to promote mental health, as demonstrated by the therapy carried out in the online modality, through the Google Meet platform, for caregivers of users of a Child Psychosocial Support Center (CAPSi) in the Federal District.⁽²⁴⁾

CONCLUSION

Based on the integrative review, the question was answered that the mobile application would be a health technology that would facilitate communication/interaction between Community Therapists. Therefore, the objective proposed in this study was achieved, based on the development of a technological product in the form of a guiding and unprecedented mobile application named "TCIapp", offering the network of Community Therapists software that contributes to the execution of TCI Circles in services of the public health network.

It is expected that the use of the TCIapp in a systematic way will provide information for the construction of a database that allows the extraction of pertinent information for the community therapist, contributing to the management and organization of the groups in activity.

It is also hoped that this application will be a very useful resource for the network of community therapists, as it is very practical and easy to use, in addition to being very accessible, to the extent that a large part of the current population owns some kind of smartphone and has some kind of internet access.

It is understood, therefore, that the development of mobile applications related to scientific research is important, as the contents tend to be analyzed and tested by professionals who know the real needs of end users.

However, it is necessary to emphasize that the researchers of this study developed the initial stages of construction of a product that should be conceived as a prototype to be tested by community therapists, which is why it still needs scientific evaluation/validation and cannot be made available for use on the network. Making it necessary to carry out a new study to validate the technological tool by specialists in the subject.

The technological product, when implemented, will be able to offer the network of Community Therapists a mobile application to contribute to the dynamism and execution of the ICT Circles, in services of the public health network, understanding that this mechanism is a facilitator for the performance of this professional.

REFERENCES

1. Mendes R, Fernandez JCA, Sacardo DP. Promoção da Saúde e Participação: abordagens e indagações. *Saúde Debate*. 2016 jan. mar; 40 (108):190-203. Disponível em: <https://doi.org/10.1590/0103-1104-20161080016>. Acesso em: 18 de março 2022.
2. Ribeiro DS. O Direito à Saúde em Tempos Neoliberais: a judicialização da saúde como estratégia para a garantia de direitos? [Dissertação de Mestrado]. Juiz de Fora (MG): UFJF; 2014. Programa de Pós-Graduação em Serviço Social.

3. Fertoni HP, Pires DEP, Biff D, Sherer MDA. Modelo Assistencial em Saúde: conceitos e desafios para a atenção básica brasileira. *Ciência e Saúde Coletiva*. 2015. 20(6):1869-1878. Disponível em: <https://doi.org/10.1590/1413-81232015206.13272014>. Acesso em: 18 de março 2022.
4. Telesi Júnior, E. Práticas Integrativas e Complementares em Saúde, uma Nova Eficácia para o SUS. *Estudos Avançados*. 2016. 30(86):99-112. Disponível em: <https://doi.org/10.1590/S0103-40142016.00100007>. Acesso em: 18 de março 2022.
5. BRASIL. Política Nacional de práticas integrativas e complementares no SUS - PMNPC. 2. ed. Brasília: MS, 2015
6. BRASIL. Saúde da Família no Brasil: uma análise de indicadores selecionados de 1998- 2005/2006. [Internet][acesso 2019 set 9]; Disponível em: <https://pesquisa.bvsalud.org/portal/resource/pt/lil-788798>.
7. JOÃO PESSOA. Prefeitura Municipal de João Pessoa. Secretaria municipal de meio ambiente e Secretaria municipal de saúde. Núcleo de Formação em Práticas Integrativas e Complementares de João Pessoa. [Internet]. [acesso 2019 set 9]; Disponível em: <http://antigo.joaopessoa.pb.gov.br/prefeitura-constroiu-nucleo-de-praticas-integrativas-e-complementares/>,
8. Campos IKS, Silveira JAR, Silva MD. Inserção espacial de equipamentos de saúde e suas relações com espaços livres públicos em cidade de porte médio no Brasil. In: 1º Congresso Internacional de Espaços Públicos. [Internet] 2015. Disponível em: conara.unifesspa.edu.br. Acesso 15 de setembro 2019.
9. Rocha IA, Sá ANP, Braga LAV, Filha MOF, Dias MD. Terapia Comunitária Integrativa: situações de sofrimento emocional e estratégias de enfrentamento apresentadas por usuários. *Rev. Gaúcha Enferm* [Internet]. 2013. 34(2):155-162. Disponível em: <https://www.scielo.br/j/rgenf/a/cVkkc5DBcyMX858VMNM5stLL/>. Acesso 15 de setembro 2019.
10. Mourão LF, Oliveira LB, Marques ADB, Branco JGO, Guimarães MSO, Nery IS. Terapia Comunitária Como Novo Recurso da Prática do Cuidado: revisão integrativa. *SANARE* [Internet]. 2016; 15(2):129-135. Disponível em: <https://sanare.emnuvens.com.br/sanare/article/view/1047>. Acesso em 2 outubro de 2019.
11. Barreto, AP. Terapia comunitária passo a passo. Fortaleza: Gráfica LCR; 2008. 401p.
12. Lowdermilk T. Design centrado no usuário: um guia para o desenvolvimento de aplicativos amigáveis. São Paulo: Novatec Editora; 2013. 178p.
13. Wildevuur SE, Simons LW. Information and Communication Technology– Enabled Person-Centered Care for the “Big Five” Chronic Conditions: Scoping Review. *J Med Internet* [Internet] 2015; 17(3): 77. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/25831199/>. Acesso em 10 de outubro de 2019.
14. Delphino TM. Efeito do acompanhamento por telefone na recuperação cirúrgica de idosos submetidos à cirurgia de facotomia: estudo clínico randomizado. [Dissertação]. Rio de Janeiro (RJ): Faculdade de Enfermagem da Universidade Federal Fluminense; 2016. Programa de Pós Graduação em Enfermagem.
15. Torres AAL, Campos V. Evernote como ferramenta de organização de informações em saúde. *Revista Eletrônica Gestão & Saúde* [Internet] 2014; 5(2): 501-513. Disponível em: <https://periodicos.unb.br/index.php/rgs/article/view/443>. Acesso em 15 de outubro de 2019.
16. Ventola CL. Dispositivos móveis e aplicativos para profissionais de saúde: usos e benefícios. Farmácia e Terapêutica. Editora: Atena, 2014.
17. Tenório L, Oliveira A, Amorim YPSV, Neto ACM. A Educação em saúde através das novas tecnologias da informação e da comunicação: uma análise da (re)orientação de nativos digitais no ciberespaço. *Revista Científica Interdisciplinar* [Internet] 2014; 1(1):10. Disponível em: <https://www.researchgate.net/publication/287720063>. Acesso em: 10 de outubro de 2019.
18. Barros VFA, Junior JSP, Borges RC, Neto VA. Aplicativo Móvel para Automação e Monitoração do Sistema de Atenção Primária a Saúde. *Cadernos de Informática* [Internet] 2011; 6(1):241-44. Disponível em: https://www.researchgate.net/profile/Victor-Barros-8/publication/261877886_Aplicativo_Movel_para_Automacao_e_Monitoracao_do_Sistema_de_Atencao_Primaria_a_Saude/links/00463535d01831e9db000000/Aplicativo-Movel-para-Automacao-e-Monitoracao-do-Sistema-de-Atencao-Primaria-a-Saude.pdf. Acesso em: 26 de outubro de 2019.
19. Oliveira RM, Duarte AF, Alves D, Furegato ARF. Desenvolvimento do aplicativo tabacoquest para informatização da coleta de dados sobre tabagismo na enfermagem psiquiátrica. *Rev. Latino-am. Enfermagem* [Internet] 2016;(24): 2726. Disponível em: <https://doi.org/10.1590/1518-8345.0661.2726>. Acesso em: 15 de outubro de 2019.
20. Mummah SA, King AC, Gardner CD, Sutton S. Iterative development of Vegethon: a theory-based mobile app intervention to increase vegetable consumption. *Int J Behav Nutr Phys Act*. [Internet] 2016. [acesso 2020 mar 23];(13):1:90. Disponível em: <https://pubmed.ncbi.nlm.nih.gov/27501724/>. Acesso em: 23 de março de 2023.
21. Mendonça AG et al. Tecnologias em saúde para o acompanhamento do crescimento e desenvolvimento do lactente: scoping review. *Research, Society and Development* [internet] 2022; 11(14): e188111436271. Disponível em: <http://dx.doi.org/10.33448/rsdv11i14.36271>. Acesso em: 30 de março de 2023.
22. Resende JVM et al. Uso de app construído para educação sexual e prevenção de IST entre alunos de escola pública: relato de experiência. *Saúde Coletiva* (Barueri) [internet] 2022; 12(80). Disponível em: <https://revistasau decoletiva.com.br/index.php/saude-coletiva/article/view/2650>. Acesso em: 30 de março de 2023.
23. Lino JCF. Desenvolvimento de aplicativo móvel para ampliação de informações sobre práticas integrativas e complementares em saúde no SUS. 2021. 117 f. Dissertação (Mestrado Profissional em Telemedicina e Telessaúde) - Faculdade de Ciências Médicas, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, 2021.
24. Carvalho MDS, Andrade BAV, Albuquerque MCS. Terapia Comunitária Integrativa direcionada aos cuidadores de usuários de um CAPSI em período de distanciamento social: Um relato de experiência a partir das vivências de uma equipe de residência multiprofissional em um Centro de Atenção Psicossocial Infanto-Juvenil durante a pandemia da Covid-19. *HRJ* [Internet]. 2021; 2(10):150-64. Disponível em: <https://escresidencias.emnuvens.com.br/hrj/article/view/122>. Acesso em: 30 de março de 2023.