BJPS

Brazilian Journal of
Pharmaceutical Sciences

http://dx.doi.org/10.1590/s2175-97902022e20503

Article

Pharmaceutical care during COVID-19 pandemic: challenges and perspectives

Thais Rodrigues Penaforte[1*]

[1]*Department of Medicine Pharmacy Faculty, Federal University of Bahia, Salvador, Bahia, Brazil*

COVID-19 (SARS-CoV-2) pandemic is raising many questions about the future of face-to-face interactions. The possible changes on healthcare delivery may provoke a long term disruption on pharmaceutical assistance requiring new approaches to provide pharmaceutical services. The proposal of pharmaceutical care is patient oriented, and its activities include different forms of interaction. The emergence of COVID-19 puts to the test all the efforts to reposition pharmaceutical care in the set of clinical activities. Now, the pharmaceutical consultations and group activities, which played a fundamental role in the reformulation of pharmacy practices, must be revised in order to reduce the risk of patient agglomeration and contamination. Several researchers suggest technology use to intermediate health care assistance. However, few studies had rigorously analyzed the effectiveness of virtual health care on the pharmaceutical field. Innovating the pharmacy workflow, during the course of a crisis like COVID-19, is the current challenge addressed to all pharmacists. This unforeseen situation requires us to reconsider our plans and actions. It will be necessary resilience, courage and creativity to achieve a consistent attitude, which provides a quick response to the health care needs in this time of crisis.

Keywords: Pharmaceutical care. COVID-19. Pharmacist.

COVID-19 (SARS-CoV-2) pandemic is raising many questions about the future of face-to-face interactions. The possible changes on health care delivery may provoke a long-term disruption on pharmaceutical assistance requiring new approaches to provide pharmaceutical services.

The proposal of pharmaceutical care is patient oriented. Its activities include different forms of interaction, such as interviews, exams, clinical evaluations and multidisciplinary performances. During the ongoing COVID-19 pandemic, the measures for reducing transmissions rates, like voluntary quarantine and social isolation, had affected many pharmaceutical follow-ups in progress. Faced with the demand for the maintenance of clinical care activities, professionals, services and institutions are being bombarded with new applications and approaches for the restoration of care. The highlights of some international experiences can serve as an example for pharmaceutical performance, not only in the current scenario, but also in the post-pandemic period.

More than rethink the pharmaceutical care structure; the emergence of COVID-19 puts to the test all the efforts to reposition pharmaceutical care in the set of clinical activities. From the beginning, there was a leading role on the face-to-face interaction and evaluation of drug therapeutic effects. Now, we are facing the possibility of maintaining the assistance mediated by technology and privilege other themes in consultations, such as self-care measures, the use of individual protection devices and psychological support.

The pharmaceutical consultations and group activities, which played a fundamental role in the reformulation of pharmacy practices, must be revised in order to reduce the risks of patient agglomeration and contamination. The Brazilian Pharmaceutical Assistance Department worked quickly at the beginning of the COVID-19 emergence, issuing guidelines regarding the execution of pharmaceutical care actions, aimed to reorganizing workflow (Brazil, 2020).

***Correspondence:** T. R. Penaforte. Departamento do Medicamento. Faculdade de Farmácia. Universidade Federal da Bahia. Rua Barão de Jeremoabo, 147. CEP 40170-115, Salvador, Bahia, Brasil. Phone: (71) 3283-6914. E-mail: thaisrpenaforte@gmail.com. ORCID: https://orcid.org/0000-0003-3606-7453

Recommendations included prioritizing individual consultations over group activities, as well as reinforcing the hygienic behavior (use of masks, social distance, environmental and hands sanitization). Regarding medication´s dispensing, the patients received orientation about the mandatory social distance (the use of floor marks reinforce it), the extension of medication prescriptions deadline, the long-term therapy medicine dispensing rules flexibilization that allows medicine to dispense with patient absence as well as prescription for long periods. In order to reduce the patient permanence in lines, it is suggested the adoption of strategies, such as previous screening and prioritization of patients as well as, when possible, the selection of external places, like waiting areas (Brazil, 2020; Ministry of Health, 2020).

These are strategies that impact directly the pharmaceutical care practices and it is necessary to have actions that guarantee the service sustainability and therapeutic follow-ups maintenance. However, how to maintain this care bonds, when the new conducts suggest the return of patients every 90 days and the presence of representatives (instead of patients) to receive the dispensed medication?

The way pharmacists are dealing with this pandemic requires creativity and innovation. Pharmaceutical care plays a crucial role in coordinating care and more than ever, in this moment of vulnerability, the pharmacist action must be directed to cooperate with the health system. Several researchers suggest technology use to intermediate health care assistance. Video, telephone and multimedia educational materials can be used during appointments and interviews, as a way to maintain the clinical bonds (Badreldin *et al*., 2020; Zheng *et al*., 2021; Li *et al*., 2021; Meng, Qiu, Sun, 2020). Historically, telehealth has focused its application on medicine and the support of health services (Caetano *et al*., 2020). With the institution of social distancing measures, its scope did expand with the possible inclusion of pharmaceutical services, adopting the Ministry of Health´s regulation (Presidency of the Republic, 2019), since the profession regulatory bodies hadn´t established specific regulations.

However, few studies had rigorously analyzed the effectiveness of virtual health care on the pharmaceutical field. Brazilian's virtual pharmaceutical care experience are limited to the educational area (Jabbur-Lopes *et al*., 2012; Mesquita *et al*., 2015). Even the National Program of Telehealth Networks (Ministry of Health, 2011) considered the teleconsulting to be performed among health workers, professionals and managers, but not to monitor patients. The extensive use of telehealth to support health assistance is an innovation launched with COVID-19 and it presents difficulties to provide patient monitoring (Caetano *et al*., 2020).

Electronic medical record systems lack of integration, or even the absence and problems in communication between health care network, makes it difficult for professionals to maintain, or resume, the assistance and adds more obstacles to the proposal of virtual care, especially for the ones who are working remotely (Molina, Hoffmann, Finkler, 2020). Additionally, the Brazilian Unified Health System and part of the population suffers with precariousness and insufficient technological resources, which requires an intersectoral action to put into practice the proposal to inclusion of information and communication technologies in the public health care field (Silva, Moraes, 2012).

The COVID-19 pandemic will impact other pharmaceutical work tasks. The need to decrease the virus proliferation (which has to remain long time post-pandemic) requires reduction of its carriers, such as prescriptions, intervention papers and medicine packaging (Chinese Pharmaceutical Association, 2020). Hua and collaborators (2020) showed the Chinese hospitals experience on new medicine packaging development. They found an excellent material to pack and also easy to be cleaned, disposable plastic bags, which facilitate the identification and checking of dispensed drugs.

In Brazil, the guideline adopted was to use containers for delivering and withdrawing prescriptions and medications in order to avoid contact between hands (Brazil, 2020). Another study addresses the future need to make the pharmaceutical field sustainable, especially as a response to the COVID-19 post-crisis, by reducing the impact of the production and disposal of pharmaceutical inputs (Chan *et al*., 2020).

As medication experts and health providers, pharmacists are trained to better respond and analyze clinical information production to provide rational use

of medicines. In the context of the COVID-19 pandemic, those actions deserve attention. The dissemination of inaccurate pharmacological information, the scientific information manipulation in frank political-ideological apology, breaks the evidence-based medicine procedures and it requires a precise positioning of pharmacists (Carvalheiro, 2020; Xavier *et al.*, 2020). Their technical and bioethical ability to produce reasoned conduct, based on the highest scientific clinical rigor, will be preponderant to produce systematic information of balancing the urgency issued by the pandemic with the procedural requirements to establish safe and responsible evidence (Casas, 2020; d'Avila, Melo, Lopes, 2020).

Innovate the pharmacy workflow and leadership, during the course of a crisis like COVID-19, is the current challenge addressed to all pharmacists. This unforeseen situation requires us to reconsider our plans and actions. While we are immersed in such a tragic moment, with thousands of lives lost and the collapse of the public assistance network, it seems inappropriate to think about our own problems, and, right now, we need to balance to be able to provide prompt pharmaceutical services continuation. The new workflows implementation imposes enormous uncertainty, particularly on the pharmaceutical services effectiveness. However, it doesn't mean to make hasty judgments and exclusions, but we need to learn to reframe health care segments, looking around for examples and learning from our colleagues. The Pharmaceutical Sciences evolved from new experiences, and to preserve health care bonds, with transparency and safety, it is necessary the contribution of professionals, managers, and patients, who must adjust and support themselves. This is the essence of overcoming a natural disaster described by Zuckerman and collaborators (2020) after the destruction of their pharmacy's health-system. It takes resilience, courage and creativity to achieve a consistent attitude, which provides a quick response to the health care needs in this time of crisis.

REFERENCES

Badreldin, HA, Alshaya, O, Saleh, KB, Alshaya, AI, Alaqeel, Y. Restructuring the inpatient advanced pharmacy practice experience to reduce the risk of contracting coronavirus disease 2019: Lessons from Saudi Arabia. J Am Coll Clin Pharm. 2020;3(4):771-777.

Brasil. Ministério da Saúde. Secretaria de Ciência, Tecnologia, Inovação e Insumos Estratégicos em Saúde. Nota Informativa nº 1/2020 - SCTIE/GAB/SCTIE/MS [Internet]. Brasília (DF): Ministério da Saúde, 2020. [citado 2020 Ago 5]. 2 p. Disponível em: https://www.saude.gov.br/images/pdf/2020/May/25/Nota-Informativa-01--GAB.SCTIE.MS%20%20REORGANIZA%C3%87%C3%83O%20DOS%20SERVI%C3%87OS.pdf

Caetano R, Silva AB, Guedes ACCM, Paiva CCN, Ribeiro GR, Santos DL et al. Desafios e oportunidades para telessaúde em tempos da pandemia pela COVID-19: uma reflexão sobre os espaços e iniciativas no contexto brasileiro. Cad Saúde Pública. 2020;36(5).

Casas CPR, Silva J, Castro R, Ribeiro-Alves M, Franco CM. Avaliação de tecnologias em saúde: tensões metodológicas durante a pandemia de Covid-19. Estud av. 2020;34(99):77-96.

Carvalheiro JR. Os coletivos da Covid-19. Estud av. 2020;34(99):7-24.

Chan AHY, Rutter V, Ashiru-Oredope D, Tuck C, Babar ZU. Together we unite: the role of the Commonwealth in achieving universal health coverage through pharmaceutical care amidst the COVID-19 pandemic. J Pharm Policy Pract. 2020;13(13).

Chinese Pharmaceutical Association. Coronavirus 2019-nCoV Infection: Expert Consensus on Guidance and Prevention Strategies for hospital pharmacists and the pharmacy workforce (1st Edition) [citado em 18 maio 2020]. Disponível em: https://www.fip.org/files/content/priority-areas/coronavirus/English_SARS-CoV-2_Infection_Expert_Consensus_on_Guidance_and_Prevention_and_Control_Strategies_for_Retail_Pharmacy_Workforce.pdf

d'Avila A, Melo MFV, Lopes RD. Pandemônio Durante a Pandemia: Qual o Papel dos Profissionais da Saúde e a Ciência? Arq Bras Cardiol. 2020;114(5):753-754.

Hua X, Gu M, Zeng F, Hu H, Zhou T, Zhang Y, et al. Pharmacy administration and pharmaceutical care practice in a module hospital during the COVID-19 epidemic. J Am Pharm Assoc. 2020;60(3):431-438.

Jabbur-Lopes MO, Mesquita AR, Silva LMA, De Almeida Neto A, Lyra DP, Jr. Virtual patients in pharmacy education. Am J Pharm Educ. 2012;76(5).

Li H, Zheng S, Liu F, Liu W, Zhao R. Fighting against COVID-19: Innovative strategies for clinical pharmacists. Res Social Adm Pharm. 2021;17(1):1813-1818.

Meng L, Qiu F, Sun S. Providing pharmacy services at cabin hospitals at the coronavirus epicenter in China. Int J Clin Pharm. 2020;42(2):305-8.

This is an open-access article distributed under the terms of the Creative Commons Attribution License.

Mesquita A, Souza W, Boaventura T, Barros I, Antoniolli A, Silva W, et al. The Effect of Active Learning Methodologies on the Teaching of Pharmaceutical Care in a Brazilian Pharmacy Faculty. PloS one. 2015;10(5).

Ministério da Saúde. (Brasil). Portaria nº. 2.546, de 27 de outubro de 2011. Redefine e amplia o Programa Telessaúde Brasil Redes (Telessaúde Brasil Redes). Diário Oficial da União 27 out 2020; Seção 1.

Ministério da Saúde. Agência Nacional de Vigilância Sanitária (Brasil). Resolução RDC nº. 357, de 24 de março de 2020. Estende, temporariamente, as quantidades máximas de medicamentos sujeitos a controle especial permitidas em Notificações de Receita e Receitas de Controle Especial e permite, temporariamente, a entrega remota definida por programa público específico e a entrega em domicílio de medicamentos sujeitos a controle especial, em virtude da Emergência de Saúde Pública de Importância Internacional (ESPII) relacionada ao novo Coronavírus (SARS-CoV-2). Diário Oficial da União 24 mar 2020; Seção 1.

Molina LR, Hoffmann JB, Finkler M. Ética e assistência farmacêutica na atenção básica: desafios cotidianos. Rev Bioét. 2020;28(2):365-375.

Presidência da República (Brasil). Decreto nº. 9.795, de 17 de maio de 2019. Aprova a Estrutura Regimental e o Quadro Demonstrativo dos Cargos em Comissão e das Funções de Confiança do Ministério da Saúde, remaneja cargos em comissão e funções de confiança, transforma funções de confiança e substitui cargos em comissão do Grupo-Direção e Assessoramento Superiores – DAS por Funções Comissionadas do Poder Executivo - FCPE. Diário Oficial da União 20 maio 2019; Seção 1.

Silva AB, Moraes IHS. O caso da Rede Universitária de Telemedicina: análise da entrada da telessaúde na agenda política brasileira. Physis. 2012;22(3):1211-1235.

Xavier F, Olenscki JRW, Acosta AL, Sallum MAM, Saraiva AM. Análise de redes sociais como estratégia de apoio à vigilância em saúde durante a Covid-19. Estud av. 2020;34(99):261-282.

Zheng SQ, Yang L, Zhou PX, Li HB, Liu F, Zhao RS. Recommendations and guidance for providing pharmaceutical care services during COVID-19 pandemic: A China perspective. Res Social Adm Pharm. 2021:17(1)1819-1824.

Zuckerman AD, Patel PC, Sullivan M, Potts A, Knostman M, Humphreys E, et al. From natural disaster to pandemic: A health-system pharmacy rises to the challenge. Am J Health Syst Pharm. 2020;77(23):1986-1993.

Received for publication on 21st January 2020
Accepted for publication on 21st September 2020