

Editorial

Dear author: is your intervention's description in clinical pharmacy research clear enough?

Caro autor: a descrição de sua intervenção em pesquisa de farmácia clínica é clara o suficiente?

> Karina Aparecida RESENDE, Bruna Mundim CARDOSO, Nathane Stéfanie de QUEIROZ e Angelita Cristine MELO DOI: 10.30968/rbfhss.2020.114.0538

What is do science? One possible answer would be to investigate questions about the world or phenomena of this, find answers to these questions, and assess their degree of certainty through the reproducibility and repeatability of their results or answers. In the scientific investigation of the world or its phenomena there are four main objectives: 1) description by means of classifications or taxonomies; 2) explanation of the sames; 3) prediction of what will occur considering models and, 4) intervention in processes or specific systems to measure results and ultimately propose improvements for the society.1 In the field of health and education, the United Nations Educational, Scientific and Cultural Organization (Unesco) defines research as the set of systematic and creative actions to increase knowledge about human beings, culture and society and to apply it in new areas of interest to society.1

In this field, the "Publish or perish" maxim is commonly mentioned among researchers and journal editors.² And, despite this understanding, it is not always easy to succeed in publishing when submitting an article. Unfortunately, even when the articles are published, the indication of low quality in systematic reviews with or without metaanalysis is frequent, especially in the evaluation of articles on pharmaceutical services.^{3–5} Both Unesco and the scientific method reinforce the need to outline and conduction research studies with an accurate description of the interventions performed so that reproducibility is possible.^{6,7} Research studies in the field of Clinical Pharmacy usually involve interventions that are provided in different clinical services and are almost always not sufficiently described in the articles or even in the research projects that originated them, which is essential not only for the quality of the studies, but also for education and for the assistance provided.8

Thus, this editorial introduces fundamental aspects to be considered when describing interventions in Clinical Pharmacy as a contribution to the planning of research studies and the essay of articles themselves. Several authors have leaned over already addressed the topic and bring us with precise indications of how to do it, what are we synthesize in Figure 1.5,6,8-10

Finally, to answer the question: "Is the description of your intervention in clinical pharmacy research clear enough?", authors would need to review whether there is minimally information in your manuscript about: what was done, focus/reason, sources of clinical data, procedures/actions taken by the pharmacist, moment, autonomy with respect to medication and ordering tests; form of contact with the recipient, setting and materials that supported (what and who provided); repetition/recurrence of the action; contact (frequency, method), if the intervention was standard or personalized per patient, Figure 2. It is reiterated that clear descriptions allow, ultimately instance, measurement the impact of the care provided by the pharmacist to patient, in addition to guiding pharmacists in development of methods of documenting quality in their own practices. We hope, in this editorial, we have been clear to assist them.

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Figure 1. Information on the description of interventions in the area of Clinical Pharmacy. (Ccontinued)

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CURRIE JD et al., 2003 (8)

Documentation of pharmacist-provided care

2015

ROTTA I et al.,2015 (9)

DEPICT (Descriptive Elements of Pharmacist Intervention Characterization Tool)

Documentation of pharmacist-provided care.

- Develop guidelines for document elements that need to be included in any registration of care provided by pharmacists to enable the quality of care is assessed and for disabled people the use of these guidelines to improve the quality of Pharmaceutical documents.
- Documentation Assessment Tool (TED). O TED is a checklist for assessing the integrity of the Documents of care provided by the pharmacist.

in response to the problem of frequently describing inadequate intervention in studies that assess the impact of clinical pharmacy activities. The aim of this study was to create an improved version of DEPICT (ie DEPICT 2) to better characterize clinical pharmacy services, in order to ensure consistent reports, thereby increasing

DEPICT (Descriptive Elements of Pharmacist Intervention Characterization Tool): it was created

the reproducibility of interventions in practice.

DEPICT 2

Contact with the recipient: how contact with the recipient occurs. One-on-one contact and contact with group.

Environment: where the recipient received the service. Community pharmacy; head of the hospital; Emergency department; hospital pharmacy; primary care clinic/environment; HCP Office; recipient's home; nursing home/long-term care facility; public places/classrooms; and another clearly indicated configuration, not previously included.

Intervention focus: characteristics of the patient who benefits indirectly or directly from the intervention. In a specific medical condition; in a specific drug or pharmacological class or dosage form; the patient's pre-specified sociodemographic characteristics; and without any disease, pharmacological or sociodemographic restrictions.

Clinical data sources: where the pharmacist obtains the information for patient assessment. Prescription drug orders; pharmacy records/pharmacy computer system; point of care test; list of medications or brown bag data; patient self-monitoring data; adhesion measurement tools; physical/functional assessment procedure or test; cognitive/mental assessment test; laboratory tests/monitoring of therapeutic drugs; patient interview (not including assessment or testing procedures); medical records; discharge or referral letter; direct contact with HCP; clinical databases/aggregated alert systems; and other clearly stated sources of clinical data, not previously included

Variables evaluated: parameters evaluated by the pharmacist to construct the intervention. Drug selection (Rx, OTC or other); effectiveness of medication/therapy; drug safety; educational needs/beliefs of the patient/caregiver; HCP information needs; medication adherence; drug list/history accuracy; patient's nutrition or lifestyle; screening results; treatment costs; accessibility/availability of medicines; expired or incorrectly stored drugs; dispensing or administration errors; laboratory testing requirements; legal or administrative requirements; and other clearly indicated variables evaluated, not previously included.

Action taken by the pharmacist: what is done to solve the identified problems. Structured Educational Program; medication information or patient advice; reminders/notification about non-compliance; referral to another HCP or service; change or suggestion to change the order of therapy/laboratory tests; updating the patient's medication list; monitoring results report; and other clearly stated actions, not previously included.

Moment of the action: when the action occurs for each recipient. During the patient's admission; at patient's discharge; first weeks after the patient's discharge; transfer of inter/intra patient health unit; after an acute event or exacerbation of the patient; distribution of medicines; scheduled appointment; any time; new or changed prescription; and other clearly stated deadlines for action, not previously included.

Materials that support the actions: items developed or supplied as part of the service. Letter of recommendation; educational materials/brochures/written action plan; medication compliance device/administration aid device; drug list/drug schedule/drug report; patient's diary/health diary; clinical guidelines/protocols/evidence framework; self-monitoring device; auxiliary labels; pictorial instructions/written reminders: and other materials developed or supplied, not previously included.

Repetition: recurrence and frequency of actions and contacts with the recipient. Recurrence of action: action described in item 6 performed in one contact and action described in item 6 performed in multiple contacts. Frequency of contacts: number of contacts with the recipient during the service and duration of the intervention per recipient (in days).

Communication with the recipient - Method: face to face; written (including web based); telephone; and video conferencing. Distribution of contacts during the intervention: only in person; mainly in person with some remote contact; equally personally and remotely; mainly remotely with some personal contact; and just remotely. Changes in therapy and laboratory tests: not applicable (check whether item A.6.05 has not been selected or deals only with non-prescription drugs).

Medication and laboratory tests: autonomy to start medication; autonomy to suspend medication; autonomy to change the dosage of the medication; autonomy to request laboratory tests; ability to make changes to prescription drugs or laboratory tests; changes or requests for laboratory tests with restrictions (dependent prescription model); and changes or requests for laboratory tests without restrictions (independent prescription model).

Encounter with the Patient - Essential Elements

- Patient identifier: patient's name, name code or code number.
- Patient's date of birth.
- · Patient's gender.
- Contact information: up-to-date contact with the patient (for example, address, phone number) must be on the record. If more than one contact is included, the contact indicated by the patient must be used.
- Allergies/adverse drug reactions (ADRs): drug allergies should be observed patient and history of ADRs or lack thereof
- Medical problem, current and past: a description of medical problems over time by the patient. Current versus remote problems must be identifiable, in addition to the dates of diagnosis or resolution of the diagnosis. Environmental allergies should be noted, if relevant.
- Rx/OTC/alternative medication history: a comprehensive list of treatments with prescription, without prescription, vitamins, herbal and homeopathic, with prescribed dose, actual regimen, history of ADR and documented compliance.
- Payment method/economic situation: Information on insurance carrier, coverage limitations, and patient identification number. Information on the patient's current economic situation that could affect treatment must be retrievable

Elements to be included, if necessary

- Family history: list of medical conditions of family members that relate to the patient's health care.
- Social history: a list of social considerations that may relate to the patient's health care. The use of tobacco, alcohol or recreational drugs and positive health-related habits should be documented.
- Patient race.
- Objective information: a compilation of test results from the pharmacy practice or other test site. Information collected from other providers must be identified as such. This can include vital signs, laboratory results, diagnostic signs or physical exam results.
- Special needs of the patient: visual or hearing impairment, need for assistive devices, special educational needs, etc. If the patient has no special needs, this should be noted.
- No medication therapy: treatments, diets, physical activity or other therapy that the patient is receiving and that does not involve medication should be described. If no drug therapy is being used, this should also be noted.

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Figure 1. Information on the description of interventions in the area of Clinical Pharmacy. (Ccontinued)

2017

EROL A, 2017 (6)

2019

CLAY PG et al., 2019 (10)

Scientific research

- It is performed through the application of systematic and constructed scientific methods to obtain, analyze and interpret data.
- It is a neutral, systematic, planned and multi-step process that uses facts previously discovered to advance knowledge that does not exist in the literature.

Hypothesis and Scientific

- All scientific investigations begin with a specific research question and the formulation of a hypothesis to answer that question. The hypothesis must be clear, specific and have the direct objective of answering the research question.
- The next step is to test the hypothesis using a scientific method to approve or disapprove it.
- The scientific method must be neutral, objective, rational and, as a result, must be able to approve or disapprove the hypothesis.



- It should also include plans on the statistical analysis to be carried out. The number of individuals and controls required to obtain valid statistical results must be calculated and the data obtained from appropriate numbers and methods.
- Only after completing these steps can research be written and presented to the scientific society.

PaCIR: designed to guide authors to include sufficient intervention details to improve consistency in medical literature reports of pharmaceutical patient care interventions. It is important to note that this checklist was designed to complement (not replace) the main reporting tool in the literature that most accurately reflects the study design.



Element 1: Replicability. Sufficient description of the intervention to allow their implementation under similar circumstances.

Reasoning: Many pharmaceutical interventions in patient care reported in the literature are complex, involving several components and pathways. Cumulative scientific evidence builds a strong case for discovering the truth. Replicability should not be confused with reproducibility. Replicability refers to duplicating the results of a previous study using the same procedures, but with new data collection, while reproducibility involves duplicating the results of the previous study using the original data and procedures. When seeking replicability when reporting complex interventions, an advisable approach is to identify the "central" components for standardization. The flexibility in the description of the peripheral intervention components may reflect adaptations to local circumstances. Sufficiently detailed descriptions of the components and intervention measures in the published literature will improve the potential for replication of studies and inclusion of more homogeneous published articles in systematic reviews and meta-analyzes.



Element 2: Patient population. Sufficient descriptors of the intervention recipients (or population) to assess generalizability.

Reasoning: although demographic data and the main clinical descriptors of patient groups (intervention and comparator are often presented in manuscripts, a broader view is often necessary for the reader to determine the generalization of the study results. A major barrier to including publications individual studies in systematic reviews is that there are so many different qualified populations that specific intervention participants need to be clearly defined. A second impediment is the lack of analysis interventions for patient characteristics in the current literature. These types of sub-analyzes are often useful for a later interpretation of the generalization and for the future direction of the implementation of the intervention to achieve the best results.



Element 3: Patient and other data sources. Sufficient description of the source and mechanism by which patient or other data for the conduct of the intervention were obtained or accessed.

Reasoning: Many data sources may be needed to assess the impact of a single pharmaceutical intervention on patient care (eg, pharmacy complaint data, medical complaint data, pharmaceutical intervention documentation, patient reported data, record data patient physicians). Each source, its limitations and accessibility by the study team must be communicated to assist the reader in interpreting the results. As noted in a recent systematic review, a single study had a high risk of bias due to insufficient evidence of access to patient data and data on implementation details, such as coordination of care and follow-up after comprehensive drug review, intensity of drug adoption. pharmacies to intervene and insurance coverage for interventions.



Element 4: Environment. Sufficient description of the care context, geographic aspects, or physical location where the intervention occurred, including any necessary infrastructure.

Reasoning: Pharmaceutical patient care services are provided in a variety of settings that include inpatient facilities, outpatient clinics, outpatient clinics, otherwise, community pharmacies, long-term care settings and non-traditional workplace locations and health fairs. Telephone services can be provided from any of the configurations mentioned above. In addition, as the scope of pharmacist' practice varies significantly, geographic location may affect the implementation and replicability of the intervention in some states. In addition, health status, access to health care and health outcomes may vary according to geographic location, is important to understand the underlying health disparities and other factors that can affect the results of the study. The description of additional environmental factors, such as infrastructure resources (for example, private consultation space, health information technology capacity), are influential in determining the applicability and replicability of the study, especially with different local barriers to care delivery. As noted in a systematic review, different therapy goals and patient acuity make it difficult to compare studies in different settings (that is, during an acute hospital stay vs. outpatient settings).



Element 5: Delivery. Sufficient description of the mode of intervention delivery.

Reasoning: the authors must comprehensively describe the way the service was provided throughout the study. If there is variation between the actual delivery methods, such as face-to-face, telephone or video chat, they should be noted to inform the reader if these variations were a constructed aspect of the study (the researchers predicted the need to be flexible in the method of delivery, delivery) or potentially represent a protocol deviation (lack of fidelity). If the mode of delivery influences any aspect of the study (ie inclusion criteria, results), this should also be reported. Finally, when multiple modes of delivery are present, researchers should consider adding the mode of delivery as an independent or predictive variable in the analyzes, or conducting subgroup analyzes based on the mode of delivery if sample sizes are adequate.



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Figure 1. Information on the description of interventions in the area of Clinical Pharmacy. (Concluded)

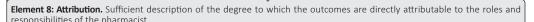
2019 CLAY PG *et al.*, 2019 (10) BONETTI A.F *et al.*, 2020 (5)

Element 6: Frequency and duration. Sufficient description of the frequency, number, and duration of sessions for the intervention.

Reasoning: a sufficient description of each of the components of the intervention (frequency, number, interval and duration) is essential to determine fidelity. Previous reviews of published studies describing pharmaceutical interventions have criticized the lack of information needed to determine whether the care provided is isolated, intermittent, sustained or coordinated, as well as the intensity of service over time. For example, drug reconciliation or immunization is a service typically performed during a single episode of care that may or may not be provided within a comprehensive pharmacotherapeutic follow-up assessment. However, a prescription review. The communication of the frequency, number, interval and duration of delivery that influenced an intervention also affects the interpretation of fidelity. Thus, when the element (frequency and duration) is harmonized with the elements (replicability), (environment), (delivery), (function / responsibility) and (attribution), it will be clear to the reader (and systematic reviewers) if the intervention included a comprehensive assessment of all the patient's drug-related needs, including follow-up assessment to determine progress toward therapy goals and drug therapy problem resolution, or whether the intervention was limited in duration, scope or focus.

Element 7: Pharmacist role and responsibility. Sufficient description of the roles and responsibilities of the pharmacist and others involved in the intervention, including pharmacist-specific skills training.

Reasoning: models of collaborative healthcare delivery are evolving. These changes increase opportunities for inclusion of pharmacists in team-based care, interprofessional communication, and expansion of drug management interventions in care settings (for example, primary care clinics). With the increase in the number and types of health professionals involved in patient care and the combination of historical roles, it is essential that the roles and responsibilities of study personnel are clearly described in a manuscript. The need for clear descriptions of the roles and responsibilities of pharmacists and others involved in interventions. It is necessary not only to infer attribution (element 8), but also for the purposes of replicating the study (element 1). The level of intervention may vary in relation to the training, experience, training and skill set of pharmacy personnel. For example, the pharmacists involved may be asked to complete protocol-specific training before providing study-related procedures – even when these procedures almost replicate what is done in daily practice. In such cases, any unique characteristics of the training that made the intervention successful must be included in the text or in supplementary information. Studies may involve various levels of pharmacist training (for example, student, resident, fellowship), specialties (for example, oncology, geriatrics or HIV) or type of pharmacy personnel (pharmacist, technician). The role of each individual must be detailed in the Methods section of the manuscript. Sufficient description of all personnel qualifications to carry out the study procedures, especially if the institution involved requires a certain standard, must be included in the manuscript. The disclosure of such information in published reports provides a more complete view of the study.



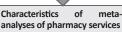
Reasoning: The evolving payment policies have greatly increased the interest of the health sector in determining and attributing the attribution of results to services and providers. Evidence to support how a provider's service influences the patient's range of outcomes, both positively and negatively, is highly desired. During the design of the study, researchers should pay special attention to the causal mechanisms to understand the full spectrum of the effect of the intervention studied on the results, as well as the influences of non-intervention on the results. Researchers need to communicate whether the intervention contributed directly or discreetly to the overall measured result. If a result improves, researchers should (at a minimum) discuss whether the intervention has influenced it positively or negatively. Researchers should pay more attention to causal mechanisms to understand the full spectrum of the intervention's effect on outcomes. The recommendation is not only to report the proximal result (drug therapy problems identified and resolved), but also to examine the effects or distal results for which the intervention may have a beneficial or harmful influence. The pharmacist's actions increased or decreased costs (more or less laboratory tests or health care utilization) and affected the patient's overall health (results or satisfaction reported by the patient) and what influence other services or actions had on the results. Understanding the attribution of patient outcomes in the healthcare field is currently in its infancy. The criterion standard is supposed to be a randomized controlled trial with a sufficiently large sample size, eliminating or minimal confounding factors and sufficient evaluation time to draw concrete conclusions. As already noted, this is difficult to do for complex interventions, because it is not known how to best manage other people's confused assignments in the patient care process. There are well over 100 attribution models currently under study. The common characteristics of these models allocate attribution based on the attribution of responsibility to patients prospectively or retrospectively, a team or an individual who provides the majority of services to a patient or population, responsibility for the largest proportion of care costs for a patient or a population, type of patient or population based on age, complexity, etc., acute or chronic care or type of provider. Consequently, in order to better understand the influence of the pharmacist's intervention on the patient's results, the authors must provide information on how the attribution of this result to the pharmacist was determined and which other providers had influence and to what degree, if known, as well as an assessment of distal, beneficial and harmful results, which were influenced by the intervention.

Element 9: Unique attributes. Sufficient description of factors not addressed in other elements that can affect replication.

Reasoning: It is widely recognized that there is variation in healthcare between geographic areas, types of institutions, traditional interventions or not providers. How the people and populations receiving services represent a variety of cultures, socioeconomic levels, cognitive skills, among others. The PaCIR elements address common key descriptors of variability. Researchers must carefully evaluate aspects of their methods that may be unique and require reports. An example could be the use of exclusive or cutting edge technology.

Pharmacy meta-analyzes

Low-quality meta-analyzes with misleading conclusions are often published in the health field and may compromise decisionmaking in clinical practice. This systematic review aimed to map the characteristics of the meta-analyzes of pharmacy services and their association with the study activities. Metaanalyzes of interventional and observational studies that compared a service provided by pharmacists with usual care or provided by another health professional were included.



Standardized form for data extraction:

- A- study methods and general characteristics, such as authors' names, year of publication, journal impact factor, country, sample size (ie, number of included studies and population), pharmaceutical service, type of included studies and patient clinics clinical conditions
- B- methods used in systematic review, including databases, use of MeSH terms, description of complete research strategies, manual performance and light gray nature searches, statement of use for reporting guidelines (eg PRISMA statement, recommendations Cochrane and GRADE), prior publication of the protocol and assessment of the quality of studies and publication bias (ie Jadad Score, Cochrane polarization risk tool, funnel plot, Egger or Begg Test).
- **C-** description of the statistical model used for meta-analyzes (ie, random, fixed or both), statistician's method of meta-analysis, additional analyzes (ie, subgroup, sensitivity or meta-regression analyzes) and software used for calculations
- **D-** results report (that is, measures of the effect size of the result and its results with less, heterogeneity and p-value)
- **E-** conflict of interests and statements of sources of funding.



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Figure 2 Systematization of description elements and intervention classification systems according to different protocols.

Systematization instrument and proposal

DEPICT: Descriptive elements of the characterization tool for the pharmacist's intervention (Rotta et al., 2015)10

Contact with the recipient: One-on-one contact or contact with group.

Environment: Community pharmacy, hospital bedside, emergency department, hospital pharmacy, ambulatory/primary care, HCP1 office, recipient's home, nursing home/long-term care facility, public places/classrooms; another environment clearly declared, not previously included.

Focus of the intervention: On a specific medical condition, on a specific medicine or pharmacological class or dosage form, on a pre-specified sociodemographic characteristic of the patient; without any disease, pharmacological or sociodemographic restriction.

Clinical data sources: Drug prescription orders, pharmacy records/pharmacy computer system, point-of-care test, medication list or brown bag data, patient self-monitoring data, adherence measuring tools, physical/functional assessment procedure or test, cognitive/mental assessment test, laboratory tests/therapeutic drug monitoring, patient interview (not including assessment procedures or tests), medical records, discharge or referral letter, direct contact with HCP, aggregated clinical databases/alert systems, other sources of clinical data clearly stated, not previously included.

Actions taken by the pharmacist: Structured educational program, drug information or patient counseling, reminders/notification about noncompliance, referral to other health care professional or service, change or suggestion for change in the order of therapy/lab tests, update of medication list, report of the monitoring results, and other clearly stated actions, not previously included.

Moment of the action(s): On patient admission, on patient discharge, first weeks after patient discharge, inter/intra-patient referral to the health unit, after an acute patient event or exacerbation, medication dispensing, scheduled appointment, at any time, new or changed prescription, and other clearly established timing of action(s)

Materials that support action(s): Discharge or referral, educational materials/leaflets/written action plan, medication compliance device/administration aid device, medication list/medication schedule/Medication Report, patient diary/Health Diary, guidelines/clinical protocols/evidence chart, self-monitoring device, auxiliary labels/pictorial instructions/written reminders, and other materials developed or provided, not previously included.

Repetition - Action recurrence: Action(s) described in item 6 performed in one contact, action(s) described in item 6 performed in multiple contacts.

Frequency of contacts: Number of contacts with the recipient during the service, duration of the intervention per recipient (in days).

Communication with the recipient - Method: Presential, written (including web-based), telephone, video conference

Distribution of contacts during the intervention: Only in person; mainly in person with some remote contact; equally in person and remotely; mainly remotely with some contact in person; only remotely

Medication and laboratory tests: Autonomy to start, suspend or change medication dosage; autonomy to order laboratory tests.

TIDieR: Template for Intervention Description and Replication (De Barra et al., 2019)9

Brief name: Provide a name or phrase which describes the intervention

Reason: Describe any the rationale, theory or objective of the elements essential to the intervention.

What - Materials: Describe any physical or informational materials used in the intervention, including those provided to the participants or used in applying the intervention or in training the intervention providers. Provide information on where the materials can be accessed (such as online appendix. URL)

Procedures: Describe each of the procedures, activities and/or processes used in the intervention, including any enabling or support activities. **Who provided:** For each category of intervention provider (such as psychologist or nursing assistant), describe their expertise, background and any specific training given

How: Describe the modes of application (as in person or by some other mechanism, such as internet or telephone) of the intervention and if was performed individually or in groups

Where: Describe the type(s) of location(s) where the intervention took place, including any necessary infrastructure or relevant resources

When and how much: describe the number of times that the intervention was performed and in which period, including the number of sessions, your schedule and its duration, intensity or dose

Adaptation: If the intervention was planned to be personalized, titrated or adapted, describe the changes (what, why, when and how) **Modifications:** If the intervention was modified during the course of the study, describe the changes (what, why, when and how)

How well-planned: If adherence or fidelity to the intervention was assessed, describe how and by whom, and if any strategies were used to maintain or improve fidelity, describe them

Real: if the adherence or fidelity of the intervention was assessed, describe the extent to which the intervention was carried out as planned.

PaCIR: Patient Care Intervention Reporting (Clay, 2019)12

Replicability: Sufficient description of the intervention to allow its implementation under similar circumstances.

Patient population: sufficient descriptors of the intervention recipients (and/or population) to assess generalization

Patient/Other Data Sources: Sufficient description of the source(s) and mechanism(s) by which the patient or other data for performing the intervention were obtained or accessed.

Environment: sufficient description of the geographic and/or physical location where the intervention took place, including any necessary infrastructure.

Delivery: sufficient description of the mode(s) of intervention delivery.

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Frequency and duration: sufficient description of the frequency, number, and duration of the session(s) for the intervention.

Pharmacist function/responsibility: sufficient description of the roles and responsibilities of the pharmacist(s) and others involved in the intervention.

Attribution: sufficient description of the degree to which the results are directly attributable to the roles/responsibilities of the pharmacist.

Exclusive attributes: sufficient description of factors not treated in other elements that may affect replication.

¹HCP: Health Care Professional.



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References

- 1. Reproducibility and Replicability in Science [Internet]. Reproducibility and Replicability in Science. Washington, D.C.: National Academies Press; 2019 [cited 2020 Nov 17]. Available from: http://nap.edu/25303
- 2. Melo AC. Prezado revisor: revisão duplo cega, cega ou aberta? Rev Bras Farmácia Hosp e Serviços Saúde [Internet]. 2020 Mar 10;10(1):0451.
- 3. Pousinho S, Morgado M, Plácido AI, et al. Clinical pharmacists' interventions in the management of type 2 diabetes mellitus: A systematic review. Pharm Pract (Granada). 2020;18(3):1–9.
- 4. Lin G, Huang R, Zhang J, et al. Clinical and economic outcomes of hospital pharmaceutical care: A systematic review and meta-analysis. BMC Health Serv Res. 2020;20(1):1–14.
- 5. Bonetti AF, Della Rocca AM, Lucchetta RC, et al. Mapping the characteristics of meta-analyses of pharmacy services: a systematic review. Int J Clin Pharm [Internet]. 2020;42(5):1252–60.
- 6. Erol A. How to conduct scientific research? Noropsikiyatri Ars. 2017;54(2):97–8.
- 7. Agius E. The Scientific Method. Vol. 1, British Medical Journal. 1965. p. 1066.
- 8. Currie JD, Doucette WR, Kuhle J, *et al.* Identification of essential elements in the documentation of pharmacist-provided care. J Am Pharm Assoc [Internet]. 2003;43(1):41–9.
- 9. Rotta I, Salgado TM, Felix DC, et al. Ensuring consistent reporting of clinical pharmacy services to enhance reproducibility in practice: An improved version of DEPICT. J Eval Clin Pract. 2015;21(4):584–90.
- 10. Clay PG, Burns AL, Isetts BJ, Hirsch JD, et al. A tool to enhance pharmacist patient care intervention reporting. J Am Pharm Assoc [Internet]. 2019;59(5):615–23.

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