Indonesian Journal of Pharmacy

VOL 33 (1) 2022: 52–62 | RESEARCH ARTICLE

3 Co-TEAM: A Logic Model for Pharmacy Health Coaching among Substance Use Disorders Patients

Alexxander[1], Ika Puspitasari[2]*, Susi Ari Kristina[3], Cecep Sugeng Kristanto[4] and Erna Prihandiwati[5]

1. Doctoral Program in Pharmaceutical Science, Faculty of Pharmacy, Universitas Gadjah Mada, Sekip Utara 55281 Yogyakarta, Indonesia
2. Department of Pharmacology & Clinical Pharmacy, Universitas Gadjah Mada, Sekip Utara 55281 Yogyakarta, Indonesia
3. Department of Pharmaceutics, Faculty of Pharmacy, Universitas Gadjah Mada, Sekip Utara 55281 Yogyakarta, Indonesia
4. Department of Psychiatry, Faculty of Medicine/Sardjito Hospital, Universitas Gadjah Mada, Sekip Utara 55281 Yogyakarta, Indonesia
5. Department of Pharmaceutics, STIKES ISFI Banjarmasin College of Health Science, South Kalimantan, Indonesia.

Info Article

Submitted: 30-08-2021
Revised: 10-01-2022
Accepted: 17-01-2022

*Corresponding author
Ika Puspitasari

Email:
ika_tunggul@ugm.ac.id

ABSTRACT

The use of pharmacy health coaching (PHC) on various chronic diseases has yielded promising results. However, the intervention model of pharmacy health coaching in patients with drug addiction has not been previously reported. This study aims to develop a logic model for pharmacy health coaching among patients with substance use disorders. The development of a logic model of pharmacy health coaching consisted of four steps. Firstly, this includes the use of a literature review to identify key values, scope, delivery, tools, the content of the session, and competencies for pharmacy health coaching. Secondly, focus groups discussion (FGD) was carried out to, obtain information from specific sources and discuss the discovery from the first step. Thirdly, developing a logic model based on steps 1 and 2, and finally, an FGD was conducted to discuss and fine-tune the model. A logic model successfully constructed and generated 3 Co-TEAM models for pharmacy health coaching among patients with substance use disorders. The 3 Co-TEAM consisted of communication, collaboration, consultation, training, education, attitude, and motivational interviewing. The 3 Co-TEAM model for pharmacy health coaching provided steps to implement pharmacy health coaching objectively, organized, and comprehensively. Therefore, the proposed model can function as a tool that provides guidance and reference for pharmacists in implementing the services among substance use disorders patients and collaborating with other health professionals.

Keywords: logic model, patient-centered care, pharmaceutical services, pharmacy health coaching, substance use disorders

INTRODUCTION

Health coaching is a patient-centered approach, where patients define their goals using self-discovery or an active learning process with educational content. This is carried out to achieve patients' goals and self-monitoring behavior to increase accountability through an interpersonal relationship coach (Wolever *et al*., 2013). Meanwhile, health coaches are different from life and wellness coaches. This is because life and wellness coaches do not require professionals with a clinical academic degree who assist individuals at risk of disease, with active and chronic conditions, acute illness, or medical conditions (Miller, 2014). Health coaching is also different from motivational interviewing (MI) because it has an intensive approach, which uses the fundamental aspects of supportive and creative relationships to enhance sustainable behavior change (Ahluwalia *et al*., 2013; Lonie *et al*., 2017; Wong-Rieger & Rieger, 2013).

Table I. Keywords for searching articles

Database	Keywords
PubMed	"Pharmacy Coach" OR "Pharmacist Coach" OR " Pharmacy-based Coach" OR " Pharmacist-based Coach" OR "Pharmacy-based Coaching" OR " Pharmacist-based Coaching" OR "Pharmacy Coaching" OR "Pharmacist Coaching" OR "Pharmacy Health Coach" OR "Pharmacist Health Coach" OR "Pharmacy Health Coaching" OR "Pharmacist Health Coaching" OR "Pharmacist as Coach" Filter: Span of the Year 2000 – 2020, *Clinical Trial*, *Full-Text*, contained in the title and digest.
SCOPUS	"Pharmacy Coach" OR "Pharmacist Coach" OR " Pharmacy-based Coach" OR " Pharmacist-based Coach" OR "Pharmacy-based Coaching" OR " Pharmacist-based Coaching" OR "Pharmacy Coaching" OR "Pharmacist Coaching" OR "Pharmacy Health Coach" OR "Pharmacist Health Coach" OR "Pharmacy Health Coaching" OR "Wellness Coach" OR "Pharmacist Health Coaching" OR "Pharmacist as Coach" Search Within Results: Pharmacy OR Pharmacist

Pharmacists are familiar with counseling in daily pharmaceutical practice. However, counseling occurs in traditional pharmacies and is still focused on case management or disease rather than the needs and behavior of patients (Jonk *et al*., 2015; Kreitzer *et al*., 2008). Therefore, pharmacy health coaching (PHC) is defined as a technique delivered by pharmacists that empower patients to make lasting health behavior changes and improve overall well-being (Lonie *et al*., 2017). Several studies have been carried out on PHC, which have produced a satisfactory impact in improving various chronic diseases outcomes (Alexxander, Puspitasari, *et al*., 2021; Singh *et al*., 2018).

Drug addiction is a chronic disease similar to diabetes and cardiovascular (Brady & Verduin, 2005), which needs serious attention due to its impact on patients, family, social environment, and financial burden to the health system (*Drug Misuse and Dependence*, 2017; Kleber *et al*., 2010; MCLELLAN, 2017). In recent years, the impact of pharmacy health coaching interventions on several chronic diseases such as diabetes, hypertension, obesity, depression, and hypercholesterolemia have been examined (Barnett & Flora, 2017; Bosmans *et al*., 2007; O. Brook *et al*., 2003; O. H. Brook *et al*., 2003; DiDonato *et al*., 2013; Herborg *et al*., 2008; Luder *et al*., 2016; Wertz *et al*., 2012). However, no study developed a PHC intervention model. This study aims to develop a logic model for PHC among substance use disorders patients as a reference and guidance in pharmaceutical services.

MATERIAL AND METHODS

A logic model for PHC in substance use disorders outpatients was developed following a four-step process, which includes (1) literature review to identify pharmacy health coaching, its scope, key elements, competencies, and delivery approach, (2) in-depth interviews or focus group discussion (FGD) with health professionals involved in substance use disorders outpatients, (3) developing a logic model based on the discoveries from steps 1 and 2, and (4) interviews or FGD with stakeholders to discuss and fine-tune the model.

Step 1: literature review

This step aims to collect various sources of information, general resources such as study articles, and specific resources such as guidelines for drug addiction treatment.

For general resources, a systematic literature review was conducted on PubMed and SCOPUS for scientific articles on health coaching delivered by pharmacists based on the PRISMA guideline. The search includes scope, key elements, and delivery approach. The scientific articles used were original, which were published from 2000 to 2020, and written in English. Meanwhile, those that were excluded included articles that discussed coaching but outside the context of pharmacy or intervention are not by pharmacy staff, themes that do not discuss coaching more deeply, full articles not available, review articles, descriptive narratives, and proceedings (Table I).

Furthermore, drug misuse and dependence guidelines for specific resources determined to obtain related key elements. The output of this step was the collection of information based on key values, scope, working session, delivery & tools, and competencies needed for PHC intervention.

Table II. Focus group discussion semi-structured questionnaire

Type	Questions
Engagement question	As healthcare providers, what do you think about barriers for managing substance use disorders outpatients? Probe: Please explain more details and provide examples.
Exploration question	What solutions have been implemented and suggestions? Probe: Please tell me more detail about it based on your experience.
Exit question	Is there anything else about the competencies that a pharmacy health coach must have in handling outpatients with substance abuse?

Step 2: FGD with health professionals involved in substance abuse patients

Due to the exploratory nature of this project, focus group methods were chosen since they are suitable for a topic or study population with little information (Liamputtong, 2011). This step aims to discuss whether the discoveries in the previous step are relevant to the professional practice encountered and specific input from the experts in their field. The output of this step was feedback or suggestion based on previous discoveries, the obstacles faced, and the solutions according to their point of view.

Potential candidates that were consecutively invited to FGD have important roles or insights into substance use disorders patients. The selected stakeholders include psychiatrists, pharmacists, residents, and addiction counselors from hospital rehabilitation centers, community health workers, and clinical psychologists from the government agency for drug control and prevention (BNN), pharmacists from the Indonesian Pharmacist Association (IAI), school of health sciences, and health communicator from the non-government organization. The FGD was conducted at STIKES ISFI Banjarmasin.

The inclusion criteria for participants were aged more than 18 years, living in South Kalimantan Province, have a minimum of 2 years experience in their respective field, able and willing to provide written informed consent. However, the exclusion criteria were cognitive impairment and other circumstances such as anxiety, impaired hearing, or reduced functional ability, which represent a severe challenge to group participation and dynamics.

Questions were generated based on a comprehensive literature review and other general resources in step 1. The questions asked were based on barriers to handle addiction patients that negatively affect their experiences. This was conducted to verify that the discoveries correspond with the community member experiences (AlHewiti, 2014; Cohen & Crabtree, 2008). The discussion continues until the answer saturation is reached. Meanwhile, the questions asked from participants followed a semi-structured and open-ended questionnaire as shown in Table 2. All participant's responses in the FGD were recorded, transcribed verbatim, coded inductively to determine the major themes, and analyze. Subsequently, the results from the FGD were sent back to each participant for validation, correction, and comments.

This study has been approved by the Gadjah Mada University Institutional Review Board (steps 2 and 4). The informed consent for participation was from an eligible participant to understand the purpose before the FGD was conducted. At the end of the entire session, 400 thousand rupiahs monetary incentive was provided to all FGD participants.

Step 3: developing a logic model

This step aims to build a logic model according to the scientific rules for PHC. Meanwhile, logic models have been successfully used and developed in other studies as a tool to plan, design, implement, monitor, and evaluate complex programs, systems, or services in public health and primary care (Hayes *et al*., 2011; Ribeiro *et al*., 2010; Watson *et al*., 2009). This includes American Centers for Disease Control and Prevention (CDC) that used a logical model to evaluate its program on Heart Disease and Stroke Prevention (CDC, 2019). In this study, the key components of pharmacy health coaching for substance use disorders patients identified in steps 1 and 2 were compiled based on the CDC.

Table III. Definition of each component of the logic model

Component	Definition
Resources	"General resources such as comprehensive literature review. Specific resources, such as guidelines, government policy, human, financial, organizational, community, or system resources in any combination."
Activities	"Specific actions to be performed during the provision of the service using the resources and targeting the outputs and outcomes."
Outputs	"Represent what the activities will produce or create. It means what the service delivers directly to the patient and other stakeholders."
Outcomes	"Represent the changes and benefits that will be provided to the patients and other stakeholders."
External influences	"Factors associated with the environment in which the service is inserted."

Adapted from Kellog Foundation (W.K. Kellogg Foundation, 2004)

A logic model provides a simplified and systematic picture of the various components of a system or program, the relationship between each element and the whole, and the desired outcomes of the program or system (CDC, 2019). Generally, a logic model deals with the big picture, which specified the essential resources and activities needed to achieve a particular goal without going into detail (Table III). According to the literature, logic modeling is best achieved with a small group of stakeholders to complement systems that are used as a technique and tool for obtaining simplified valid representations of complex systems (Kellogg Foundation, 2004).

Step 4: FGD with stakeholders to discuss and fine-tune the model.

This step aims to validate the logic model, where the FGD method was used to reach a consensus among the expert. The design was discussed with stakeholders who are directly involved in serving substance use disorders outpatients and representatives from community pharmacists to improve the PHC model. According to their expertise, they were asked to criticize the proposed model, its relevance, aspects, and potential for improvement. Community pharmacists were also invited to provide input and critique, as well as analyze the feasibility of implementation in the pharmacy services. However, the inclusion criteria were domiciled in South Kalimantan Province, have a valid professional competency certificate that a professional institution approves, have a minimum of 2 years experience in their field, able and willing to provide written informed consent. The exclusion criteria were impaired hearing or reduced functional ability. Subsequently, the FGD was continued until all the responses from the participants reached a consensus. It was further recorded in audio and notes were also written during the FGD. The input provided by these experts was used for the final correction process in the model.

RESULT AND DISCUSSION

Step 1. Literature review

A systematic review was carried out to obtain general sources of relevant scientific articles to determine the scope, competencies needed, and deliver PHC in practice. From Scopus and Pubmed, 381 articles were identified according to keywords based on the PRISMA guidelines for screening. After the exclusion process, 10 eligible articles were obtained. The most frequently mentioned scope in eligible articles is on the provision of pharmaceutical care for chronic diseases. Furthermore, the collaboration between coaches and patients was carried out to improve their clinical outcomes, maintain a healthy condition, or prevent the disease worsening, which can significantly increase the cost of treatment/medication. The attitude of patients toward treatment is also expected to experience positive changes. This includes the emergence of intrinsic motivation to manage their health without the support of the coach. Intrinsic motivation, which is education about diseases and treatment was also essential in the coaching process.

Table IVa. Developing a logic model for pharmacy health coaching among substance use disorders.

Process flow	Components	
Resources		
General	Available scientific literature, conduct a systematic review	
Specific	Focus group discussion (stakeholders and healthcare provider), guideline, government policy	
Activities	1. Patient-centered	10. Optimization of behavior change
Key values	2. Disease management & risk prevention	11. Harm reduction
	3. Accountability of coach	12. Improvements in health outcomes
	4. Follow-up	13. Cost-effectiveness
	5. Motivation	14. Reduce the burden on medical practitioners
	6. Interactive/partnership	15. Improving drug attitude/medication adherence
	7. Goal setting	16. Monitoring and solving drug-related problems
	8. Powerful question	
	9. Lifestyle modification	17. Coherent and good documentation system
Scope	1. Provide education about disease management and treatment	15. Empowering patients to take an active role in the treatment
	2. Fostering collaboration between health workers, patients, and families	16. Eliciting intrinsic motivation
	3. Collaborating with other health professionals	17. Provide counseling
	4. Cost-effectiveness	18. Serving consultation with patients (explore, educate, empower, enable)
	5. Improving health outcomes	19. Focus on what the patient needs in treatment.
	6. Improve the patient's knowledge and attitude towards treatment	20. Discuss and agree on goal setting with the patient
	7. Provide pharmaceutical care	21. Conduct monitoring and evaluation
	8. Provide a patient-centered base services	22. Bridging the gap between doctors and patients
	9. Provide support to prevent acute complications	23. Provide emotional support/empathy
	10. Self-management to reduce long-term risks	24. Provide continuous service
	11. Medication adherence	25. Generate patient confidence
	12. Solve drug-related problems	26. Facilitate behavior change modification
	13. Recommend to health professionals according to the patient's condition	27. Identify potential barriers to behavior change
	14. Delivering psychosocial intervention	28. Facilitate the coach's contact number if at any time the patient needs assistance
		29. Family support

Disease management was also an important theme mentioned by some studies. This includes preventing acute conditions, deterioration, worsening illness, long-term complications, and maintaining the patient's health condition. Moreover, previous studies stated that PHC needs to collaborate with patients to solve the problems. This is related to their disease, drug-related problems (DRP), providing counseling, bridging the information gap between doctors and patients, and recommending patients to doctors or other health care workers according to their expertise. The details on the results of this systematic review are stated in the articles that were published previously (Alexxander, *et al*., 2021).

General resources were also identified from a systematic review conducted in other studies to obtain key elements from PHC (Singh *et al*., 2018) and health coach competencies in general (Singh *et al*., 2020b).

Table IVb. Developing a logic model for pharmacy health coaching among substance use disorders.

Process flow	**Components**	
Content of session	***Session 1***	***Session 6 & 7***
	Build a good rapport and get to know more about the patient's life aspects	Monitor and evaluation of patient progress.
	Collect patient characteristics data with data collection sheets	Maintenance of changes that have occurred (no matter how small)
	Perform an initial assessment of the patient before intervention	Evaluate discrepancy if it still exists.
	Sessions 2 & 3	Renewal of commitment if there is dynamic in the coaching journey with patients
	Explore patient modalities	***Session 8***
	Identify coaching needs for each individual (individually adapted)	Carry out a final assessment after the intervention is complete.
	Sessions 4 & 5	Gather input and suggestions for pharmacy coach services.
	Build intrinsic motivation for behavior change	Collect information regarding the impressions felt during the pharmacy coach's assistance.
	Generate a mutually agreed commitment between the pharmacy coach and the patient	***Note:*** *all processes must be well documented and discuss the results with the team before the next session*
	Strengthen the commitment that has been mutually agreed upon between the pharmacy coach and the patient	
Delivery & tools	1. Face to face or by phone, face to face is preferred. 2. Frequency every two weeks, or according to an agreement with the patient 3. Duration of sessions between 20 – 45 minutes, depending on needs 4. Equipment includes brochures, leaflets, and evaluation monitoring documentation	
Competencies	***Attitude*** 1. Toleance and respect for individual backgrounds 2. Professional behavior and accountability 3. Empathy 4. Confidence 5. Identifies area for development to improve competency 6. Work systematically and collaboration activities 7. Strong motivation considering patients tend to relapse ***Knowledge*** 1. Understanding of relevant, fundamental, and evidence-based knowledge about substance use disorder 2. Concept of trans-theoretical Model (TTM) stage of change 3. Concept theory of self-determination, self-concordance, and adult learning 4. Pharmacotherapy for substance abuse disorder 5. A holistic and comprehensive approach 6. Concept of Medication adherence 7. Deal with irrational beliefs related to social, cultural, and religious beliefs 8. Concept of psychoeducation ***Skills*** 1. Communication 2. Collaboration (Interprofessional, with patient and family, with other institutions) 3. Consultation skill 4. Motivational interviewing	

Table IVc. Developing a logic model for pharmacy health coaching among substance use disorders.

Process flow	Components	
Output	**3Co-TEAM** model for pharmacy health coaching consists of **Co**mmunication; **Co**llaboration; **Co**nsultation; **T**raining; **E**ducation; **A**ttitude, and **M**otivational interviewing. 1) Experts must train pharmacy health coaches in their field (clinical psychologist, psychiatrist, master degree of pharmacist, and health coach instructor). 2) Training includes everything in the "activities" section above. 3) Training is carried out for three days, with a total of 18 hours of effective learning 4) Training is carried out in a systematic, structured, and measurable manner to produce graduates with minimal bias 5) Exams include written (pre-post test), oral, and roleplay	
Outcomes	**Decreasing**	**Improving**
	1) Addiction severity index 2) Financial burden	1) Medication adherence 2) Quality of life
External Influences	Multi-disciplinary team, reimbursement from health insurance, availability of post-rehabilitation treatment centers	
Output	**3Co-TEAM** model for pharmacy health coaching consists of **Co**mmunication; **Co**llaboration; **Co**nsultation; **T**raining; **E**ducation; **A**ttitude, and **M**otivational interviewing. 1) Experts must train pharmacy health coaches in their field (clinical psychologist, psychiatrist, master degree of pharmacist, and health coach instructor). 2) Training includes everything in the "activities" section above. 3) Training is carried out for three days, with a total of 18 hours of effective learning 4) Training is carried out in a systematic, structured, and measurable manner to produce graduates with minimal bias 5) Exams include written (pre-post test), oral, and roleplay	
Outcomes	**Decreasing**	**Improving**
	1) Addiction severity index 2) Financial burden	1) Medication adherence 2) Quality of life
External Influences	Multi-disciplinary team, reimbursement from health insurance, availability of post-rehabilitation treatment centers	

Another source was from drug misuse and dependence UK guidelines on clinical management. Meanwhile, the content of key working sessions obtained from the source include 1) developing, agreeing, receiving the treatment and recovery plan 2) discussing risk and ensuring actions to address identified risks are recorded in risk management, 3) providing information, 4) promoting harm reduction, 5) delivering the intervention, 6) using motivational interviewing, 7) delivering the psychosocial intervention, 8) helping to address a social need, 9) family support, 10) achieving specific personal goals, and 11) monitoring medication adherence (*Drug Misuse and Dependence*, 2017).

Step 2. FGDs with health professionals involved in outpatient drug care

The FGD lasted for 150 min and was attended by 11 participants. It also concludes the competencies a pharmacy health coach needs to have. According to the health professional perspective, competence includes attitude, knowledge, and skills. Attitude includes empathy, enthusiasm, confidence, and reliability. Meanwhile, the knowledge that must be possessed includes mastery of the trans-theoretical model, understanding substance abuse and impact, pharmacotherapy for substance abuse, the holistic and comprehensive approach, medication adherence, dealing with patient's irrational beliefs, and psychoeducation.

Skills that need to be possessed are communication, collaboration, consultation, and motivational interviewing. Due to page limitations according to journal policy, detailed information about the result for this step is accessible in a previously published article (Alexxander, *et al*., 2021).

Step 3. Developing a logic model for pharmacy health coaching in substance use disorders

Steps 1 and 2 were compiled and simplified according to the rules of the logic model. The logic model components for PHC in outpatient drug patients are arranged (Table IV). Based on step 3, the 3 Co-TEAM Model outcomes produced include communication, collaboration, consultation, training, education, attitude, and motivational interviewing (Table IV).

The training includes key values, scope, attitudes, knowledge, and skills, where the scope of PHC keeps it from overlapping with other health professionals. Training is conducted for 3 days, with a total of 18 h of effective learning. Furthermore, it is systematic, structured, and measurable to produce graduates with minimal bias. The exam includes written (pre-post test), oral, and roleplay.

The development of the curriculum led to the course of 3 modules with a duration of 2 h for each course. The first module (4 h) focused on the principles of PHC. This module discusses the definition, key values, scope, session content, delivery, and tools. Meanwhile, the second module (2 h) addressed knowledge of the underlying pathology and pharmacotherapy of chronic diseases. The third module (12 h) discussed the competencies of a pharmacy health coach. All components refer to the 3 Co-TEAM models (Appendix 1). Learning was assessed using two criteria, namely students' acquired knowledge about PHC and students' perception toward attitude, knowledge, and skills.

The expected output from PHC in substance use disorders patients was a decrease in addiction severity index and financial burden, which improved medication adherence and quality of life. All of these outputs have indicators, therefore, a successful coaching process can be measured and evaluated.

External factors are determined based on factors that require cross-sector/agency collaboration according to steps 1 and 2. This means PHC competence collaboration is one of the competencies required. However, external factors still influence the implementation of PHC such as multi-disciplinary teams, reimbursement from health insurance, and the availability of post-rehabilitation treatment centers. Since PHC involves teamwork between various health professionals, the approach is comprehensive and avoids overlapping. The reimbursement system also affects pharmacists' enthusiasm to carry out health coaching. The health system also needs evidence of the success of this approach to incorporate PHC into the health system (Singh *et al*., 2020a). Therefore, a pioneer from the community pharmacist is needed to implement this service and report to the health system.

Step 4. FGD with prospective model users to discuss and refine the model.

The logic model was presented in FGD to obtain input from stakeholders. The pharmacy health coaching model showed fits with the health system, except for the psychosocial interventions component from health coaching activities by pharmacists. Therefore, experts recommended that it needs to be removed for pharmacists not to overlap with other health professionals such as psychologists, while intervention will also be more efficient and focused.

This study provided a proposed model for pharmacy health coaching, specifically for substance use disorders, which can be developed by others in various countries or applied to other chronic diseases with modifications. Meanwhile, the limitations of this study, which include participants from the FGD in steps 1 and 2 only came from stakeholders who were in the area of one province and did not represent a country. Therefore, wisdom is needed while applying the model to regions that had different levels of education, culture, and beliefs.

CONCLUSION

The 3 Co-TEAM models for pharmacy health coaching provided steps to implement this service in an objective, organized and comprehensive manner. Pharmacy health coaching is a new paradigm developing in the pharmaceutical sector. Therefore, the proposed model can serve as a tool that provides guidance and reference for pharmacists in implementing PHC among substance use disorders patients and collaborating with other health professionals. It is also expected to provide uniformity of intervention, clarify implementation, facilitate monitoring and evaluation of therapeutic outcomes, as well as

provide opportunities for the development of this model for other chronic diseases.

ACKNOWLEDGMENT

The authors are grateful to the expertise from Sambang Lihum Mental Hospital, the government agency for drug control and prevention (BNN), the Indonesian Pharmacist Association (IAI), and STIKES ISFI Banjarmasin Scool of Health Science for their valuable contribution to this study.

REFERENCES

Ahluwalia, S., de Silva, D., Kumar, S., Viney, R., & Chana, N. (2013). Teaching GP trainees to use health coaching in consultations with patients: Evaluation of a pilot study. *Education for Primary Care*, *24*(6), 418–426. https://doi.org/10.1080/14739879.2013.11494212

Alexxander, A., Kristina, S., Puspitasari, I., Susanto, Y., & Kristanto, C. (2021). Pharmacy Health Coaching among Substance use Disorder Patients. What do the Indonesian Health Professional's Perspective? A Focus Group Discussion. *International Journal of Innovative Science and Research Technology*, *6*(12), 710–716.

Alexxander, A., Puspitasari, I., Kristina, S., & Kristanto, C. (2021). Health Coaching in Pharmacy Practice: A Systematic Review. *International Journal of Pharmaceutical Research*, *13*(02), 1907–1920. https://doi.org/10.31838/ijpr/2021.13.02.254

AlHewiti, A. (2014). Adherence to Long-Term Therapies and Beliefs about Medications. *International Journal of Family Medicine*, *2014*, 479596. https://doi.org/10.1155/2014/479596

Barnett, N. L., & Flora, K. (2017). Patient-centred consultations in a dispensary setting: A learning journey. *European Journal of Hospital Pharmacy*, *24*(2), 107–109. Scopus. https://doi.org/10.1136/ejhpharm-2016-000929

Bosmans, J. E., Brook, O. H., van Hout, H. P. J., de Bruijne, M. C., Nieuwenhuyse, H., Bouter, L. M., Stalman, W. A. B., & van Tulder, M. W. (2007). Cost Effectiveness of a Pharmacy-Based Coaching Programme to Improve Adherence to Antidepressants: *PharmacoEconomics*, *25*(1), 25–37. https://doi.org/10.2165/00019053-200725010-00004

Brady, K. T., & Verduin, M. L. (2005). Pharmacotherapy of Comorbid Mood, Anxiety, and Substance Use Disorders. *Substance Use & Misuse*, *40*(13–14), 2021–2041. https://doi.org/10.1080/10826080500294924

Brook, O. H., Van Hout, H. P. J., Nieuwenhuysea, H., & De Haan, M. (2003). Effects of coaching by community pharmacists on psychological symptoms of antidepressant users; a randomised controlled trial. *European Neuropsychopharmacology*, *13*(5), 347–354. https://doi.org/10.1016/S0924-977X(03)00031-2

Brook, O., van Hout, H., Nieuwenhuyse, H., & Heerdink, E. (2003). Impact of coaching by community pharmacists on drug attitude of depressive primary care patients and acceptability to patients; a randomized controlled trial. *European Neuropsychopharmacology*, *13*(1), 1–9. https://doi.org/10.1016/S0924-977X(02)00074-3

CDC. (2019, October 4). *Developing and Using a Logic Model | cdc.gov*. https://www.cdc.gov/dhdsp/evaluation_resources/guides/logic_model.htm

Cohen, D. J., & Crabtree, B. F. (2008). Evaluative Criteria for Qualitative Research in Health Care: Controversies and Recommendations. *Annals of Family Medicine*, *6*(4), 331–339. https://doi.org/10.1370/afm.818

DiDonato, K. L., May, J. R., & Lindsey, C. C. (2013). Impact of wellness coaching and monitoring services provided in a community pharmacy. *Journal of the American Pharmacists Association : JAPhA*, *53*(1), 14–21. https://doi.org/10.1331/JAPhA.2013.11227

Drug misuse and dependence: UK guidelines on clinical management. (2017). GOV.UK. https://www.gov.uk/government/publications/drug-misuse-and-dependence-uk-guidelines-on-clinical-management

Hayes, H., Parchman, M. L., & Howard, R. (2011). A logic model framework for evaluation and planning in a primary care practice-based

research network (PBRN). *Journal of the American Board of Family Medicine: JABFM*, *24*(5), 576–582. https://doi.org/10.3122/jabfm.2011.05.110043

Herborg, H., Haugbølle, L. S., Sørensen, L., Rossing, C., & Dam, P. (2008). Developing a generic, individualised adherence programme for chronic medication users. *Pharmacy Practice (Internet)*, *6*(3). https://doi.org/10.4321/S1886-36552008000300006

Jonk, Y., Lawson, K., O'Connor, H., Riise, K. S., Eisenberg, D., Dowd, B., & Kreitzer, M. J. (2015). How effective is health coaching in reducing health services expenditures? *Medical Care*, *53*(2), 133–140. https://doi.org/10.1097/MLR.0000000000000287

Kleber, H. D., Weiss, R. D., Jr, R. F. A., George, T. P., Greenfield, S. F., Kosten, T. R., O'Brien, C. P., Rounsaville, B. J., Strain, E. C., Ziedonis, D. M., Hennessy, G., & Connery, H. S. (2010). Work Group in Substance Use Disordess. 276.

Kreitzer, M. J., Sierpina, V. S., & Lawson, K. (2008). Health coaching: Innovative education and clinical programs emerging. *Explore (New York, N.Y.)*, *4*(2), 154–155. https://doi.org/10.1016/j.explore.2007.12.007

Liamputtong, P. (2011). *Focus Group Methodology: Principles and Practice*. SAGE Publications Ltd. https://doi.org/10.4135/9781473957657

Lonie, J. M., Austin, Z., Nguyen, R., Gill, I., & Tsingos-Lucas, C. (2017). Pharmacist-based health coaching: A new model of pharmacist-patient care. *Research in Social & Administrative Pharmacy : RSAP*, *13*(3), 644–652. https://doi.org/10.1016/j.sapharm.2016.06.015

Luder, H., Frede, S., Kirby, J., King, K., & Heaton, P. (2016). Health Beliefs Describing Patients Enrolling in Community Pharmacy Disease Management Programs. *Journal of Pharmacy Practice*, *29*(4), 374–381. Scopus. https://doi.org/10.1177/0897190014566311

MCLELLAN, A. T. (2017). Substance Misuse and Substance use Disorders: Why do they Matter in Healthcare? *Transactions of the American Clinical and Climatological Association*, *128*, 112–130.

Miller, C. (2014). Health Coaching. *Home Healthcare Now*,*32*(7),438–439. https://doi.org/10.1097/NHH.0000000000000103

Ribeiro, I. C., Torres, A., Parra, D. C., Reis, R., Hoehner, C., Schmid, T. L., Pratt, M., Ramos, L. R., Simões, E. J., & Brownson, R. C. (2010). Using logic models as iterative tools for planning and evaluating physical activity promotion programs in Curitiba, Brazil. *Journal of Physical Activity & Health*, *7 Suppl 2*, S155-162. https://doi.org/10.1123/jpah.7.s2.s155

Singh, H. K., Kennedy, G. A., & Stupans, I. (2018). A systematic review of pharmacy health coaching and an evaluation of patient outcomes. *Research in Social & Administrative Pharmacy : RSAP*. https://doi.org/10.1016/j.sapharm.2018.04.012

Singh, H. K., Kennedy, G. A., & Stupans, I. (2020a). Pharmacist health coaching in Australian community pharmacies: What do pharmacy professionals think? *Health and Social Care in the Community*, *28*(4), 1190–1198. https://doi.org/10.1111/hsc.12952

Singh, H. K., Kennedy, G. A., & Stupans, I. (2020b). Competencies and training of health professionals engaged in health coaching: A systematic review. *Chronic Illness*, 174239531989946. https://doi.org/10.1177/1742395319899466

Watson, D. E., Broemeling, A.-M., & Wong, S. T. (2009). A results-based logic model for primary healthcare: A conceptual foundation for population-based information systems. *Healthcare Policy = Politiques De Sante*, *5 Spec no*, 33–46.

Wertz, D., Hou, L., DeVries, A., Dupclay, L., McGowan, F., Malinowski, B., & Mark J, C. (2012). Clinical and Economic Outcomes of the Cincinnati Pharmacy Coaching Program for Diabetes and Hypertension. *Managed Care*, 44-54A.

W.K. Kellogg Foundation. (2004). *Logic Model Development Guide*. W.K. Kellogg Foundation. https://www.wkkf.org:443/resource-directory/resources/2004/01/logic-model-development-guide

Wolever, R. Q., Simmons, L. A., Sforzo, G. A., Dill, D., Kaye, M., Bechard, E. M., Southard, M. E., Kennedy, M., Vosloo, J., & Yang, N. (2013). A Systematic Review of the Literature on Health and Wellness Coaching: Defining a Key Behavioral Intervention in Healthcare. *Global Advances in Health and Medicine*, *2*(4),38–57. https://doi.org/10.7453/gahmj.2013.042

Wong-Rieger, D., & Rieger, F. P. (2013). Health Coaching in Diabetes: Empowering Patients to Self-Manage. *Canadian Journal of Diabetes*, *37*(1), 41–44. https://doi.org/10.1016/j.jcjd.2013.01.001