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Pharmacy Health Coaching among Substance use Disorder Patients. What do the Indonesian Health Professional's Perspective? A Focus Group Discussion

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Abstract:-Several developed countries have implemented pharmacy health coaching on chronic diseases; however, no research has been found on pharmacy health coaching on substance use disorder, where addiction is a chronic disease similar to diabetes and cardiovascular disease. Meanwhile, the concept of the pharmacy health coachingmodel is different among researchers. This study aimed to determine health professionals' perspectives on pharmacy health coaching competencies through focus group discussion (FGD). Methods: The FGD was conducted with 11 health professionals in different institutions and professions. A purposive sampling strategy was used. The discussion results were recorded and transcribed verbatim for further thematic analysis inductively. Results: The FGD lasted for 150 minutes, where the saturation of answers from the participants was fulfilled. We found that the competencies included attitude, knowledge, and skills. Attitudes covered confidence, accountability, high spirits, and strong encouragement, considering that addiction patients highly tend to relapse. The knowledge included drugs and their effects, brain disease, pharmacology of drugs used for comorbid addiction patients, the concept of medication adherence, and the trans-theoretical model stage of change. Meanwhile, the skills included practical communication skills, collaboration skills, consultation skills, and mastery of motivational interviewing. Conclusion: The competencies, including attitude, knowledge, and skills of pharmacy health coaches, must be provided through a structured, systematic, and measurable training process by professionals in their field.

Keywords:- *Medication adherence, pharmaceutical services, motivational interviewing, quality of life, substance-related disorders, pharmacy health coaching.*

I. INTRODUCTION

Health coaching is a recent intervention practiced by healthcare providers for helping patients to achieve behavior change and improve health focused on the need. Specifically, a health coach allows patients to build the information, skills, and confidence required to reach their own health goals and provide emotional support and practical assistance needed by many patients living with chronic illnesses [1]. Meanwhile, pharmacy health coaching itself is defined as an approach by a pharmacy health provider to empower patients in supporting sustainable health behavior changes and improving the overall quality of life. It prioritizes two-way communication tailored to the uniqueness of each individual [2].

Health coaching by pharmacists has been widely carried out in developed countries. Pharmacy health coaching has been proved to produce successful outcomes in the Netherlands [3–5], USA [6–10], UK [11], and Taiwan [12]. The approach mainly was for patients with chronic diseases such as hypertension, diabetes, and depression [2]. Most people with chronic illnesses have difficultymanaging their health conditions, lack of health literacy, and self-management [13]. Health coaching here can improve the health outcomes of patients with chronic diseases through coaching to better understand their health conditions, which involve positive behavior changes [14].

The National Institute on Drug Abuse (NIDA, 2008) states that drug addiction is a chronic disease similar to diabetes and cardiovascular disease [15]. Mental and behavioral disorders mostly accompany Drug-dependent patients. They will receive treatment to treat accompanying symptoms such as psychosis, mood disorders (depression, bipolar), anxiety disorders (panic disorders, generalized anxiety disorder, post-traumatic stress disorder, obsessive-compulsive disorder, or social anxiety disorder). Unfortunately, this treatment must be given for a long time so that the patient's nonadherence to treatment is relativelyhigh [16]. Nonadherence to medication will worsen the disease, decrease the patient's quality of life, and increase the financial burden for patients and the health system [17]. In the end, the participation of pharmacy health coaches is imperative and urgent to assist the patients with substance use disorder in improving medication adherence and quality of life.

The problems mentioned above have received sufficient attention from pharmacists when patients are treated in hospitals because of clear procedures [18]. In contrast, outpatients have not received a good portion in monitoring and

evaluating treatment. It impacts high nonadherence, worsens the disease, decreases the quality of life, and ultimately increases the health system's financial burden. However, no intervention has been run by pharmacy health coaches to assist patients in achieving treatment goals.

This study aimed to dig deeper into the barriers faced by health professionals who have direct contact and explore opinions about solutions and competencies for pharmacy health coaches in dealing with addiction outpatient. For that purpose, we conducted afocus group discussion (FGD). The results of this FGD, combined with a systematic review that has been made by researchers [2], were deemed critical to conceptualize the intervention model by pharmacy health coaching among substance use disorder outpatients.

II. METHOD

A. *Materials*

Sony Voice Recorder Icd-Ux560 was used to record the entire discussion. The semi-structured questionnaire was distributed before the FGD along with the general pharmacy health coaching moduleand FGD guidance, which was prepared by the researcher based on a systematic review and literature study. These aimed to provide a similar baseline understanding of pharmacy health coaching for the effective implementation of FGD.

B. *Study Design*

This is qualitative research with an explorative design based on the grounded theory stating that the general abstract idea of action and interactions is formed based on the perspectives and perceptions of the participants[19], where participants attempted to describe their experiences with substance use disorders outpatients. Researchers used this approach to better understand healthcare providers' perceptions about the barriers, solutions, and competencies for pharmacy health coaches when dealing with substance use disorder patients. Some of the research questions were based on the researcher's experience as a pharmacist who serves outpatients with substance abuse. The research questions were; (1) what is the perspective of health care providers regarding the barriers when dealing with substance use disorders outpatients?; (2) what solutions have been implemented and suggested?; (3) what competencies should a pharmacy health coach have in handling outpatients with substance abuse?. The Ethical Committee has approved all Medical Faculty of Gadjah Mada University procedures.

C. *Focus Group Discussion*

The FGD took place at the STIKES ISFI Banjarmasin college of health science on October 11, 2019. FGD was chosen because of its strategic position to be accessible to participants from various locations in the Province of South Kalimantan, Indonesia. Participants were selected by purposive sampling at various health institutions. Inclusion criteria included health care providers handling patients with substance abuse, a government agency for drug control and prevention, the college of health sciences, and non-governmental organizations. Participants' demographic characteristics were collected through an informed consent form containing personal data, research details, benefits, and participant confidentiality.

Participans characteristic (n=11)	**n (%)**
Professional	
Psychiatric	1 (9.09)
Resident	1 (9.09)
Psycologist	3 (27.27)
Pharmacist	2 (18.18)
NGO for Health Communication	1 (9.09)
Pharmacy Student	1 (9.09)
Public Health	1 (9.09)
Nurse	1 (9.09)
Institution	
Hospital and rehabilitation center	5 (45.45)
Governmental agency for drug control and prevention	3 (27.27)
Indonesian Pharmacist Association	1 (9.09)
College of health science	1 (9.09)
NGO for health communication	1 (9.09)
Age (years)	
<30	3 (27.27)
30-39	6 (54.54)
40-49	2 (18.18)
>50	0 (0)
Sex	
Female	4 (36.36)
Male	7 (63.63)
Length of Time Working at Addiction Center (years)	
<1	1 (9.09)
1-5	2 (18.18)
>5	8 (72.72)

Table 1: Participant sociodemographic characteristics

D. *Data Collection and Analysis*

Participants were given five open-ended questions categorized into three categories: engagement questions, exploration questions, and exit questions. Focus group discussion semi-structured questionnaire included; (1) as healthcare providers, what do you think about barriers to medication adherence among outpatients with substance abuse?. Probe: Please explain more details and provide examples; (2) what solutions have been implemented and suggestions?. Probe: Please tell me more detail about it based on your experience; (3) is there anything else about the competencies that a pharmacy health coach must have in handling outpatients with substance abuse?. This questions sheet was given by the researcher a week before the FGD was held to enable the participants to have time to fill it out. During the FGD, all conversations were noted and recorded on an audio recorder for verbatim transcription into Microsoft Word format by one researcher and returned to all participants for comment or correction (YS). The transcript was then sent to one researcher (AA) for verification, and keywords and phrases that had meaning were coded in a Microsoft Excel spreadsheet. The data were then analyzed using Attride-Stirling's thematic network analysis framework of basic, organizing, and global themes [20]. Quotes from participants

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were used to illustrate responses related to the relevant theme. The encoding result was then sent to the other two researchers to see the relevance and accuracy of the coding interpretation (SAK and IP); meanwhile, any ambiguities or discrepancies in coding were resolved by other researchers (CSK).

Factors	Quotes
Internal	
Attitude	Patient awareness and commitment are low, rarely getting to the action phase(3) Long-term use makes patients bored and discontinues treatment(1) The patient's motivation is relatively low, so it needs a unique approach. (8) Patients think that the medicine prescribed by the doctor is medicine for crazy people. If they take medication,they will get even crazier. They also come because they are forced by their parents or are afraid by the law, and then the patient does not come again (4) The patient uses a drug prescribed by a doctorto substitute for theaddiction, for example, Alprazolam so that the prescription runs out before the specified date (3) The patient is still in the pre-contemplation stage so that 1000 times I give counseling-information-education will not be helpful(4)
Knowledge	Feeling that they have recovered and finally relapsed again, their personality base is shallow, and the tendency to be manipulative is very high. They often feel embarrassed when they go to the health center and say,"I'm not crazy"...(1) Patient knowledge in disease management and risk prevention is shallow so that the patient's independence in managing their health is not formed(3) Patients need to be educated about the importance of taking medication(10) False knowledge of the patient that the medicine prescribed by the doctor is to stop the addiction (4)
Culture and Beliefs	The patient's knowledge of the concept of need and addiction is low. Taking medicine from a doctor is a necessity, not a kind of addiction, so this misperception makes the patient afraid of taking medication.
Finance and Time	Sociocultural-spiritual factors whether the culture in the patient's area forbids taking medicine or supports it, patients often think that the 'miracle water' from spiritual figures is more important than medicine from doctors...(1) Patients experience cost constraints in drug redemption so that treatment is not completed according to the applicable protocol(2) Difficulty in transportation costs seem to be the problem for patients(1) Patients have to work during the day, and when they get home from work, the health facilities are closed(7)
External	
Health Provider	We (pharmacists) find it challenging to monitor and evaluate patients' drug use at home. We also lack time because outpatient services are limited to a predetermined service time so that it is not optimal in providing counseling, information, and education to patients(2)
Medication	I (resident) often see patients throw away their medicine because of the side effects of the therapymaking them sleepy, so they can not work(5)
Social and Family Support	Lack of family support in controlling medication(2) Family dysfunction, pathological family, do not care about each other between family members, over critical, neglected, overprotective, because most of their own families have problems(1) People often have a negative opinion about them, so they experience anxiety and lack confidence when they return to society. (3) Issues from people around them who often spread false news, for example, "if you take the drug, you will go crazy".... well this hoax issue is internalized by the patient and is considered truth by the patient ..{1)
Accessibility	I often hear patient complaints that health facilities are far from settlements, isolated, and there is no public transportation to reach them(1)
Government policy	The government only provides 500,000 IDR for the treatment of outpatient drug patients, so after they run out, they do not come again to health care facilities...even though the treatment must continue. (2)

Table 2: Barriers to Medication Adherence

III. RESULT

A. Sociodemographic Characteristics of Participants

Total participants were eleven, with the mean age was 32 years (in the range of 20 to 47), with the majority in the age range of 30-39 years old. Patients were dominated by males (n=6), and most of the participants were experienced in their field for more than five years. Psychologists were the profession mostly participating in this FGD (n=3) because they have had more direct contact with outpatients with substance use as addiction counselors after pharmacists (n=2). Institutions participating in the FGD were from Hospital and rehabilitation center (n=5), governmental agency for drug control and prevention (n=3), Indonesian Pharmacist Association (n=1), college of health science (n=1), NGO for health communication (n=1). Sociodemographic characteristics of participants can be seen in Table 1.

B. Themes

Based on our research questions, findings were grouped into three major themes; (1) barriers to medication adherence; (2) solutions; (3) attitude, knowledge, and skills for pharmacist health coaching for addiction outpatient.

Theme 1. Barriers to medication adherence

The keywords and phrases found in the FGD transcripts were grouped and rearranged into sub-themes. According to the participant's perspective, findings from FGD resulted in 2 sub-themes that led to nonadherence to treatment in outpatient drug patients. Internal factors included attitude, knowledge, culture &beliefs; finances & time; meanwhile, external ones included health providers; medications; family support; accessibility, and government policy. The findings from the research question for barriers can be seen in Table 2.

Factors	Quotes
Internal	
Attitude	The commitment must be built up to the stage that treatment is a need of the patient himself(3) I could be given counseling regarding treatment goals, expectations, impacts if the drug is not used. Therefore, health workers must raise awareness of the patient himself. Coaching can be an alternative to instilling drug use awareness, but it must be considered that outpatient drug patients experience cognitive decline, unlike other chronic disease patients(11)
Knowledge	Health providers should understand the patient's needs, such as education(1) Patients need to be educated about the importance of taking medication(10) In my opinion, patients and families should also receive an education. Education must be given first before coaching so that families have the knowledge and awareness to support the patient's treatment process (1)
Culture and Beliefs	Patients believe that miracle water for some religious figure was more important than doctor prescription. From this point of view, we can provide education. We don't need to oppose patient beliefsrather than persuade them to take medication after their miracle water. We all know that no interaction between drug and water(1)
Finance and Time	Yes, I often get complaints when the government's treatment allowance runs out. It does not matter as long as the patient can communicate with the health care facility. Patients get medication for their comorbidities related to substance abuse, not drugs to treat addictions such as methadone or naltrexone. Thus, prescription drugs can still be claimed because they are included in the cluster of medications for psychiatric disorders. It can be arranged as long as the patient communicates with us. (5) Indeed, some patients complain that they work during the day and do not have time to go to health facilities, but we have offered to the patients that we open services from 08.00 a.m - 4.00 p.m.So actually. It is up to the patient to decide for themselves a convenient time to visit us (7)
External	
Health Provider	Pharmacists can do home visits or by phone(7) It is better to involve ex-users (residents) in the coaching process. Residents need to be involved and receive training to solve the ambivalence they experience. They have a strong attachment compared to health workers with a myriad of theories(3) Must be more humane as a human being so that a positive therapeutic relationship is built, and it can make it easier for health workers to elicit intrinsic motivation from patients towards positive behavior change(9)
Medication	The pharmacist must explain the possible side effects and ask the patient to communicate with the doctor if the drugs interfere with their activities. Usually, the doctor will adjust the regimen or even change it(2)
Social and Family Support	Counseling is not only done for patients but also done for the families as a support system. Families must give patients a space of trust. Patients often confide in me when they ask for permission to use a vehicle, and their parents say,"where are you going to use a motorbike... ah, you will meet your friend who is addicted again, right?".....(5)

Accessibility	My advice is for health care facilities to provide special transportation for easy access to patient transportation. In addition, the concept of building a rehabilitation center is to get closer to the community so that they can practice their abilities and self-confidence in socializing(1)
Government policy	Now regarding this matter, the coach must be able to bridge problems related to policy by collaborating with policymakers, so collaboration is not only with patients, families, and health professionals. If this is not possible, at least the coach still conveys to the hierarchy above(2)

Table 3: Solutions based on barriers to medication adherence from the participants perspective

- *Theme 2. Solution*

The second research question is the solution to barriers to medication adherence in outpatient from the participants' perspective. We have arranged several solutions for internal and external factors in tabular form, as shown in Table 3.

- *Theme 3. Competencies for pharmacist health coach*

The third research question is what attitudes, knowledge, and skills pharmacy health coach should have in approaching outpatient. Quotes from our participants are presented in Table 4.

IV. DISCUSSION

The FGD was attended by 11 participants from various institutions considered representative in treating outpatients with substance abuse. All invited health professionals managed to come (100%), no one present besides the invited. The FGD lasted for 150 minutes, where the saturation of answers from the participants was fulfilled. The themes that have been collected included barriers to medicationadherence, solutions,and competencies for a pharmacy health coach in substance use outpatient.

The researcher then divided the theme of 'barriers to medication adherence' into two sub-themes: internal factors and external factors. Internal factors referred to causes caused by the patient's factors, while external ones referred to factors outside the patient. Meanwhile, Jaam et al. stated that the nonadherence to treatment could be caused by three factors: 1) patient-related factors, including patients' characteristics and patients' perception, attitude, and behavior; 2) patient-provider factors, including communication and having multiple health care providers caring for the patient; and 3) societal and environmental factors, including social pressure and traveling to visit friends and relatives[21].

Based on the results of the FGD, we found that the most significant proportion of the causes of medication nonadherence was related to the patients themselves (internal). Mathew et al. clearly stated that most nonadherence reasons were patient-related (62.9%)[22].

Factors	Quotes
Attitude	The coach must prepare mentally because addiction patients have a high tendency to relapse, so the coach is not shocked and discouraged (8) A coach must be confident and accountable with the knowledge they have learned as a pharmacy health coach(1)
Knowledge	The concept of stage of change must be taught to the coach(3) An understanding of substance abuse and its effects needs to be introduced to the coachwhat medicines are used for comorbid treatment, such as antipsychotics, antidepressants, anti-anxiety, and mood stabilizers. Lastly, the concept of adherence must also be mastered by the coach(10) There must be psychoeducation, an evaluation of the patient's personality base, the patient's socio-cultural. Religious factors must also be identified by the coach, whether the patient's social, cultural, and beliefs from environment support medication adherence (1) Need a method to overcome irrational thoughts such as "I am addicted to drugs but given another drug later I will become addicted to drugs from the doctor"...(5) The coach must have a holistic and comprehensive approach. Patients take medicine,and then they get nausea when nausea is not resolved, they become nonadherence(1) The concept of compliance and adherence must be understood correctly by the coachif you expect adherence,and then this is related to the patient's awareness while the patient's cognitive decline due to the effects of drug use(11)
Skills	
Communication	It is necessary to simplify the language so that it is easy to understand and attach to the patient..9) The coach must observe non-verbal responses other than verbal. It is okay to assume but do not tell the patient(1)
Collaboration	Involving patients in problem-solving can bridge the patient's low cognitive level and increase commitment(3) Collaboration with other health facilities such as post-rehabilitation service facilities(4) Therapy must be eclectic because each person is different and unique(1) The coach needs to involve the patient's family because the family has a significant role in assisting the

Consultation	patient as a friend, educator, and counselor. A cooperative family will determine the success of coaching(1) Giving advice when requested or agreed by the patient(4) Must be objective, be careful of transference and countertransference(3)
Motivation	OCE.....observations such as active listening, conversation, for example, making rapports, and exploration for example what makes patients not take their medicine...(1) Resistance should not be fought or forced. The coach can recommend with other coaches because each coach has a different approach and personality(4)

Table 4: Competencies for pharmacist health coach

This is in line with the findings of other researchers regarding treatmentnonadherence in chronic diseases caused by lack of motivation, lack of knowledge about the treatment they are undergoing, culture and beliefs, and lack of treatment adherence [23–26]. However, this study figured out interesting findings different from previous researchers, financial and time. Financial limitations and lack of time to visit health facilities also affect nonadherence to treatment.

From the internal factors described previously, attitude became the most frequent factor mentioned by participants (n=5/11). Patient attitudes included boredom, lack of motivation and commitment, embarrassment, and feeling healed. The following internal factor was the patients' lack of knowledge about their treatment (n=4/11). The knowledge included disease management, self-management, misperceptions about drugs, and lack of understanding of the importance of taking medication. The external inhibiting factors that were most frequently mentioned in the FGDs were social factors and family support. It is common for patients with substance use disorder to be in a pathological family characterized by being overprotective and neglected. This factor has a significant influence on medication adherence. Nonsupportive family members' behaviors are associated with less medication adherence. The importance of instrumental help for self-care behaviors fails to support the patient's efforts for behavior change[27].

According to the participant's point of view, the solution was to empower patients to be directly involved in the treatment process. So that motivation, awareness, and commitment are built to achieve treatment goals and educate patients about the importance of medication adherence and the impact of nonadherence, communication-information-and adequate education. The participants of all these things most often mentioned the patient's education factor. Education becomes imperative because of the low health literacy. It has impacted nonadherence to treatment, harming the patient's quality of life[28–30]. Meanwhile, the solution to the most frequently mentioned external factor was to increase the healthcare providers' attitudes, knowledge, and skills.

A pharmacy health coach's attitudes were: high spirits and strong encouragement considering that drug patients tend to relapse; and confidence and accountability. Being confident and reliable, including the ability to cope in stressful situations, will make patients feel comfortablebeing handled by a professional in their field[31]. In addition to attitude, according to the participant's point of view, knowledge about drugs and their effects, knowledge about brain disease, pharmacology of drugs used for comorbid drug patients, the concept of medication adherence, the concept of the Transtheoretical Model Stage of Change must be mastered. Meanwhile, a pharmacy health coach must possess effective communication skills, collaboration skills, consultation skills, and mastery of motivational interviewing.

The findings from this FGD are deemed very important for preparing a pharmacy health coach by combining the results of the systematic review that we have conducted previously[2] and other researchers[31]. The training concept prepared later must be evidence-based, so trainees meet the expected competencies as a pharmacy health coach for addiction outpatient. Nonetheless, the purposive sampling strategy used for this study may be considered a limitation, which might produce research bias and influence the interpretation of the results.

V. CONCLUSION

The competencies that must be mastered by a pharmacy health coach in dealing with outpatient drug patients, based on the perspective of a health provider included; effective communication skills, collaboration/teamwork skills, consultation skills, Adherence Concept, Education, and Motivation Interviewing. All competencies must be taught through structured, systematic, and measurable training by professionals in their fields.

CONFLICT OF INTERESTS

The authors declared they have no conflicts of interest.

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