Facilitating pharmacy staff's conversations about non-medical medication switches: Development and testing of a communication training

Laura Schackmann [a,b,*], Mette Heringa [c], Majanne Wolters [d], Adrianne Faber [c], Liset van Dijk [a,b], Ellen S. Koster [d], Marcia Vervloet [a]

[a] *Nivel, Netherlands Institute for Health Services Research, Utrecht, the Netherlands*
[b] *Groningen Research Institute of Pharmacy, Unit of PharmacoTherapy, Epidemiology & -Economics, University of Groningen, the Netherlands*
[c] *SIR Institute for Pharmacy Practice and Policy, Leiden, the Netherlands*
[d] *Division of Pharmacoepidemiology & Clinical Pharmacology, Utrecht Institute of Pharmaceutical Sciences, Utrecht University, the Netherlands*

ABSTRACT

Background: Non-medical medication switches, a change to another medicine or medication label not motivated by medical reasons, occur frequently. Switches often lead to negative patient emotions, such as confusion and anger. Pharmacy staff's communication, i.e. delivering the message and addressing patients' emotions is crucial, but experienced as difficult.

Objective: To develop and test a communication training for the pharmacy team to facilitate medication switch conversations.

Methods: A communication training was developed based on the 'breaking bad news model' and 'positive message framing' strategies, and incorporating needs and preferences from practice. The training consisted of an e-learning with theory and reflective exercises, a half-day live training session, and an online reflection session. The Kirkpatrick training evaluation model (levels one 'reaction' and two 'learning') was used to evaluate the training. Quantitative data were analyzed using descriptive statistics and interview data was transcribed verbatim and analyzed thematically.

Results: Twelve pharmacists and 27 pharmacy technicians from 15 Dutch pharmacies participated in the training. According to Kirkpatrick's model level one, the major learning outcome was to give space to patients to express their emotions and/or concerns (e.g. more silences in the conversations). For level two, most participants valued practicing the conversations, role-playing, and receiving feedback. The majority of the participants indicated that they had sufficient tools and practice during the live training to apply the strategies in daily practice. A few participants still needed time and practice, or missed examples to apply the strategies.

Conclusion: The communication training based on the two strategies was well-received and participants felt well-equipped post-training. The take-away for participants was to give space to patients to express their emotions. Using these strategies and skills, pharmacy teams can tailor their medication counseling to patients' emotions and concerns during non-medical medication switches to better support patients in proper medication use.

1. Introduction

Non-medical medication switches occur frequently due to medicine shortages or policies of health insurers in order to reduce prescription medication costs.[1] A non-medical medication switch refers to a change to another medicine or medication label not motivated by medical reasons. The new medication is generally expected to have the same effects as the old medication.[2,3] Yet, patients often experience unintended consequences.[4–6] Switching can create practical barriers, for example, the medication looks different and is not recognized by the patient. This change can create confusion about the new medicine, which can lead to unintentional medication non-adherence. Additionally, poor expectations of the effect of the medicine, also known as the nocebo effect, may be due to distrust in the new medicine, or fear of new side effects.[7] The nocebo effect is a negative reaction that people experience such as side effects when they have negative expectations of

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a treatment, e.g. when switching medications.[1] Switching medicines without a medical reason can therefore also lead to intentional medication non-adherence, and can result in patients feeling less confident in their ability to solve problems related to their medication use.[8]

Pharmacy team member's communication about these switches, how they deliver the message and how they address patients' emotions and concerns regarding the switch and use of the new medicine is crucial. The majority of patients accept non-medical medication switches, though switching also regularly leads to a negative emotional response by the patient.[9] Medication switches occur often and have shown to create tension[10] in the pharmacy, both for the pharmacy team member as well as the patient because they have little or no influence on these health insurance policies or shortages. For example, about three-fourths (72%) of pharmacy technicians expressed that they experience anger by patients, usually multiple times per week or per month.[10] Moreover, pharmacy technicians also indicated that these difficult conversations regularly negatively influence job satisfaction.[10] Thus, effective patient-centered communication skills are needed to communicate well with patients who may have difficulty with a switch. This includes attention for how pharmacy team members can facilitate these conversations and address these emotions experienced by patients.

Studies show that pharmacy staff find it difficult to perform effective patient counseling and patient-centered communication.[11–13] Pharmacy staff members could thus potentially benefit from training and skills to conduct such conversations, especially in the case of difficult consultations about medication switches. Stress and arousal are common disruptors for effective communication. Medicine switches can be stressful due to the regularly experienced emotions of patients. In a stressful situation, the brain reacts automatically and the one in a heightened emotional state is less inclined to reflect on themselves and on others. For example, stressful encounters influence one's cognition, e.g. ability to make decisions, judgement, ability to listen, or to pay attention.[14] It is essential to address the emotion and what feelings and thoughts affect the self and other. Improving communication skills to converse about non-medical medication switch conversations may give the professional more self-efficacy, and may prevent potential burnout due to the burden of the conversations.[15–17] At a patient level, improved communication may result in more trust in the medicine[7,18] and better acceptance of the medication switch and use of the new medicine,[19] which ultimately also contributes to proper medication use. Hence, it is crucial to support pharmacy staff members in their counseling about medication switches in pharmacy practice.

There are several communication strategies that can be used to deliver a negative message. A commonly used communication strategy in medicine (e.g. field of oncology) when conducting conversations in which a negative message has to be conveyed is the 'breaking bad news model'.[20,21] This model aims to prevent pitfalls, such as diverting from the main message or delaying the delivery of the message. This conversation model consists of three phases: 1) delivering the bad news or negative message, 2) dealing with the reactions of the recipient, and 3) looking for a solution. As shown in previous research, having a pre-defined structure for a conversation where a health professional has to bring negative news can help them feel more prepared and confident to have the conversation.[22]

Another possible communication strategy is 'positive message framing'. With this strategy, the advantages of the situation are emphasized in the message. In terms of prescription medication use, a recent study of patients with rheumatic diseases found that positively framing a switch from originator biological to biosimilar led to a greater willingness to switch.[23] Positive framing of possible side effects (e.g. experiencing a side effect indicates that the medicine is working) has also been shown to lead to a reduction of the nocebo effect.[23,24] Given these effects in other studies, and as similar principles apply to the context of our study (medication switches, perceived side effects, doubts or concerns about the effectiveness), this strategy was chosen.

To date, these strategies are hardly applied in the pharmacy setting, while their use could possibly contribute to a better course of conversations in the pharmacy when communicating during difficult situations. This study aimed to develop and test a communication training for the pharmacy team to facilitate medication switch conversations, based on the 'breaking bad news model' and the 'positive message framing' strategies.

2. Method

In this study, a communication training for pharmacy team members to facilitate conversations about non-medical medication switches was developed (phase 1), tested (phase 2), and evaluated (phase 3). The communication training was developed by the research team in collaboration with two trainers (MW and AF) based on the 'breaking bad news model' and 'positive message framing' strategies, and incorporating needs and preferences from practice (see parts 1.1 and 1.2, Fig. 1). The developed e-learning and training materials were drafted (1.3), checked (1.4), and then tested (2.1) and evaluated (3.1–3.2).

The researchers and trainers have educational backgrounds in pharmacy practice, (bio)medical sciences, communication education, sociology, and in teaching both undergraduate pharmacy students, and postgraduate pharmacists and pharmacy technicians. The researchers and trainers were involved in the three aspects of the training. For the e-learning, the researchers organized the registration of conversation characteristics (1.1), needs assessment (1.2) and made an initial draft of the e-learning (1.3). The trainers gave their feedback on the e-learning. For the live-training and its materials, the trainers took the lead and the researchers provided their feedback. For the reflection sessions (2.1), the researchers and trainers worked together to prepare and carry out these sessions.

Phase 1. Development

2.1. Inventory of conversation characteristics

To understand the challenges and success factors in the pharmacy regarding the communication during non-medical medication switch conversations, pharmacy staff members registered positive and negative characteristics of these conversations. Taking inventory of these characteristics (i.e. how the conversation went, reaction of the patient, positive and negative aspects of the conversation) in open and closed question form served as input for the e-learning part of the training, particularly as background information on non-medical medication switches.

Four different community pharmacies in the Netherlands were invited to participate. At the start of this study, a call for participation was made via newsletters, websites, and social media (Twitter, LinkedIn, Facebook) of the networks of the researchers. From the responses on this call, pharmacy teams were selected based on more/less experience with practice research and more/less experience with consultations and communication. In total, three pharmacy team members per pharmacy were asked to register characteristics of non-medical medication switch conversations using a registration form (Appendix 1), over a two-week period between November 2020 and January 2021. After this registration period, they were all interviewed by telephone to provide further explanation on how they experienced the conversations.

2.2. Needs assessment

Secondly, to ensure the training aligned with daily pharmacy practice (i.e. the experiences of the pharmacy staff members and the needs, wishes and preferences of patients), a needs assessment was conducted among 138 pharmacy technicians and 3962 patients. Pharmacy technicians were invited to fill in a questionnaire via the Dutch Panel on practical research for Pharmacy Employees (PAM) (Appendix 2). Online questionnaires (Appendix 3) were distributed to adult chronic mediation
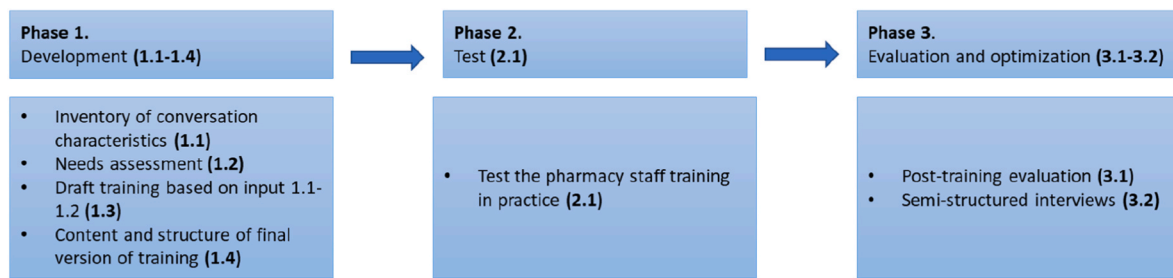
Fig. 1. Development, test, and evaluation of the communication training about non-medical medication switch conversations in three phases.

users in two patient panels. Questionnaires contained questions on how pharmacy technicians and patients experience the conversations about medication switches at the moment (i.e. type of information patients need and receive, timing of information, channel, communication style), and whether the needs and preferences of patients are met. The needs assessment gave direction to the e-learning and live practice part of the training. Detailed methods are described elsewhere.[10]

2.3. Training outline based on input registration period and needs assessment

The training is based on results from phase 1.1–1.2 (see Fig.1), literature,[20–24] and meets the recommendations in the existing consultation guidelines about pharmaceutical consultations between the patient and pharmacy team members in Dutch pharmacy practice. It is known from the literature that when training students, a combination of practice and reflection works well,[25] also in training pharmacy students and staff.[26] The combination of these learning methods were also used in the development of this training.

Daily pharmacy practice examples, gathered from the characteristics registration and questionnaires (1.1–1.2), were used as cases in which the strategies could be applied. The two existing communication strategies were not adapted or modified in terms of structure or content. Instead, we illustrated how application of the strategies would look like in pharmacy practice by using exemplary case studies gathered from practice. By using practical examples from the pharmacy setting to practice the strategies, it was ensured that the application of the two strategies fitted the pharmacy practice. Appendix 4 includes a visual summary of the use of the communication strategies.

An outline of the training was presented to an expert group, including communication experts and trainers, patient organization representatives, and pharmacy team members, during an 1.5 h online meeting in June 2021. During this meeting the learning objectives, work forms, and time indication per component of the training were presented for the e-learning, live training, and reflection session. The members of the expert group gave feedback on the form and content of the training. Based on the feedback and suggestions given by the expert group, the content and form of the training was adapted.

2.4. Content and structure of the final version of the training

An outline of the e-learning was then tested by two pharmacy technicians (from the network of the research team) for the usability and feasibility of the training, and to see if the e-learning would fit into daily practice.

Phase 2. Test

2.5. Testing the pharmacy staff training

In total, 15 pharmacies were recruited through various channels (newsletters, social media, and networks of the project group and advisory board group, the latter including communication experts and trainers, pharmacy team members, and representatives from patient organizations) to participate in the training and to use the communication strategies in practice. A number of pharmacies had already expressed interest in participating in the training at the start of the study. At least one pharmacist and two (advanced) pharmacy technicians per pharmacy were asked to participate in the training (see box 1, for backgrounds of pharmacy team members working in pharmacy practice). Thereafter, they were asked to use and test the communication strategies in their daily work based on what they had learned in the training.

Two months after the training, in total five online reflection meetings (each about an hour) on various times/days were organized. During each session one researcher and one trainer were present. During these meetings, participants shared their experiences and thus had the opportunity to learn from other pharmacy team members about how they handle specific situations. The sessions were structured based on the main themes that were extracted from the course evaluation forms (Appendix 5), which pharmacy team members who partook in the training filled in directly post-training (see 3.1, Fig. 1). These themes included intentions to apply the strategies, challenges indicated post-training, and specific cases or questions that the participants wanted to address or discuss with the group. Each topic was addressed by first asking participants to write down some thoughts and then sharing these with the group.

Phase 3. Evaluation and optimization

Pharmacy team members who participated in the training were split in three groups for the live-training part, and there were five groups of participants for the, in total five, reflection sessions.

Various activities took place to evaluate the training, explained below (3.1–3.2, Fig. 1). In order to evaluate the training, the Kirkpatrick model[29] was used as a framework. This is an internationally recognized tool for evaluating and analyzing the results of educational, training, and learning programs. It consists of four levels of evaluation: reaction, learning, behavior, and results. For the scope of the evaluation described in this paper, level one and two were applied. Level one included the extent to which participants found the training engaging and relevant to their jobs.[29] Level two included the extent to which participants acquired the intended knowledge, skills, attitude, confidence, and commitment based on their participation in the training.[29]

Additionally, to optimize the training, an online meeting (duration 1.5 h, May 2022) with the research team and trainers was held. During this session, the trainers gave their input on which aspects of the training were most and least beneficial, and recommendations on how to optimize the training.

2.6. Post-training evaluation

At the end of the training, all participants were asked to fill in an 1-minute training evaluation form (Appendix 6) to indicate what they intend to use in their daily work (to assess level one of the Kirkpatrick model). Additionally, directly post live-training, participants were asked to fill in a more extensive course evaluation form. Using the course

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Box 1
Background and training of pharmacy team members in Dutch pharmacy practice

In the Netherlands, pharmacists and (advanced) pharmacy technicians undergo different levels of education. Pharmacists follow a six-year university program. The pharmacist education has an emphasis on their responsibility towards patients to pursue the best therapeutic outcome and medication therapy for them.[27] Pharmacists are less often at the counter conversing with patients, and are generally involved in medication switch conversations when the pharmacy technician requires assistance.

Pharmacy technicians follow a three-year program at the vocational education level. The focus of their studies lies on patient care, i.e. dispensing medications to the patient, as well as giving guidance and advice to patients.[28] Specifically, (advanced) pharmacy technicians are often first point of contact for patients at the pharmacy counter, and mostly take part in medication switch conversations with patients on a daily basis. A pharmacy technician can have more qualifications and responsibilities, e.g. improving pharmaceutical patient care and guiding specific patient groups (i.e. patients with polypharmacy, patients with chronic diseases), when they followed additional post-graduate training. These types of technicians are then referred to as advanced pharmacy technician.

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evaluation forms, insights into the learned skills (level two of the Kirkpatrick model) of pharmacy staff members post-training were gained. In these forms participants were asked what they found most/least useful, and were asked to give suggestions to improve the training.

2.7. Semi-structured interviews with pharmacy staff

To gain additional, more in-depth, insights into the learned skills (level 2 Kirkpatrick model) after applying these in their daily work during the months following the training (between November 2021–February 2022), one participant per participating pharmacy was asked to partake in an interview. The aim of the interviews was to delve deeper into whether they had all necessary skills and tools to apply the strategies in practice. For example, the interviews were used to gain insight into what pharmacy team members missed/would have liked to receive in terms of information/skills and what they found useful/ beneficial during the training to apply their acquired skills in practice (see Appendix 7, for interview topic guide). The interviews lasted 15–30 minutes, and took place via telephone or digitally. The interview-recordings, recorded with consent from the participants, were transcribed verbatim and analyzed using inductive and deductive coding, by two independent coders.

The deductive codes were derived from the topics used in the interview guide, structured according to the topics of the COM-B model (capability, opportunity, motivation). The COM-B model is a widely used model in the field of behavioral science to understand behavioral change using the three domains.[30]

2.8. Ethical considerations

The pharmacy team members who participated in the training gave written consent to participate in this study (i.e. filling in questionnaires and partaking in an interview). The study protocol was approved by the Institutional Review Board (IRB) of the division of Pharmacoepidemiology and Clinical Pharmacology, Utrecht University (file: UPF2013 and file: UPF2108).

3. Results

Phase 1. Development

3.1. Inventory of conversation characteristics

Eleven pharmacists/pharmacy technicians from four pharmacies registered characteristics of 31 conversations. Examples of positive experiences as described by the participants were: the patient shows understanding for the situation and medication switch, the patient lets the pharmacy staff finish their conversation without being interrupted, and

the patient was able to think in solutions together with the pharmacy staff member. Negative experiences included: the patient was upset/ angry during the conversation, the pharmacy staff member found it difficult to explain the medication switch/why the patient had to pay extra costs, or the patient noticed another medication package before the pharmacy staff member could explain the switch. These experiences were included in the e-learning to provide background information and understanding of the relevance of the topic.

3.2. Needs assessment

In the questionnaire, pharmacy technicians indicated that they regularly struggle with these conversations due to emotional or negative responses of patients. The pharmacy technicians' experiences with non-medical medication switch conversations included in the e-learning were: 1) that they often (on a weekly to monthly basis) experience these conversations as difficult because of reactions such as anger, confusion, and incomprehension of patients, and that these conversations often negatively influence their job satisfaction.

The outcomes of the patient questionnaires that were incorporated in the e-learning were: 1) patients want information about the difference with the previous medication and why the switch took place, 2) patients want verbal or written information before pick-up/delivery of the medicines. This is a gap in meeting patients' information needs about medication switches, as most pharmacy technicians confirmed that they do not give information about the medication switch before pick-up/ delivery of the medicines. The result about providing information about the medication switch before delivery/pick-up of the medicine was also included in the e-learning as a suggestion for pharmacy teams to implement.

3.3. First outline of training

Based on the input of the inventory of conversation characteristics (1.1) and needs assessment (1.2) (see Fig. 1), as well as literature[20–24] and input from the research team, learning objectives were developed by the research team and trainers as well as an outline of the components of the training and the indicated amount of time per component.

The outline of the training was then further co-created with experts (communication experts and trainers, patient organization representatives, and pharmacy staff members) who gave their input on the draft version. For the main points of suggestion, as posed by the expert group, see box 2. The suggestions in Box 2 were all included in the development of the training materials.

3.4. Content and structure of final version of training

After the feedback from the expert group was incorporated in the next version of training, the developed training materials were tested by

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Box 2
Suggestions posed by experts in the field on the draft version of the training

- Provide more background information in the e-learning about emotions (i.e. what may cause these emotions, e.g. fear).
- Be considerate of the fact that if patients have already experienced a switch several times, they can/will react differently (neutrally, or with more emotion) than a patient who experiences a switch for the first time.
- Be careful with too many different theories, as the training may become too theory-packed for the time frame of the e-learning and live-training component.
- Give the possibility to practice with the possible reactions of patients during the live training.
- Be considerate of when in the conversation the message is brought, and that the same message is brought to patients by different pharmacy staff members.

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two pharmacy team members for feasibility and usability in practice. Both participants indicated that the e-learning part of the training was feasible in practice and only minor changes were posed.

In Box 3, an overview of the final version of the training is presented. This accredited, final version of the training was tested in pharmacy practice (*Phase 2. Test*).

Phase 2. Test.

In September 2021, twelve pharmacists and 27 pharmacy technicians from 15 pharmacies spread across the country were trained. Participants were evenly spread over three training day groups. All participants completed the e-learning on their own time within two weeks before the start of the live training. The e-learning took the participants about an hour to an hour and a half. The live practical part was given by two trainers (MW and AF) and a training actress. MW and AF have experience in developing and giving under-graduate education and

post-graduate trainings in the field of pharmacy education and pharmacy counseling. In November 2021, five digital reflection sessions took place. In total, 27 of the 39 participants took part in one of the five reflection sessions.

Phase 3. Evaluation and optimization

3.5. Post-training evaluation

Overall, all participants indicated in the evaluation forms that the training met their expectations. Most participants valued practicing the conversations, role-playing and receiving feedback during the training. The majority of the participants found parts of the 'breaking the bad news model' easier to apply than 'positive message framing', whereby how to apply positive message framing still remained a challenge directly after the training. During the reflection meetings, the majority

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Box 3
Overview of training for pharmacy staff about non-medical medication switch conversations

Learning objectives

- After the e-learning, the pharmacy team member is able to reflect on their own approach to conversations about medication switches: what is going well, what is difficult, when/how do they get the message across?
- At the end of the e-learning, the pharmacy team member can indicate which information and skills are necessary to conduct a non-medical medication switch conversation in which the patient receives information and attention as needed.
- The pharmacy team member knows both communication strategies: the breaking the bad news model and positive message framing.
- The pharmacy team member can apply the two communication strategies in an effective way.

E-learning (target duration: 1–1.5h)

- Includes theory, short video clips and (reflection) questions and assignments
- Participants learn about the communication strategies and get background information about medication switches in pharmacy practice.

Live training (target duration: 3.5 h)

- Taught by two trainers and a simulated patient (training actress).
- Short summary of the e-learning, further explanation of when and how to deliver the message, how to respond to the patient's response and how to complete the conversation.
- Practice applying communication strategies in different situations in which a difficult message about a medicine switch has to be conveyed.
- Various forms of education are used, such as: explanation by the trainers, discussions in small groups, and practice with a simulated patient.

Reflection meeting (target duration: 1h)

- Approximately 6–8 weeks after the live training.
- Online meeting with trainer(s) and participants of the training.
- To reflect on the applied means of communication in practice: what does the pharmacy staff member encounter? What is going well? Specific cases to discuss with other participants?
- Tips and tricks given/received to/by other pharmacy team members from other participating pharmacies.

of participants indicated that they did not have enough time to practice with their newly acquired skills. Participants were able to share their experiences, in particular with handling specific emotions and how they went about situations where certain policy agreements between the pharmacy and insurance companies were in place.

Regarding level one of the Kirkpatrick model (i.e. intentions), the majority of pharmacy staff members indicated that they would give more space to patients to express their emotions and/or concerns (e.g. more silences in the conversations) during these conversations. Also, several participants intended to incorporate specific elements of the communication strategies such as positive message framing (i.e. starting off on a positive note, being empathetic, and highlighting the similarities in the old and new medicine), as well as delivering the message in a factual, honest, empathetic, and direct manner. Other aspects the participants intended to use in practice were: remain calm, listen actively, ask open-ended questions, and mirroring (e.g. skills on paraphrasing, reflection of feeling and summarizing). Also, some participants intended not to respond immediately and to communicate in a clear and concise way (i.e. not making the message heavier than it is). Lastly, some participants highlighted to allow the patient to think along with what the best solution is and to eliminate certain words such as: "in principal", "unfortunately", "sorry", "unbranded", and "cheap" during these conversations.

Regarding level two of the Kirkpatrick model (i.e. learned skills), the majority of the participants indicated that they had sufficient tools and practice during the live training to apply the strategies in daily practice, while a few participants still needed time and practice. Examples of situations in which participants wanted more practice were: addressing specific types of agreements between pharmacy and insurance; how to wrap up a conversation that has ended on a bad-note; and, how to deal with negative emotions from the patient (anger, disappointment, aggressive, hurried). Suggestions for improvement of the training included having exemplary sentences to use in daily practice, portraying examples of a 'good' and 'bad' conversation, and having more time to practice various situations. A few participants particularly desired recorded exemplary conversations of both good and bad examples of applying the strategies in practice.

3.6. Semi-structured interviews with pharmacy staff

In total 13 participants were interviewed. Pharmacy team members of two pharmacies did not respond on the call to participate in an interview. All interviewees indicated that they had received sufficient tools to apply the communication strategies in practice (level two of the Kirkpatrick model). In particular, the presentation/content, practical exercises, practicing with a simulated patient during the live-training day, and that the strategies helped provide structure/expectation management on how to address these types of conversations. One of the interviewees gave the example that, "*a positive message framing or such a breaking the bad news conversation model is a kind of backup. If [the conversation] does not go well you can apply them, so to speak*".

Further, the majority of the interviewees indicated post-training that they had no additional needs or wishes from the training to be able to apply the strategies in practice. A few interviewees indicated that practicing more in the daily pharmacy practice is important, and specified that exemplary (open) questions could further help the participants, and a conversation aid would be useful. For example, a participant stated that "*We did need to have some material, like a conversation aid, a one or two sided sheet, so you can look at what they [the strategies] were again – those steps in the conversation, …, what are example sentences.*" Also, examples of specific case studies, such as when patients have been granted medical necessity by a doctor, but still have to switch due to a medicine shortage, or another example being specific pharmacy-insurance company regulations, which remain difficult for some of the participants.

3.6.1. Training optimization

As indicated in the evaluation, participants wanted examples of how to apply the strategies in practice. As part of the optimization of the training, four video-clips have been made for educational purposes and will be used as part of the training in the future. There are two exemplary videos of the breaking the bad news model, specifically a 'good' and a 'bad' example using the assets of the model. For positive message framing two video clips have been made where in one video the patient (actor) accepts the medication switch, and the second where the patient reacts with heightened emotion.

Recommendations made by the trainers for professionals in pharmacy practice to best use the training materials were collated. For the live-training part, the part about emotions plays a prominent part. During the live training part, less attention needs to be paid to the recap of the e-learning, so that there is more time for practice. Further, to better accommodate the need of the varying levels of basic communication skills amongst the participants, more (optional) background information on emotions (and how to deal with these) should be included in the e-learning. This was a suggestion from the trainers, and by doing so, the trainers can delve deeper into the strategies during the live-training day, than at the starting point on how to deal with emotions of patients. Without a good foundation of the basic communication skills, diving deeper into the communication strategies is also difficult, as highlighted by the trainers. Therefore, there should be a delicate balance between basic knowledge and specified knowledge in the training.

4. Discussion

In this study, a communication training for pharmacy team members to facilitate conversations about non-medical medication switches was developed, tested, and evaluated. According to Kirkpatrick Model level one, participants intend to give space to the patient to express their emotions. For Kirkpatrick Model level two, most participants valued practicing the conversations, role-playing, and receiving feedback. The majority of the participants indicated that they had sufficient tools and practice during the live training to apply the strategies in practice, while a few indicated they still need time and practice.

Most other communication trainings offered in pharmacy practice are more general. For example, trainings on how to use questions/topics in counter conversations to address the needs and wishes of patients,[31] what patient-oriented communication means and how to incorporate this in consultations, and how to conduct consultations based on existing models, e.g. the Calgary Cambridge Model.[32] This training delves specifically into the scenario of non-medical medication switch conversations and how to apply specific communication strategies in these conversations. Adding these specific strategies to these conversations in pharmacy practice makes this a new and innovative training. These types of conversations are regularly perceived as difficult conversations due to the heightened emotions of patients by pharmacy staff members.[10] The communication training was well-received by pharmacy staff members, particularly because they felt well-equipped with the provided communication skills to address patients' emotions and concerns regarding the switch to better support patients in proper medication use.

Pharmacy team members became aware that giving the patient's emotion a place in the conversation is key and that giving space for the patient to react is also important. In particular, pharmacy team members realized that by doing so, incorporating these skills can give patients a sense of feeling heard, and being understood. Some of the basic skills in patient-oriented communication, e.g. listening actively to the patient and picking up patient cues are not yet completely standard in the repertoire of the pharmacy team members, and thus also not used in conversations about non-medical medication switches. Listening actively to the patient and picking up cues of the patient can help provide patient-tailored communication about the medication switch. By

incorporating these communication skills, the pharmacy staff member can better address the patient's needs and wishes at an individual level.[33–36]

Moreover, the participants seemed to grasp the concept of the 'breaking the bad news model' earlier/easier in the training than 'positive message framing', which is still considered to be a challenge. Breaking the bad news model may more easily be perceived as a framework, with different steps to follow during a conversation, whereas positive message framing may still be more abstract. Positive message framing is not always clearly applicable in every situation, which can make it more abstract and difficult for pharmacy team members to use in practice. Identifying and sharing the benefits or positive aspects of a medication switch with the patient can at times not be relevant or appropriate during the conversation. Nevertheless, according to literature, a positive attitude regarding the provision of information and communication about a switch is essential as this can increase more trust in the medicine, proper medication use, and treatment adherence.[1,23,37–40] Hence, more attention may be necessary for this aspect early on during the education of pharmacy team members, as well as more emphasis with exemplary cases on how to incorporate this strategy during the e-learning and live-training part of this developed training. In order to pinpoint what appears to be difficult when applying positive message framing, the applied skills in daily practice of the participants should first be evaluated. This further evaluation will be conducted as a follow-up study.

4.1. Strengths and limitations

A strength in the development of this training was using the perspectives of both patients and pharmacy staff members, as well as the active involvement of experts such as communication experts and trainers, patient organization representatives, and pharmacy staff members during the three phases of this study. Based on the current status quo (inventory of conversation characteristics) and the needs assessment, specific experiences, needs and preferences of pharmacy team members and patients were incorporated in the training. Another strength is that the testing and optimization is based on feedback from pharmacy staff members and the trainers. By involving pharmacy staff members, trainers, and communication experts from the expert and advisory group of the project team, this training incorporated elements that properly reflect daily pharmacy practice. Further, a strength of the testing of this training was that both pharmacists and (advanced) pharmacy technicians participated in the training. Lastly, given that non-medical medication switches are a specific recognizable theme in daily practice, this was an attractive training for the participants to take part in.

This study also had limitations. One is that the Kirkpatrick model was incorporated as an evaluative framework after data collection for the evaluation. Hence, maybe not all relevant topics have been asked. Additionally, bias in the reflection on the training and the use of the strategies could be present. The pharmacy team members who participated in the testing of the training, were also the ones conducting the conversations and evaluating the training, hence there may be social desirability in their opinions on the use of the strategies in practice. Also, the positive attitudes about this training may not necessarily reflect what all pharmacy team members in the Netherlands think of this training, as those who participated were motivated, and might be early adopters. Nevertheless, it is important for testing and implementation of new tools or interventions that the early adopters are positive about the training/intervention and contribute to the development, and share these with their other colleagues in the field for a widespread up-take of the training. Another potential limitation is that the set-up of this study included two-to-three pharmacy staff members per training, due to feasibility reasons. However, the workflow in the pharmacy is centered around teamwork, hence a follow-up study may include testing the training as a team training. Lastly, the experiences of pharmacists and

pharmacy technicians were not explicitly differentiated. This was not the purpose of the training evaluation and we did not have enough pharmacists to make these comparisons, though for future research this can give more insights in how different members of the pharmacy team experience the training.

4.2. Implications for practice and research

This communication training, with the two communication strategies, has been developed specifically for non-medical medication switch encounters. However, there are basic elements in the training that are widely applicable in other pharmacy counter encounters, for example conversations where the pharmacy staff member has to bring the news that the patient has to pay an additional fee. Next to specific content where this training may be useful for, some of the basic elements of the communication strategies, such as giving the patient space to express their emotions or concerns, or making sure the patient has understood the explanation by literally asking this or asking the patient to recap what has been told, can also be included in other types of pharmacy encounters, not specific to medication switches.

For further implementation of this training, this is an accredited training, meaning that pharmacy team members can obtain accreditation points after competition of the training. These points are also obligatory in the Netherlands for further development of pharmacy professionals. This is also an incentive to take part of this training, in a topic which pharmacy team members have affinity with and recognize the relevance.

To understand the effect of the training in pharmacy practice, the training will be further evaluated. This further evaluation will be conducted as a follow-up study, whereby the pharmacy staff member and patient experiences with the non-medical medication switch conversations post-training will be investigated. In a future study, a larger randomized control trial (RCT) study could be set up around the applied skills in practice to see what the effect is on patient treatment adherence. Another suggestion for future research could be to test this training as a team training.

5. Conclusion

The communication training gave pharmacy staff members skills how they can deliver the message and how they can address patients' emotions and concerns regarding the switch. The training was well-received and pharmacy staff members felt well-equipped after the training. The key take-away for participants was to give space to the patient to express their emotions. Using these strategies and skills, pharmacy staff members can tailor their medication counseling to patients' emotions and concerns regarding the non-medical medication switch to better support patients in proper medication use. The next step is to investigate the degree to which pharmacy staff members apply their learned skills in daily practice.

Author contributions

LS: Methodology, Investigation, Data curation, Formal analysis, Validation, Visualization, Writing- Original draft, Project administration, MH: Conceptualization, Funding acquisition, Methodology, Writing-review & editing, LvD: Writing-review & editing, Supervision, AF: Methodology, Writing-review & editing, MW: Methodology, Writing-review & editing, EK: Conceptualization, Funding acquisition, Methodology, Writing-review & editing, MV: Conceptualization, Funding acquisition, Methodology, Writing-review & editing, Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence

the work reported in this paper.

Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.sapharm.2023.01.014.

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