



# Steps to construct educational interventions on sexual dysfunction for healthcare professionals and patients. Experiences from the SECRET research study-group

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## ABSTRACT

**Objectives:** To design an educational intervention on sexual dysfunction for patients suffering from schizophrenia and diabetes based on patients' and other relevant stakeholders' preferences, and to offer transparency into the basic decision-making process behind a final design.

**Methods:** We conducted a three-part investigation to explore theory, preferences, and feasibility based on literature searches and interviews with patients, healthcare professionals, heads of Assertive Community Treatment Centres and experts. Based on a content analysis of this material, a draft of the intervention was developed. The draft was quality-checked by involvement of stakeholder representatives and refined to its final design.

**Results:** The intervention evolved into having two components: One intervention for patients and one for healthcare professionals. In patient education, meeting peers and predictability were important factors. For healthcare professionals, daily clinical activities were prioritised.

**Conclusions:** We present a framework for an educational intervention about sexual dysfunction, schizophrenia and diabetes targeting both patients and healthcare professionals.

**Innovation:** The transparency of the design process underlying the interventions allows for reproduction and eases further refinement, extension, and adjustment if implemented in other contexts.

## 1. Introduction

Sexual dysfunction (SD) is defined as an impaired sexual function combined with personal distress and may affect desire, arousal, orgasm, pain and satisfaction [1]. SD is frequent in patients with schizophrenia; pooled prevalence estimates found in a meta-analysis feature 56% in men (with values ranging from 5 to 97% in included studies), and 60% in women (range 1–96%). In patients with diabetes, meta-analyses show a pooled prevalence estimate of SD of 53% in men (range 35–80%) and 69% in women (range 17–94%) [2–8]. The cause of SD is often multifactorial, thus it may be difficult to determine biological, psychological,

and social factors that apply to the individual patient [9]. The core psychopathological symptoms of schizophrenia can impair intimacy between partners, and the antipsychotic agents may unintentionally prompt SD and metabolic side effects such as dyslipidaemia, increased body weight, and type 2 diabetes [10]. Consequently, patients suffering from concurrent schizophrenia and diabetes are at particularly high risk of experiencing SD, often harming the patients' quality of life [11,12].

SD is underreported, partly due to barriers in connection with discussing sexual problems in clinical consultations. Healthcare professionals (HCPs) may feel unprepared for such discussions due to lack of medical training in human sexuality [13,14]. However, studies show

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that brief educational sessions can improve HCPs' knowledge and understanding of the importance of sexual problem management, and lead to more frequent discussions of sexual issues with their patients [15]. Our research interest lies in patients with concurrent schizophrenia, diabetes and SD. To our knowledge, no previous studies have tested the effects of a group-based educational intervention on SD for this particular patient group. The preferences of patients diagnosed with a serious mental illness may require particular attention and a more individualised design while the diagnosis of diabetes may not affect the ability to adapt to a generic teaching situation very much. Therefore, we have been relatively more attentive to statements of patients with schizophrenia compared to the diabetes patient registry. However, our search for studies of patients with schizophrenia and SD resulted in just one [16]. It included only men, and the rationale behind the intervention design was not elaborated. Further, existing research on interventions in general aimed at patients with schizophrenia tells us very little about the design process behind the interventions and what kind of deliberations and decision-making go into the choices made. This prevents other researchers from understanding what makes a successful intervention regarding context and development process, and it complicates an adaptation of the intervention to other contexts [17]. Thus, an opportunity to gain maximum benefit from existing interventions is lost.

The study described in the following is part of the SECRET project [SEx, psyChophaRmacology and diabETes] in which the central tool under investigation is an educational intervention about SD and sexual health for patients with concurrent schizophrenia and diabetes. The Medical Research Council's (MRC's) framework for complex interventions serves as the theoretical basis for the development and later evaluation of the intervention [17,18]. The education is designed to function as the intervention under scrutiny in a subsequent randomised controlled trial (RCT) (NCT05951660). The RCT will test whether attention to, and knowledge about, the relation between SD, mental illness, diabetes, and psychopharmacology can promote addressing sexual topics in clinical consultations, thus reducing the incidence, severity, and/or perception of SD. This paper only describes the genesis of the educational intervention. The RCT study will be reported on in future publications.

In recent years, involvement of patients and other stakeholders in health research has gained ground [19]. This is reflected in the MRC framework in which engagement of stakeholders is a core element and seen as key to developing a relevant and feasible intervention [18]. In the context of the MRC framework, stakeholders include the individuals targeted by the intervention, those involved in its development, and those whose professional interests are affected. In the following, this characterization is adopted, thus the term *stakeholder representatives* is used for interviewees representing the stakeholder target groups. Engaging stakeholders in design begs the question: How do we weigh stakeholders' preferences against other types of knowledge and experiences held by the people designing the intervention? And how much do stakeholders' preferences actually weigh in the final design?

In this paper, we review the process of developing an educational intervention - our own - in which the perspectives of patients and other relevant stakeholders are taken into account with an explicit focus on the translations and decisions we made to situate their points of view in the design. We zoom in particularly on the steps of the decision-making process in which we gathered different forms of knowledge and preferences for the final design.

## 2. Methods

### 2.1. Overall design

In this section the structure of the overall design process is sketched out. Each step of the process is elaborated in Sections 2.2–2.5.

The intervention targets patients with concurrent schizophrenia and diabetes (or schizophrenia and prediabetes) of  $\geq 18$  years of age referred

to an Assertive Community Treatment Centre (ACC) as well as HCPs working at an ACC in Denmark. ACCs are local ambulatory psychiatric centres. Patients treated at ACCs are either patients with incipient psychosis, who need diagnostic investigation and treatment, or patients with a psychiatric diagnosis having a moderate to severe disease status or an unstable condition. Each patient is assigned to a multidisciplinary treatment team and allocated a contact person within the team, often a nurse. Psychiatric treatment is free through the Public Health Care System.

The design process was carried out in three phases, each comprising multiple steps employed in a dynamic progression, (see Fig. 1) [18].

1. Firstly, information was gathered by means of (1) a literature review of educational interventions for the target groups as well as on SD and (2) explorative semi-structured interviews with stakeholders. The research group identified the relevant intervention stakeholders to be patients, HCPs, heads of ACCs, and experts in the fields of clinical sexology, clinical pharmacology, and patient education. The interviews explored perspectives on the ideal design for an educational intervention. The interviews were coded and analysed.
2. Secondly, the research group developed a first draft of the intervention based on a decision-making process informed by results from phase one. During the design phase, one of the main decisions concerned whether the two target groups should engage in a joint educational intervention or participate in two separate, specifically tailored educational programs.
3. Finally, three new stakeholders were asked to comment on the draft intervention plan. Based on their inputs, the intervention was further refined.

### 2.2. Literature review

A comprehensive literature review was conducted (2002 to 2022) using the bibliographic databases MED-LINE, PsycInfo, and CINAHL to accumulate knowledge, build on existing advice, and ensure awareness

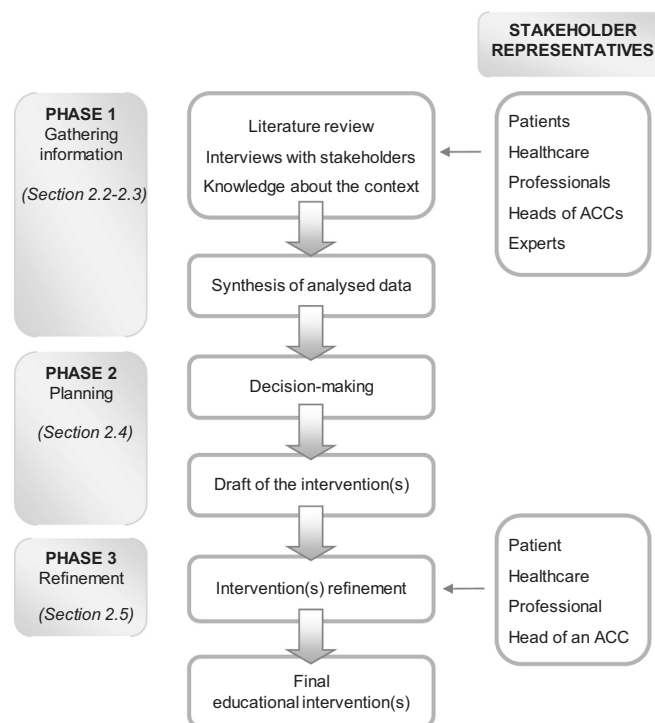


Fig. 1. Design process. A simplified model of the developmental process of the educational intervention. Each phase is described in the following sections. The model is inspired by Vasine et al. [20] [ACC = Assertive Community Centre].

of potential pitfalls and sensitivities related to the subject of SD. Initially we searched for studies with descriptions of educational elements in a group-based educational intervention on sexual dysfunction or sexual health for patients with severe mental illness. As no relevant studies were found, three separate searches were conducted. The first covered educational interventions for patients with schizophrenia, the second educational interventions on SD, and the third educational interventions for patients with diabetes and sexual dysfunction. The search included only studies from Western countries. The complete search strategies can be found in the supplementary material.

The educational elements were extracted from identified studies and condensed.

### 2.3. Interviews

In phase one, we also conducted semi-structured interviews with individuals from the four stakeholder groups: patients, HCPs, heads of ACCs, and experts in the fields of clinical sexology, clinical pharmacology, and patient education. The intention of the interviews was to explore perceptions on how an educational intervention should ideally be carried out to be relevant, effective, and feasible.

#### 2.3.1. Recruitment of interview persons and sampling of interviews

The objective of our recruitment was to reach a balanced representation of sex/gender, age, and experience. The recruitment criteria for patient stakeholder representatives were: patients treated in an ACC who had an opinion on communication with HCPs about SD. We knew in advance, from our literature review as well as from own research experiences, that recruiting patients with schizophrenia in general is complicated. However, to generate the relevant information about patient preferences for educational design, our patient interviewees did not necessarily need to be diagnosed with schizophrenia and diabetes to be relevant, as our focus here was rather to learn which factors comforted psychiatric patients in such situations and which factors should be avoided. Thus we recruited more per experience with the psychiatric system and willingness to participate than per diagnosis. Informants were recruited via heads of ACCs and posters at the mental healthcare facilities. Volunteering informants meeting the criteria were interviewed after signing a declaration of consent. The collection of data continued until a saturation point of data was achieved. An elaborated account of our recruitment strategies can be found in the supplementary material.

#### 2.3.2. Interview guides

The interviews were based on interview guides designed distinctly for each of the four groups (available in the supplementary material).

The first part of the interview guide for patients addressed patients' thoughts about talking with HCPs about sexuality-related issues. The second part explored patient preferences for a hypothetical course about sexuality and mental illness focusing on relevance, thoughts about framing, and barriers to attendance. The third part was a 'prioritisation exercise' of the researchers' preconceived possible frameworks for a course and various examples of content. The patients were asked to consider what they found to be most important and to prioritise the options provided.

The interview guide for HCPs was based on Karl Tomm's four question types, i.e. clarification, interpretation, problem understanding and possibilities for agency [21]. The main purpose of the HCP interviews was to learn more about how the HCP logic and culture around SD is constructed, current practice towards patients with possible SD-related issues, and practical reasoning in relation to how they thought an intervention should be organised in order to resonate with HCPs generally.

The interview guide for heads of ACCs revolved around the framework for HCPs' competence development, the managerial emphasis of expertise areas, and their thoughts about educating HCPs in a course-

based fashion.

The interview guide for experts explored their professional experiences with the patient group as such, common sexual side-effects caused by medication, and impressions on how best to reach and engage patients in educational activities.

All interviews were carried out in 2022 as physical meetings at a psychiatric ward or online. Interviews were held 1:1, and lasted each for app. 25–60 min.

#### 2.3.3. Interview analysis

We used deductive as well as inductive methods to make our material speak. A content analysis focusing on manifest content was carried out to identify patterns in the interview material as a whole and within each informant group [22]. Initial codes were developed and used to organize the material and in this process also categories and broader themes began to emerge. Going back and forth between codes and transcripts enabled refinement and restructuring of the material in relation to the intervention design. Throughout this process regular peer debriefings took place.

### 2.4. Decision-making process to frame the intervention

In phase two, the planning phase, the research team initiated the decision-making process based on existing literature and the interviews with stakeholder representatives. In addition, the researchers drew upon their knowledge of the context, their own experiences with education for this patient group, feasibility, and the economic resources available. First, the format of the educational intervention e.g. time, duration, and participants was discussed, and afterwards the content. In phase two, a draft of the intervention was developed.

### 2.5. Intervention refinement

Phase three, refinement of the intervention, was carried out to ensure that the intervention was adequately tailored to the target groups. We conducted qualitative interviews with a patient, a HCP, and the head of an ACC, who were unfamiliar with the project. They were each presented with a written outline of the course accompanied by an oral elaboration, and then asked whether they would like to participate and which changes and refinements they would recommend. Subsequently, their inputs were discussed in the research team, and the educational intervention was refined to its final design. An account of the input provided by the stakeholder representatives in the refinement process can be found in the supplementary material.

## 3. Results

### 3.1. Literature review

19 studies were identified, 14 covering educational interventions for patients with schizophrenia [23-36] and five educational interventions on SD [37-41]. No studies covering educational interventions for patients with concurrent diabetes and SD fitted the inclusion criteria.

The search did not yield any studies on group-based teaching of SD to patients with schizophrenia. However, through references, we found a study from 1986, outside our searched time interval, which evaluated an educational intervention on SD for men with schizophrenia [16].

The condensation of educational elements are presented in Table 1. The studies identified in the literature review featured different rationales for their intervention design: inspiration from the MRC framework [24,26,29], an extensive literature review as basis [40], or adaptation of an established evidence-based program [35,36]. One study elaborated on the design process of an educational intervention in a separately published study [25]. 12 studies did not comment further on the rationale, theoretical background, or specific design of their educational interventions [23,27,28,30-34,37-39,41]. PRISMA flow diagrams and

**Table 1**

Synthesis of data gathered from the literature review and obtained through interviews with patients, HCPs, heads of ACCs, and experts.

Time, duration and place						
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts	
Online/ Physical attendance	All studies are based on physical attendance/classroom sessions.	The vast majority of patients prefer physical attendance/classroom sessions. An argument for online sessions is retained anonymity.	Prefer physical appearance. Neither online nor mixed physical attendance/online education was wanted.	—	—	
Time	<i>Patient education:</i> One study practised sessions at lunchtime, since nightfall was not practical and morning was not ideal for patients on sedatives [29,32].	Opinions were divided. Late morning to early afternoon dominates as “this is the time of day when mental and physical states top”. It is also easier in terms of practicality.	HCPs want sessions to be held in the daytime during working hours.	The ACCs have frequently allocated time for joint courses for all staff. Aside from these, only one HCP in each team at a time can attend a course due to daily clinical activities.	<i>Patient education:</i> A similar course showed no difference in the number of patients attending according to the time of day it was held. <i>Education of HCP:</i> There is a need to fit the education into the existing joint courses for all HCPs at each centre.	
Duration	<i>Patient education:</i> 1–1.5 h. Psychoeducation is often once a week for >10 weeks. <i>Education of HCPs:</i> From 1 h [24] to a 14-h workshop [25].	Opinions vary, 1–1.5 h is considered ideal by several patients.	HCPs attend a lot of courses and often experience course fatigue, thus it should be limited to a single session of no more than a couple of hours.	Knowledge gained from short courses with simple instruments is more frequently implemented in clinical practice than long complex courses.	<2 h is too short. 3 × 30-minute sessions with breaks are preferred compared to a 1 × 120-minute session.	
Location	Held in a classroom at the mental health care centre [23,30] or held in a non-psychiatric setting [34].	A central and familiar location for the patients. If more than one session is held, the same location should be used for all.	—	—	—	
Transportation						
	Literature	Patients	Healthcare professionals		Heads of ACCs	Experts
Transportation	—	The transportation time should be short and the location accessible by public transportation. Some patients find it difficult or too mentally exhausting to use public transportation. The expenses for transportation can be crucial for the decision to participate.	Not prominent in the interviews. Some argue that longer transportation can be accepted if the course is attractive.		—	—
Participants						
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts	
A mixed session with patients and healthcare professionals	—	No arguments emerge in favour of mixed sessions improving the education or its effect. One patient states that HCPs attending should not be the contact persons of attending patients. Patients want the HCPs to understand the importance of sexuality.	The vast majority do not want to attend educational sessions alongside patients. They do wish to grasp the patients' perspective on problems.	—	Two experts think that it is important that patients and HCPs experience equality and equal roles when attending the educational session. Otherwise the usual hierarchy between the groups would be maintained which is not ideal.	
Group size	<i>Patient education:</i> 6–8 participants in discussion groups [34]. <i>Education of HCPs:</i> 4–15 participants according to the educational format; fewer when sharing experiences, more when attending oral presentations.	It is mentioned that >10 participants are too many and that <8 participants may feel too intimate.	—	—	—	

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Table 1 (continued)

Participants					
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts
Partner participation	—	There are no arguments in favour of involving patients' partners. A patient states that it may affect some's self-esteem negatively, if they do not have a partner to bring.	—	—	An expert does not find it problematic to involve partners in the educational sessions.
Diagnosis	—	Most patients point out that they find experiencing the same problems, being able to reflect on each other's problems, and getting a sense of being normal is of the highest importance. Some patients find that having similar diagnoses plays part in this.	—	—	—
Sex/gender	—	The majority of patients think that the sex/gender of participants is of no importance or that mixed sex/gender is an advantage. The distribution of sex/gender is preferred in terms of reaching a balance. A female informant, however, says she would feel inhibited to attend education about sexuality in the company of males.	—	—	—
Age	—	Most patients find the age of participants to be of no importance or that younger and elder together would be an advantage. They argue that it could reflect how all ages can have problems. It is also suggested to divide participants into age groups of <30/>30 years due to expected dissimilarities/experiences in their sexual life.	—	—	—
Format					
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts
Teacher/Facilitator	At least one teacher with experience in educating patients/experts in the subject.	Some patients prefer a teacher/student feel, others a peer feel. The educator must establish a comfortable environment. Some patients do not want an authority to educate them on this topic, but rather someone with lived experience (a peer).	The teacher must have extensive professional skills regarding the topic. Several HCPs want knowledge about the patient's perspective and lived experiences.	—	Engender confidence in the professional competencies of the educators in the topic. An expert, who is a peer educator, thinks that a peer educator as a co-facilitator can act as a role model.
Breaks	Described as a break halfway through the session [26], adequate breaks [29], and a session of 75 min with a 15-min break with refreshments [34].	Breaks are important and the educational elements should not exceed 30–40 min.	—	—	One points out that it is necessary with several breaks
Content					
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts
Educational elements: Role play, group work, video, etc.	<i>Patient education:</i> PowerPoint presentations [37,41], discussion in plenum [41], opportunity to ask questions and share personal experiences [41], and a leaflet with a summary of the education [37] <i>Education of HCPs:</i> Lectures [38-40], video-based dramatizations [38], role plays [38,40], demonstration of how to obtain a sexual history [40], and discussions [40]	Some patients want the possibility to exchange experiences, but one should also be able to attend without interacting with other participants. Most patients do not want group work or to be put into focus in a role play.	Knowledge and tools presented should be easily and directly implemented in clinical practice. Some HCPs want an exchange of experiences, a discussion of clinical cases, and a video showing how to talk about sexuality with a patient. Role plays, "walk and talk" and group work is not preferable.	—	<i>Patient education:</i> Possibility to exchange experiences. Patients vary in terms of their preferences regarding social interaction; some may not desire contact which should be recognized. <i>Education of HCPs:</i> New knowledge and tools for their clinical practice and the possibility for an exchange of views. No preparation and no group work.

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Table 1 (continued)

Content					
	Literature	Patients	Healthcare professionals	Heads of ACCs	Experts
Patient experiences and normalisation	<i>Education of HCPs:</i> The importance of identifying a SD [39] and information about SDs' impact on quality of life [40].	The majority of patients state that being able to reflect on each other's problems and obtain a sense of being normal is of the highest importance. To learn how like-minded people have dealt with SD.	Want lived experiences from patients to understand the importance of SD, patients' perspectives, and how they want to talk about sexuality with HCPs.	—	—
Pharmacology	<i>Patient education + Education of HCPs:</i> Treatment options and overview [37,39-41].	—	Want education in pharmacology: receptor profiles and side-effect profiles of the antipsychotics.	—	—
Non-pharmacology management	<i>Patient education:</i> Non-pharmacology management of SD and sexual side-effects [41].	Knowledge about non-pharmacology methods for SD. Methods to improve emotional attachment and intimacy and alternatives to penetration.	Knowledge about non-pharmacology methods for SD when a medication change is not preferred.	—	—
Specific sentences / question-asking techniques/ sexual case history	<i>Education of HCPs:</i> Techniques to obtain sexual case history [38,40], ways to approach SD [39], and the use of the PLISSIT model [40].	Some patients would like to learn specific sentences to initiate a conversation about sexuality and sexual side effects.	The majority of HCPs want the education to contain examples of how to talk about sexuality, how to keep it professional, the important questions to ask, and how to establish a comfortable setting for the conversation.	—	—
Other	To maintain concentration a study describes activities to be divided into 20-min sessions [26] and another study provided refreshments [33]. <i>Patient education topics:</i> Diagnostic criteria [41], sexual response cycle [41], connection between body and psychology in SD [41], and SDs' impact on relationship and sexual health. <i>Education of HCPs topics:</i> Human sexuality [38], diagnostic criteria [40], literature review of existing knowledge [40].	Patients want to be presented with specific solutions. Neither too heavy information, too much text on presentations nor statistics. Topics: Focus on the mental states' influence on sexuality and basic information on the causes of SD.	Topics: basic information so all HCPs are capable of talking about sexuality with patients, when to refer a patient to a specialist, understanding the complexity of sexuality and that collaboration between professions might be relevant, knowledge of the physiology for use in psychoeducation.	—	—

Each row represents a code derived from the content analyses which are grouped into the categories: "Time, duration, and place", "transportation", "participants", "format", and "content". [ACC = Assertive Community Centre, HCP = Healthcare professionals, SD = Sexual dysfunction].



detailed schemes of identified studies are available in the supplementary material.

### 3.2. Interviews

In total 31 interviews were carried out with patients ( $n = 12$ ), physicians ( $n = 7$ ), nurses ( $n = 6$ ), heads of ACCs ( $n = 3$ ), and experts ( $n = 3$ ). Males and females were evenly represented for the patient interviews, for HCPs ten were female and three male, for heads of ACCs and experts two were female, and one male. The patients had one of the following diagnoses: schizophrenia, schizotypal personality disorder, bipolar disorder, depression, ADHD, or social anxiety disorder. Three of the patients had concurrent diabetes. No further demographics can be presented, as the informants themselves chose the extent of personal information they wanted to provide.

The content analyses resulted in the categories and themes presented in Fig. 2. The codebook is available in the supplementary material.

In Table 1 the condensed meaning units of each code derived from interviews is displayed with the codes as row headers. The educational elements extracted from the literature is presented too. This enabled us to consider the condensed information from each information source and material in total.

### 3.3. Analysis and decision-making process

With the data gathered, we began the process of constructing the educational intervention. As a first step, we examined the opinions, reasons, and emic explanations for preferences that each code possessed. It was evident that for some codes, preferences were quite unison, while for others, preferences were more mixed. In addition, we realised that certain decisions were interrelated, meaning that a decision made in regards to one code concurrently became a decision pertaining to another. Thus, we grouped the codes which did not concern content into three decision levels to address the concrete decisions required for the framing of the intervention:

Decision level 1: Preferences within the code were so pervasive and unanimous in the material that the incorporation of these preferences directly and unaltered into the educational intervention appeared self-

evident. We interpreted this to be an indicator that further debate on design was unnecessary.

Decision level 2: Codes with content conditioned by codes placed at decision level 1. Consequently, according to this emerging logic, it was indicated that decisions regarding these codes had implicitly already been predetermined since they were logically derived from a decision tied to a code placed at decision level 1.

Decision level 3: In the remaining codes, the material presented a wide range of preferences and possibilities, making it difficult to deduce how the educational intervention should be designed to accommodate the material. Consequently, an actual choice between options was necessary.

### 3.4. Two separate educational interventions

It was apparent that patients and HCPs had divergent needs for knowledge and that practicalities associated with the course varied significantly between the two groups. Furthermore, some HCPs did not find it suitable to attend a course alongside their patients. Based on these findings, the research team concluded that two separate interventions were necessary to tailor the intervention to each target group. Nevertheless, patients and HCPs alike expressed an interest in gaining insight into each other's perspectives, consequently we decided to include a peer-patient audio clip and cases in the teaching sessions.

The codes/categories, their assigned decision level, and the basis of decisions are presented in Tables 2 and 3 for the educational intervention for patients and HCPs, respectively.

#### 3.4.1. Format and content of the educational intervention for patients

The content of the educational intervention for patients is presented in Fig. 3. The specific learning targets are available in the supplementary material.

At the beginning of the educational session, the instructors take steps to establish a safe atmosphere. A simple slideshow with a minimum of text guides the instructors and participants through the curriculum. The level of information has been influenced by the need to develop an education in which people with a chronic psychiatric disorder can participate. During the teaching a few open questions are raised to

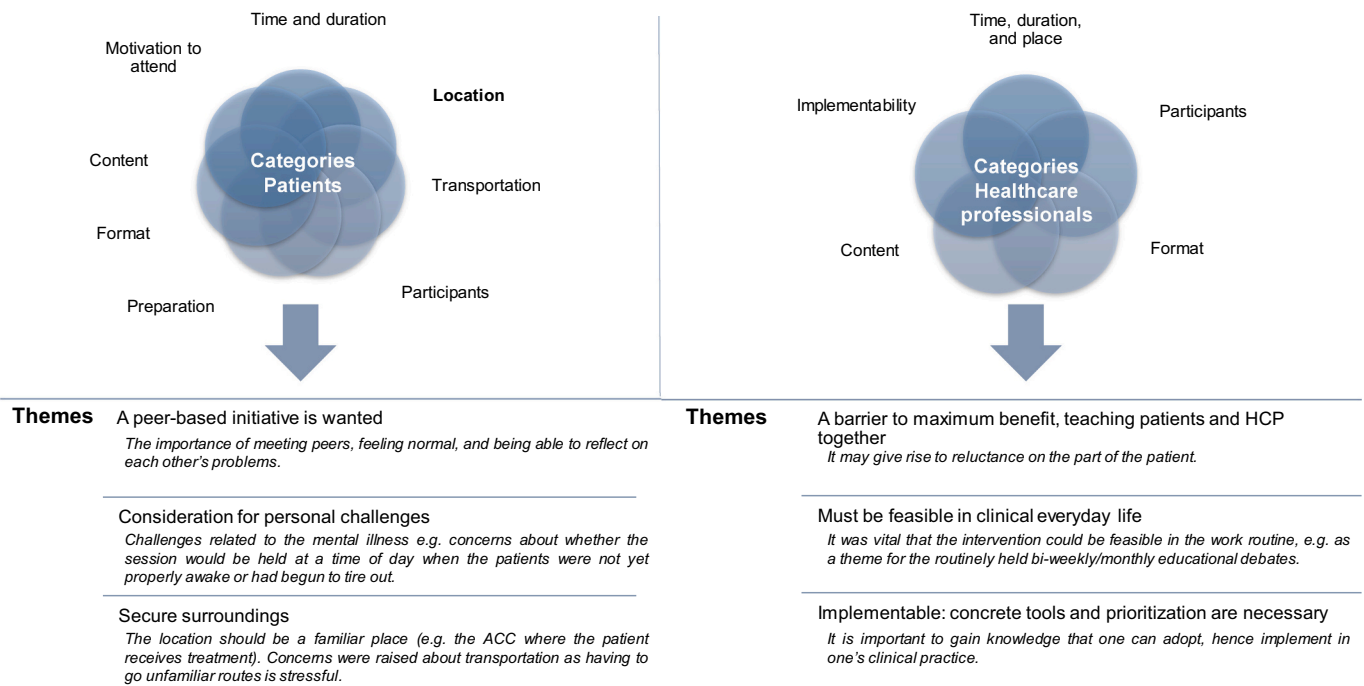


Fig. 2. Categories and themes derived from the thematic analysis of interviews with patients and healthcare professionals.

**Table 2**  
The framework of format and participants for the educational intervention developed for patients.

Format of the educational intervention for patients			
	Design chosen	Decision level	Reason for decision
Physical vs Online attendance	Physical attendance	1	For the main part of patients, the possibility of meeting similarly disposed people with comparable problems would be the main reason for deciding to participate, notwithstanding the possible challenges of fitting the education into their daily schedule, transportation, and other practical issues related to physical attendance. The essence of their preference is that they want to experience their difficulties normalised by meeting similarly disposed people.
	Secure surroundings	1	Several patients pointed out the importance of secure surroundings. Some patients pointed out that it is reassuring to be prepared for the content of the education, what to expect, the number of participants, and the terminology used.
	Location and transportation	2	Given the importance of secure surroundings, it was deemed prudent to host the educational session at the patients' ACCs. This also ensured that patients were used to the transportation options for going to the site, thus avoiding unnecessary strain.
	Duration and breaks	3	The literature review and stakeholder preferences suggested an optimal duration of 1–1.5 h. Researchers were aware of the reduced capacity for concentration patients might possess. As duration as long as possible was chosen, to be able to cover relevant content in only one session. Frequent breaks and refreshments were incorporated into the sessions.
	Time	3	The research group determined that the class should be held after lunch, but still during working hours for the permanent staff to be present at the centre.
	Group size	3	A premise of the intervention was the possibility to evaluate the effectiveness in a RCT. In line with the preferences of the patients, a power calculation conducted for the upcoming evaluation suggested to include 12 patients from each centre.
	Participants	3	From the different attitudes towards age and sex/gender, we deduced that as long as topics and discussions are universal for the participants, the distribution of age, sex/gender, and to some extent diagnoses, can vary. It was necessary to involve the feasibility of the evaluation of the intervention and the subsequent implementation in clinical practice. The inclusion- and exclusion criteria of the RCT ensure harmonisation of patients. We decided to admit mixed sex/gender and age, as a mixed group facilitates the implementation of the intervention into other contexts, while also avoiding the risk of large discrepancies in the number of participants in the sessions due to an uneven distribution of age and sex/gender.
	Teachers	3	It was determined that the inclusion of a peer patient as an educator would meet patients' needs for mutual reflection and recognition of issues. However, in terms of practicability, it was deemed too challenging to include a peer-patient by physical presence, and it was presumed that an audio clip could be used to achieve the same outcome.

The columns represents the codes/categories, the decisions regarding each code/category, the decision level assigned, and the reasons for each decision. [ACC = Assertive Community Centre, HCP = Healthcare professional, RCT = Randomised Controlled Trial].

initiate discussion among patients. The discussions address questions of a general nature, to avoid delving into overly personal topics. However, it will be made evident that the participants are not obligated to take part in the discussions, and that they are not required to respond to any queries if they do not wish to.

Audio clips featuring peer-patients is played with the purpose of allowing patients to experience resonance and normalisation of their difficulties, as similar difficulties are addressed by similarly disposed patients, who also give advice and examples of how SD may be handled.

### 3.4.2. Format and content of the educational intervention for healthcare professionals

The content of the educational intervention for HCPs is presented in Fig. 4. The specific learning targets are available in the supplementary material.

The educational session was designed to ensure that acquired insights and knowledge could be applied directly in daily clinical work. A slideshow was developed to guide the instructors and participants through the curriculum.

An audio clip featuring peer-patients providing the patient's perspective on the implications of SD and their experiences of talking to HCPs about sexuality is played. This serves as a basis for subsequent discussion.

During the session, the HCPs will be provided with a laminated postcard containing an overview of the sexual side-effect profiles of

antipsychotic agents and examples of specific sentences that may be used to open a conversation on SD with their patients.

## 4. Discussion and conclusion

### 4.1. Discussion

In this study, we reviewed the process of developing an educational intervention built from the perspectives and preferences of patients, healthcare professionals, heads of ACCs, and other experts. Our focus has been explicitly on the translations and decisions made to situate their voices in the final design. By presenting a comprehensive and transparent description of our design process, we want to enable other researchers to reproduce and further refine, adjust, and extend the intervention to other contexts [18,42]. Further, we suggest that the subsequent evaluation of an intervention's effectiveness is of higher scientific significance when the rationale for its design has been outlined [17].

In the decision-making process, it was evident that the preferences of stakeholder representatives were interrelated and interdependent. We found that our stakeholder representatives preferred two distinct educational interventions in a face-to-face educational format. Of paramount importance was the patients' wish to experience that their problems were considered normal. Previous research has also indicated that when it comes to education, patients prefer the social aspect of a



**Table 3**  
The frame of the educational intervention developed for healthcare professionals and the reasons for decisions.

Format of the educational intervention for <i>healthcare professionals</i>			
	Design chosen	Decision level	Reason for decision
Physical event vs. online	Physical attendance	1	The HCPs want physical attendance arguing that the learning outcome will be greater and that it might also be easier to discuss this particular subject when being present together.
Daily clinical activities are prioritised in a struggling system		1	The heads of ACCs reported that their mental healthcare centres, respectively, provide joint educational sessions for all HCPs regularly. Apart from this, only a few personnel can participate in educational sessions simultaneously in order to maintain daily clinical activities. In general, and irrespective of the subject, HCPs are not interested in attending a work-related education outside of working hours.
Duration and breaks	One 1-h session Refreshments upon arrival No breaks	2	As it was clear that the intervention should take place during the already-scheduled joint educational sessions for HCPs at each centre, it was necessary to plan for a brief session. Consequently, it was also decided that the intervention should be held at the site for the joint educational sessions, hence transport became an unnecessary issue to discuss.
Location	Held at the location where the HCPs are gathered for joint educational sessions	2	
Transportation	None related to the intervention	2	The research group deliberated on the dilemma of how to ensure that the duration of the educational session was long enough to cover the necessary content to effect a change in practice, while also being practically feasible in terms of programming.
Time	At each centre's already-scheduled joint educational sessions for the staff	2	
Participants	All HCPs at the centre	3	The HCPs are used to attend joint educational sessions and we seek to establish a shared understanding of SD. Furthermore, to evaluate the effectiveness of the intervention, the majority of the personnel should attend the educational session.
Teachers	An expert in psychiatry and clinical sexology or an expert in clinical pharmacology, and a peer-patients in an audio clip	3	It was determined that the inclusion of a peer patient as an educator would meet the HCPs' wish for insight into the patient's perspective. However, regarding practicability, it was concluded to be too challenging to include a peer-patient by physical presence, and it was presumed that an audio clip could be used to achieve the outcome.

The columns represents the codes/categories, the decisions regarding each code/category, the decision level assigned, and the reasons for each decision. [ACC = Assertive Community Centre, HCP = Healthcare professional, SD = Sexual dysfunction].

group format, which may also serve to decrease the feeling of being isolated [26,28,36,43]. It is also possible that the preference for this format could be caused by the patients' familiarity with the well-established group-based psychoeducation in which peer reflection is considered part of the reason for the positive outcomes [44].

Secure surroundings and predictability are of great importance for patients. This is in line with findings from a previous study, also engaging patients with schizophrenia, which found a non-judgmental environment in small, familiar settings with a limited number of co-

participants to be of high importance [29].

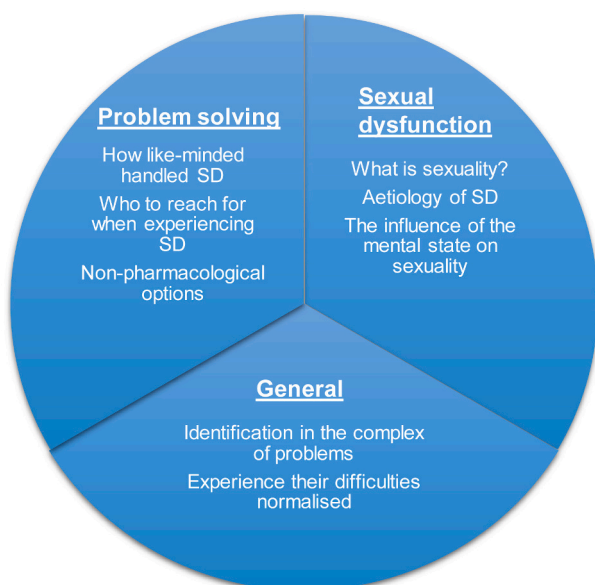
We found that a course for HCPs need to take place during working hours. The reason is that HCPs' need for a work-life balance only allows for work-related activities outside working hours in exceptional cases. Furthermore, even though the heads of ACCs recognize the importance of the topic of sexuality, organisational demands require them to assign daily clinical activities the highest priority.

Due to their lived experiences, the involvement of patients and other stakeholders may provide important perspectives and result in a more holistic understanding of a problem or theme [45]. Openness to their contributions may minimise the risk of developing an ineffective intervention and increase the possibility of successful future implementation in the actual, empirical contexts [17]. In this study, we consulted stakeholder representatives twice: Initially and after a draft of the intervention was developed. Based on their views, the research group created the intervention design [17,46]. This raises the questions: How much does the stakeholder voice really weigh in the final design? How do we consider and balance what they say against other forms of knowledge and local preferences? In our design, we aimed at including stakeholder preferences to the highest possible degree, though where they became compelling they were balanced with knowledge from other sources plus the practicability, cost-effectiveness, and implications of the intervention in total.

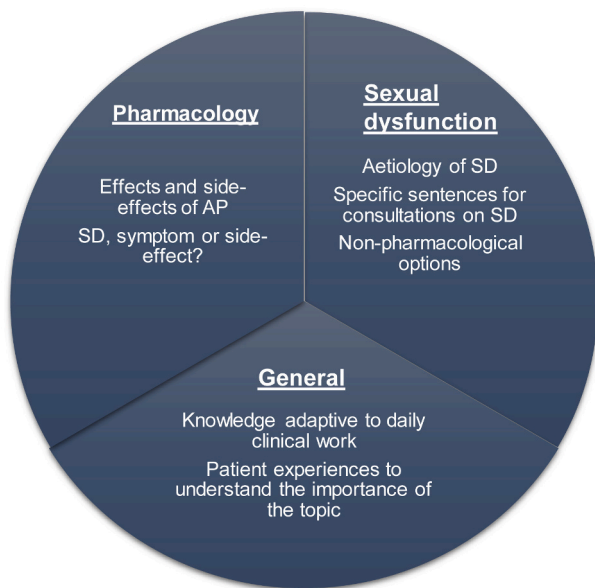
This study has limitations.

Firstly, there may have been a selection bias as the stakeholder representatives freely chose to participate. Most informants were interested in the subject of sexuality and did not indicate noteworthy barriers in terms of discussing it, which may not be representative of the stakeholders in general. Some informants, however, did emphasise that sexuality is a topic they usually consider difficult to discuss.

Secondly, we decided that all patients treated at an ACC could be included as informants in order to meet our wanted numbers of interviewees. Thus, the informants were not identical with the target group of the educational intervention, but all had a certain severity of



**Fig. 3.** Content of the educational intervention for patients. [SD = Sexual dysfunction].



**Fig. 4.** Content of the educational intervention for healthcare professionals. [AP = Antipsychotics, SD = Sexual dysfunction].

mental illness. This might be an insignificant detail or it may be a potential source of fallacies. However, one must assume that many patients, despite diverse diagnoses, share basic experiences due to shared circumstances and common conditions in the psychiatric system. Thus, their opinions are valid and valuable to our ends.

Third, no studies researching the education of patients with diabetes were included. In the development of the ideal educational intervention, the research team estimated that suffering from a serious mental illness requires more special considerations in an educational context than suffering from diabetes, hence more attention was paid to the former.

Fourth, since the intervention must be feasible for evaluation in an RCT design, a vague framework for the intervention was put forward in advance. This gave rise to the interview prioritisation exercise, which presented some options that the research group deemed practically feasible. However, this approach may have made the patients cognizant of which factors could be pertinent and potentially inhibited their creative thinking.

#### 4.2. Innovation

The transparent reporting of the design process of this intervention serves as a model for the development of other interventions. It expands the knowledge base for educational interventions, and may be used as a general framework for patient education. Elements of the intervention could be adapted to similar interventions or interventions targeting the same population or different populations in the same context.

#### 4.3. Conclusion

In this paper, we present a framework for an educational intervention on sexual dysfunction for patients with schizophrenia and diabetes and their healthcare professionals, which was developed on the basis of interviews with stakeholder representatives and established knowledge from the literature. The transparency of the design process allows for reproduction and should ease further refinement, extension, and adjustment if implementing the intervention in other contexts.

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#### CRedit authorship contribution statement

**Rikke Meyer:** Writing – original draft, Visualization, Methodology, Formal analysis, Data curation, Conceptualization. **Sita R. Kotnis:** Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Cecilie M.Ø. Fog-Petersen:** Writing – review & editing, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Lise Tarnow:** Writing – review & editing, Supervision, Conceptualization. **Annamaria Giralardi:** Writing – review & editing, Supervision, Conceptualization. **Gesche Jürgens:** Writing – review & editing, Supervision, Methodology, Conceptualization. **Charlotte B. Jacobsen:** Writing – review & editing, Supervision, Methodology, Formal analysis, Conceptualization.

#### 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.

We confirm that all personal identifiers have been removed or disguised so that the persons described are not identifiable by data provided and cannot be identified through the details of the story either.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.pecinn.2024.100310>.

#### References

- [1] McCabe MP, Sharlip ID, Atalla E, Balon R, Fisher AD, Laumann E, et al. Definitions of sexual dysfunctions in women and men: a consensus statement from the fourth international consultation on sexual medicine 2015. *J Sex Med* 2016;13:135–43. <https://doi.org/10.1016/j.jsxm.2015.12.019>.
- [2] Korchia T, Achour V, Faugere M, Albeash A, Yon DK, Boyer L, et al. Sexual dysfunction in schizophrenia: a systematic review and meta-analysis. *JAMA Psychiatry* 2023;80:1110–20. <https://doi.org/10.1001/jamapsychiatry.2023.2696>.
- [3] Kouidrat Y, Pizzol D, Cosco T, Thompson T, Carnaghi M, Bertoldo A, et al. High prevalence of erectile dysfunction in diabetes: a systematic review and meta-analysis of 145 studies. *Diabet Med* 2017;34:1185–92. <https://doi.org/10.1111/dme.13403>.
- [4] Rahmanian E, Salari N, Mohammadi M, Jalali R. Evaluation of sexual dysfunction and female sexual dysfunction indicators in women with type 2 diabetes: a systematic review and meta-analysis. *Diabetol Metab Syndr* 2019;11:73. <https://doi.org/10.1186/s13098-019-0469-z>.
- [5] Van Cauwenbergh J, Enzlin P, Nefs G, Ruige J, Hendrickx C, De Block C, et al. Prevalence of and risk factors for sexual dysfunctions in adults with type 1 or type 2 diabetes: results from diabetes MILES - Flanders. *Diabet Med* 2022;39:e14676. <https://doi.org/10.1111/dme.14676>.
- [6] Asefa A, Nigussie T, Henok A, Mamo Y. Prevalence of sexual dysfunction and related factors among diabetes mellitus patients in Southwest Ethiopia. *BMC Endocr Disord* 2019;19:141. <https://doi.org/10.1186/s12902-019-0473-1>.
- [7] Jin M, Yuan S, Wang B, Yi L, Wang C. Association between prediabetes and erectile dysfunction: a Meta-analysis. *Front Endocrinol* 2022;12:733434. <https://doi.org/10.3389/fendo.2021.733434>.
- [8] Esposito K, Maiorino MI, Bellastella G. Diabetes and sexual dysfunction: current perspectives. *Diabetes Metab Syndr Obes Targets Ther* 2014;95. <https://doi.org/10.2147/DMSO.S36455>.

- [9] McCabe MP, Sharlip ID, Lewis R, Atalla E, Balon R, Fisher AD, et al. Risk factors for sexual dysfunction among women and men: a consensus statement from the fourth international consultation on sexual medicine 2015. *J Sex Med* 2016;13:153–67. <https://doi.org/10.1016/j.jsxm.2015.12.015>.
- [10] Serretti A, Chiesa A. A meta-analysis of sexual dysfunction in psychiatric patients taking antipsychotics. *Int Clin Psychopharmacol* 2011;26:130–40. <https://doi.org/10.1097/YIC.0b013e328341e434>.
- [11] Adrianzen C, Arango-Dávila C, Araujo DM, Ruiz I, Walton RJ, Dossenbach M, et al. Relative association of treatment-emergent adverse events with quality of life of patients with schizophrenia: post hoc analysis from a 3-year observational study. *Hum Psychopharmacol Clin Exp* 2010;25:439–47. <https://doi.org/10.1002/hup.1143>.
- [12] Bushong ME, Nakonezny PA, Byerly MJ. Subjective quality of life and sexual dysfunction in outpatients with schizophrenia or schizoaffective disorder. *J Sex Marital Ther* 2013;39:336–46. <https://doi.org/10.1080/0092623X.2011.606884>.
- [13] Dyer K, Nair R das. Why don't healthcare professionals talk about sex? A systematic review of recent qualitative studies conducted in the United Kingdom. *J Sex Med* 2013;10:2658–70. <https://doi.org/10.1111/j.1743-6109.2012.02856.x>.
- [14] McGrath M, Low MA, Power E, McCluskey A, Lever S. Addressing sexuality among people living with chronic disease and disability: a systematic mixed methods review of knowledge, attitudes, and practices of health care professionals. *Arch Phys Med Rehabil* 2021;102:999–1010. <https://doi.org/10.1016/j.apmr.2020.09.379>.
- [15] Quinn C, Happell B, Welch A. The 5-As framework for including sexual concerns in mental health nursing practice. *Issues Ment Health Nurs* 2013;34:17–24. <https://doi.org/10.3109/01612840.2012.711433>.
- [16] Lukoff D, Gioia-Hasick D, Sullivan G, Golden JS, Nuechterlein KH. Sex education and rehabilitation with schizophrenic male outpatients. *Schizophr Bull* 1986;12:669–77. <https://doi.org/10.1093/schbul/12.4.669>.
- [17] O' Cathain A, Croot L, Duncan E, Rousseau N, Sworn K, Turner KM, et al. Guidance on how to develop complex interventions to improve health and healthcare. *BMJ Open* 2019;9:e029954. <https://doi.org/10.1136/bmjopen-2019-029954>.
- [18] Skivington K, Matthews L, Simpson SA, Craig P, Baird J, Blazeby JM, et al. A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ* 2021;374:n2061. <https://doi.org/10.1136/bmj.n2061>.
- [19] Baker GR, McGillion MH, Gavin F. Engaging with patients on research to inform better care. *Can Med Assoc* 2018;190:S6–8. <https://doi.org/10.1503/cmaj.180816>.
- [20] Vastine A, Gittelsohn J, Ethelbah B, Anliker J, Caballero B. Formative research and stakeholder participation in intervention development. *Am J Health Behav* 2005;29:57–69. <https://doi.org/10.5993/AJHB.29.1.5>.
- [21] Tomm K. Interventive interviewing: part III. Intending to ask lineal, circular, strategic, or reflexive questions? *Fam Process* 1988;27:1–15. <https://doi.org/10.1111/j.1545-5300.1988.00001.x>.
- [22] Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Educ Today* 2004;24:105–12. <https://doi.org/10.1016/j.nedt.2003.10.001>.
- [23] Weber M, Wyne K. A cognitive/behavioral group intervention for weight loss in patients treated with atypical antipsychotics - ScienceDirect. *Schizophr Res* 2006;83:95–101. <https://doi.org/10.1016/j.schres.2006.01.008>.
- [24] Lester H, Tait L, Khara A, Birchwood M, Freemantle N, Patterson P. The development and implementation of an educational intervention on first episode psychosis for primary care. *Med Educ* 2005;39:1006–14. <https://doi.org/10.1111/j.1365-2929.2005.02273.x>.
- [25] Macneil C, Foster F, Nicoll A, Monfries R, Coulson L, Osman H, et al. Effectiveness of a professional development training program in increasing knowledge of mental health clinicians specializing in early psychosis. *Early Interv Psychiatry* 2019;13:1003–10. <https://doi.org/10.1111/eip.12785>.
- [26] Bradshaw T, Lovell K, Bee P, Campbell M. The development and evaluation of a complex health education intervention for adults with a diagnosis of schizophrenia. *J Psychiatr Ment Health Nurs* 2010;17:473–86. <https://doi.org/10.1111/j.1365-2850.2009.01543.x>.
- [27] Brar JS, Ganguli R, Pandina G, Turkoz I, Berry S, Mahmoud R. Effects of behavioral therapy on weight loss in overweight and obese patients with schizophrenia or schizoaffective disorder. *J Clin Psychiatry* 2005;66:5713. <https://doi.org/10.4088/jcp.v66n0208>.
- [28] R. Buccheri, L. Trygstad, G. Dowling, R. Hopkins, K. White, J.J. Griffin, S. Henderson, L. Suci, S. Hippe, M.J. Kaas, C. Covert, P. Hebert, Long-term effects of teaching behavioral strategies for managing persistent auditory hallucinations in schizophrenia, *J Psychosoc Nurs Ment Health Serv* 42 (n.d.) 18–27. <https://doi.org/10.3928/02793695-20040101-09>.
- [29] Holt RIG, Gossage-Worrall R, Hind D, Bradburn MJ, McCrone P, Morris T, et al. Structured lifestyle education for people with schizophrenia, schizoaffective disorder and first-episode psychosis (STEPWISE): randomised controlled trial. *Br J Psychiatry* 2019;214:63–73. <https://doi.org/10.1192/bjp.2018.167>.
- [30] Iglesias-García C, Toimil-Iglesias A, Alonso-Villa MJ. Pilot study of the efficacy of an educational programme to reduce weight, on overweight and obese patients with chronic stable schizophrenia. *J Psychiatr Ment Health Nurs* 2010;17:849–51. <https://doi.org/10.1111/j.1365-2850.2010.01590.x>.
- [31] Littrell KH, Hilligoss NM, Kirshner CD, Petty RG, Johnson CG. The effects of an educational intervention on antipsychotic-induced weight gain. *J Nurs Scholarsh* 2003;35:237–41. <https://doi.org/10.1111/j.1547-5069.2003.00237.x>.
- [32] Pendlebury J, Bushe CJ, Wildgust HJ, Holt RIG. Long-term maintenance of weight loss in patients with severe mental illness through a behavioural treatment programme in the UK. *Acta Psychiatr Scand* 2007;115:286–94. <https://doi.org/10.1111/j.1600-0447.2006.00906.x>.
- [33] Shin S-K, Lukens EP. Effects of psychoeducation for Korean Americans with chronic mental illness. *Psychiatr Serv* 2002;53:1125–31. <https://doi.org/10.1176/appi.ps.53.9.1125>.
- [34] Sibitz I, Amering M, Gössler R, Unger A, Katschnig H. One-year outcome of low-intensity booster sessions versus care as usual in psychosis patients after a short-term psychoeducational intervention - ClinicalKey. *Eur Psychiatry* 2007;22:203–10. <https://doi.org/10.1016/j.eurpsy.2006.09.008>.
- [35] Starnino VR, Mariscal S, Holter MC, Davidson LJ, Cook KS, Fukui S, et al. Outcomes of an illness self-management group using wellness recovery action planning. *Psychiatr Rehabil J* 2010;34:57–60. <https://doi.org/10.2975/34.1.2010.57.60>.
- [36] Vreeland B, Minsky S, Yanos PT, Menza M, Gara M, Kim E, et al. Efficacy of the team solutions program for educating patients about illness management and treatment. *Psychiatr Serv* 2006;57:822–8. <https://doi.org/10.1176/ps.2006.57.6.822>.
- [37] Nazarpour S, Simbar M, Ramezani Tehrani F, Alavi Majd H. The impact of a sexual enhancement program on the sexual function of postmenopausal women. *Climacteric* 2016;19:506–11. <https://doi.org/10.1080/13697137.2016.1219984>.
- [38] Athanasiadis L, Papaharitou S, Salpigidis G, Tsimtsiou S, Nakopoulou E, Kirana P, et al. Educating physicians to treat erectile dysfunction patients: development and evaluation of a course on communication and management strategies. *J Sex Med* 2006;3:47–55. <https://doi.org/10.1111/j.1743-6109.2005.00195.x>.
- [39] Azuri J, Geleenter R, Dushinat M, Friedman N, Kokia E. Raising awareness for the diagnosis and treatment of erectile dysfunction in patients with high risk to develop ED. *Int J Impot Res* 2009;21:249–52. <https://doi.org/10.1038/ijir.2009.15>.
- [40] Blair B, Arnow BA, Haas A, Millheiser L. Improving women's sexual health: a quantitative evaluation of an educational intervention for healthcare professionals. *Sex Educ* 2013;13:535–47. <https://doi.org/10.1080/14681811.2013.771774>.
- [41] Brotto LA, Sadownik L, Thomson S. Impact of educational seminars on women with provoked Vestibulodynia - ClinicalKey. *J Obstet Gynaecol Can* 2010;32:132–8. [https://doi.org/10.1016/S1701-2163\(16\)34427-9](https://doi.org/10.1016/S1701-2163(16)34427-9).
- [42] Hoffmann TC, Glasziou PP, Boutron I, Milne R, Perera R, Moher D, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. *BMJ* 2014;348:g1687. <https://doi.org/10.1136/bmj.g1687>.
- [43] Lewis J, Scott E. The sexual education needs of those disabled by mental illness. *Psychiatr Rehabil J* 1997;21:164–7.
- [44] Sibitz I, Amering M, Gössler R, Unger A, Katschnig H. Patients' perspectives on what works in psychoeducational groups for schizophrenia. *Soc Psychiatry Psychiatr Epidemiol* 2007;42:909–15. <https://doi.org/10.1007/s00127-007-0245-5>.
- [45] NIHR. Briefing notes for researchers. <https://www.nihr.ac.uk/documents/briefing-notes-for-researchers-public-involvement-in-nhs-health-and-social-care-research/27371#how-to-cite-this-guidance>; 2021 (accessed October 7, 2023).
- [46] Hudson JL, Moon Z, Hughes LD, Moss-Morris R. Engagement of stakeholders in the design, evaluation, and implementation of complex interventions. In: Hamilton K, Cameron LD, Hagger MS, Hankonen N, Lintunen T, editors. *Handb. Behav.* Cambridge: Change, Cambridge University Press; 2020. p. 349–60. <https://doi.org/10.1017/9781108677318.024>.