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The WebRA study: Opportunities and challenges in digital patient education from the perspective of patients with rheumatoid arthritis: A qualitative study

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A B S T R A C T

Objective: To explore patients' perceptions of digital patient education (PE), and how this contributes to self-management of rheumatoid arthritis (RA).
Methods: Individual interviews based on 'interpretive description' methodology. The patients were purposively selected from a randomized controlled trial that investigated the effects of digital PE. The analysis included a descriptive section, followed by the interpretation and extraction of the main messages.
Results: Overall, participants had positive perceptions of the e-learning program. Advantages were flexibility, the possibility for repetition, entertainment, availability, and learning in familiar surroundings. Disadvantages were unmet relational support needs due to missing dialogue with health care providers (HCPs). For the majority, a need for insight into the condition led to an active approach to using e-learning. The e-learning program facilitated knowledge acquisition about RA, but relational support from HCPs and a positive attitude toward living with RA were also important for achieving self-management.
Conclusion: Digital PE is useful for self-management support in RA, however different forms and combinations of PE must be offered in the future to accommodate various needs throughout the disease course.
Practice implications: These results may inform future development and implementation of digital PE that adequately takes individual preferences for self-management support into account.

1. Introduction

Patient education (PE) programs have proven effective in enhancing self-management in rheumatic diseases [1]. The effectiveness of PE, including both face-to-face (F2F) and online interventions has been evaluated in randomized controlled trials (RCT). While not all studies have yielded positive results, some studies improved outcomes, such as self-efficacy, adherence, knowledge, activity, mental health, pain, and fatigue [2–8]. Supporting self-management is essential in the care of people with chronic conditions [9] and as a result of the increasing use of telehealth[10–12], digital PE is gaining ground to support self-management skills [1, 3–6, 9]. However, it is also important to assess patients' perceptions of these programs, including whether they are supportive of self-management. Still, evidence of patient perspectives on digital PE programs within inflammatory rheumatic diseases is limited.

Drivers and barriers to remote care in rheumatology were identified by the European Alliance of Associations in Rheumatology (EULAR) [12, 13]. Drivers included increased flexibility and timesaving, improved access to and communication with HCPs, and the opportunity to enhance disease knowledge through active involvement in the disease management process. Barriers included reduced F2F contact, concerns about modified clinical assessments, increased patient responsibility, e.g., in disease monitoring, and challenges related to technical skills and technology usage [13].

Furthermore, a few studies have examined patients' perspectives on digital self-management programs for rheumatic and musculoskeletal diseases (RMDs). They reaffirm previous findings of flexibility and accessibility [14,15], lack of physical presence, relational constraints, and technological challenges [15]. One study found positive perceptions

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to be associated with simple program setup, interaction with HCPs, and reminders [14]. Another study found enablers for engaging in telehealth to be related with user-friendly platforms, while barriers included irrelevant content, restrictions to individual adaptations, and limited digital health literacy [15]. Additionally, Zuidema et al. found that only few felt supported by their program due to variations in motivation, unclear expectations, differences between individual needs and needs met in the program, and a lack of reminders to use it [16].

In the WebRA study, we developed a digital PE program, "Know Your Rheumatoid Arthritis," to support self-management in patients with rheumatoid arthritis (RA) based on a program theory that relies on theories of self-efficacy and behavior change [17]. The e-learning program covers aspects of RA through a range of subtopics, such as etiology, symptoms, the immune system, medical treatment, examinations, co-morbidities, and daily living with RA. It utilizes animations, graphics, videos, podcasts with HCPs and patients, tests, text, and speech [17]. The program's development and content details can be found elsewhere [17], and its effectiveness is currently being tested in a RCT [18].

Previous studies of user perspectives within rheumatology remote care have primarily focused on perceptions of and utilization of the technology, including advantages and disadvantages, and to a minor extent the impact on self-management. The present study aimed to explore in-depth insights into perceptions of digital PE among patients newly diagnosed with RA, including their usage and satisfaction of the program, facilitators and barriers for participation in digital PE, and how this contributed to their self-management of RA.

2. Methods

2.1. Design

Patients' perspectives were explored via individual, semi-structured interviews according to the qualitative, inductive research strategy of interpretive description (ID). The purpose of ID methodology is to improve clinical practice, i.e., transitioning from merely describing knowledge to interpreting and applying it in a clinical context [19]. This strategy implies an iterative process of data collection and analysis, and thereby an ongoing extension of analysis from preliminary conceptualizations to a final interpretation. The purpose of this process is to confirm, test, explore, and expand on conceptualizations and findings that form when entering the field to improve both data collection and analysis throughout a study [19]. This study was reported according to the consolidated criteria for reporting qualitative research (COREQ) [20].

2.2. Study population and recruitment

Participants were recruited from the RCT intervention group in the WebRA study after finalizing a one-year follow-up period in one of five rheumatology departments in hospitals in Denmark [18]. The total number of participants was determined during the study, as the ID methodology suggests quantity to be adjusted according to preliminary analyses and findings as well as data saturation [19].

A purposive sampling strategy with enrollment in phases from April to December 2022 was applied, with the number of interviews determined based on information power [21]. The selection process aimed for diversity by including males and females of various ages and socio-demographic backgrounds. Both frequent users and limited users of the program were included. LRK identified potential participants, and nurses clarified their interest in the study. Written and oral information was provided, and verbal and signed written consent were obtained before inclusion, including information on the voluntariness of participation, withdrawal, confidentiality, and anonymity. The WebRA study was approved by the Central Denmark Region Scientific Committee (no. 1–16–02–52–19).

2.3. Data collection

Interviews were conducted by LRK in hospitals, online, or in participants' homes, based on participants' preferences. The interviews were audio-recorded. A semi-structured interview guide was composed based on a comprehensive literature review of patients' perspective of remote care in rheumatic diseases and other chronic conditions (i.e., diabetes and psoriasis) (Table 1). Furthermore, participants' comments given electronically after using the e-learning program were utilized to identify areas for further exploration.

To ensure consensus in answering the research questions, topics were discussed with the steering group affiliated with the WebRA study [18],

Table 1
Topics and research questions in the interview guide.

Topic	Overall interview questions*
Opening questions	Could you tell me about your overall experience with the e-learning program? Could you tell me about your experience of being taught online about the disease, treatment, etc.? What does it mean for you that information and guidance are given online rather than in the hospital?
Usage and satisfaction of the e-learning program	Could you tell me about your usage of the e-learning program in everyday life? How did you use it? How much did you use it? Did you see something more than once? Can you tell me about the reasons for using the program repeatedly/once? Did you use the program with your relatives? Can you tell me about your thoughts on the contents and presentation? What did you like/not like? Are some parts of the content more suitable for presentation in e-learning than others? Did you find anything difficult to understand? What do you think about the amount of information? What do you think about the possibility of combining e-learning with face-to-face conversations in hospitals? What is your experience with the different presentation forms (i.e., animation, video, podcast, graphic, narratives, and speech)? How did you experience managing the technology?
Self-management following the use of e-learning	Can you give some examples of how and when you use information and knowledge from the program in everyday life? Do you have the information and knowledge you need to understand the disease, symptoms, treatment, etc.? Do you feel able to manage the disease and treatment in everyday life? Did the program make any difference in your management of the disease?
Facilitators and barriers to participation in digital patient education	Can you tell me about your perspective on the possible pros and cons of online information? Why do you prefer/not prefer e-learning? What does it require to take part in online education?
Final comments	Do you have any suggestions for improvements that we have not discussed throughout the interview?

*The interview guide was structured with three open, broad questions to encourage participants to talk freely about their immediate experiences with the e-learning program, followed by specific topics and questions The full interview guide contained several additional questions to elaborate on participants' answers. Apart from the opening questions and final comments, questions were asked in random order, depending on the interview situation.

and the interview questions were discussed with ATH, KL, patient research partners (PRPs), and HAZ (advisory board member). In line with the ID strategy, the interview guide was adjusted throughout the study to further explore preliminary findings and interpretations [19].

2.4. Data analysis

The interviews were transcribed verbatim by a study nurse or LRK. The analysis was organized and managed using *NVivo 12 Pro*.[22] Features of *NVivo*, including file and case classification, memos, coding, and visual features were used to support the analysis, which comprised four phases: 1) transcription followed by organization of data related to each participant, repeatedly reading and notes on the immediate understanding, 2) preliminary text coding by identifying generalized patterns related to the study's aim, 3) identifying relationships between groupings of data and a critical appraisal leading to primary categorization and interpretation, and 4) extraction of main messages [19] (Fig. 1). The transition from preliminary coding to categorization and interpretation involved reviewing and comparing codes, collapsing similar perspectives by creation of a mind map. This mind map served as a framework for organizing primary categories related to the research question. Narratives were developed for each primary category, and a final mind map was created to provide an overview of all the categories (mind maps are available upon request). Main messages were extracted by reviewing the categories and asking both open-ended and study-specific questions, such as *'What matters to the patients?', 'What aspects of digital PE are perceived easy or difficult?', 'How was the program utilized, and what were the reasons behind it?', and 'What aspects were successful and what aspects were not?'*.

The text coding, analysis, and interpretation were conducted by LRK. To ensure trustworthiness of the findings and agreement on the conclusions, the analysis was continuously discussed and formed in collaboration with ATH and KL, and further discussed with the steering committee of the WebRA study. Moreover, the interviewer strived for participant validation by summarizing main points throughout the interviews to ensure agreement on the immediate understanding of experiences. Also, notes of observations, including the researcher's perception of a participant's state of mind, physical appearance, and atmosphere during the interview, were made to maintain awareness of the interview context and nuances.

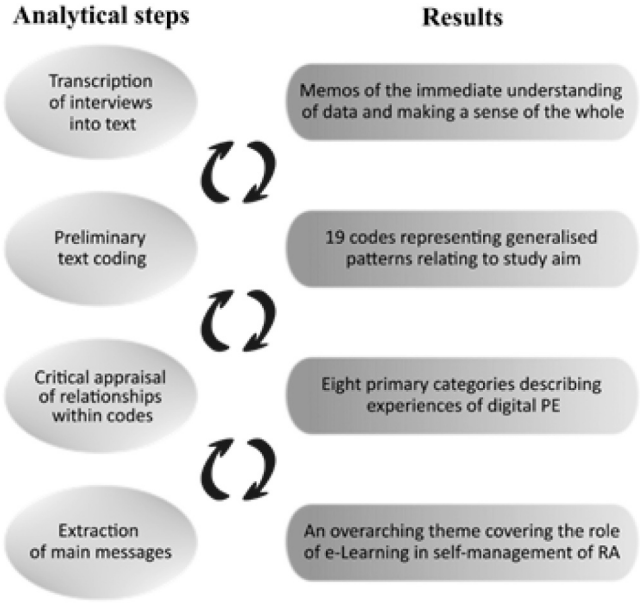

Fig. 1. The data analysis process from transcribed data to description and interpretation.

3. Results

We approached a total of 31 patients, and 20 agreed to participate of whom 13 were females and 7 were males in ages 39–78 years (Table 2). The interviews lasted between 20 and 53 min. In the preliminary analysis 19 codes were assigned to the transcriptions. Subsequently, a critical appraisal of relationships between these codes revealed eight primary categories describing patients' experiences of digital PE followed by interpretation and extraction of main messages through an overarching theme covering the role of e-learning in the self-management of RA (Fig. 1). The primary categories are summarized in the following sections, and a detailed description of each category, including quotations, appears in the supplementary material.

3.1. Patients' experiences of digital PE

3.1.1. Use of e-learning and perceptions of content

In general, information about RA was considered important among these newly diagnosed patients, and the e-learning program was valued as a resource for extensive information on RA. The majority used the program immediately after being diagnosed, and only to a limited extent in the time hereafter, whereas a minor group postponed the use of e-learning. Reasons for less use of the program were described as having received sufficient information, a need for normality, and a desire to focus on everyday life. Only some patients returned to the program for repetition or additional information. Most patients considered the program to be their personal tool and believed in their ability to explain the disease and their symptoms to their relatives; hence, the program was rarely used together with relatives. Still, some found the program supportive of their conversations with relatives about their condition.

Overall, they were satisfied with the content, amount of information, and presentation forms. The linguistic level of the text and speech was found to be appropriate, and together with the visual elements, the contents appeared understandable. Only a few found the amount of

Table 2
Participants' characteristics.

Characteristic	Category	Value
Participants, no.Gender, no.	Female subjects	20
	Male subjects	13
		7
Age, mean in years(range: 39–78 years)		61
Disease duration, mean in months (range: 12–17 months)		14
Medical treatment, no.	Methotrexate treatment	19
Civil status, no.	Single	5
	Partner	15
Cohabitation status, no.	Living alone	5
	Living with another adult(s)	15
Employment status, no.	Working full time	6
	Working part time	4
	Out of work, retired	10
Educational level* , no.	Basic education	3
	Short education	8
	Long education	9
Use of e-learning program, no.	Module 1 (completed)	19
		1
	Module 1 (used partially)	6
	Module 2 (completed)	11
	Module 2 (used partially)	3
	Module 2 (not used)	5
	Module 3 (completed)	9
	Module 3 (used partially)	6
	Module 3 (not used)	

*Educational level is categorized according to the International Standard Classification (ISCED) [30]. Basic education = primary school, upper secondary education; short education = vocational education, short-cycle higher education; long education = bachelor's, medium-cycle and long-cycle higher education

information too extensive. Moreover, participants considered the content trustworthy partly because of their confidence in the group that developed the program and partly because of the involvement of HCPs who delivered a clear and professional perspective in the program. For some patients, these parts of the program were considered especially helpful in promoting personalization compared to the animated and graphical parts.

Several described the animated and graphical parts as entertaining and explained how visual elements and tests strengthened their memory. Visualization also created a relaxing atmosphere, and the various uses of both visual and auditory tools nuanced a message and promoted knowledge acquisition. A few found the animated parts too simplified and disconnected from humans.

The use of patient narratives in the program received mixed responses. Some found this inspirational and motivating to accept and live with the disease, whereas others preferred to focus on their own experiences. How patients benefited from the narratives was also dependent on whether they could identify with the person gallery in the program.

3.1.2. Facilitators, barriers, and possible improvements

The user interface was considered intuitive due to the pedagogical composition of the website, with the organization of contents into minor sections and the use of calm colors. Minor technical difficulties were identified (e.g., login errors, which, for some, caused discontinuation in using the program). The program is built on a website and user interface that work optimally on a desktop computer, which was considered inconvenient to some who preferred using a mobile phone or tablet.

Overall, positive perceptions overshadowed the downsides of e-learning. Advantages were driven by flexibility, the possibility for repetition, varying and entertaining presentation forms, availability, and learning in familiar surroundings. Some found it easier to remember information conveyed via e-learning than by F2F interaction, which could be overwhelming at times. Patients liked that the program facilitated individualization by offering the possibility of choosing topics of interest and dividing information into minor parts. Disadvantages were associated with a lack of F2F contact, unmet relational support needs, and delays due to mental distress or oversight of the program. Finally, suggestions for improvements can be found in Table 3.

3.2. The role of e-learning in RA self-management

3.2.1. Informational needs in relation to RA

The degree to which e-learning appeared to play a role in acquiring information about RA differed. For the majority, the need for insight and clarity into their new living conditions led to an active approach to using e-learning. Here, the presence of symptoms, insecurity, and curiosity impelled the use of e-learning, and, for some, when facing unknown situations (e.g., disease fluctuations or side effects). For example, a woman in her seventies said, "*When I got the diagnosis, it was nice to get access to the program, and read and listen to what it meant to be affected by this. It was helpful to get an understanding of what it was, how it could be, and what I should do…*". A woman in her thirties described relief by knowing factual information: *"It was a relief to use this e-learning and realize that most* [people] *live well with RA… I had this worst-case scenario in my head of old ladies with destroyed joints. I really needed all this information in the beginning, but after following the program quite slavishly, I have not used it that much*".

In contrast, a minor group had a more hesitant approach to e-learning and postponed using it because of mental distress following diagnosis. A man in his forties said, *"I couldn't move as normal…I had to return to life and a lot was going on in my head. Therefore, it* [e-learning] *was postponed.*". This was also the case for a woman in her seventies: *"It was something about having energy…, but then I gave it a rest and later when I started, I was happy about it, but it was helpful that you could wait until the surplus of mental resources*".

Some patients emphasized that e-learning places demand on an individual to take responsibility for learning about the disease, which could be challenging. A man in his seventies said, *"It requires self-discipline… This could be a downside as you don't have to do it at any specific time and therefore you may easily forget about it*".

Table 3
Suggestions for improvements in the e-learning program 'Know your Rheumatoid Arthritis'.

Topic	Suggestions
Availability	A mobile phone app and access through the hospital's website could enhance the availability of the e-learning program.
Role models	Add patients' stories to the program to address all age groups by role models (patients with RA)
Disease course	Add information about variations in a typical disease course (i.e., variations in joint involvement and lack of visible symptoms).
Chat or mail service	Add a chat or mail service to accommodate the possibility of asking questions while using the program or online consultation to follow up, if needed.
Introduction to e-learning	Implementation of a more detailed introduction to the program by a nurse to encourage the use of the program and to support patients with reduced mental resources

3.2.2. E-learning and self-management behavior

The different approaches to using e-learning can be explained by the Shifting Perspectives Model, which indicates that living with chronic illness is an ongoing and continually shifting process in which an illness-in-the-foreground or wellness-in-the-foreground perspective has specific functions in a person's world [23]. According to this model, a new condition or symptom drives attention to the illness to learn about and manage it; that is, this perspective could serve a protective function [23]. Furthermore, the illness perspective can be characterized by absorption in the illness experience and overwhelming feelings following a diagnosis [23].

We observed that shifting perspectives played a role in patients' approaches to e-learning. An illness-in-the-foreground perspective was either reflected by an immediate focus on learning about RA to manage the condition, or by a focus on feelings and the impact of RA on everyday life before they were prepared to learn about the disease.

Several patients indicated that the e-learning program was educational for their understanding of the disease and how to manage symptoms; however, they were unaware of the transformation from information to knowledge and behavioral change. Still, the majority expressed clear strategies for coping with the disease, indicating that their knowledge of RA was already well integrated into their overall coping mechanisms. Several patients described a lack of symptoms due to effective treatment, i.e., they perceived only a few symptoms, which may have promoted self-management of their condition.

Self-management behavior extends beyond knowledge and is based on several components and skills [24]. Thus, in our study, patients made a conscious choice of also relying on their own experiences of the disease and, generally, had a positive attitude toward living with RA, and made early attempts to live as usual and distance themselves from the disease by focusing on normality and everyday life. This may have induced a wellness-in-the-foreground perspective by minimizing the impact of the disease. A woman in her forties described: *"I think I have the knowledge I need for now. In case of impairment, then maybe I would use it again*". A woman in her sixties said, "I *used it and became aware of symptoms, pros and cons, and potential causes…But given that the medicine was effective quite quickly, then it faded into the background*". A man in his seventies represented another perspective of wellness-in-the-foreground: *"I really don't need this information and I am busy… I cannot change it* [the condition] *and it doesn't make any great difference for me to know more – I just have to live with it* [RA]*, and therefore I spend my energy on something else."* Moreover, patients were affected by the narratives in the e-learning program, which either encouraged hope and inspiration or fostered

distance due to having absorbed negative stories about diseases that were told via the Internet or in networks.

Relationships with HCPs also appeared to be important for patients' self-management of RA. For some, guidance from HCPs through videos in the program provided a sufficient supplement to their relational support needs in the combination of F2F contacts. For others, the lack of F2F contact with HCPs following e-learning induced an enhanced demand for support from HCPs, especially at the beginning of the disease course. A woman in her fifties explained, "*For me, it* [e-learning] *cannot stand alone… It is something else you get in here at* [name of hospital] *than in e-learning because you* [HCPs] *are so kind and accommodating…I feel taken seriously. Actually, simply to talk with you to move on – you have supported me and acknowledged that it is okay to feel like I did*".

4. Discussion and conclusion

4.1. Discussion

Our e-learning program facilitated learning and contributed to the self-management of RA. Overall, the program received a positive response, with views on its advantages and disadvantages consistent with previous studies on remote care in rheumatology. Thus, our findings of flexibility and availability, and, for some, the absence of F2F contact with HCPs, including increased responsibility for the patient, recur in several studies [13]. In contrast to other studies [13], technical difficulties were limited in our study, possibly due to the program's simple website format. Additionally, the majority liked the user interface, content, and varying and entertaining presentation forms, which are in line with the feasibility study following the development of our program [17].

The opportunities and challenges of digital PE in supporting self-management of RA can be discussed according to our program theory, including the Common Sense Model of Health and Illness (CSM) [25,26]. The CSM is a self-regulatory model that represents perspectives of the cognitive and emotional response to experiences of illness and treatment, which is a basis for patients' coping response and self-management behavior [25,26]. According to the CSM, the perception and interpretation of a health threat are crucial for a coping response, and the emotional response regulates the cognitive response [25]. We included features to support the cognitive and emotional aspects of self-management in our program; for example by supporting patients' understandings and perceptions of symptoms through disease-specific knowledge, and by supporting the management of consequences following the condition through topics addressing emotional aspects and coping strategies [17].

Our findings indicate that the program is an easily accessible resource of information on RA that can facilitate knowledge acquisition through didactic and theoretical grips. For some, the program was found to be sufficient for relational support. For others, e-learning cannot stand alone due to relational support needs that extend beyond what e-learning provides. Considering these different perspectives and the CSM, it could be questioned whether our program primarily targets the cognitive response, and to a lesser extent accommodates the emotional response to RA-related health threats.

People's belief in their efficacy to manage a particular condition is crucial to self-management, as this influences their choice and motivation. This can be strengthened through guided mastery experiences, social modeling, social persuasion, and physiological reactions [24]. Digital self-management programs in RA have been evaluated previously and have included content to support skill mastery to enhance self-efficacy, followed by regular contact with HCPs [3,4]. Our program only included such features to a limited extent, e.g., videos and podcasts with HCPs and other patients [17]. Possibly, some would have benefited from in-depth HCP guidance on activities to reduce the consequences following the disease, including problem-solving [24].

We found that the needs and proper time for PE differed, which calls for a discussion on the future organization of PE. Among others, EULAR recommendations suggest that PE in inflammatory arthritis can be provided F2F or online, either individually or in groups.[1] Still, these guidelines do not discuss the possibility of combining different forms of PE. Based on our findings, we suggest that the time for PE and options, including combinations of digital PE and F2F PE, should be discussed between patients and HCPs to accommodate varying informational needs throughout the disease course [1]. Shared decision-making [27] may be beneficial to accommodate needs and preferences by ensuring a process of shared knowledge that a) is based on a patient's preference, b) considers options, pros and cons, and c) is based on a combination of experiential knowledge and expert knowledge [24,27].

A strength of our study is the transparent process of data collection and analysis, as shown by descriptions and illustrations of the path from data to findings, quotations, and detailed categorical descriptions to clarify data reorganization. To strengthen the trustworthiness of the findings, we sought consensus through discussions following each phase of data collection and analysis and incorporated feedback from clinicians and PRPs to enhance the credibility of our findings in a clinical context. Trustworthiness was further enhanced by the objectivity of the authors and the steering group regarding the participants' acquaintances, i.e., only LRK was familiar with the identity of the participants. This helped minimize the risk of making assumptions about the self-management behavior of individuals.

Another strength is the purposive sampling strategy, which ensured the inclusion of relevant participants, provided variation in perspectives, and ensured information power [28]. Data saturation was achieved after seventeen interviews, but we conducted three additional interviews to test and confirm the preliminary findings. Nevertheless, we acknowledge that this strategy may introduce limitations in terms of sampling bias and could restrict the transferability, as participant selection relied on the researchers' judgments. Patients with other perspectives could have contributed, and we cannot eliminate the risk of having included participants who represent a more positive position toward digital PE. Thus, missing collection of reasons for nonparticipation could also be a limitation. Likewise, some participants were aware that the interviewer was responsible for the development of the e-learning program. This might have enhanced the inclination toward praise of the program to avoid disappointing the interviewer. However, openness to all perspectives was encouraged, and various perspectives were shown, including both positive and unfavorable aspects of the program. Another limitation could be the timing of the interviews approximately one year after diagnosis. Several used the program immediately after diagnosis and less in the time hereafter; hence, patients' memory of program details and perceptions of the impact on self-management may be weakened. Finally, to enhance the trustworthiness of the findings, the study may have benefited from incorporating techniques such as member checking or peer debriefing.

Although this study included patients with RA in a Danish context, we consider the transferability [28] of findings to other RMDs and similar contexts to be strong. Still, it should be considered that digitalization is highly integrated in Denmark (approximately 70% of citizens have at least basic digital skills, and 96% of households have Internet subscriptions). Furthermore, digitalization is widespread in the public sector; for example, in 2021, more than 90% of Internet users interacted with the public using the Internet [29].

4.2. Conclusion

We found that the interaction between information and knowledge, support from HCPs, one's own personal experiences, and a generally positive attitude toward living with the disease appeared to create synergy in self-management. Hence, the e-learning opportunities were related to information, whereas challenges may arise in meeting relational and emotional support needs (see Fig. 2).

Fig. 2. The role of e-learning and components of self-management in patients newly diagnosed with RA.

4.3. Practice implications

We expect the results to inform future work and research on the development and implementation of digital PE that more adequately takes individual preferences for self-management support into account. Future studies could focus on exploring the need for and effect of individual support by HCPs combined with digital PE, and future work could include the development of a conversation tool that addresses various forms of PE to clarify individuals' values, needs, and preferences for self-management support. In addition, while participants expressed ease in using our program, our findings suggest the necessity of adapting future digital programs to align with users' digital behavior and improve program accessibility. This implies the optimization of programs for utilization across diverse technological devices, including computers/laptops, smartphones, and tablets.

CRediT authorship contribution statement

Line Raunsbæk Knudsen: Conceptualization, Methodology, Investigation, Analysis, Writing – original draft, Visualization, Project administration. **Kirsten Lomborg**: Conceptualization, Methodology, Analysis, Writing – review & editing, Supervision. **Ellen-Margrethe Hauge**: Conceptualization, Writing – review & editing. **Heidi A. Zangi**: Conceptualization, Writing – review & editing. **Annette de Thurah**: Conceptualization, Methodology, Analysis, Writing – review & editing, Supervision, Project administration.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the authors used ChatGPT in some paragraphs in order to improve language and readability. After using this tool, the authors reviewed and edited content as needed and takes full responsibility for the content of the publication.

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.

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.pec.2023.107969.

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