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Implementing a PROACTIVE Care Pathway to Empower and Support Survivors of Breast Cancer

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ABSTRACT



PURPOSE Optimal comprehensive survivorship care is insufficiently delivered. To increase patient empowerment and maximize the uptake of multidisciplinary supportive care strategies to serve all survivorship needs, we implemented a proactive survivorship care pathway for patients with early breast cancer at the end of primary treatment phase.

METHODS Pathway components included (1) a personalized survivorship care plan (SCP), (2) face-to-face survivorship education seminars and personalized consultation for supportive care referrals (Transition Day), (3) a mobile app delivering personalized education and self-management advice, and (4) decision aids for physicians focused on supportive care needs. A mixed-methods process evaluation was performed according to the Reach, Effectiveness, Adoption, Implementation and Maintenance framework including administrative data review, pathway experience survey (patient, physician, and organization), and focus group. The primary objective was patient-perceived satisfaction with the pathway (predefined progression criteria for pathway continuation $\geq 70\%$).

RESULTS Over 6 months, 321 patients were eligible for the pathway and received a SCP and 98 (30%) attended the Transition Day. Among 126 patients surveyed, 77 (66.1%) responded. 70.1% received the SCP, 51.9% attended the Transition Day, and 59.7% accessed the mobile app. 96.1% of patients were very or completely satisfied with the overall pathway, whereas perceived usefulness was 64.8% for the SCP, 90% for the Transition Day, and 65.2% for the mobile app. Pathway implementation seemed to be positively experienced by physicians and the organization.

CONCLUSION Patients were satisfied with a proactive survivorship care pathway, and the majority reported that its components were useful in supporting their needs. This study can inform the implementation of survivorship care pathways in other centers.

ACCOMPANYING CONTENT

-  Appendix
-  Data Supplement

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INTRODUCTION

Survival rates after early-stage breast cancer (BC) now exceed 80% at 10 years, thanks to early detection and more suitable multimodal diagnostic and therapeutic strategies.^{1,2} Nevertheless, survivors of BC often face physical, psychologic, and social burdens that are direct byproducts of cancer and its treatments.³⁻⁶ This represents up to 50% of patients living with at least one distressing long-term physical symptom,³ 30% facing emotional distress,⁵ and 20% struggling to rejoin the workplace.⁴

Significant efforts have been made to develop a survivorship framework to guide clinical care delivery.⁷⁻⁹ It is now

consensual that optimal comprehensive survivorship care delivery needs to go beyond screening of recurrences and new malignancies and include health promotion, identification and management of physical and psychosocial needs, and proper attention to concomitant chronic health conditions.^{8,10-12}

However, a comprehensive approach that serves all survivorship domains is insufficiently delivered in clinical practice.^{13,14} This may be related to implementation challenges such as lack of health care professional awareness and training and prioritization of survivorship, organizational barriers including the need for dedicated time slots in clinics to allow for multidisciplinary assessment and management

CONTEXT

Key Objective

How can we improve the delivery of comprehensive survivorship care after breast cancer (BC) treatment?

Knowledge Generated

We have implemented a proactive survivorship care pathway for patients with early BC at the end of their primary treatment phase. Pathway components included: (1) a personalized survivorship care plan, (2) face-to-face survivorship education seminars and personalized consultation for supportive care referrals (Transition Day), (3) a mobile app delivering personalized education and self-management advice, and (4) decision aids for physicians focused on supportive care needs.

Relevance

In our pilot implementation study, patients were satisfied with the survivorship care pathway and the majority reported that they were useful in supporting their needs. This study may inform the implementation of survivorship care pathways in other institutions.

involving a range of subspecialty professionals and supportive care experts, articulation with appropriate referral networks, and reimbursement issues.¹⁵⁻¹⁹

To address these unmet needs, we cocreated with multiple stakeholders, including patients, a proactive care pathway in the institution to empower and support survivors of BC. During the pilot implementation phase,²⁰ we conducted a mixed-methods study to describe patient experience regarding perceived satisfaction and usefulness of the pathway and to study the implementation process guided by the Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM) framework.²¹

METHODS

Intervention—Survivorship Care Pathway

Intervention Development and Core Components. A multidisciplinary team comprising breast medical oncologists, radiation oncologists, patient representatives, gynecologists, implementation science researchers, sociologists, nurses, psychologists, psychiatrists, sexologists, nutritionists, physical therapists, hospital managers, and additional supportive care symptom management experts was created to develop the pathway components and plan its implementation according to pre-existing institutional workflows. The operational team met periodically every 21 days for 6 months before implementation and every 28 days thereafter to monitor the implementation. Three representatives of the team (M.A.F., I.V.-L., and E.M.) officially met with patient representatives at four key moments to foster cocreation: (1) at conceptualization to identify survivors' needs, (2) during development of pathway components giving input and ideas of components to prioritize and how to model them, (3) just before implementation, and (4) after implementation. In addition, a patient representative was a member of the operational team (J.A.).

The final pathway included four components: (1) personalized survivorship care plan (SCP), (2) face-to-face survivorship education seminars and personalized survivorship consultation for needs assessment and supportive care referrals (Transition Day), (3) mobile app delivering personalized education and self-management advice, and (4) decision aids for physicians focused on supportive care needs (Fig 1). A detailed description of each component is available in the Supplementary Material (Data Supplement, online only, Survivorship Care Pathway Components).

Setting, Participants, and Inclusion Workflow. The pathway and all its components were systematically proposed in a real-world setting for all patients with early BC (stages I-III) who had completed their primary treatment (surgery with or without systemic therapy with or without radiotherapy). A pathway manager was responsible for screening and flagging all eligible patients to the assisting physician with a reminder of pathway eligibility 1 day before the end of the treatment visit (ie, visit preceding postprimary treatment follow-up). Patients were informed about the pathway and offered participation/access to its components by (1) their treating oncologist at the end of the treatment visit, (2) e-mail invite sent by the pathway manager, and (3) written information inside the SCP document.

Implementation Evaluation. Guided by the RE-AIM framework (Supplementary Table 1, Data Supplement), we used a combination of quantitative and qualitative methods for process evaluation assessing the reach, potential for adoption, while identifying barriers to implementation and strategies to permanently integrate the pathway into the current model of care at our institution. The effectiveness of this pathway in BC outcomes was not formally evaluated in this study. Nevertheless, patients, physicians, and organizational experiences were assessed, as well as the capacity of the pathway to detect supportive care needs.

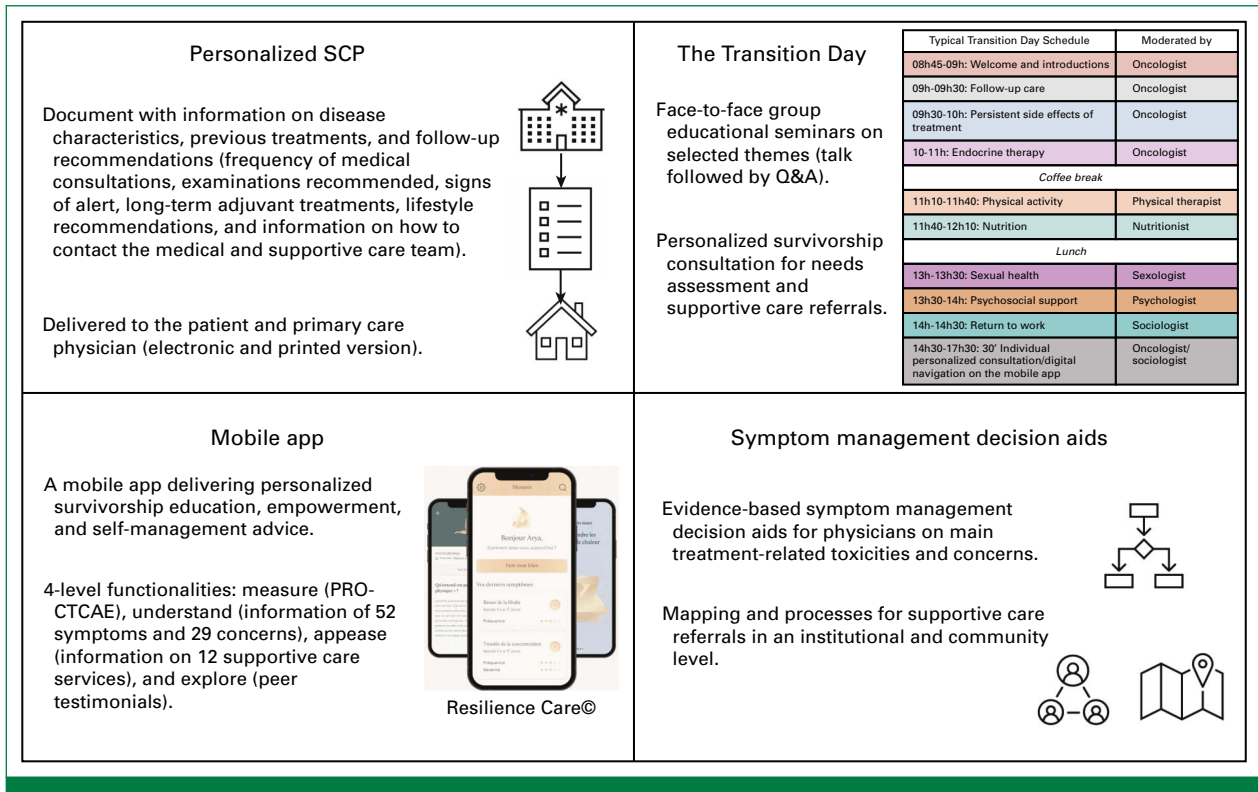


FIG 1. Pathway components (personalized SCP, the Transition Day, mobile app, and decision aids for physicians focused on supportive care needs). Digital navigation on the mobile application is offered during The Transition Day. For detailed information in each one of the components refer to the Supplementary Material (Data Supplement, Pages 3-7). PRO-CTCAE, patient-reported outcome Common Terminology Criteria for Adverse Events; Q&A, question and answer; SCP, survivorship care plan.

This study was approved by the Institutional Scientific Committee and registered in the French Health Data Hub (No. F20211025144254). No written informed consent was required; nevertheless, all participants received a participation informative form explaining the study scope and detailed aspects regarding voluntary participation, data rights, and data protection.

Data Sources

Administrative data review included the number of patients who completed their primary treatment and were therefore eligible for the pathway, number of SCPs delivered, and Transition Day data (number of patients attending and reasons for declining participation, time interval between the end of treatment and attendance, number of seminars delivered and experts who delivered, and survivorship care unmet needs detected).

Pathway Experience Survey

An online Pathway Experience Survey was conducted to understand pathway delivery, perceived utility, and acceptability at three levels: patients, physicians, and organization.

The Patient Pathway Experience Survey was sent to all patients who had finished their primary BC treatment,

regardless of their participation in the pathway activities, to allow evaluation of reach. Surveys were sent 4 weeks after the end of the treatment visit or after participation in the Transition Day.

Patients were asked to rate their satisfaction with the overall pathway and perceived usefulness of each component on a 5-point Likert scale. Questions regarding pathway delivery (access, delivery method, content, and format) were also included. An open field was used to collect additional suggestions and remarks. Clinical, sociodemographic, and health literacy aspects²² and previous engagement with technology were also collected.

The Physician Pathway Experience Survey was sent to BC physicians who referred patients to the pathway to assess their engagement with the pathway and perceived utility and acceptability of each component, and suggestions for improvement were collected.

The Organization Pathway Experience Survey was sent to the Implementation Multidisciplinary Team to better understand their experience and satisfaction with their work activities, as well as team behavior spirit, adjustments to the general routine, and work performed in the organization after pathway implementation.

Focus Groups

Focus groups were conducted with a sample of survivors of BC who were asked to test the mobile app by teleconference and guided by a predefined script (Focus Group Guide—Supplementary Material, Data Supplement). Focus groups aimed to explore barriers and facilitators for engaging with a mobile app; insights into perceived utility, acceptability, and health impacts; preferred format, length, and language of the content; factors influencing engagement; and suggestions for improvement. The focus groups were moderated by a trained sociologist unknown to the research participants and were conducted until thematic saturation was reached.

Statistical and Qualitative Analyses

The primary study outcome was patient satisfaction and perceived usefulness of the proactive pathway, as assessed in the Patient Pathway Experience Survey. Following recommendations for sample size estimations for pilot studies²³⁻²⁵ and mirroring similar pilot implementation studies,²⁶⁻³² a minimum of 50 answers to the overall survey were pre-specified as needed to provide an initial assessment of patient experience/satisfaction. Pathway progression criteria were defined as at least 70% of the patients receiving the entire pathway reporting to be very satisfied or completely satisfied.

Continuous data were summarized as means and standard deviations, and categorical data as frequencies and percentages.

Qualitative data were recorded after the patients provided verbal consent and transcribed for thematic analysis³³ using NVivo version 12.0.

RESULTS

Administrative Data Review

From October 2021 to April 2022, 321 patients were eligible for the pathway and received an SCP (75% delivered in real time) and 98 (30%) patients attended the Transition Day. Tracked reasons for refusals to attend the Transition Day included lack of interest (56%), distance constraints (21%), time constraints (10%), language barrier (7%), and mobility constraints (6%).

A total of 153 seminars were delivered during 17 Transition Days. Intervention fidelity (ie, delivery as planned) was maintained during 96% of the seminars, and owing to a temporary unavailability of physical therapists, six practical seminars of physical activity were replaced by a practice of mindfulness delivered by a trained psychologist. Nevertheless, educational information on the benefits of physical activity to survivors of BC was still delivered in all Transition Days. Most patients (57%) attended the Transition Day <2 months after the end of their primary treatment, 10% between 2 and 2.9 months, and 23% more than 3 months.

During the first 6 months of the pathway, 288 needs (including physical and psychosocial domains) and 72

TABLE 1. Survivorship Care Needs Identified Among the 62 Patients Who Participated in the Personalized Survivorship Consultation

I Need Help to...	Absolutely, No. (%)	A Little, No. (%)	Not Really, No. (%)	Not at All, No. (%)	Missing Data
Start being physically active	32 (68.1)	9 (19.1)	4 (8.5)	2 (4.3)	15
Better manage my stress and anxiety	19 (38.0)	16 (32.0)	8 (16.0)	7 (14.0)	12
Lose weight	30 (57.7)	12 (23.1)	6 (11.5)	4 (7.7)	10
Manage my musculoskeletal and joint pain	33 (64.7)	9 (17.6)	4 (7.8)	5 (9.8)	11
Regain self-confidence	16 (35.6)	18 (40.0)	8 (17.8)	3 (6.7)	17
Improve my self-image and body image	25 (53.2)	15 (31.9)	3 (6.4)	4 (8.5)	15
Manage my fatigue	29 (58.0)	16 (32.0)	2 (4.0)	3 (6.0)	12
Improve my sleep	31 (59.6)	12 (23.1)	4 (7.7)	5 (9.6)	10
Improve memory and concentration	24 (49.0)	13 (26.5)	7 (14.3)	5 (10.2)	13
Find resources to help me return to work	12 (28.6)	12 (28.6)	7 (16.7)	11 (26.2)	20
Manage my hot flashes	23 (46.0)	16 (32.0)	6 (12.0)	5 (10.0)	12
Improve my sexuality and intimacy relationships	14 (33.3)	14 (33.3)	5 (11.9)	9 (21.4)	20
Unhealthy Behaviors/Conditions Detected, No. (%)					Missing Data
Physical activity (150 min/wk threshold)	Inactive		Active		21
	29 (70.8)		12 (29.3)		
BMI, kg/m ²	≥30	25.0-29.9	18.5-24.9	<18.5	1
	16 (26.3)	20 (32.8)	23 (37.7)	2 (3.3)	
Current smoking	Yes		No		15
	7 (14.7)		40 (85.1)		

unhealthy conditions were detected among 62 patients who participated in the personalized consultation (Table 1).

A summary of the Pathway Experience Survey at the patient, physician, and organizational levels is presented in Table 2.

Patient Pathway Experience Survey

Among the 126 patients surveyed, 77 (61.1%) responded; 54 (70.1%) received the SCP, 40 (51.9%) attended the Transition Day, and 46 (59.7%) accessed the mobile app. The clinical and sociodemographic data of the survey participants are presented in Supplementary Table 2 (Data Supplement).

Twenty-six (33.8%) patients who answered the survey participated in the full pathway experience (SCP, Transition Day, and mobile app), with 25 patients (96.1%) reporting to be completely satisfied or very satisfied.

Regarding specific aspects of each pathway component, from the 54 patients who received the SCP, 44 (81.5%) agreed or completely agreed that the document was easy to read and understand and 35 (64.8%) agreed with its usefulness. From the 40 patients who attended the Transition Day, 37 (92.5%) agreed or completely agreed that the seminars were easy to understand, 36 (90.0%) agreed with its usefulness, and 25 (62.5%) agreed that the duration was just fine. Among the 46 mobile app users, 44 (73.9%) agreed or completely agreed that it was easy to use and understand and 30 (65.2%) agreed with its usefulness.

Of note, a very low proportion of patients considered the pathway components as not useful (three patients for the SCP, two patients for the mobile app, and one patient for the Transition Day). Importantly, seven patients (9.1%) reported that they were not invited to attend the Transition Day and 18 (23.4%) did not receive information on how to access the mobile app. Of the 77 patients who answered the survey, 37 (48.0%) agreed or completely agreed that they would have liked the possibility of participating in the Transition Day virtually. Of patients who attended the in-person Transition Day, 16 (40.0%) agreed or completely agreed with the virtual format.

The main themes emerging from the free-text responses were (1) feeling of having their needs addressed, (2) feeling of not being abandoned, and (3) satisfaction with the care team. For negative experiences, the emerging themes detected were (1) need for improvement in intervention delivery and (2) need for a continuous care (Supplementary Table 3, Data Supplement).

Physician Pathway Experience Survey

Among the 27 oncologists involved in BC care, 14 (51.8%) replied to the survey. Thirteen physicians (92.8%) agreed or completely agreed on the importance and utility of the SCP, 12 (85.7%) for decision aids, 13 (92.8%) for the themes explored in the Transition Day, and 12 (85.7%) for the content of the mobile app. In addition, even if there was no real-time transmission of the symptoms reported in the mobile app to the health care providers, seven

TABLE 2. Pathway Experience Survey

Patient Pathway Experience (n = 77/126)			
SCP (70% received)	Transition Day (52% attended)	Mobile Application (59.7% accessed)	
Easy to read and understand (80%)	Easy to understand (92.5%)	Easy to use and understand (74%)	
Useful (64.8%)	Duration was just fine (62.5%)	Useful (65.2%)	
	Useful (90%)		
Satisfied with the full pathway experience (n = 26): 96.1%			
Physician Pathway Experience (n = 14/27)			
SCP	Symptom Management Decision Aids	Transition Day	Mobile Application
Important and useful (92.8%)	Important and useful (85.7%)	Important and useful (92.8%)	Important and useful (85.7%)
Perceived a positive impact in clinical care after pathway implementation: 78.5%			
Organization Pathway Experience (n = 13/17)			
Satisfaction With the Work Performed	Team Behavior Spirit	Adjustments to the General Routine	Engagement
Felt that their work is valued by patients (100%)	Felt that the work in the pathway is a team effort (100%)	Comfortable performing their work in the pathway (100%)	Count on continuing their activities in the pathway (84.6%)
Felt that their work is valued by the institution (69.2%)		Increased workload and disturbed routine (46.1%)	Would like to be involved in additional pathway activities (61.5%)

NOTE. Percentages in the parentheses represent the proportion of responders who agreed or completely agreed. Abbreviation: SCP, Survivorship Care Plan.

physicians (50.0%) agreed or completely agreed that the presence of the mobile app facilitated symptom management discussions with the patient. Eleven physicians (78.6%) agreed that the whole pathway had a positive impact in clinics.

Organizational Experience

Among the 17 members of the Multidisciplinary Implementation Team, 13 (76.5%) responded to the survey. Their responses indicated a high level of satisfaction with the work performed in the pathway, full agreement that the patients valued their work, that the pathway was a result of a team effort, and that they felt comfortable performing their work in the pathway. Moreover, 11 (84.6%) responders expected to continue their activities in the pathway, and eight (61.5%) would like to be involved in more pathway-related activities. Increased workload and disturbance of the general routine were reported by six (46.1%) responders.

Focus Groups

Seventeen patients from diverse professional and socioeconomic background (Supplementary Table 4, Data Supplement) participated in three focus groups after testing the mobile app. There was a consensus regarding the acceptability and perception of the usefulness of a mobile app delivering survivorship education, especially during adjuvant endocrine therapy. The emergent themes and quotes are provided in Supplementary Table 5 (Data Supplement).

DISCUSSION

This study describes our institutional experience of cocreating and delivering a proactive survivorship care pathway for survivors of BC. Our pathway enabled (1) delivery of a clear and structured personalized SCP to the patient and primary care physician, (2) in-person and at-home patient education and self-management, (3) promotion of healthy behaviors, (4) physical and psychosocial toxicity management and activation of multidisciplinary internal and external referrals, and (5) articulation with community services and primary health care physicians. With 96.1% of patients who received the whole pathway reporting to be very satisfied or completely satisfied, this study demonstrated preliminary patient satisfaction and perceived usefulness of a proactive survivorship care pathway. A total of 288 needs and 72 unhealthy conditions were identified and addressed in 62 patients. According to the RE-AIM evaluation,²¹ during this pilot process evaluation, our pathway presented a moderate reach, with moderate to high acceptance rates. Key actionable factors influencing reach and acceptance were identified, including physician engagement, patient interests and preferences, and logistics and equity considerations (Appendix Fig A1, online only).

Several lessons can be noted from this pilot implementation phase.

Our workflow highlights the advantages of leveraging team medicine³⁴ to cocreate a purposeful, evidence-based, and deliverable pathway. Survivorship care is multidisciplinary⁸ and, therefore, should be built on a network with various stakeholders, including supportive care specialists, psychosocial support professionals, administrative staff, community and primary care services, and patient representatives. Strategies such as (1) building institutional symptom management decision aids, (2) defining clear and structured referral processes, and (3) hosting educational events to increase awareness of survivorship issues may be a starting block to building this multidisciplinary dynamic. This exercise also helped us identify gaps in institutional supportive care resources and where specific recruitment or externalization of care was needed. Institutional leadership played an important role in the implementation of this pilot study by prioritizing survivorship care and facilitating funding and resources.

Nevertheless, multidisciplinary dynamics, institutional support, and implementing the pathway may not necessarily lead to optimal reach and acceptance. As observed in our results, only 30% of eligible patients attended the Transition Day and 60% used the mobile app. In addition, only 51% of the physicians responded to our survey, perhaps reflecting their low engagement. Although a positive organizational experience was observed, 41% of the multidisciplinary implementation team highlighted disturbances in work routines after pathway implementation. This is not surprising since previous literature has demonstrated that even robust survivorship programs face challenges and implementation struggles.³⁵ Actions that can be implemented to help overcome these challenges include educational activities for increasing physician awareness, inclusion of digital solutions for minimizing time and distance-related burden (eg, virtual Transition Day), formal economic valorization with protected time for pathway delivery, and continuous cocreation of pathway components with patients to ensure that they respond to their needs. Moreover, an upfront identification of patients with very low clinical complexity and high self-management skills and who do not need extensive pathway resources is desirable.

We acknowledge that our survey responders mainly included highly educated patients with high health literacy levels.^{36,37} Vulnerable patients are often excluded from health care innovations and might have limited access to digital devices.^{38,39} There is a major need to ensure that our pathway is accessible, inclusive, and positively experienced by all patients. Specific guidance for health care professionals for diversity and inclusion in pathway activities, availability of nurses and digital navigators, technology hubs, and personalized support for vulnerable patients since diagnosis are actions that can be implemented to ensure equitable pathway access.^{16,40-42} Furthermore, a diversity data observatory with a minimum set of

sociodemographic characteristics of the participants in each pathway component is being created.

The overall positive experience reported by our patients when participating in the pathway activities probably reflects care coordination and survivorship care need. Importantly, a previous systematic review of 24 articles comprising 11 nonrandomized and 13 randomized studies concluded that the delivery of a SCP alone is unlikely to achieve the desired benefits, and a more comprehensive approach to survivorship care delivery is needed.^{43,44} On the contrary, randomized clinical studies have also demonstrated that survivorship education can have a positive impact on emotional distress⁴⁵ and a proactive screening and management of treatment-related side effects can improve needs assessment⁴⁶ and symptom control.⁴⁷ Considering these data, our pathway was designed to be a multimodal strategy including not only a personalized SCP but also care coordination and supportive care referrals added to education and self-management support delivered in person and digitally by a mobile app.

The creation of new care pathway delivery methods and provision of novel technologies and infrastructures to support self-management have been flagged as research priorities in survivorship care.^{9,48} This study revealed the promising acceptability and perceived usefulness of the pilot version of our mobile app and highlighted suggestions for increasing its adoption. Randomized clinical studies have demonstrated that digital health may play an important role in facilitating patient empowerment and improving symptom management in survivors of BC.⁴⁹⁻⁵⁴ However, these were mainly fragmented, symptom-specific interventions, and the role of a comprehensive digital companion allowing continuous education, self-management, and monitoring is not yet established in cancer survivors.^{55,56} Moreover, social determinants of health may affect the adoption of digital health, requiring the personalization of digital devices and navigation.⁵⁷⁻⁵⁹ On the basis of the initial feedback of this study, the mobile app was refined with encouraging feedback, evidence-based digital self-management programs, and biosensor connections. It has also been enriched with additional

educational content and remote monitoring features to accompany the patient from the time of diagnosis and primary treatment phase to survivorship care. A detailed evaluation of the usage of the mobile app according to clinical and sociodemographic characteristics is planned in a future study.

Finally, although we could deliver our pathway in a very early post-treatment survivorship phase (<3 months after the end of treatment), we believe that to be transformative, survivorship care should start at the time of cancer diagnosis.^{8,15,18,60} This would allow prevention or early recognition of treatment-related side effects and concerns and addressing of patient's needs across the whole cancer care continuum in a timely manner, potentially facilitating reach and acceptability. Previous data have demonstrated considerable interindividuality in the onset, persistence, and longitudinal evolution of treatment-related symptoms,^{5,61,62} and therefore, some patients may need more care and resources than others. Stratifying patients to different pathways of care according to the individual risk of toxicity development could be a suitable model of care.⁶⁰ Considering individual's ability to self-manage and social determinants of health in the stratification model may be crucial, especially when using digital health to enable self-management and facilitate care delivery.

The present study describes the implementation workflow of a BC survivorship care pathway and highlights implementation challenges and suggestions for program improvements, which may be useful for cancer centers building survivorship care programs. Our findings suggest that the pathway is acceptable and perceived as useful for patients starting the post-treatment survivorship phase, but ensuring reach is challenging. The implementation seemed to be well-perceived by physicians and the organization. Limitations should be acknowledged, including the small sample size, single-institution experience, and proportion of highly educated participants.

The evolution of this model toward the implementation of a continuous personalized, proactive care pathway from the moment of diagnosis is ongoing and will be tested in future clinical trials.

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DISCLAIMER

Any opinions, findings, and conclusions expressed in this material are those of the author(s) and do not necessarily reflect those of the American Society of Clinical Oncology or Conquer Cancer, or Breast Cancer Research Foundation.

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

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AUTHORS' DISCLOSURES OF POTENTIAL CONFLICTS OF INTEREST

Implementing a PROACTIVE Care Pathway to Empower and Support Survivors of Breast Cancer

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APPENDIX

Low overall pathway reach	Ensure equitable participation	Ensure sustainability	Low patient interest
<p>Increase institutional engagement (institutional educational activities, printed material support for patients and health care providers)</p> <p>Increase availability of digital navigation/ development of web portal.</p> <p>Virtual Transition Day</p> <p>Automated data collection for filling the SCP</p> <p>Increase pathway staff</p>	<p>Increase physician's engagement with specific guidance on diversity and inclusion</p> <p>Increase availability of digital navigation/ development of web portal/ implementation of digital hubs</p> <p>Personalized phone invitations to vulnerable patients</p> <p>Creation of a equity and diversity data observatory</p>	<p>Incorporation of the pathway as a formal activity linked to the institutional Supportive Care Clinic for economic valorization</p> <p>Business plan development: balance between reimbursed medical acts and non reimbursed activities</p> <p>Dissemination of the pathway model to other cancer types</p>	<p>Continuous cocreation of Transition Day seminars with patients</p> <p>Development and availability of self-management modules in the mobile application according to symptom priorities</p> <p>Introduction of a risk-stratified supportive care pathway since diagnosis adapted to patients needs and self-management ability</p>

FIG A1. Implementation barriers and strategies to overcome.