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TELEMEDICINE
PROGRAM



Ostomy Self-Management Training for Cancer Survivors via Telehealth

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No conflicts of interest

What is an ostomy?

- Some patients may need an ostomy after they have surgery for cancer. An ostomy is a hole created in the abdomen to help clear stool or urine from the body. An ostomy bag attached to the body collects the waste. Educational programs about living with an ostomy can help patients manage their ostomy.

https://www.pcori.org/research-results/2016/evaluating-telehealth-program-ostomy-self-care-among-cancer-survivors#section_results_summary

Table 1

Training Session Description

Session	Content
1	<p>Self-management and immediate ostomy concerns – Teaching methods are interactive with hands on practice with equipment, pouches, and belts. Issues discussed included:</p> <ul style="list-style-type: none"> Disease states Daily care Nutritional needs Skin care Clothing changes
2	<p>Social well-being and body image – Deals with the problems of:</p> <ul style="list-style-type: none"> Social/interpersonal relationships Public appearances Being prepared for emergencies Intimacy and sexuality Communication skills
3	<p>Spouse/Significant Other/Designee Session – Cover same topics as Ostomate sessions that are specifically tailored to support and adjustment of caregiver to achieve a comfort level with ostomies. Not all participants had a designee.</p>
4	<p>Healthy lifestyle – Discussion includes:</p> <ul style="list-style-type: none"> Nutritional management Physical activity recommendation and overcoming barriers Psychological health Improving attitudes Travel
5	<p>Booster Session (Ostomate and Session 3 participant) – Review of daily care, psychological impact, and nutrition/exercise problems. The group demands and needs drive the content for this session.</p>



HHS Public Access

Author manuscript

Psychooncology. Author manuscript; available in PMC 2017 May 01.

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A Chronic Care Ostomy Self-Management Program for Cancer Survivors

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<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4833624/pdf/nihms749541.pdf>

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The Arizona Telemedicine Program Blog

Study Testing Telehealth Support for Ostomy Patients

By Jane Erikson on November 09, 2017



Among all the challenges that accompany a diagnosis of colon, rectal, or bladder cancer, learning to live with an ostomy can be the most difficult.

Now, the Arizona Telemedicine Program (ATP), The University of Arizona, and three other institutions – the University of Pennsylvania, the City of Hope/Beckman Research Institute, and Yale University – are taking part in a randomized clinical trial to see if telehealth can be effective in helping ostomy patients adjust to the lifestyle changes they face.

Robert S Krouse, MD
Professor of Surgery,
University of Pennsylvania
Chief, Surgical Services,
Michael J. Crescenz VAMC

The ATP, based at the University of Arizona College of Medicine – Tucson, under the direction of founding director Ronald S. Weinstein, MD, is providing the telehealth infrastructure, including equipment and engineers, one or two of whom sit in on every session to handle any computer problems or questions the study participants may have.

City of Hope, the University of Pennsylvania and Yale University are the sites enrolling patients for this project.

“We’ve been studying ostomy patients for a long time as a research team,” says Robert S. Krouse, MD, Chief of surgical services, Cpl. Michael J. Crescenz VA Medical Center, and the study’s principal investigator through the Department of Surgery at the University of Pennsylvania.



“We were able to develop a curriculum to address issues that ostomy patients have and deliver the curriculum in a group setting with nurses and peer ostomy patients. We tested it in Tucson at the University of Arizona Cancer Center, and found that patients really got a lot out of the program, but getting them there was difficult, because they were sick from chemo or had to come from far away.”

The patients were willing to see their doctors for treatment, Dr. Krouse says, but coming in to the cancer center for the ostomy program sessions became more difficult.



Ronald S Weinstein, MD
Founding Director
Arizona Telemedicine Program
1996-2021

<https://telemedicine.arizona.edu/blog/study-testing-telehealth-support-ostomy-patients>

Research

Completed; PCORI Public and Professional
Abstracts Posted

 Has Results

Evaluating a Telehealth Program for Ostomy Self-Care among Cancer Survivors



PCORI Award 1507-31690

Collaborating organizations:



Yale



Patients with an ostomy and a cancer diagnosis that opted to participate in the study were randomized to 1 of 2 study arms:

- **Usual care alone.** Patients received a booklet about ostomy skin care and contact information for support groups. The research team suggested that patients see an ostomy nurse and have a follow-up visit with their surgeon.
- **A telehealth program plus usual care.** Along with usual care, patients received a workbook and set personal goals. Over five weeks, patients attended three telehealth sessions taught by an ostomy nurse and a peer coach with an ostomy. Patients used a tablet or computer to attend sessions. Caregivers took part in one session. Patients and caregivers completed a final session together.

https://www.pcori.org/research-results/2016/evaluating-telehealth-program-ostomy-self-care-among-cancer-survivors#section_results_summary





[Journal List](#) > [J Med Internet Res](#) > [v.23\(9\); 2021 Sep](#) > [PMC8506262](#)



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An Ostomy Self-management Telehealth Intervention for Cancer Survivors: Technology-Related Findings From a Randomized Controlled Trial

Monitoring Editor: Rita Kukafka

Reviewed by Emel Sutsunbuloglu and K Rao

[Ronald S Weinstein](#), MD, FCAP, FATA,¹ [Michael J Holcomb](#), BS,¹ [Julia Mo](#), BS,² [Peter Yonsetto](#), BS,¹ [Octavio Bojorquez](#), BS,² [Marcia Grant](#), PhD,³ [Christopher S Wendel](#), MS,⁴ [Nancy J Tallman](#), BSN, [Elizabeth Ercolano](#), DNSc,⁵ [Zuleyha Cidav](#), PhD,⁶ [Mark C Hornbrook](#), PhD,⁷ [Virginia Sun](#), PhD,³ [Ruth McCorkle](#), PhD,⁸ and [Robert S Krouse](#), MD⁹

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Can Telehealth Use Enable Remote Delivery of Group Ostomy Self-Management Training?

Ostomy Self-Management Telehealth (OSMT):



a group intervention to support self-efficacy and patient activation for ostomy self-management among cancer survivors

Research Study Partners:



- University of Pennsylvania
- Yale University
- City of Hope National Medical Center
- University of Arizona, Arizona Telemedicine Program



216 cancer survivors with ostomies, at least 6 weeks postsurgery



Each OSMT group comprises:

Onsite staff:

- Nurse educators
- Telehealth engineer

Remote participants:

- Ostomates
- Peer ostomates
- Caregivers



5 OSMT sessions (60-90 min each) conducted weekly for each of the 21 consecutive groups

Telehealth technology-related (TTR) findings

• 86% OSMT curriculum completion rate



• 0% of sessions were canceled or rescheduled due to TTR incidents



• 21.5% of sessions had major TTR incidents with telehealth engineer intervention



• 63.7% of sessions had no TTR incidents



Summary:

Use of proactively supported secure telehealth videoconferencing technology enables cancer survivors to successfully participate in group OSMT from their homes or other private locations with adequate broadband internet connectivity.

Weinstein RS, Holcomb MJ, Mo J, et al. Ostomy Self-management Telehealth Intervention for Cancer Survivors: Technology-Related Findings From a Randomized Controlled Trial
J Med Internet Res 2021;23(9):e26545
URL: <https://www.jmir.org/2021/9/e26545>
DOI: 10.2196/26545

 **JMIR Publications**
Advancing Digital Health & Open Science

<https://www.jmir.org/2021/9/e26545>

A visual abstract summarizing the key findings of the article titled "Ostomy Self-management Telehealth Intervention for Cancer Survivors: Technology-Related Findings From a Randomized Controlled Trial" published in the Journal of Medical Internet Research in 2021. The study found that the use of proactively supported secure telehealth videoconferencing technology enables cancer survivors to successfully participate in group OSMT from their homes or other private locations with adequate broadband internet



J Med Internet Res, 2021 Sep; 23(9): e26545.
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An Ostomy Self-management Telehealth Intervention for Cancer Survivors:
Technology-Related Findings From a Randomized Controlled Trial

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PCs and laptops were the most common types of devices used by intervention patients to connect to OSMT sessions, followed by tablets and smartphones ([Table 1](#)). Most patients used a single device for all of their OSMT sessions.

Table 1

Devices used to connect to Ostomy Self-management Telehealth (OSMT) sessions by 93 intervention patients that participated in OSMT sessions.

Device	Values, n (%)
PC or laptop	45 (48)
Tablet or iPad (Apple Inc)	26 (28)
Smartphone	11 (12)
Unknown	10 (11)
More than 1 device	1 (1)

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Table 2

Frequencies of Ostomy Self-management Telehealth sessions with 0, 1, or 2 telehealth technology-related incidents noted per session (n=102).

TTR ^a incidents noted per session	Values, n (%)
0 incidents	65 (63.7)
1 incident	28 (27.5)
2 incidents	9 (8.8)

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^aTTR: telehealth technology-related.



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Ostomy Telehealth Self-management Training for Cancer Survivors

Description >

Project Number
1R01CA204193-01A1

Contact PI/Project Leader
KROUSE, ROBERT SCOTT

Awardee Organization
UNIVERSITY OF PENNSYLVANIA

Details

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Description

Abstract Text

Cancer survivors with ostomies, most commonly rectal and bladder cancers, face complex adjustment issues. Typically, post-operative care does not adequately prepare cancer survivors for ostomy self-management, behavior change, psychological support or healthy living, which is requisite to assure optimal Health-Related Quality of Life (HRQOL). We developed an ostomy nurse and peer ostomate-led post-treatment chronic care- based Ostomy Self-Management Telehealth program (OSMT). This program is an education and support curriculum delivered in the group setting for both cancer survivors and their caregiver/support person. We received positive pilot feasibility results, but encountered major access barriers in patients getting to a centralized location to participate in the program. Therefore, we are utilizing telehealth as a delivery method to improve cancer survivor ability to participate. **For this study, we will target patients living in rural and other nonmetro areas.** The proposal is a randomized controlled study of our self-management program delivered by telehealth intervention compared to an Attention Control Condition (ACC) group. We expect OSMT subjects will improve patient activation, self-efficacy, HRQOL and knowledge via: 1) techniques for self-management to handle frustration, fatigue, pain, isolation, equipment, social situations; 2) overcoming barriers to appropriate exercise; 3) communication skills; 4) nutrition, menu planning, meal timing. In addition, we hope to show a cost benefit to the program, and evidence of reimbursement in the community. Aim 1: Using our enhanced telehealth techniques, determine if patient activation (PA), self-efficacy, ostomy-related knowledge, and HRQOL are improved and sustained over time, comparing OSMT and attention control condition (ACC) groups in rural populations. Aim 2: Determine whether third-party reimbursement for telehealth care encounters are comparable to those for in-person visits and adequate for supporting our OSMT intervention in rural areas.

<https://reporter.nih.gov/search/E7M6wfOw6UCcMVWjaqTCPQ/project-details/9737067>

Ostomy Telehealth Self-management Training for Cancer Survivors: Collaborating Organizations



NIH Project Number: 1R01CA204193-01A1

Selected Telehealth Ostomy Self-Management Training Publications from PCORI 1507-31690

- Sun, V., Ercolano, E., McCorkle, R., Grant, M., Wendel, C.S., Tallman, N.J., Passero, F., Raza, S., Cidav, Z., Holcomb, M., Weinstein, R.S., Hornbrook, M.C., Krouse, R.S. Ostomy telehealth for cancer survivors: Design of the Ostomy Self-Management Training (OSMT) randomized trial. *Contemporary Clinical Trials*. 2018; 64: 167-172: <https://doi.org/10.1016/j.cct.2017.10.008>
- Weinstein, R.S., Holcomb, M.J., Mo, J., Yonsetto, P., Bojorquez, O., Grant, M., Wendel, C.S., Tallman, N.J., Ercolano, E., Cidav, Z. and Hornbrook, M.C., 2021. An ostomy self-management telehealth intervention for cancer survivors: Technology-related findings from a randomized controlled trial. *Journal of medical Internet research*, 23(9), p.e26545. <https://doi.org/10.2196/26545>
- Cidav, Z., Marcus, S., Mandell, D., Hornbrook, M.C., Mo, J.J., Sun, V., Ercolano, E., Wendel, C.S., Weinstein, R.S., Holcomb, M.J. and Grant, M., 2021. Programmatic Costs of the Telehealth Ostomy Self-Management Training: An Application of Time-Driven Activity-Based Costing. *Value in Health*, 24(9), pp.1245-1253. <https://doi.org/10.1016/j.jval.2021.03.018>
- Grant, M., Sun, V., Tallman, N.J., Wendel, C.S., McCorkle, R., Ercolano, E., Simons, C., Mo, J., Raza, S., Donahue, D., Passero, F., Henson, J., MacDougall, L., Friedlander, J., Pitcher, P., Fry, D., Yonsetto, P., Holcomb, M.J., Hornbrook, M.C., Weinstein, R.S., Krouse, R.S., 2022. Cancer survivors' greatest challenges of living with an ostomy: findings from the Ostomy Self-Management Telehealth (OSMT) randomized trial. *Supportive Care in Cancer*, 30(2), pp.1139-1147. <https://doi.org/10.1007/s00520-021-06449-6>
- Wendel, C., Sun, V., Tallman, N., Simons, C., Yonsetto, P., Passero, F., Donahue, D., Fry, D., Iverson, R., Pitcher, P. and Friedlaender, J., MacDougall, L., Henson, J., McCorkle, R.C., Ercolano, E., Cidav, Z., Holcomb, M.J., Weinstein, R.S., Hornbrook, M.C., Grant, M., Krouse, R.S., 2022. Stakeholder engagement and participation in the design, delivery, and dissemination of the ostomy self-management telehealth (OSMT) program. *Supportive Care in Cancer*, pp.1-7. <https://doi.org/10.1007/s00520-022-06878-x>
- PCORI Award 1507-31690 Final Report expected publication date: February 2023 https://www.pcori.org/research-results/2016/evaluating-telehealth-program-ostomy-self-care-among-cancer-survivors#section_results_summary

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Thank you!

Questions?

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