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Brief Report

Re-ACT: Remote Advanced Communication Training in a Time of Crisis



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Abstract

Background. We used a quality improvement framework to transform two-day and in-person advanced communication training (ACT) course into a remote ACT (Re-ACT) format to help clinicians improve serious illness conversation (SIC) skills.

Measures. We assessed the reach, impact, and costs of Re-ACT and compared these measures to in-person ACT courses.

Interventions. About 45–60 minutes of synchronous, remote sessions consisting of a didactic introduction to SIC skills, tailored to the SARS-CoV-2 (COVID-19) crisis, and a live demonstration of SICs with patient-actors.

Outcomes. The transition to Re-ACT sessions resulted in reaching a greater number of clinicians in less time, although depth of content and opportunities for skill practice decreased. Although both formats were well received, Re-ACT respondents felt less prepared than ACT respondents to use SIC skills. The costs of Re-ACT were significantly less than in-person ACT courses.

Conclusions/Lessons Learned. We provided effective and well-received SIC training during a time of crisis. Future work should further define the optimal mix of in-person and remote experiences to teach SIC skills. *J Pain Symptom Manage* 2021;61:364–368. © 2020 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

Key Words

Communication training, COVID-19, distance learning, resource limitations, cost effectiveness, quality improvement

Key Message

This article describes a quality improvement initiative for remote advanced communication training in response to the SARS-CoV-2 pandemic. The results suggest that Re-ACT is effective, well received, and cost effective.

Background

The SARS-CoV-2 (COVID-19) pandemic has overwhelmed health care systems in parts of the world and continues to threaten others. This crisis has led governments, clinicians, and the general public to contemplate how to justly allocate finite resources, which until recently have been perceived as unlimited in much of the developed world.^{1,2} The task of

communicating to a patient or a family that, for example, a desired ventilator is unavailable, is not generally addressed in medical education or in existing communication training courses.^{3–5}

Teaching and learning serious illness conversation (SIC) skills is difficult under normal circumstances, and the COVID-19 pandemic has compounded the associated challenges and obstacles. A new and central challenge is how to provide effective SIC training, traditionally developed for in-person settings,⁵ in a format that adheres to social distancing restrictions and can be offered quickly to a broad range of clinicians in the face of a developing crisis.

Educational interventions like SIC trainings must also consider costs. The COVID-19 pandemic has imposed unprecedented financial strain on health care institutions, which have experienced dramatically

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reduced patient volumes and restricted elective procedures to limit exposure risk. Although some organizations have developed useful SIC guidance for the COVID pandemic, the bulk of these are limited to reference materials (e.g., printable materials and archived videos) and do not offer support for broader institutional implementation or the opportunity for active learning.^{6–9}

During the past two years, the University of Rochester Medical Center's Advanced Communication Training (ACT) program has trained 166 interdisciplinary clinicians in SICs. The ACT program is an intensive two-day experiential interdisciplinary training that uses facilitated small group communication practice with patient-actors, followed by ongoing support to promote retention and enhancement of SIC knowledge, skills, and confidence. In March 2020, the COVID-19 pandemic forced the cancellation of in-person ACT courses because of social distance restrictions. The pandemic also raised the specter of a surge of extremely ill patients and potential resource limitations, thus necessitating an alternative SIC teaching format.

In response, we implemented a quality improvement project to adapt the ACT program to provide brief interactive SIC education offerings that could be rapidly disseminated to a large group of clinicians, while simultaneously keeping costs low. The purpose of this study is to report findings and lessons learned from the resulting remote ACT (Re-ACT) program. We report a comparison of results from in-person ACT courses and one-hour Re-ACT sessions, including their breadth and reach, participants' self-reported confidence in communication tasks after the program, and estimated programmatic costs.

Intervention

To address communication challenges specific to the COVID-19 pandemic, we used the model for improvement¹⁰ as a quality improvement framework to create and evaluate Re-ACT sessions. In the initial plan stage of the Plan-Do-Study-Act cycle, our primary goal was to provide brief, widely available, and cost-effective SIC skills training tailored to the challenges of COVID-19 pandemic, including communication around potential or active critical care resource limitations.¹¹ Our primary method of evaluating this effort's success was through learner self-assessment, described later. The change that we made to improve SIC communication skills was to adapt the two-day in-person ACT course to a one-hour remote format (Re-ACT sessions).

We used our institution's third-party video conference platform (Zoom, Atlanta, GA) to provide

synchronous, interactive education sessions. Each session was 45–60 minutes and divided evenly between a didactic presentation on SIC communication skills developed for ACT courses and two live SIC demonstrations with patient-actors, including opportunity for participants to ask questions and even interview the patient-actor to practice SIC skills. Each session was facilitated by one of two authors (T. C. or R. H.), both of whom have experience teaching in-person communication training courses adapted from the VitalTalk model.^{12,13} We offered the sessions three to four times per week, varying the day and time to accommodate a variety of clinician work schedules. To facilitate skills practice and retention, all session materials were made available for download via the program's Web site (<https://act-ur.com/>). Each session was also eligible for one hour of continuing medical education credit.

Participants and Recruitment

In-person ACT courses were offered to various clinician groups during the preceding two years (Table 1). We offered Re-ACT sessions to all clinicians in our medical system and specifically contacted frontline providers, both through their departments and directly via electronic mail (e-mail), as they were most likely to be involved in difficult conversations around COVID-19 and related resource limitations. These provider groups included physicians, nurse practitioners, and physician assistants working in primary care, emergency medicine, hospital medicine, neurology, and critical care. Our academic medical center's chief officers, department chairs, and division chiefs lent support to this effort. Re-ACT sessions and supporting materials were also advertised via institution-wide e-mails, online event calendars, and social media.

Measures

Our evaluative design spanned three key areas of in-person ACT courses and Re-ACT sessions: reach, impact, and cost. To estimate the reach of Re-ACT, we documented the number of unique accounts that logged into each session and activity on the ACT program's Web site (e.g., unique visitors, page views, and downloads). The impact of both ACT and Re-ACT was evaluated using a survey modified from Berlacher et al.¹⁴ (Appendix). Briefly, the survey assessed self-rated preparedness for SICs and the extent to which respondents would recommend Re-ACT to a busy colleague. Survey data were collected and managed using Research Electronic Data Capture hosted at our institution. Reminders were sent to nonresponders

three, six, and nine days after the initial e-mail. We estimated costs to deliver both ACT and Re-ACT during a four-week period including venue for in-person courses, video conferencing technology for Re-ACT, and patient-actor and facilitator time for both formats. Descriptive statistics were performed using Stata (Version 15; Stata Corp, College Station, TX). The study was reviewed and deemed exempt by our institution's Research Subjects Review Board.

Outcomes

Reach

In-person ACT courses reached 166 clinicians between January 2018 and March 2020. We estimated that Re-ACT sessions reached approximately 700 clinicians during the month of April 2020, with roughly 450 of these attending a Medicine Grand Rounds devoted to this topic in early April and approximately 250 participants attending subsequent small group sessions. These 15 sessions, directed to frontline clinician groups, had an average of 17 participants (median 13). Given the possibility that individuals joined more than a single session, or that multiple individuals viewed a session from a single location or device, our estimate of 700 total participants may slightly overestimate or underestimate the true reach. With respect to online activity, there were 1300 visitors to the ACT program's Web site during April 2020, with an average of 39 visitors daily (median 20; SD 60; range 2–300), and 3232 page views, with an average of 98 daily (median 47; SD 158; range 3–784). The program's reference materials, including a quick reference pocket card, were also downloaded 248 times during the same period.

Before the COVID pandemic, postcourse surveys measuring self-assessed competence in communication skills were completed by 93 of 166 (56.0%) in-person ACT course participants. Given that we were unable to monitor individual attendance at Re-ACT sessions, we administered a comparable survey to 650 frontline clinicians who were informed of the Re-ACT sessions. Of this population, 191 individuals responded (29%), with 54 individuals indicating that they had attended a Re-ACT session, thus comprising our post-COVID study sample. Among the 191 total Re-ACT survey respondents, 134 had not participated in a Re-ACT session. Of these, approximately one-third indicated they were not aware of the sessions (32.8%), and another third indicated that they were planning to attend a future session (27.6%) (Table 1).

Impact

Of the respondents who had attended an ACT course ($n = 93$) or a Re-ACT session ($n = 57$), at least

Table 1
ACT and Re-ACT Participants

	ACT ($n = 166$)	Re-ACT ($n = 191$)
	N (%)	
Participants		
Advanced heart failure	22 (13.3)	N/A
Liver and renal transplant	6 (3.6)	
Palliative care	14 (8.4)	
Hematology/oncology	88 (53.0)	
Hospital medicine	36 (21.7)	64 (33.3)
Primary care	N/A	63 (33.0)
Emergency medicine		40 (21.1)
Neurology		17 (8.9)
Critical care		7 (3.5)
Nonparticipants		
Did not know	N/A	32.8
Future session		27.6
Not needed		17.2
Too busy		14.9
Other		6.5

ACT = advanced communication training; Re-ACT = remote advanced communication training; N/A = not applicable.

half reported feeling quite or extremely prepared to have conversations about delivering bad news (87.1% and 50.0%, respectively), responding to patient/family emotions (81.7% and 61.4%, respectively), and discussing code status (83.7% and 70.2%, respectively); however, a minority of Re-ACT respondents (40.0%) felt not at all or slightly prepared to discuss clinical resource limitations (Table 2). Among survey respondents from both groups, greater than 90% indicated that they would recommend ACT or Re-ACT to a busy colleague (Table 2).

Costs

The costs of disseminating Re-ACT were substantially less than in-person ACT courses, which cost approximately \$500 per person per day and is on par with similar in-person communication courses.⁵ The video conference platform (Zoom) was made available for Re-ACT sessions through our institution at no incremental cost. Had this cost not been subsidized, other commercially video conference services are available for about \$15 per month. Faculty time to facilitate Re-ACT sessions was donated, which ironically was made easier given institutional steps to prepare for an expected influx of COVID-19-infected patients (e.g., canceling elective procedures; shifting outpatient visits to telehealth format; reducing hospital occupancy). Had it been necessary to compensate facilitators for these sessions, this would have added approximately \$2000 for 15 sessions (\$130/hour). Thus, the only direct cost of the program was for the patient-actors' time, which was paid at a rate of \$30/hour. Each session involved two actors who were paid for 60 minutes of their time, resulting in a grand total of \$900 for 15 sessions during four weeks. With

Table 2
Descriptive Statistics

SIC Skill ^a	ACT (n = 93)	Re-ACT (n = 57)
Giving bad news	87.1	50.0
Discussing code status	83.7	70.2
Respond to emotions	81.7	61.4
Discussing resource limitations	—	40.0
Recommend to busy colleague ^b	91.3	92.9

SIC = serious ill conversation; ACT = advanced communication training; Re-ACT = remote advanced communication training.

^aRepresents percent indicating quite prepared or extremely prepared.

^bRepresents percent indicating yes.

Re-ACT reaching an estimated 700 clinicians, the total direct cost was just more than \$1 per person reached and would rise to just more than \$4 per person if facilitator's time were taken into account.

Conclusions and Lessons Learned

We used the model for improvement¹⁰ to address the unique challenges of SIC education presented by the COVID-19 pandemic by leveraging a video conference platform and modifying existing communication course materials to address specific COVID-19 discussions. We evaluated this modified remote SIC education program—Re-ACT—by assessing its reach, impact, and cost, and offer key insights for those considering teaching SIC through a similar format.

Foremost, a remote format for SIC training can facilitate a broad reach of participants within a short period, particularly if the program is championed by institutional and departmental leaders. Importantly, to maximize the program's reach, we intentionally streamlined the in-person ACT course to provide only fundamental SIC training skills, sacrificing the depth of the conventional course. Despite this necessary tradeoff, most survey respondents felt well prepared to discuss bad news, and code status, and respond to emotions after participation in Re-ACT; however, some respondents continued to feel ill prepared to have discussions about resource limitations after Re-ACT. This is not surprising given that ventilators and other intensive care resources in the U.S. are generally available to those needing such treatment, nearly regardless of prognosis.

Second, the total direct costs of the Re-ACT program were modest, amounting to only \$1–\$4 per person. The nominal programmatic costs make this format attractive to a wide range of health care organizations, particularly those with limited resources, which is now magnified by the dramatic economic impact of COVID-19.

Finally, despite the Re-ACT program being offered during a time of high stress and preoccupation with the COVID-19 pandemic, the sessions were well regarded with most survey respondents indicating they

would recommend this program to a busy colleague. Indeed, this reception is on par with responses for the two-day ACT course before the COVID-19 pandemic. Across all skills assessed, Re-ACT survey respondents rated themselves as less prepared to use SIC skills compared with their ACT counterparts. Although our data cannot definitively identify the reasons for these differences, they may be due to the briefer format of Re-ACT, differences in specialties surveyed, and the advent of the COVID pandemic after the ACT courses had been completed.

There are several limitations of this study that warrant consideration. As previously indicated, we were unable to identify the actual number of individuals reached by the Re-ACT sessions. Thus, future efforts are needed to better track and monitor participation that do not impede participant accessibility or ease of use. Monitoring of participant outcomes will also help to facilitate longitudinal program assessment, including SIC attitude, knowledge, and skills retention. Second, we used self-rated preparedness for SIC as a proxy for skills acquisition. Although evidence has pointed to limitations in self-assessment of clinical skills,^{15,16} studies routinely use domains such as self-efficacy and confidence to assess communication skills in hospital and palliative care settings.^{13,17,18} Related future work should assess how knowledge and skills developed during a Re-ACT session translate to communication in patient settings and whether there are other notable differences between those who attended in-person or remote sessions. These limitations are balanced by many program strengths, including the large sample of clinicians surveyed across multiple disciplines, a generalizable and exportable SIC curriculum that can be tailored to various clinical settings to promote effective implementation, and a high cost-effectiveness ratio.

The creation and dissemination of Re-ACT sessions accomplished our primary goal of providing effective fundamental SIC skill training for a wide variety of clinicians in a time of crisis. In our next quality improvement phase, we aim to apply lessons learned from ACT and Re-ACT to create a model of communication training that will balance impact, reach, and cost while maintaining the flexibility necessary to adapt an increasingly uncertain future.

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Supplementary Data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.jpainsymman.2020.08.013>.

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