Great, thanks everyone for joining our Cancer Center grand rounds. Today my name’s press 9 month. I have the distinct honor of introducing our Cancer Center, guest speaker today Doctor Abby Rosenberg. Doctor Rosenberg is an associate professor of pediatric hematology and oncology at the University of Washington School of Medicine. The director of Pediatrics at the...
Cambia Palliative Care Center of Excellence at University of Washington, director of the pilot of Keran Resilience Laboratory at Seattle Children’s Research Institute and the Director of Survivorship and Outcomes Research at Seattle Children’s Hospital, Cancer and Blood Disorders Centers through her work as Program Co. Director for the University of Washington T32 program in Positive care research. And a lead mentor in the palliative care and Resilience Laboratory Doctor Rosenberg is very active and training the next generation.
of palliative care and supportive oncology clinician scientists at the postdoctoral and junior faculty levels. Additionally holds multiple national leadership positions. She’s the chair of the Ethics Committee at the American Society of Clinical Oncology. The Co. Chair of the scientific program for the Annual Assembly of the American Academy of Hospice and Palliative Medicine, and the Associate editor in Chief of Palliative Care. Fast article summaries for clinicians. Doctor Rosenberg’s NIH funded research focuses on developing programs to
help patients and families with serious illness build resilience, thereby alleviating suffering and improving quality of life.

The title of Doctor Rosenberg’s talk today is promoting resilience in children with serious illness and their families.

I’ll be moderating the discussion afterwards, so please enter your questions into the chat function after Doctor Rosenberg’s talk.

Thank you so much Doctor Rosenberg for speaking with us today.

Thank you for having me.
This is such a pleasure to be here and that was a very kind introduction process that it’s really humbling in a little embarrassing, happy to be here with all is as all of you as you just heard, I’m going to talk today about promoting resilience in patients and families I know this is a larger Cancer Center. Grand rounds. As a pediatrician, I’ll be talking about what we’ve learned in our work with adolescents and young adults with cancer,
and by the end of this talk I will be sharing with you how to translate your experiences to older patients with cancer, their caregivers, and ourselves. As folks who are caring for these patients.

So I wanted to start with this question about why resilience. Why are we talking about this particular construct today? Why does it matter for our patients with cancer for me, despite that lovely introduction, that piece of my history that you didn’t hear is that I started my career...
as a social worker and I will say I was vastly undertrained and under qualified to do the work I was doing, taking care of kids with HIV and their families during the tail end of the HIV epidemic. I burnt out within about a year from that work and the thing that I continued to think about during the year and then thereafter during my training in medical school in pediatric residency and fellowship my training in medical school in pediatric residency and fellowship and ultimately in my experience as an oncologist in palliative care physician, is this why are there some patients and families who seem to figure it out,
if not thrive in the face of adversity, is like cancer?
Why are some other people just falling apart?
And is there a way that we could teach to the ones who are struggling with the ones who had figured it out?
Seem to have learned on their own.
If we did that,
would we be improving the quality of life of patients with cancer and their families?
It turns out it’s pretty hard to translate this idea of what resilience is into what we do in medicine,
comes from the material Sciences and physics. It’s defined as the capacity of a particular material to absorb energy when it’s deformed, and then appan up unloading to have its energy recovered. So the classic example is a rubber band where you stretch it an IT rebounds back to its original shape, and therefore it is resilient. But what does that mean when we’re talking about patients and families in their own experiences? And when I started this work over a decade ago, one of my mentors said this to me.
He said, Abby, if you want to change something, you have to be able to measure it. When you say resilient, what are you talking about? What are you measuring? What are you actually changing? When we started this question was hard to answer because there was a lot of controversy in the world of psychology and social sciences about what resilience is. This is a study done by a psychologist named George Bonanno who studies bereavement and he’s
one of the preeminent scientists in the resilience world.

On the X axis, here's time and on the Y axis is levels of distress and depression.

And you'll notice there are three lines of people moving through their lives until a traumatic event happens. In this case, it's the death of their spouse every single one of those lines has a normal and expected spike in distress and depression, followed by some new pathway towards wherever folks are going to end up.
And was really interesting to me about this graph. Is that it kind of illustrates the three controversies that at the time were swirling around how we should think and operationalize resilience. There was a school of thought who would look at this graph and say resilience is defined on the left. It is an innate, perhaps immutable characteristic, something like grit, hardiness, optimism, something we either have or we don’t, and whether we have that thing.
or not predisposes us to being resilient in the long run. So sure enough, there’s a group that’s represented with that line dot line there at the top of these three collections of lines. They are for whatever reason. Less resilient at baseline. They’re less protected from this trauma, and sure enough they end up having chronic grief. A second theory on a second debate was that resilience was a process of how we adapt to our adversities, how we change with our new normals, and they would look at this graph.
and they’d say no resilience is defined in the middle. It’s the way that recovery line is able to go from a relatively high level of distress to a relatively low one because they figure it out along the way. And if we wanted to intervene, we could move the needle by helping those folks to cope better. And then a final school of thought was that no, no resilience is defined on the right of this graph. It is only measurable after a particular trauma,
and after a particular amount of time has passed and resilience after the death of a loved one might be different than resilience after a natural disaster or war, and you can only tell that someone is resilient or not based on some dichotomized outcome. So if you have a negative outcome, for example, you must not be resilient, and if the absence of that outcome, like chronic grief, is notable. Then you must be resilient 'cause you're doing better than we might expect. So for me as a clinician who was relatively early in my career
as a pediatric oncologist, I felt like none of these theories matched to what I saw. And here are some of my questions.

Number one is illness. An isolated event?

Can you draw a single line on a cancer patients experience and say this is the moment that they have to define their resilience? Have to define their resilience? Or is resilience a series or illness?

A series of micro traumas and micro and macro events that can change someone’s whole trajectory? Who’s the unit?
In Pediatrics, we look at patients. 
We look at their siblings. 
We look at their families with a look at their social supports in their school communities.
Which of those units is the way I need to think about resilience and my defining resilience for the patient or for their family? 
Is there a difference between getting through adversity or growing from it? A lot of the resilience is an outcomes theory at the time was saying, you know you really have to show some benefit, some growth, some lesson learned,
some idea that you have improved from whatever your adversity is in order to demonstrate resilience, and I will tell you when I was starting this work I was working with a lot of bereaved families and I would ask them what do you think I would ask them what do you think about this idea of resilience? What do you think about this idea that you’re supposed to have grown from it and they would say you know it’s pretty offensive that you think I’m supposed to somehow be better from having my child die from cancer. The fact that I got out of bed today
makes me pretty darn resilient.

Which outcomes matter into poems.

If I'm a pediatric oncologist taking care of a teenager with cancer,

I might say that that person is resilient because they're taking their oral chemotherapy as I prescribe it.

Their mom might say they're resilient because they're going to school and maintaining their GPA.

And the patient might say they're resilient because they've maintained their social network.

Who's right?

How do we integrate individual differences?

Is there a one size fits all in resilience?
Or does my resilience look somewhat different from someone else's?

And finally, how do we integrate cultural differences into these ideas?

This last one is important because this idea of resilience.

This value that we put on it is very very Western.

So here in the United States we say that things like which doesn't kill you makes you stronger.

We have this inherent respect for people who can pull themselves up from their bootstraps and lived this American dream.
But that is really an American ideal, and it doesn’t actually translate around the world. In Southeast Asia, resilience has been equated with the sense of balance. So instead of the stretchiness of a rubber band, it is the lack of stretching. It is the willingness or the ability of a material to stay within its shape. In South American cultures, resilience has been equated with upholding the values. And in Afghanistan, resilience has been equated with mastery in a particular skill set.
here in the United States, resilience President has been equated with spirituality and a constant quest for meaning and purpose. And what is fascinating is that in almost no language in the world is there a direct translation for the word resilience. In the places where this does exist, it is either translated back from English into whatever is the native language, or it is purely described as that physical science construct that I started with.
up debates and this challenge that we were having as a community, figuring out what resilience was in 2013 at the International Society of Traumatic Stress Studies, there was a plenary panel where they got a whole bunch of resilience researchers up on stage, including George Bonanno, whose graph I just showed you. And this is a picture of a cultural anthropologist named Doctor Catherine Pantry brick. She’s speaking here at a different organization, but she was one of the speakers at
this plenary and what she does is what’s called ethnographic studies, and she goes around the world and she.

Lives in places that are going through adversity, and she bears witness, so that might be going to a place that has just undergone a war or a natural disaster, or folks who are living in poverty and what she’s noticed in all of her work is that consistently across every adversity she has studied.

Resilience is a process of harnessing the resources we need
00:12:05.520 --> 00:12:07.010 to sustain our well being.

00:12:09.370 --> 00:12:10.522 And more importantly,

00:12:10.522 --> 00:12:13.210 she says that in every single adversity,

00:12:13.210 --> 00:12:15.891 how people do that is they harness resilience, resources that always fall one of these three categories.

00:12:15.891 --> 00:12:17.816 The first is our external resilience resources.

00:12:17.816 --> 00:12:20.120 These are things like our social support, our community, who helps us.

00:12:20.120 --> 00:12:22.040 The first is our external resilience resources.

00:12:22.040 --> 00:12:22.808 These are traits like grit and hardiness as well as learn skills like how we adapt and cope and then finally existential resilience.
00:12:38.940 --> 00:12:41.238 Resources are things like meaning making,

00:12:41.240 --> 00:12:41.840 faith, spirituality.

00:12:41.840 --> 00:12:43.640 These sorts of inherent human questions

00:12:43.640 --> 00:12:45.386 that we ask when times get tough.

00:12:45.390 --> 00:12:47.286 Which is why is this happening to me,

00:12:47.290 --> 00:12:49.178 and what does this mean for my family?

00:12:52.750 --> 00:12:55.090 I will say that when I was starting to try

00:12:55.145 --> 00:12:57.449 to figure all of this out and think about

00:12:57.449 --> 00:12:59.877 what it meant for our patients with cancer,

00:12:59.880 --> 00:13:02.032 I really struggled with how to translate all

00:13:02.032 --> 00:13:03.827 of these different and conflicting theories

00:13:03.827 --> 00:13:06.290 into what we could do at the bedside.

00:13:06.290 --> 00:13:09.512 And at the same time there was a similar,

00:13:09.520 --> 00:13:12.460 if not parallel debate happening in the

00:13:12.460 --> 00:13:14.846 psychology and social Sciences about how

00:13:14.850 --> 00:13:17.494 and this is why I will say that when I was starting to try...
we experience what we see in the world. And specifically, this is a theory called stress and coping theory, which essentially says that our perceptions influence our outcomes. So if we go through a stressful event, the first thing we do is we think about it. We appraise it, we say, is this a good or a bad thing for me? Is this catastrophic or is this manageable? The answer to that appraisal question translates to how we cope, how we feel and how we function. And the idea behind this theoretical construct is that if you can change
the balance of that appraisal from catastrophic to manageable, for example, you can change your coping, emotional and functional outcomes to be more positive. So we first tested this idea of do people's perceptions of their own resilience translate to outcomes in a cross sectional study of bereaved and non-grieved parents of children with cancer. we had about 120 parents in this study and the first thing we noticed is that when you use a validated instrument to measure self-perceptions of resilience,
parents of kids with cancer feel less resilient than the rest of the population. There's something about having watched your kid go through cancer that makes you believe you are less resilient. And perhaps not more poignantly, parents who reported lower resilience were the ones who had ongoing psychological distress, sleep difficulties, an abilities to express their hopes, and worries to their medical team.

Around the same time in the gerontologist there was an analysis of the US Health and Retirement Study. Most of you know this.
This is a long, ongoing cohort of American adults, ages 50 to 98. In this particular analysis and what they did here was they asked folks to fill out a survey about their self, perceived resilience, and then they monitor them overtime. And let’s say you had two gentlemen who were matched in every way except one, believed he was resilient and the other doesn’t, and they both go through their lives and they both fall down and break their hips. The gentleman who believed he was less resilient for whatever reason, more resilient.
00:15:22.270 --> 00:15:24.574 is going to get back up and return
NOTE Confidence: 0.86471814
00:15:24.574 --> 00:15:27.118 to his activities of daily living.
NOTE Confidence: 0.86471814
00:15:27.120 --> 00:15:28.635 The gentleman who believed he
NOTE Confidence: 0.86471814
00:15:28.635 --> 00:15:29.847 was less resilient again,
NOTE Confidence: 0.86471814
00:15:29.850 --> 00:15:30.660 for whatever reason,
NOTE Confidence: 0.86471814
00:15:30.660 --> 00:15:32.926 is not only going to not go to
NOTE Confidence: 0.86471814
00:15:32.926 --> 00:15:34.786 physical therapy and not return to
NOTE Confidence: 0.86471814
00:15:34.786 --> 00:15:36.510 his activities of daily living,
NOTE Confidence: 0.86471814
00:15:36.510 --> 00:15:38.328 but he’s going to die sooner.
NOTE Confidence: 0.86471814
00:15:38.330 --> 00:15:40.148 His life expectancy is actually shorter.
NOTE Confidence: 0.8527747
00:15:43.150 --> 00:15:45.719 My research partner is a health psychologist
NOTE Confidence: 0.8527747
00:15:45.719 --> 00:15:47.619 and behavioral scientist named Joyce E.
NOTE Confidence: 0.8527747
00:15:47.620 --> 00:15:50.364 Frazier. This is some of her earlier work.
NOTE Confidence: 0.8527747
00:15:50.370 --> 00:15:52.440 She works with patients with diabetes,
NOTE Confidence: 0.8527747
00:15:52.440 --> 00:15:55.167 and here on the X axis is changes in
NOTE Confidence: 0.8527747
00:15:55.167 --> 00:15:57.428 diabetes related distress on the Y
axis is changes in hemoglobin, A1C, or a marker of glycemic control. And here on those two dotted lines that are sort of diagonal, these are folks who believe again for whatever reason that they are less or moderately resilient, and for them changes in A1C level translate directly to changes in distress, meaning that the more swings there are in their distress levels, the harder it is for them to control their diabetes. In contrast, that more flat solid black line
represents people who believe that they’re more resilient, and for them even wide fluctuations in their distress don’t translate to changes in a onesie. As a validation, we did another analysis at the Seattle Cancer Care Alliance among about 1800 patients who had received a bone marrow transplant. And here again, those who reported low resilience were the ones who went on to have more frequent missed work. Increased disability, lower quality of life, higher psychological distress, and more frequent medical complications.
during their survivorship period.

So all of this sounded really interesting to me, and it felt like there was something there, but I still didn’t know how to take these ideas, and these theories and identify him and operationalize resilience in the patients and families.

I was working with. And so the next thing we did was what in the rest of the world would be called market research. It’s sort of when you go directly to your stakeholder and you say hey, what should we do?
What would you like to do?

What would you use?

What materials would be helpful to you?

And in the Health Sciences we call this qualitative work.

So similarly, we went directly to our stakeholders and we said we need to understand this concept from your own perspective.

What would be helpful to you?

We started with parents.

We went back to that cohort of parents that we had and we started to listen to their stories while we surveyed them using validated instruments of their self,
perceived resilience and what they shared with us is that resilience is, for example, who I was, what I learned, how I ended up, and what it all meant. This was apparent who sat next to me looking at that banana graph and saying no no. It’s the left, middle and right and the whole thing for me. Or resilience is facilitated by who I am who helps me and what I believe this was a parent who identified those resilience resource categories and said all three of them matter.
What was particularly interesting about this analysis is, as I said, we have these surveys, and we interviewed people at the end of the surveys, we asked folks to fill out a final page that essentially said tell us whatever else you think we need to know and parents wrote pages, pages and pages of stories that they felt like were important for us to understand. And when we got these things in the Mail, we read them and I said to myself, huh? Here’s resilience. There’s resilience in these stories.
And so a social worker, health services, researcher and I all of us read 120 different transcripts blinded to each other, and we graded all 120 as either resilient or not. Did this person seem resilient to us in their words? And what was really interesting to us is that we agreed we, three blinded reviewers, agreed in a person’s categorization of resilience. Our labeling of their resilience 100% of the time. We agree.
And then when we looked at how our impressions of their resilience aligned with validated patient reported outcomes, we were wrong. Half the time we were as good as a coin toss in predicting somebody else’s resilience. When we looked more carefully, we were a little bit better at recognizing someone's distress. Our impressions of their lack of resilience aligned with their measurement of their own distress and what that tells me is 2 things. Number one we in medicine tend to assume someone is not resilient when
00:19:51.667 --> 00:19:54.117 they’re having a hard time and #2.

00:19:54.120 --> 00:19:56.010 We in medicine probably shouldn’t

00:19:56.010 --> 00:19:57.522 assume someone is resilient

00:19:57.522 --> 00:19:59.316 or not unless we ask them.

00:20:02.450 --> 00:20:04.066 The next thing we did was we did

00:20:04.066 --> 00:20:05.563 this same stakeholder engaged work

00:20:05.563 --> 00:20:07.303 with adolescent and young adults,

00:20:07.310 --> 00:20:08.370 or aay patients,

00:20:08.370 --> 00:20:10.291 and here I want to introduce you

00:20:10.291 --> 00:20:12.167 to a young man named Daniel Maher.

00:20:12.170 --> 00:20:14.330 He was one of our first key stakeholders,

00:20:14.330 --> 00:20:15.635 which means that every time

00:20:15.635 --> 00:20:17.273 I did an interview or every

00:20:17.273 --> 00:20:18.917 time I was developing an idea,

00:20:18.920 --> 00:20:21.305 he was one of the people I would sit

00:20:20:04.066 --> 00:20:05.563 this same stakeholder engaged work

00:20:05.563 --> 00:20:07.303 with adolescent and young adults,

00:20:07.310 --> 00:20:08.370 or aay patients,

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00:20:12.170 --> 00:20:14.330 He was one of our first key stakeholders,

00:20:14.330 --> 00:20:15.635 which means that every time

00:20:15.635 --> 00:20:17.273 I did an interview or every

00:20:17.273 --> 00:20:18.917 time I was developing an idea,
00:20:21.305 --> 00:20:23.778 down and talk to you about it and say,
NOTE Confidence: 0.857691
00:20:23.780 --> 00:20:25.400 hey, am I getting this right?
NOTE Confidence: 0.857691
00:20:25.400 --> 00:20:27.020 Does this align with your experience?
NOTE Confidence: 0.857691
00:20:27.020 --> 00:20:28.640 Daniel had met a static and
NOTE Confidence: 0.857691
00:20:28.640 --> 00:20:29.720 ultimately progressive Ewing sarcoma,
NOTE Confidence: 0.857691
00:20:29.720 --> 00:20:31.484 and he died from his cancer several
NOTE Confidence: 0.857691
00:20:31.484 --> 00:20:33.550 years after we started working together.
NOTE Confidence: 0.857691
00:20:33.550 --> 00:20:35.845 And towards the end of his life I started
NOTE Confidence: 0.857691
00:20:35.845 --> 00:20:37.590 asking him about his own resilience
NOTE Confidence: 0.857691
00:20:37.590 --> 00:20:39.556 and how I should continue to tell
NOTE Confidence: 0.857691
00:20:39.556 --> 00:20:41.468 his story or how it translated to the
NOTE Confidence: 0.857691
00:20:41.470 --> 00:20:43.048 resilience of other folks with cancer.
NOTE Confidence: 0.857691
00:20:43.050 --> 00:20:44.526 And he said Abby cancer happened
NOTE Confidence: 0.857691
00:20:44.526 --> 00:20:45.960 to me for a reason.
NOTE Confidence: 0.857691
00:20:45.960 --> 00:20:48.564 It’s to help others like me understand
NOTE Confidence: 0.857691
00:20:48.564 --> 00:20:51.769 and to make it easier for them somehow.
And so, with Daniel’s help, we interviewed multiple teens and young adults with cancer from the time they were diagnosed. Three months later, six months after that, a year after that and so forth, to the point that now, without Daniel, we are continuing to interview some of these adolescent and young adult patients 10 years later. And what we hear from them are things like this.
Resilience depends on the person and their experiences. It’s kind of like exercising. You have to gain some muscle before you run a race, personal strength or resilience is how you rebound from something like being able to fight back. It can be taught. It should be taught. What’s interesting to me about this analysis, which now includes hundreds and hundreds of hours of interviews with teens and young adults, is that at the beginning, many of these young patients don’t
NOTE Confidence: 0.8839102
00:21:38.108 --> 00:21:39.980 know what the word resilience means,
NOTE Confidence: 0.8839102
00:21:39.980 --> 00:21:41.468 or they can't figure out what
NOTE Confidence: 0.8839102
00:21:41.468 --> 00:21:43.176 it is that they’re doing to
NOTE Confidence: 0.8839102
00:21:43.176 --> 00:21:44.488 get through their experience.
NOTE Confidence: 0.8839102
00:21:44.490 --> 00:21:47.028 But once they do, once they figured out once,
NOTE Confidence: 0.8839102
00:21:47.030 --> 00:21:49.568 they can say, oh, this is what I do.
NOTE Confidence: 0.8839102
00:21:49.570 --> 00:21:51.544 They seem to latch on to that
NOTE Confidence: 0.8839102
00:21:51.544 --> 00:21:52.390 particular resilience resource,
NOTE Confidence: 0.8839102
00:21:52.390 --> 00:21:53.800 and they carry it forward.
NOTE Confidence: 0.8839102
00:21:53.800 --> 00:21:55.767 So even five or ten years later,
NOTE Confidence: 0.8839102
00:21:55.770 --> 00:21:57.180 they’ll say, I don’t know.
NOTE Confidence: 0.8839102
00:21:57.180 --> 00:21:59.718 This is what I do when times get tough.
NOTE Confidence: 0.8839102
00:21:59.720 --> 00:22:01.130 It’s always what I’ve done.
NOTE Confidence: 0.8839102
00:22:01.130 --> 00:22:02.816 This has always been my thing.
NOTE Confidence: 0.83683133
00:22:06.090 --> 00:22:08.190 We distill those hundreds of hours of
NOTE Confidence: 0.83683133
interviews into this particular idea of what helps somebody contribute to or inhibit their resilience at any given moment and for teens and young adults. It really does feel like a teeter totter and, at any given moment, the scales can tip towards their feeling resilient or not. The things that contribute to that resilience are the sense of being able to manage their stress and idea of having a sense of purpose or goals to look forward to, being able to stay positive, being able to find meaning from their experience, and maintaining a sense of connection and social normalcy. And when we thought about these...
ideas in these constructs,

we noticed two things.

Number one,

these top for stress management goal setting.

Staying positive and meaning making.

These are all things that we can

teach individually to patients.

Whereas a social support type of program

felt different and #2 all of these

things map back onto those resilience

resource categories that Catherine

had described so long ago.

Which leads us to that,

promoting resilience and stress

management or PRISM program.
And the first thing we debated when we were thinking about what to do next was where to start on the left. Here you’re looking at one of our parent quiet rooms on the edges of our adolescent and young adult oncology floor. We have these separate spaces for parents to get away and have some time by themselves if they need to leave. The patient room and on the right, you’re looking at one of our other key stakeholders. So when we were thinking about this, we first thought about parents and we thought you know parents, particularly kids of parents of cancer.
have poor psychosocial outcomes.

So specifically one in seven appearance of children with cancer will have such high distress that they can’t take care of themselves or the other children in the home. And if you’re a caregiver of a patient with cancer, it’s really hard to access traditional mental health. Supportive care parents don’t want to leave their kids bedside, as all of us know, it’s incredibly difficult to network mental health services in the community.
And we thought, wouldn’t it be great if we could just provide something to parents here within the Children’s Hospital so that we could support them? On the flip side, adolescents and young adults have poor psychosocial outcomes compared to younger pediatric or older adult patients. They have some of the worst psychosocial outcomes that we can find. They have higher rates of poor mental health and survivorship. They’re less likely to get a job or get married. They are less likely to be paid the same
as their otherwise age matched peers. They have higher rates of suicide and other serious mental health, comorbidities, and the idea that we had was maybe we could fix some of those problems if we started now. We also know that teens and young adults also have challenges with traditional methods for mental health support. So, for example, teens with chronic illness, only a third of them will access in hospital available mental
health services and of the ones who do only a third stay in. And when asked why you aren’t using these services that are available to you, most teens and young adults will say either the stigma or the time commitment is too much. But at the end of the day, when we thought about where to start, we felt we remembered that idea that I shared with you about how a lot of the teens and young adults we meet don’t yet know how to be resilient. They haven’t had the life skills yet, or no life opportunity yet to develop those resilience resources.
And our curiosity was maybe we could get in the door and start teaching these skills right away. And if we did that, could we change some of these downstream outcomes? So that leads me to PRISM, which teaches and targets those same four resilience resources that we had heard from teens and young adults were important. The first thing we teach is stress management skills. This includes three mini skills within one session.
The first mini skill is a deep breathing, simple relaxation technique. It helps people quiet their minds so they are receptive to additional learning and then the next too many skills are progressive mindfulness exercises. One to help deepen your relaxation and two to become aware of stressors without judgment. The next thing we do is a goal setting module. Here we teach what’s called a smart goal that stands for specific, measurable, actionable, realistic and time dependent goals. We know from this psychology...
and social Sciences that any tiny forward progress towards an achievable and realistic hope is a very positive psychological anchor. And so we help a team. Translate quote.

I just want to get through my cancer to something that is actually actionable and measurable. The next thing we do is what’s called positive re framing or cognitive restructuring. And here we teach 2 mini skills. The first is how do you recognize all of that negative catastrophic
self talk that can keep us up in

the middle of the night and the 2nd

is how do you change the appraisal?

The valence of that appraisal

from catastrophic to manageable.

The complementary knive of mindfulness,

for example,

recognizing what’s stressing

you without judgment and then

positive re framing,

which is actually judging your thoughts and

making them manageable and less catastrophic,

is a really important psychological

combination for helping people

cope with adversity.

And then the final thing,
the anchor of all of this is meaning making, and here we help teens and young adults with the exercise of identifying benefits, gratitude, purpose, legacy. It’s sort of asking that existential question of why is this happening? What are you going to be because of this? What matters to you? Who do you want to be next week when this is all over? After all, four of those sessions we have the optional meeting with the family called coming together, and this is essentially designed to
00:27:44.894 --> 00:27:47.388 help the patient share with loved ones.
NOTE Confidence: 0.8734985
00:27:47.390 --> 00:27:49.822 What worked for him or her and to
NOTE Confidence: 0.8734985
00:27:49.822 --> 00:27:52.030 help family members and caregivers
NOTE Confidence: 0.8734985
00:27:52.030 --> 00:27:54.570 reciprocate and reinforce the skills.
NOTE Confidence: 0.8734985
00:27:54.570 --> 00:27:57.210 And then after all sessions in between them,
NOTE Confidence: 0.8734985
00:27:57.210 --> 00:27:59.335 we offer opportunities to practice
NOTE Confidence: 0.8734985
00:27:59.335 --> 00:28:01.035 with boosters and worksheets.
NOTE Confidence: 0.8734985
00:28:01.040 --> 00:28:02.570 Prison, like many psychosocial interventions,
NOTE Confidence: 0.8734985
00:28:02.570 --> 00:28:04.100 is what we call Manualized.
NOTE Confidence: 0.8734985
00:28:04.100 --> 00:28:05.936 That means we have a very
NOTE Confidence: 0.8734985
00:28:05.936 --> 00:28:06.548 reproducible script.
NOTE Confidence: 0.8734985
00:28:06.550 --> 00:28:08.374 We measure Fidelity to make sure
NOTE Confidence: 0.8734985
00:28:08.374 --> 00:28:09.945 it’s being delivered in the
NOTE Confidence: 0.8734985
00:28:09.945 --> 00:28:11.435 same dose and delivery style,
NOTE Confidence: 0.8734985
00:28:11.440 --> 00:28:14.455 and we train all of our coaches with at
NOTE Confidence: 0.8734985
00:28:14.455 --> 00:28:17.720 least 8 hours to make sure that they are

certified and fluent in the program. All of our coaches are college grads. Some of them have PHD’s, but by design we intended this to be coachable by folks who could be lay stuff so that it’s more translatable across different institutions. The next thing we did having designed this was we tested prisms feasibility amongst adolescents and young adults with either diabetes, cancer or cystic fibrosis, and we notice that enrollment was very high, 83% across the program with high completion rates,
and each of these different groups of patients asked us to do PRISM differently. So for example, patients with diabetes here in Seattle will come from thousands of miles away. In Alaska. Our catchment area includes Alaska all the way to Wyoming, all the way to W yoming, and so folks will come into Seattle for their diabetes. Care for one annual Big long day, and then the rest of their care is delivered via Tele Health. And they said, you know, we can sit with you for a long time on one day,
or we want to do this through video, but we don’t want multiple sessions overtime, and so patients with diabetes preferred to get it all in one chunk. In contrast, patients with cancer and cystic fibrosis tend to be in the hospital. They are often isolated and they said, you know, we want you to come visit us. Well, we’re here in the hospital. We want you to sit at our bedside, and we’d rather break up the intervention. All those four sessions into separate four sessions delivered every other week or so.
When we asked all of these young folks what they thought, their qualitative feedback or things like this, this is so helpful. I wish we'd done this sooner. Yeah, I was actually telling my friends about it afterwards and they said they would try it out. I think it’s good techniques to use. Definitely, I’m teaching my little sister. I’m sure it can help her too. Or I used to be in the hospital and think it was a waste of time, not want to be there doing things like this make you realize you’re here to make yourself feel better.
The next thing we did was a randomized control trial amongst 92 adolescents and young adults with cancer. These are all of the outcomes we measured in that study. The zero line means there was no difference between patients who received usual care and those who received PRISM. Our center includes an assigned social worker for every single family available, psychology services and a whole host of other embedded psychosocial services.
went up with the intervention.

Distress scores went down with the intervention.

Hope went up benefit finding went up and quality of life went up.

Perhaps more importantly to me that D there is a statistically significant effect size and by convention anything greater than .3 is considered clinically significant and in every single way that we could look, there were clinically significant changes in these outcomes of interest.

But we weren’t looking for this six months after the study started.
We looked at the surviving 74 patients who were still available and we looked at their clinical criteria for depression and we notice that 21% of the usual care patients versus 6% of the prison patients met criteria for depression, which translated to a 90% reduction in the odds of developing depression during those first six months of their cancer experience. The next thing we did was we tried to figure out are things getting better or they staying the same like what’s happening when you get prison versus prison.
usual care and so each of these pairs

of graphs has the usual care group

and you’re looking at clusters

Hope benefit finding,

quality of life and distress

moving left to right.

In red means that their scores

deteriorated overtime in pink means

they started at risk and stayed there.

Light blue means they were well

at the beginning and stayed there.

An blue means they got better

overtime and the takeaways here

are that in every single scenario,
00:32:16.290 --> 00:32:17.850 folks who got prism improved
00:32:17.850 --> 00:32:19.861 and folks who didn’t get prison
00:32:19.861 --> 00:32:21.776 were more likely to deteriorate.
00:32:25.180 --> 00:32:27.256 Finally, anecdotally, this is one of
00:32:27.256 --> 00:32:29.310 my favorite findings from this study.
00:32:29.310 --> 00:32:31.854 We gave each of the participants in each
00:32:31.854 --> 00:32:34.807 arm $50 at the end of their participation,
00:32:34.810 --> 00:32:38.586 and then we got this in the Mail.
00:32:38.590 --> 00:32:40.234 This is a letter that said, Dear Abby,
00:32:40.234 --> 00:32:42.110 thank you so much for the $50.00 gift card.
00:32:42.110 --> 00:32:45.953 I had a great time doing this study and
00:32:45.953 --> 00:32:47.488 will continue to use for a long time.
00:32:47.490 --> 00:32:49.961 So thank you so much for letting
00:32:49.961 --> 00:32:50.667 me participate.
Like the perfect example of a well mannered teenager.

The other thing we heard from patients was, hey, my mom needs this too for my dad needs us too and we heard from parents. Hey, can you do something like this? For me this seems really helpful and so we went back to that original question we had about. Well maybe we should have tried that also and we adapted the program using the same for PRISM skills but with language that was more appropriate for parent experiences and we piloted the program amongst 24 parents.
And again they reported that it was very valuable. Qualitatively, they said this should be part of every parent’s toolbox. These skills help us to take better care of our kids. And before and after the intervention, their resilience went up in their distress scores went down. The challenges, though, that parents reported to us was that it was really hard for them to get away from their kids bedside. This was exactly our concern.
when we started to do this work, and so we tried to brainstorm what would be an easier way for parents to do this. And maybe it would be a symposium style coaching program where we have a whole lot of parents. Together they sit with us for four hours and we deliver the program that clap. And so we held a symposium. We had about 72 people show up at the door. We had turn folks away and we put them at Round Top tables in a big room and we did group coaching of the PRISM intervention of RFR Hour period. 92% of parents said they gained new insights and skills.
98% said it was easy to understand and 100% felt like the group format was helpful to them. So then we said, OK, well, what’s better group coaching versus usual care or one on one? Coaching versus usual care. So we did another randomized trial this time amongst 102 parents or caregivers of children with cancer. And here you’re looking at a plot of usual care compared to one on one coaching. And what we found was that the intervention when delivered one on one was better.
one improved parent resilience and benefit finding compared to usual care. But when we compared group to usual care, we actually couldn’t see any differences. But in outcomes it looked like the group delivery didn’t seem to have an effect on parent resilience or any of our other outcomes of interest. And there’s more to the story than what we could see in those quantifiable data. So I want to share her story with you of a particular parent. This was a father whose daughter died unexpectedly about two weeks after his group PRISM session. And when she died,
we as of study team were trying to figure out you know, how do we re engage this dad? Do we? What would his resilience skills scores look like in the context of this immediate death of his daughter? And so at the end of the day, we decided to reach out to him and express our condolences and our gratitude and say hey, we’re here and he wrote back and he said, I’m actually really happy to hear from you. I talked with my group and
with their permission,

Email string that we have been

He forward this email This is

He says, I think of all of you.

Often I've had many chances to use

the coping strategies we learned.

And then one by one he lists every

single one of those resilient

skills and how they helped him.

He goes on interesting Lee.

I feel better as I type this.

I don't have an extensive support network.

It's literally myself and my wife.
This is the only time I’ve talked about what I’m feeling. Thank you all for reading this and staying in touch and helping each other through this.

My takeaway, by the way from that experience with that Dad is 2 things. One I am not convinced that the group by itself isn’t doing something ’cause clearly it helped this father. I also think that the cumulative shared grief of watching another parent’s child be ill was something we hadn’t anticipated and so that idea of how do we support families needs to include?
How do we examine this shared grief in this shared stress that can come from a group intervention? Which leads me to what’s next for PRISM and where we’re moving forward. We have a whole bunch of different projects in progress, including several multi site trials for adolescents and young adults with advanced cancer or diabetes in the advanced cancer studies. We’re looking both at the integration of Advanced care planning, for example, for teens with incurable cancer. Can Prism help be a platform for integrating larger conversations?
NOTE Confidence: 0.8732671
00:37:28.756 --> 00:37:29.868 about goals of care,
NOTE Confidence: 0.8732671
00:37:29.870 --> 00:37:31.916 and how does it influence anxiety,
NOTE Confidence: 0.8732671
00:37:31.920 --> 00:37:32.329 depression,
NOTE Confidence: 0.8732671
00:37:32.329 --> 00:37:34.374 and other mental health outcomes
NOTE Confidence: 0.8732671
00:37:34.374 --> 00:37:36.854 amongst kids and caregivers who are
NOTE Confidence: 0.8732671
00:37:36.854 --> 00:37:38.410 receiving bone marrow transplant?
NOTE Confidence: 0.8732671
00:37:38.410 --> 00:37:40.005 We’re doing a dissemination implementation
NOTE Confidence: 0.8732671
00:37:40.005 --> 00:37:41.600 pilot here at Seattle Children’s,
NOTE Confidence: 0.8732671
00:37:41.600 --> 00:37:43.316 where we’re essentially putting the program
NOTE Confidence: 0.8732671
00:37:43.316 --> 00:37:45.429 Alex to make it publicly available,
NOTE Confidence: 0.8732671
00:37:45.430 --> 00:37:48.940 different clinical teams use it.
NOTE Confidence: 0.8732671
00:37:48.940 --> 00:37:50.854 We are adapting their program for
NOTE Confidence: 0.8732671
00:37:50.854 --> 00:37:52.130 adolescents with chronic pain.
NOTE Confidence: 0.8732671
00:37:52.130 --> 00:37:54.410 The Pi of that study is at the
NOTE Confidence: 0.8732671
Children’s Hospital of Philadelphia.

We have an adaptation for patients of adult congenital heart disease. So folks who are transitioning from pediatric to adult care in the setting of congenital heart disease, that pie is here at the University of Washington. We have a different investigator, Doctor Crystal Brown who is using PRISM to help support caregivers who experienced racism in critical care units here in the United States. We have a different investigator, Amoeba O’Donnell, who is studying Prism adaptation for
health care workers during the pandemic.

We have preliminary data from that study which essentially shows that PRISM compared to usual care for healthcare workers on the front lines, improves their burnout and improves their resilience in significant ways. And then finally, we have an investigator, Kiske Smith, who is translating the program and implementing it here in the Seattle Public Schools for kids. We’re schooling at home. This is for school aged kids who are really struggling with this new
world that we live in and helping them to manifest their own resilience resources early on in their childhood.

Within all of these studies, we have analysis to evaluate cost effectiveness, adherence, for example, to oral chemotherapy caregiver well being, resource utilization, optimal delivery strategies. So is it better to do it all at once, or is it better to do it one on line? How can we integrate digital health? And finally, we’re looking at biomarkers of stress and resilience and Gene expression profiles to sort of,
say,
can we change the way we experience physiologic stress and
its downstream effects on our health?
Last, the thing that I think about a lot these days is how can we get PRISM into the hands of patients and families who need it.
You can see we are studying this a lot. It is this huge platform of my research and I’m getting to the point where I just want this thing out there and I’m trying to figure out how to do that. This picture is a picture of the original worksheets that we developed for the intervention when we first started doing it.
These are the ways that people can practice the skills between sessions and when we go to our stakeholders and asked him about this. They say, you know, hey, this isn’t how we learn anymore. Everything’s on line and be when we really need prism. It’s 2:00 o’clock in the morning when we wake up and we’re having those negative thoughts in our heads. I don’t want to go get a worksheet, I want to pick up my smart phone and have prism at my fingertips. And so we listened to our stakeholders and based on their feedback,
we created an app that would help them practice their skills in real time. I'm just going to share with you the quick introductory module of what the app looks like when a patient opens it on their phone. This is imagine the first time you’re opening it and the orientation to the program. So once folks of how that introduction and they use the app as a compliment to the in person coaching that we do, or the Tele health coaching that we now do, they can personalize their homepage. They can upload their goals, they can sync it with their calendar,
so it sets the little reminders for things that they have staged as a way to accomplish that longer goal. They can upload pictures a lot, Instagram and ways to remember particular moments of gratitude and so and they can track their own sense of stress and resilience within the app and see how the different modules help. Alleviate those senses of stress or bolster those senses of resilience in real time. So before I close, I have a couple of final thoughts about resilience. The first is what we’ve learned during the last year of the pandemic. When we started, I had this
NOTE Confidence: 0.8914943
00:42:07.624 --> 00:42:09.230 idea that resilience was linear.
NOTE Confidence: 0.8914943
00:42:09.230 --> 00:42:11.574 I had this idea of that banana graph
NOTE Confidence: 0.8914943
00:42:11.574 --> 00:42:14.031 that there was a line we would follow
NOTE Confidence: 0.8914943
00:42:14.031 --> 00:42:15.919 as we marched through our lives,
NOTE Confidence: 0.8914943
00:42:15.920 --> 00:42:18.668 and I don’t think that’s true.
NOTE Confidence: 0.8914943
00:42:18.670 --> 00:42:20.160 I think resilience is actually
NOTE Confidence: 0.8914943
00:42:20.160 --> 00:42:22.050 something that that exists in phases,
NOTE Confidence: 0.8914943
00:42:22.050 --> 00:42:23.892 and the first phase is what
NOTE Confidence: 0.8914943
00:42:23.892 --> 00:42:25.120 I call getting through.
NOTE Confidence: 0.8914943
00:42:25.120 --> 00:42:27.479 This is where we literally put 1
NOTE Confidence: 0.8914943
00:42:27.479 --> 00:42:30.210 foot in front of the other where we
NOTE Confidence: 0.8914943
00:42:30.210 --> 00:42:32.888 literally say I got out of bed today.
NOTE Confidence: 0.8914943
00:42:32.890 --> 00:42:34.388 It reminds me of that bereaved mom.
NOTE Confidence: 0.8914943
00:42:34.390 --> 00:42:36.102 I told you about at the beginning of
NOTE Confidence: 0.8914943
00:42:36.102 --> 00:42:37.600 this talk, the one who said, yeah,
NOTE Confidence: 0.8914943
I did get out of bed today and that makes me pretty darn resilient, because if it were me and my childhood just died, I don’t know if I’d be able to do the same. However, that was ten years ago, and if I might meet her and talk to her today and she still said, well, I got into bed today, then I would worry then I would say I don’t know if you’re still resilient in my mind. I think you need to do more. And so the next phase, if you will, of how we move through this.
experience of resilience, is when we start to do the work of harnessing our resources. This is where we begin to leverage those individual community and existential resilience resources. We start to actually figure out how do we move forward. In between getting through and harnessing resources, the psychological thing we do is we start to appraise or assess the situation. What have I done before? Who helps me? How am I going to get through this?
We actually start to articulate in our own minds whether we know it or not. What needs to happen for us to move from just simply getting out of bed to starting to thrive? And then the third phase, if you will. Of this overlapping Venn diagram is when we look back and learn. This is when we finally have the brain space to reflect on what we learned and what it means. Sometimes that can be in a day. Sometimes that can take us years, but ultimately almost all human beings will have this capacity to think about what just happened to.
them and what it means to them.

In between harnessing those resources that active activation of resilience and when we start to reflect, we build our identity and I and our purpose we start to ask ourselves the question of who we want to be. And in between getting through and looking back and learning, we are appraising the situation again. What does this mean for us? Practically. As folks will hear all of this and then say to themselves, what am I going to do? I’m seeing a patient this afternoon.
Here’s some thoughts. First of all, use your palliative care psychosocial chaplaincy.
Child live any other supportive care team that you have. This is their bread and butter. This is what they do in their regular assessments. Leverage that experience and rely on it as part of your team.

As clinicians, we need to help families identify their resources and strengths and their struggles. We need to promote the first two and normalize the third. Just because people are having a hard
time does not mean they are not resilient. That means they’re normal. Our job is to help them diversify their portfolios. Our job is to help them recognize the things that they already have in their Arsenal or resilience resources so they can go from getting through to starting to harness those resources. And how do that? Is this? I ask about thoughts I’ll say. How do you see your experiences? That helps me understand their existential resilience resources. I ask that actions.
What do you do when things are hard?

What have you done before?

When times have gotten tough?

This helps me identify their individual resilience, resources.

And finally I ask about supports.

Who supports you?

This is me taking a sort of categorization and or an inventory of their social resilience, resources.

And together I can sort of recognize which of those three buckets is relatively full, or which is relatively empty.

And I can help them articulate those resources they’ll need.
Last I’m going to close with advice from Daniel Maher. Who said you have to work sometimes to be happy to move past the hard? The sad the scary. We all do it. But maybe you need help sometimes. Maybe you need a little bit of learning or a little bit of strength, or remembering what matters or a little after. Poor little love. Figure out what you need and hold on. But please, whatever you do live the time you have with meaning and purpose.
I want to thank the many members of the palliative care and Resilience Lab, in particular, Joy C. Fraser, who is my research partner and the Co creator of Prism. We have many mentors, advisors and collaborators who have helped us along the way, as well as multiple funders that I’d like to thank and thank you to all of you for being here today. I’m going to stop sharing my slides so that we can have some time for questions and answers. Appreciate you all. Thank you.
Abby, thank you so much for such a powerful and inspiring talk.

While we're waiting for folks to pop their questions into the chat, I thought maybe we could start out with a couple of my questions.

Uhm, what sorts of obstacles early on did you encounter? Or you know where? There are people who were naysayers or disbelievers in this approach? And how did you overcome some of those obstacles or address people’s concerns?

Oh gosh, this is such a good...
question pressing it, I think.

Philosophically, I guess I have two answers. One is, believe in what you’re doing. So I one of the first people I talked to here in Seattle about this idea is someone who I really respect and admire. And she said I don’t think resilience is changeable. I just don’t think that that’s going to be a thing. Faculty member I was devastated, but I felt like my idea still needed some unpacking so I moved.
around to find mentors who would support me and I think for early career faculty that piece of advice is really necessary that you need someone who believes in you and you need people who will also help you find holes in your project. Which leads me to the next thing you know. Science is defined by failures we learn from those failures. And that’s maybe one of the messages of resilience too. But you need to be around people who will push you. Who will help challenge you.
00:48:49.040 --> 00:48:51.384 Who will help you think about the ways
NOTE Confidence: 0.77937376
00:48:51.384 --> 00:48:53.356 that something might or might not work,
NOTE Confidence: 0.77937376
00:48:53.360 --> 00:48:55.076 and so that same person who
NOTE Confidence: 0.77937376
00:48:55.076 --> 00:48:56.847 made me question it is somebody
NOTE Confidence: 0.77937376
00:48:56.847 --> 00:48:58.533 who I now really rely on.
NOTE Confidence: 0.77937376
00:48:58.540 --> 00:49:00.876 When I have an idea 'cause I know
NOTE Confidence: 0.77937376
00:49:00.876 --> 00:49:02.570 she's going to be like Nope,
NOTE Confidence: 0.77937376
00:49:02.570 --> 00:49:03.862 still a bad idea.
NOTE Confidence: 0.77937376
00:49:03.862 --> 00:49:05.800 Abby and that helps me think
NOTE Confidence: 0.77937376
00:49:05.877 --> 00:49:08.285 around all of the barriers so that
NOTE Confidence: 0.77937376
00:49:08.285 --> 00:49:10.519 I can continue to move forward.
NOTE Confidence: 0.77937376
00:49:12.572 --> 00:49:14.240 about all of this is.
NOTE Confidence: 0.77937376
00:49:14.240 --> 00:49:16.039 Finding meaning and purpose in the work
NOTE Confidence: 0.77937376
00:49:16.039 --> 00:49:18.098 that we do is critically important.
NOTE Confidence: 0.77937376
00:49:18.100 --> 00:49:19.545 As clinicians as scientists would
you have to have the passion and the belief that what you were doing matters? And for me this is bad for other people that we can be taking care of a patient or writing a paper or mentoring or teaching. But the thing that we all need to do is to figure out what brings us value in our lives and how can we continue to champion that. Thanks so much. I'm still waiting for anyone who has questions. In the Meanwhile I of course have so many. One thing I was wondering about in terms of scalability.
So what do you say now with this robust intervention that now has a mobile option as well?

What have you said to folks at various institutions who may be interested in bringing a similar intervention to their institution?

Soon.

Two things I want. I want prism out there at like. I just think that it has potential

and I would welcome anybody who wants to help me figure out how to do that.

And as folks in this audience will know.

Doing anything takes resources and money and time,
and so one of the things we have learned in this pilot study that we're doing here in Seattle is,
even if we make it available, people don’t use it if they don’t have the human resources to deliver it. So right now, it’s just it’s designed to be an in person coaching program because I think that that matters. I think that human connection is really necessary.

But we’re learning that that might be a huge barrier,
designing right now is in fact trying to ask the question that you just asked: how much digital can we get away with? How much can we get away with taking away the in person component? Will that compromise the efficacy of the program? I think the answer is probably yes, but it turns out funders and other organizations need us to prove that, and so that’s what we’re working on now. And I’ll just say, you know, imagine the number of little apps that you have on your phone that are self help or mental health or whatever other programs you have.
And most of us don’t open them at all. And when we do we open them for a few weeks and then we stop and that to me is why prison works better because there is a human interaction you’re engaging with somebody who cares about you who listens to you, who coaches you. And so I worry a little bit about moving things purely to digital health without that degree of human interaction, especially for teens and young adults. Absolutely. How did you adapt during the pandemic? Wait, so we switched to the whole thing.
We used to go as I said to the patient’s bedside and we would sit next to somebody and coach with them. And then we held the program for about six months as many in the world did when when we all kind of had to figure out how this new normal would work and when we came back in about maybe a little over a year ago. Last summer, we started delivering the program purely via Tele Health and what was super fascinating is that especially for teens and young adults, maybe because they’re more. Fluent and savvy and things like FaceTime and digital ways of connecting.
Anyway, they seem to like it better this way. They seem to feel like this is almost a safer way for them to be vulnerable. They can sort of move back from the screen if they need to. They can engage in a way that is. Psychologically, more appropriate for them to my surprise. And so now I think moving forward we will only deliver the health. The program via Tele health. Unless somebody asks us to do otherwise, and we’ll see how it goes. When you were starting out with developing Prism,
did you start out restricting it primarily to adolescent young adult patients with advanced cancer?

Or were would you include patients at any point in their character directory?

Yeah, the first program we designed the pilot study the Phase two pilot City that I shared was for either people with brand new cancer or people who had just record and the reason was we believe that resilience coaching is necessary during times of stress.

So if the construct is Ono right now, my life feels hard. I need help. We wanted to identify those periods of a patient’s cancer experience where
they would be receiving chemotherapy

and in the hospital and needing some additional support.

And so in that first study of roughly 92 people, 3/4 of them were teens with brand new cancers and then about 1/4 of them work. Folks who had been well and then had had a recurrence. And when we tried to look at the differences between the groups, we couldn’t find anything that said prison work better or worse. If you were new to cancer or really experienced with your cancer,
the thing that we did notice that was different in the patients with advanced cancer. And then this was replicated amongst teens with CF is hey, Prism just taught me all this stuff about how to identify what matters to me and why. My goals are and now I need help talking to my family about this. And so as I sort of quickly described one of our larger grants right now is building on that for patients specifically with an incurable cancer. I’m saying, can we teach these four skills and then
build on that to integrate advanced care planning for teens and young adults? And that’s important because maybe 20% of teens and young adults in the United States actually fill out advance care planning documents. Fewer than that are involved in care decisions about their ongoing medical care and end of life plans and so. The idea was maybe PRISM can be a safer on tray into some of those really hard conversations that are so important at the end of the patient’s life. Absolutely OK. We have a couple of hands race so
I’m going to let Jeffrey Towns own and go ahead and unmute yourself. Hopefully he can leave.

Alright, well, while we’re waiting for Doctor Townsend Amanda Gorbaty near you able to unmute.

Renee, I may need your help. Yeah, I just mark this a webinar so the attendees can send in something via the chat. Thanks, mark.

Alright, so so Amanda and Jeffrey.

If you want to put your questions into the chat,

will be sure to try to get to them.

Overweighting Abby.

I wondered if you might be able
to share how you thought about measuring some of those longer term psychological outcomes, or in terms of outcomes like. Job attainment or long term mental health.

Yeah, oh, such an apropos question we’re looking at that right now.

So of those 92 patients that we had in that first pilot trial.

So now we’re talking about a small study because the other big studies are ongoing.

But of those 92 patients? A little less than a third

30% have died since then.

In the two years that followed that project,
and that is across both advanced cancer and new cancer patients in equal measure. So we’re down to a little over 50 folks who we can still follow, and it’s harder to gauge long term outcomes in a smaller and smaller sample size. That said, what we’re noticing, which is really interesting to me is, and this is like an ongoing work in progress data, so forgive me ’cause it might change when we finally publish it. But the initial analysis that we’re looking at right now suggests. Two really interesting things. First,
people who responded to PRISM in that beginning six months phase have a long term protection of it. So if you were in the group who got prison. Khalaj Ikle benefit seems to indoor two years later, so that sense of new resilience. Hope for the future and ability to find meaning and benefit those indoor. What is more interesting, in a different way is that while distress immediately improved, and as I showed you, depression risk went way down.
That risk of endurable, non negative psychological outcome doesn’t seem to persist, and So what I mean by that is people were no longer distress during their immediate cancer experience when they got PRISM, but overtime there’s a regression to the mean between usual Karen Prism participants with respect to their overall distress. And the combination of those things tells me two things. Number one, we do want to alleviate negative pathology in the moment,
so we do want to alleviate distress in real time.

But the long term benefit of PRISM might be that positive psychological gain is an inoculation for later well being.

And what I mean by that is you want somebody’s hope for the future to be the thing that lasts. I care less that they are not distressed overtime as much as that they maintain that positive outlook, because I believe that when the next stressor comes.
benefit that they have gained those resilience resources that they have learned will help them deal with whatever is the future stressor, and so this is the long way of saying that I think what prison does is it boosts long term positive psychology, but the protection from negative pathology is more in real time and we probably need measures to address people’s support to Puerto Kearneys right in times of stress and then help them figure out their way as they move forward. Absolutely. So we have one last question. I received this message by text because
it looks like people aren’t able to actually put messages into the chat, so I apologize so this this question is from Amanda Garber Teeny. She is a social worker in pediatric oncology. She said she’s traded a few emails with you so she’s focused on adolescents, young adults and currently uses many prism techniques and models with her patients at Yale, so she was wondering if it would be possible to have access to the app or other PRISM resources for her patients.
And thank you for asking it.
The answer is yes and we as I said, we really do want to share this and we have ways to make be able to sustain the program. So we unfortunately right now cannot give it out for free. But please email me and I’m happy to chat with you about how we can provide the program. Cost effective way is we can until we can figure out how to publicly just make it available. Alright, well thank you so much Doctor Rosenberg for being here with us and for sharing your insights.
And thanks to everyone who joined the webinar today.