Bright IDEAS®: An evidence-based approach to alleviate distress in caregivers of children recently diagnosed with cancer
FROM SCIENCE TO CLINICAL PRACTICE

Development, implementation, and dissemination of the Bright IDEAS training program
THE PRESENTER HAS NO CONFLICT OF INTEREST TO DISCLOSE

FUNDING SUPPORT: NIH
LECTURE OBJECTIVES

1. Describe a behavioral intervention designed to teach coping skills that is acceptable to caregivers and alleviates distress.

2. Identify opportunities to provide family centered care to support caregivers of children with medical challenges.

3. Acquire new information about behavioral health services that can be provided to improve coping skills and reduce distress in caregivers.

Hunger SP, Mullighan CG. N Engl J Med 2015;373:1541-1552
1993-2017

Problem-Solving Skills Training

Supported by NCI/NIH Grants R25 CA65520, RO1 CA098954, RO1 CA159013, R01 CA159013
IMPACT ON PARENTS AND FAMILIES

- Parental mental health
- Child-rearing
- Family functioning
  - Time management
  - Siblings
- Economic issues
MOMS AND THEIR KIDS

- Maternal factors influence psychological adjustment of children
  - Emotional well being
  - Behavioral functioning
  - Social competence
  - Physical health
- Maternal functioning buffers children’s reactions to traumatic events
KEY POINTS

1. Mothers of children newly diagnosed with cancer: High risk for distress

2. We have studied >1200 caregivers

3. Skills building + social support

4. Dissemination strategy:
   (a) eBrightIDEAS®
   (b) Build capacity
   (c) New opportunities
THE Bright IDEAS® MODEL

Identify the problem
Define your options
Evaluate your options
Act
See if it worked

OPTIMISM

Just Do It
Evaluate
Define
Identify
See
Did it work?
Pick the best
Strategize
Balance costs & benefits
Brainstorm
Keep it simple
Get the facts
Revise and redo

Children’s Hospital of Pittsburgh | of UPMC
Learn new ways to:
- solve problems
- resolve conflicts
- make effective decisions

Control the controllable

Reframe the uncontrollable

Understand the thinking–feeling connection

Feel better during difficult times
WHAT IS THE CONCEPT?

Crisis/trauma -> Intervention

Cancer -> Bright IDEAS

Primary Outcome -> Problem-Solving Skills

Secondary Outcomes

Reduced Distress
ELIGIBILITY

Caregivers of children recently diagnosed with cancer (4-16 weeks)

Any type of pediatric cancer

Within 50 miles* of cancer center

English, Spanish (Hebrew, Arabic)
SEQUENCE OF BRIGHT IDEAS STUDIES
BUILDING THE EVIDENCE BASE

1995: Efficacy - Bright IDEAS vs. Usual Psychosocial Care (n = 92)
   Can you do it?

2005: RCT 1 - Bright IDEAS vs. Usual Psychosocial Care (n = 430)
   8 sites; 4 languages

2013: RCT 2 - Bright IDEAS vs Non Directive Supportive Therapy
   (n = 401)
   4 sites; 2 languages

Current: RCT 3 - fas vs. Online (n = 620; to date 628 enrolled)
   5 sites; 2 languages
PROBLEM-SOLVING SKILLS
RCT1

Graph showing the comparison between Bright IDEAS and Std Care over Time 1, Time 2, and Time 3.
BRIGHT IDEAS → LESS DISTRESS

**Distress = Mood Depression PTSS

Negative Affectivity

Avoided Distress**

Stress  Early Intervention  3 Months  6 Months
WHAT IS THE CONCEPT?

Cancer

Bright IDEAS

Problem-Solving Skills

Reduced Distress

Non-specific Effects

Crisis/trauma

Intervention

Primary Outcome

Secondary Outcome
PROBLEM-SOLVING SKILLS

RCT 2

- Bright IDEAS
- NDST

Time 1 | Time 2 | Time 3
POMS
Total Mood Disturbance
RCT2

Time 1  Time 2  Time 3

Bright IDEAS
NDST

Children's Hospital of Pittsburgh of UPMC
BDI-SQRT Score

RCT2

Time 1 | Time 2 | Time 3

Bright IDEAS

NDST

Children's Hospital of Pittsburgh of UPMC
IES-R (PTSS) RCT2

- Bright IDEAS
- NDST
CONCLUSIONS

Bright IDEAS®
Acceptable
Effective
Reduces maternal distress

Bright IDEAS® most effective:
Minority mothers
Low SES mothers
Single mothers
Give a man a fish and you feed him for a day.

Teach a man to fish and you feed him for a lifetime.
• Efficacious and specific
• Efficacious
• Probably efficacious
• Promising
WHERE CAN IT GO?

Bright IDEAS®

http://open.learnbrightideas.org/
Designated a Research-Tested Intervention Program (RTIP) by NCI (2010)

- Research Integrity: 4.4/5.0
- Dissemination Capability: 5.0/5.0
- Intervention Impact: 2.0/5.0
Our **impact** score of 2.0 reflects Low incidence (~12,000) of new child cancer diagnoses/yr

Our **dissemination capability** score of 5.0 reflects Comprehensive product development
CURRENTLY, BRIGHT IDEAS IS PROVIDED FACE-TO-FACE

- Manualized training program
- 8 1-hour individual training sessions
- Participant identifies problems to solve
- Practice
- Homework
The Challenge:

...Disseminate!

...Disseminate!

...Disseminate!
THE PROBLEM:
The intervention is labor intensive and requires trained personnel.
SOLUTIONS

#1: Increase accessibility: Put Bright IDEAS online (RO1)

#2: Build capacity: Train 200+ psychologists, nurses, and social workers to increase the number of skilled providers (R25e)

#3: New initiatives: ASD; Pediatric Rehabilitation Medicine; SCD
CURRENT STUDY (5 SITES):

Bright IDEAS® VS. e Bright IDEAS®

RCT3

- Caregivers of children newly diagnosed with cancer
- English or Spanish speaking
- Within 50 miles* of site
The Question:
Will eBrightIDEAS® be as effective as f2f BrightIDEAS®
OR...

If you give a man a rod and reel and an instruction book, will he learn to fish as well by himself as he would if you were standing next to him coaching him?
NON-INFERIORITY TRIAL
DISSEMINATION TRIAL

- Partnerships:
  - COG
  - APOSW
  - APHON
  - SPP

- 1.5 day workshops + 4 phone consultations
DISSEMINATION TRAINING
1½ DAY WORKSHOP

- Evidence Base
- Role Play Demonstrations
- Dyadic Role Plays
- Problem Solving about Barriers
- Conference calls
AS OF SEPTEMBER 2017

• >270 applications
• 200 trained
• Invitations to CHOP, DFCI, Children’s National, Montreal Children’s (French translation in process)
• Korean translation completed
Lessons learned from 2 YEARS OF DISSEMINATION

*Bright IDEAS* can be implemented "as is" or as a process tool

USE THE WORKSHEETS
MORE LESSONS LEARNED
Core/Essential Elements of Bright IDEAS

Bright IDEAS® = Optimism/Empowerment
MORE LESSONS LEARNED

Core/Essential Elements of Bright IDEAS

IDEAS = I (Identify the problem/challenge/stressor)
    D (Define your options)
    E (Evaluate your options)
    A (Act out your choice—action plan)
    S (See if it worked)
MORE LESSONS LEARNED

• Unless trainees use it now, they will never use it

• Doing it for your own current case issues reveals truly generic applicability

• Facilitator and peer support are key elements
Autism Spectrum Disorder
Sickle Cell Disease
(UL1TR001857-02)
Pediatric Rehabilitation Medicine
THE BRIGHT IDEAS MODEL

**IDIOM**
- **ID**entify the problem
- **DI**fine your options
- **E**valuate your options
- **A**ct
- **S**ee if it worked

**OPTIMISM**
- Get the facts
- Keep it simple
- Brainstorm
- Strategize
- Balance costs & benefits
- Pick the best
- Just do it
- Revisit and redo
- Did it work?
OJZ Sahler, MD
Martha A. Askins, PhD
Oscar A. Barbarin, PhD
Robert W. Butler, PhD
Donna R. Copeland, PhD
Katie A. Devine, PhD
Michael J. Dolgin, PhD
Diane L. Fairclough, DrPH
Ernest R. Katz, PhD
Raymond K. Mulhern, PhD
Sean Phipps, PhD
Klaus J. Roghmann, PhD
Janice R. Sargent, PhD
Sandra Sherman-Bien, PhD
James W. Varni, PhD
Megan Voll, LPC
Lonnie K. Zeltzer, MD

University of Rochester
UT/MD Anderson Cancer Center
University of Michigan
Oregon Health Sciences Center
UT/MD Anderson Cancer Center
Rutgers University
Ariel University (Israel)
University of Colorado Denver
Children’s Hospital, Los Angeles
St. Jude Children’s Research Hospital
St. Jude Children’s Research Hospital
University of Rochester
University of Utah
Miller Children’s Hospital
University of California San Diego
University of Pittsburgh
University of California Los Angeles