

Health Promotion and Community Outreach:

The SWIFT STUDY

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Community Education

The final frontier.....

Why publication quality community education programs?

- Provides evidence for best care!!!!!!!!!!
- Quality indicators for educational objectives
- Baseline for Funding

NY State Department of Health Application for Designation of Stroke Center

- Page 12, Quality Improvement Item # 29
- *“Public education programs about stroke prevention, recognition, diagnosis and treatment should be conducted by the Stroke Center at least bi-annually”*
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- Documentation required:
- Policy/protocols.

Stroke Statistics 101

- Stroke is a major **Public Health Problem**
- **700,000** strokes occur in the US each year
- **Aging** of America combined with increasing **minority** populations will lead to increased stroke burden
- Acute therapies are limited - Only approved therapy is **rtPA** within 3 hours of acute ischemic stroke
- **Prevention** is of prime concern

Behavior /knowledge issues related to Stroke

- Risk factor reduction for stroke
- **Acute stroke treatment**
- Compliance/ Medication adherence
- General stroke knowledge
- Caregiver roles/caregiver burden
- Quality death and dying

Stroke Risk Factors

Modifiable

Behavioral

- Smoking
- Alcohol use
- Physical Inactivity
- Obesity and Waist-Hip Ratio

Medical

- Hypertension
- Diabetes
- Coronary Artery Disease
- Atrial Fibrillation
- Lipids

She was just
too much for
any one
antihypertensive.



When prevention efforts are not enough.....

- **Need to embrace new concept which is really very old**
- **Disease Preparedness**
- **? Can we prepare ourselves and others for a stroke?**

We have a cultural history of preparedness



Bomb shelters

Choking illustrations in restaurants

Defibrillators in public places

First aid classes in school

Stroke Warning Information and Faster Treatment (SWIFT)

NINDS 5-year strategic plan on Minority Health Disparities:

“To further disseminate information on stroke, including preventative measures, warning signs, and the urgency of immediate care to minority populations.”

NINDS Stroke Disparities Advisory Panel Meeting on Acute Stroke Care:

“Targeted interventions must be evaluated objectively and carefully to determine whether they have impact on access....These studies must be performed with the same kind of intellectual and scientific rigor as have traditional efficacy studies.”

Background

Less than 3% of stroke patients actually receive t-PA treatment

Inadequate stroke knowledge continues to exist

Only 17.2 percent of 60,000 US adults able to recognize stroke warning signs and call 911.

Am J. of Prevent. Med. 2003

Stroke patients arrive later to ER for 2nd event

65 stroke survivors with recurrent strokes arrive 1 hour later than first stroke

Boden-Albala, NOMASS data

Minority populations are vulnerable

Time to ER was greater among minority patients

Kleindorffer D et al. Stroke 2004;35:

Education increases knowledge and changes behavior

Public health campaigns conducted by Temple Stroke Study

Arch Int Med 2003;163:2198-2202

**Designing an intervention to solve
our specific problem**

**Does increased knowledge
facilitate behavior change?**

How do we change behavior?

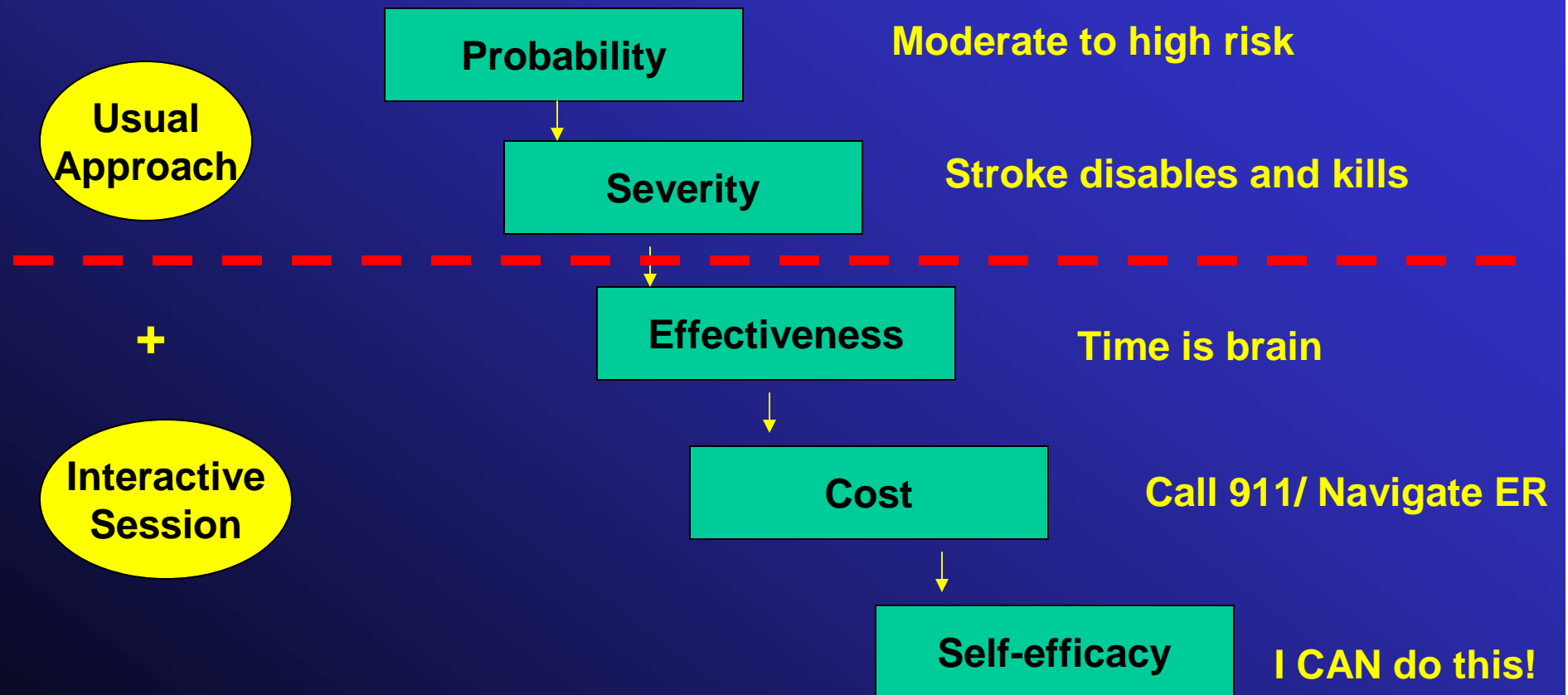
Mechanism for behavioral change

Increased knowledge

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graph LR; A[Increased knowledge] --> B[Behavioral change];
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Behavioral
change

Social Learning Theory

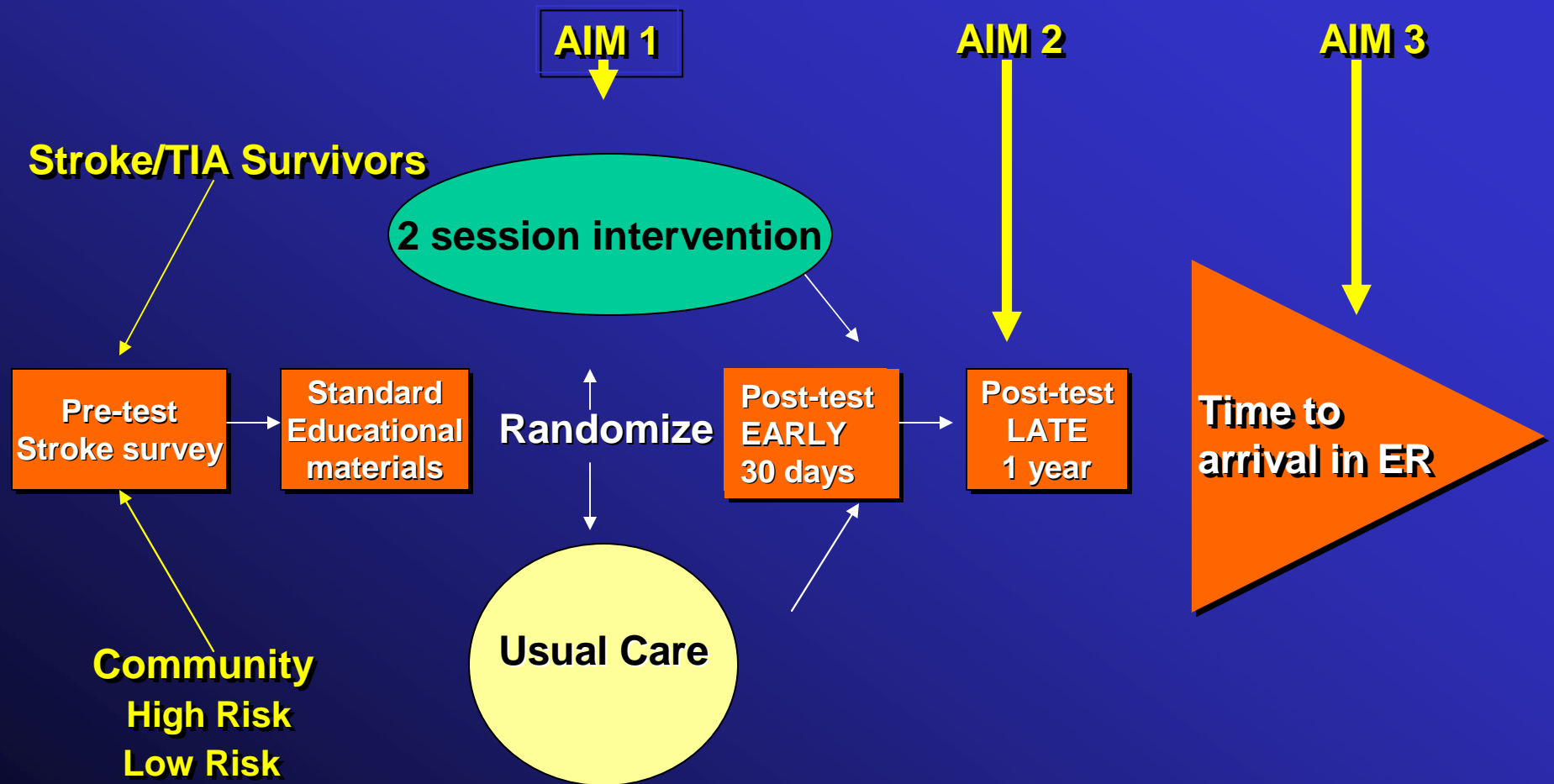


Sutton, et al Br J Add 1987, Weinstein, et al. Health Psychol 1993,
Hickenbottom et al. J of Stroke and Cereb Dis 2002

Barriers to Behavioral change

- **Literacy**
- **Language**
- **Motivation**
- **Reinforcement**
- **Information type**
- **Baseline knowledge**
- **Venue for learning**

SWIFT DESIGN



What is an interactive educational intervention?

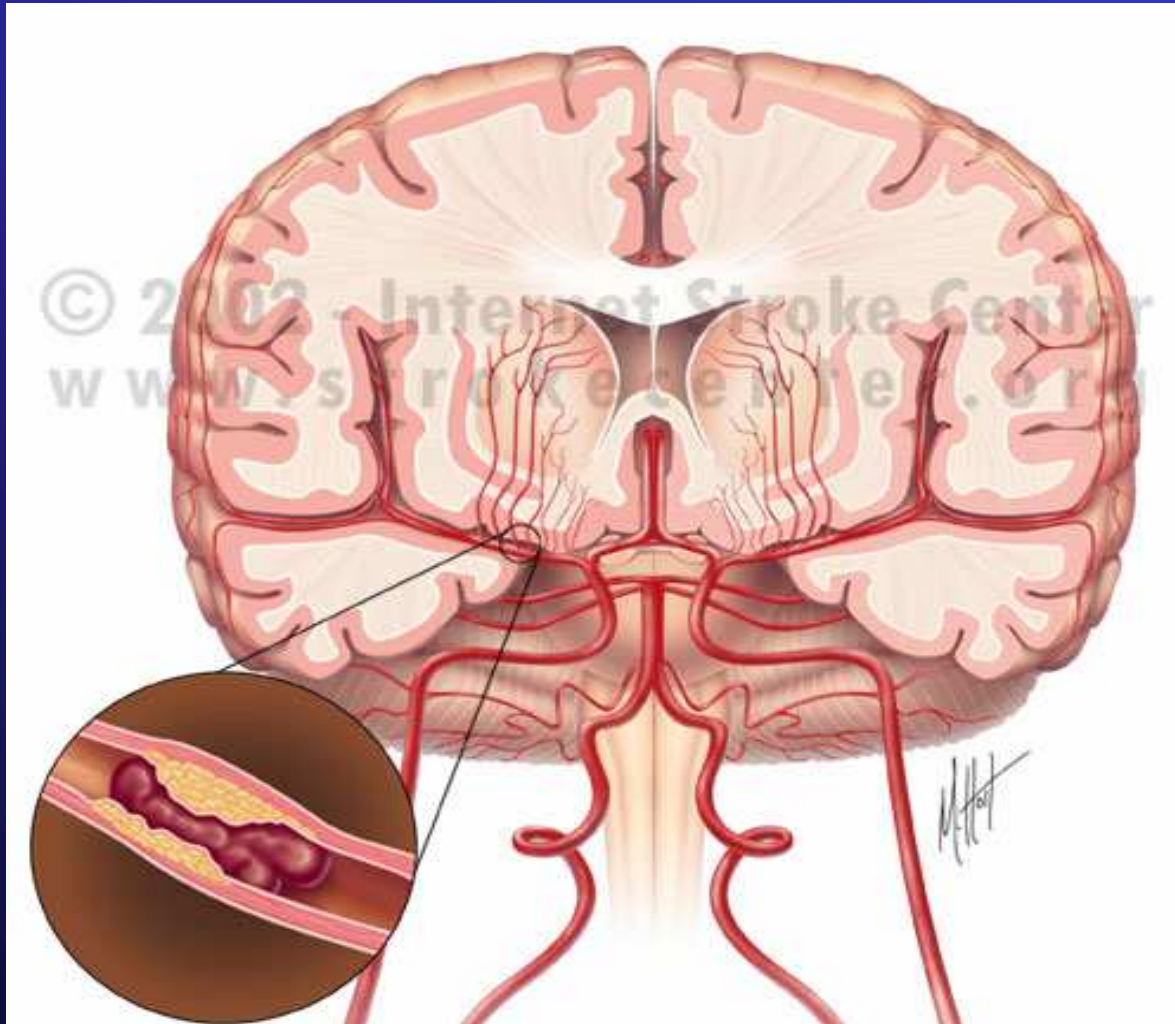
Goals of an Interactive Educational Intervention

- Facilitate dialogue about stroke
- Recall stroke warning signs
- Learn how to Call 911
- Navigate the emergency room

“I think I am having a stroke
I have numbness in my right arm
Am I eligible for t-PA?”

Use of Isometrics







The Good News

A medication called t-PA has been approved for the treatment of stroke within 3 hours of symptoms.

S.W.I.F.T.

Part III. How to call 911

- **Group will listen to 911 tapes**
- **Facilitator will introduce a number of situations in which one needs to call 911**
 - Discuss the proper way to call 911
 - Participants practicing 911 call and competency of calling is assessed
- **Role-playing to include:**
 - Health educator “lets practice calling 911”
 - Stroke Patient “I need help. I think my brother had a stroke. Please come to my house, I live at ...”

ACCESS COMPETENCY

How do we test success of a program?

Testing knowledge

Testing behavioral change

Knowledge

Multiple Choice Survey Questions

- **Where in the body** does a stroke occur?
- **Which of these symptoms** may be warning signs that a person is having a stroke?
- **Which of the following conditions** may increase your risk of stroke?
- **Which** of the following behaviors have been shown to reduce the risk of stroke?
- **Before stroke treatment** can be delivered to a stroke patient which of the following things must be done in the Emergency Room.
- **Which of the following** best describes the key functions of the emergency room nurse?
- **Which of the following** are true about patients seen in the emergency room?
- **When calling 911** to report that your friend had a possible stroke, which of the following information is important to tell the emergency operator?

Theoretical behavior

Part 2. Hypothetical Questions

- You and your friend are talking about the weather, when suddenly your friend's speech changes. Your friend's words become garbled and you can't understand what your friend is saying. What would you do?
- You are walking down the block and all of a sudden you feel weak on the left side of your body. You sit down on the curb, and realize you have trouble moving your left arm and leg. What do you do?
- Your sister called you to take her to the hospital because she can't move her right arm. When she speaks you notice she is slurring her words. It will take you 20 minutes to reach her apartment. What should you do?

S.W.I.F.T.

Part III Triage Questions

- You suspect that your spouse is having a stroke. You quickly call 911 for help. When you reach the emergency room you are approached by the emergency room nurse. What are the most important things to say to the nurse?

Appropriate answers

- My husband is having a stroke
- He is having numbness in his arm
- Is there a stroke treatment like t-PA available for him?

Hard outcomes

- **Decrease in mean time to ED**
- **Increase percentage under 2 hours**
- **Increase number of acute stroke calls through 911**

Who is our community?

High Stroke Risk Populations
Families of High Risk populations
Future generations
Minority/ underserved Groups
Everyone

Long term issues

- **Reinforcement**
- **Self-management**
- **Social Support**
- **Who takes on role of educator?**

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Final Recommendations

- Try to remove barriers from intervention sessions
- Collaborate with other sites using same protocol
- Listen to your patients/clients/families and have them all listen to each other
- Design programs in a rigorous manner
- Debrief after sessions and write it all down
- Report this all back to us...publish!!!!...
 - We want to hear your success stories!!!!!!!!!!!!!!





Successful intervention strategies

- **Hypertension**

- **CHIP** – focused on individual counseling along with structural changes in clinics

[Stevens. Annals of Internal Medicine 2001;134:1-11]

- **TOMHS** – continued reduction in BP with long term counseling for nutritional and physical activity needs. [Elmer, P.G. J Prev Med 1995;24: 378-388]

- **Premier Clinical Trial** – reinforced support and counseling [JAMA. 2003;289:2083-2093]

- **Diabetes**

- incorporated OBJECTIVES (walking) into daily routine
- Social support - Family support predicted self-adherence
- Face to face interactive activities and group settings

[Tudor-Locke, CM, The Diabetes Educator, 2001;27: 85-93]