Background

- Idea: 2013 Conference
- Focus groups (APNA Research Council Steering Committee and Expert Panel members plus interested APNA members)
- Question: What can the Research Council do to promote psychiatric nursing research?

Background

- Provide support, motivation and research-specific information for APNA conference participants
  - explore new models of research collaboration
  - dialogue with a leading nurse-scientist with track record of mentoring and inspiration
  - address current funding issues – sources & strategies to secure funding
- Connect with other APNA nurse scientists
- Provide a dedicated space during the conference for emerging PMHN programs of research

- APNA awarded the Research Council a grant to meet the needs identified
- Outcomes
  - Preconference: 4 dedicated sessions (Wednesday)
    - Welding Strong Connections Between Research and Practice: PhD and DNP Partnerships to Generate Knowledge and Improve Care
    - The Making of a Nurse Scientist
    - Understanding the Funding Landscape
    - Depression Recognition, Assessment and Intervention: Emerging Psychiatric Mental Health Nursing Research
  - Interactive Panel (Friday 4:45-6:15)
    - Trauma and Healing: Findings and Insights from Three Nurse Scientists

This session addresses the following needs:

- Provide support, motivation and research-specific information for APNA conference participants
  - explore new models of research collaboration
  - dialogue with a leading nurse-scientist with track record of mentoring and inspiration
  - address current funding issues – sources & strategies to secure funding
- Connect with other APNA nurse scientists
- Provide a dedicated space during the conference for emerging PMHN programs of research

Objectives

- Discuss how to build an impactful program of research
- Describe the “So What” factor in research and evidence-based practice
- Describe future tactics for improved healthcare and better patient outcomes
The Making of a Psychiatric Mental Health Nurse Scientist

Bernadette Mazurek Melnyk, PhD, RN, CPNP, PMHNP, FAAN
Associate Vice President for Health Promotion
University Chief Wellness Officer
Dean and Professor, College of Nursing
Professor of Pediatrics & Psychiatry, College of Medicine
Editor, Worldviews on Evidence-based Nursing

Disclosures

I am the co-editor of two books on Evidence-based Practice for which I receive honoraria.
I am the editor of Worldviews on Evidence-Based Nursing for which I receive an honorarium.
I am a part-owner of COPEforHOPE which conducts training workshops and disseminates the COPE Program to hospitals.
I am co-owner of ARCC, LLC, a consulting company that works with healthcare systems on improving quality of care through evidence-based practice.
I am owner of COPE2THRIVE, LLC, a company that disseminates the COPE Healthy Lifestyles and Mental Health Programs

Objectives

1. Discuss how to build an impactful program of research
2. Describe the “So What” Factor in Research
3. Describe future tactics for improved healthcare and better patient outcomes

“Nothing Happens Unless First a Dream”
-----Carl Sandburg

You Must Dream It
Before You Can Do it!

Children find it easy to dream and believe;
We must foster these qualities in each other
Keep your Dream Bigger than your Fears and Keep Moving Toward It
— Bernadette Melnyk

“In order to succeed, we must first believe that we can.”
—— Michael Korda

Risk: You can not discover new oceans unless you have the courage to lose sight of the shore

Eat One Bite of the Chocolate Elephant at a Time!

Nothing Happens Unless First a Dream!- Carl Sandburg
The Dream, Passion and Persistence will get you through the “Character-Builders”

My Story
From a Small Coal Mining Town to Buckeye Nation

Dreams, beliefs and persistence along with a spirit of inquiry were key elements in my ability to help vulnerable children, teens and families

The Typical Progression of Research

Reducing NICU Length of Stay, Hospital Costs and Readmission Rates with COPE for Parents of Preterms

Background/Significance
- 15 million babies are born prematurely in the world every year, more than 1 in 10 infants; countries with the greatest number of preterm births include India, China, Nigeria (the U.S. is #6) (World Health Organization)
- More than 500,000 premature babies are born in the United States every year (approximately 1 in 8 babies are born premature)
- Preterms experience a host of adverse physical and mental health/behavioral outcomes that persist well into the school-age and adolescent years, including learning disorders/developmental disabilities

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAANP, FNAP, FAAN
FUNDING FOR THIS WORK BY THE NATIONAL INSTITUTE OF NURSING RESEARCH R01#05077 NR05077-04S1
Background/Significance
- Parents of premature infants also experience a host of negative outcomes, including increased anxiety, depression, anxiety, PTSD, parent conflict, dysfunctional parent-child interactions and the vulnerable child syndrome.

Study Design
- A randomized controlled trial at two study sites in the Northeast involving 260 LBW premature infants, 258 mothers and 154 fathers with follow-up through 3 years corrected age.

Theoretical Framework
- Self-Regulation Theory (Leventhal & Johnson)
- Control Theory (Carver & Scheier)
- The Emotional Contagion Hypothesis (VanderVeer; Jimmerson)

Effects of the COPE Program on the Process and Outcomes of Parental and Infant Development/Adjustment

The Sample of Infants
- Mean gestational age = 31.3 weeks (range = 26 to 35 weeks)
- Mean birth-weight = 1650 grams, with 102 infants weighing less than 1500 grams
- Males = 126 (48.5%)
- Females = 134 (51.5%)

The COPE NICU Program
- 7 part series of audio tapes, driven by self-regulation theory and control theory, and a workbook that provided parents with infant behavior and parent role information and parent skills building activities that help parents implement the COPE information:
  - 2-4 days after admission to NICU
  - 2-4 days after the first intervention
  - 1-4 days prior to discharge
  - 1 week after discharge
  - 2, 9 and 18 months after discharge
The COPE NICU Program

**The COPE Program Teaches Parents about the Behaviors and Physical Characteristics of Preterms**

COPE also Teaches Parents How Best to Interact with and Parent their Preterm Infants

**Parental Beliefs for Mothers**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Cope</th>
<th>Comparison</th>
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</thead>
<tbody>
<tr>
<td>Total Score</td>
<td>66.4</td>
<td>51.5</td>
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<tr>
<td>Parent Role Subscale</td>
<td>27.5</td>
<td>30.3</td>
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<tr>
<td>Knowledge Confidence Subscale</td>
<td>39.7</td>
<td>36.4</td>
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</tbody>
</table>

*p < .05

**Parent Stress Related to the NICU for Mothers**

<table>
<thead>
<tr>
<th>Subscale</th>
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<th>Comparison</th>
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</thead>
<tbody>
<tr>
<td>Total Score</td>
<td>3.78</td>
<td>3.98</td>
</tr>
<tr>
<td>Baby Behavior Subscale</td>
<td>3.68</td>
<td>3.07</td>
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<tr>
<td>Staff Behavior Subscale</td>
<td>3.03</td>
<td>1.66</td>
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<tr>
<td>General Stress Subscale</td>
<td>3.59</td>
<td>3.59</td>
</tr>
</tbody>
</table>

*p < .05

**Quality of Interaction with Infant in the NICU (Blinded Observer Rating)**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Cope</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers Positive Interaction</td>
<td>4.97</td>
<td>4.35</td>
</tr>
<tr>
<td>Fathers Positive Interaction</td>
<td>4.63</td>
<td>3.48</td>
</tr>
</tbody>
</table>

*p < .05
Maternal Depression Over Time

Cost Analysis
- The net direct health care cost savings per child through NICU discharge after deducting the cost of the COPE intervention was $4,864
- Further subgroup analyses for LOS based on birthweight revealed that COPE infants <1500 grams had an even shorter NICU length of stay (n = 90, 8.3 days), which resulted in even greater savings

Other Key Outcomes
- COPE fathers made less ED visits at 6 months and less mental health visits at 2 years (4% compared to 14.8%) than attention control fathers
- COPE mothers missed fewer days of work at 2 years of age than attention-control mothers
- COPE fathers missed fewer days of work at 6 months compared to attention-control fathers

Results
- There was lower suicidal ideation for COPE mothers compared to control mothers with:
  - High parental stress
  - Low quality of mother-infant interaction
  - Greater length of NICU stay
  - Greater illness severity (high CRIB scores)
The “So What” Outcome Factor

- A decreased hospital cost of $5,000 for 500,000 premature infants born every year in the U.S. would result in a 2.5 billion dollar cost-savings for the U.S. Healthcare System
- It is the “so what” outcome factor of a reduction in NICU length of stay and hospital costs that is the reason hospitals across the globe are now implementing COPE
- Routine administration of COPE in NICUs across the globe could not only improve infant and parent outcomes, but lead to substantial cost savings

Translating COPE into Clinical Practice: Lessons Learned

Funded by Phoenix Children's Hospital Competitive Grant Program

- The purposes of this dissemination-implementation study were to determine:
  - the impact of translating the evidence-based COPE program into clinical practice on nurses’ EBP beliefs and implementation, and
  - the best strategy for disseminating COPE in the NICU so that all parents of preterms receive COPE

Subjects and Methods

- Subjects: 81 out of 180 nurses (45%) from a 55 bed NICU of a large children’s hospital
- All participants completed the EBP Beliefs and EBP Implementation Scales (Melnyk & Fineout-Overholt) at baseline and six months after implementation of COPE in the NICU
- Nurses from two of the five pods in the NICU received an 8 hour workshop on EBP and the COPE program, and were then instructed to implement COPE

Findings

- Very few parents received all phases of the COPE program in the first 12 weeks of the study
- A COPE Mentor was introduced after 12 weeks to assist the nurses with the implementation of COPE

- Nurses in the COPE pods had stronger beliefs about EBP and greater implementation of EBP than nurses in the non-COPE pods
- After the COPE Mentor was introduced, nearly all parents of preterm infants received all phases of the program

The COPE Healthy Lifestyles TEEN Randomized Controlled Trial: Immediate and Six Month Effects on High School Adolescents’ BMI, Mental Health Outcomes and Academic Performance

Bernadette Mazurek Melnyk, PhD, RN, CPNP/PMHNP, FAAN
The Ohio State University

Stephanie Kelly, PhD, RN, FNP
The Ohio State University & Arizona State University

Diana Jacobson, PhD, RN, CPNP
Arizona State University

Funding Support
NIH/The National Institute of Nursing Research
R01NR012171
Significance of the Problem
- Currently, 32% of adolescents are overweight (gender and age specific BMI at or above the 85th %) or obese (BMI at or above the 95th %); and the prevalence is higher in Hispanic teens
- One in 3 people will have diabetes by 2050

Significance of the Problem
- One in 4 adolescents has a mental health problem and less than 25% receive any treatment
- Hispanic and White teens are more likely to report depression and feelings of worthlessness
- There is a higher incidence of mental health disorders in overweight/obese teens
- Our research has shown that the higher level of depressive and anxiety symptoms and the lower self-esteem, the less teens believe they can engage in healthy behaviors

Significance of the Problem
- Of those intervention studies conducted, most combine nutrition education, activity and behavior modification without a mental health component, which have not tended to produce long-term positive outcomes
- Major flaws exist in prior intervention studies
- Knowledge alone usually does not change behaviors!

The COPE Healthy Lifestyles TEEN Program
- A 15 session cognitive-behavioral skills building program that includes physical activity in each session
- All sessions are manualized and interactive, with an emphasis on the practice of cognitive-behavioral skills building activities and role playing
- Includes many case-based examples

Cognitive Theory Guides COPE, which Emphasizes Cognitive Restructuring, Problem Solving and Behavior Change
The thinking/feeling/behaving triangle

Key Components of Cognitive-Behavioral Therapy
- Teens learn the ABCs in CBT
  - Activator event: A friend made fun of me
  - Belief: I'm an idiot
  - Consequence of the belief: Feelings of depression and worthlessness; difficulty functioning
- Positive reappraisal, positive self talk and homework are all important pieces of CBT
**COPE Conceptual Model**

- **COPE/TEEN Intervention**
- **Knowledge**
- **Personal Beliefs**
- **Perceived Difficulty**

† Depression
† Anxiety
† BMI
† Healthy Lifestyle Behaviors
† Self-esteem
† Social Skills
† Academic Performance

---

**Components of the 15-Session COPE Healthy Lifestyles TEEN Program**

- 7 Sessions of cognitive-behavioral skills building
- 8 Sessions of nutrition and physical activity education
- 20 minutes of physical activity in each session

---

**The COPE Healthy Lifestyles TEEN Program**

<table>
<thead>
<tr>
<th>Session #</th>
<th>Session Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction &amp; goals of the program; Healthy Lifestyles: The thinking, feeling, behaving triangle</td>
</tr>
<tr>
<td>2</td>
<td>Self-esteem; Positive thinking/self-talk</td>
</tr>
<tr>
<td>3</td>
<td>Goal setting; Problem-solving</td>
</tr>
<tr>
<td>4</td>
<td>Stress and coping</td>
</tr>
<tr>
<td>5</td>
<td>Emotional/behavioral regulation</td>
</tr>
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</table>

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**The COPE Healthy Lifestyles TEEN Program**

<table>
<thead>
<tr>
<th>Session #</th>
<th>Session Content</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>Effective communication</td>
</tr>
<tr>
<td>7</td>
<td>Physical Activity</td>
</tr>
<tr>
<td>8</td>
<td>Heart rate; Stretching</td>
</tr>
<tr>
<td>9</td>
<td>Food groups and a healthy body; Stoplight diet; Red, yellow &amp; green</td>
</tr>
<tr>
<td>10</td>
<td>Reading labels; Effects of the media on food choices</td>
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**The COPE Healthy Lifestyles TEEN Program**

<table>
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<tr>
<th>Session #</th>
<th>Session Content</th>
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<tbody>
<tr>
<td>11</td>
<td>Portion sizes; Influence of feelings on eating</td>
</tr>
<tr>
<td>12</td>
<td>Social eating; Strategies for eating during parties, holidays, vacations</td>
</tr>
<tr>
<td>13</td>
<td>Snacks; Eating out</td>
</tr>
<tr>
<td>14</td>
<td>Integration of knowledge and skills to develop a healthy lifestyle plan</td>
</tr>
<tr>
<td>15</td>
<td>Pulling it all together; Review of course content</td>
</tr>
</tbody>
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**Session 1 Thinking, Feeling, and Behaving: What is the connection?**

When you think positively, you will be happier and have less stress. How you think affects how you feel and how you behave.
EXAMPLE

15 year old Sara has poor self-esteem. One of her classmates called her “chubbo.” Sara believes that she is fat, ugly and that no one likes her (negative thinking). As a result, she feels depressed (negative emotion) and isolates herself, never attending any social events with her peers (negative behavior). The trigger event here was that one of her friends called Sara “chubbo.”

COPE

Goal Setting & Self-Monitoring Log

Goal: Write Two Positive Self-Statements

Number of Times You Said Your Positive Self-Statements

Day #1  Day #2  Day #3  Day #4  Day #5  Day #6  Day #7

Emotions (How have you felt this week?)

Rate your emotions on a scale from “not at all” to “a lot.”

Worried  Stressed  Happy  Sad

Session 1

Homework Example

Name three situations in the past few days of how thinking negatively affected how you felt and how you behaved. Then, write down how you could have changed your thinking to feel better and act differently.

Session 3

Stress and Coping

• What is stress?

Stress is when you do not have the ability or skills to deal with things that you see as frightening or unpleasant (like taking a test that you didn’t study for or missing your curfew).

Emotional Signs of Stress

- Feeling anxious
- Feeling nervous
- Feeling down or depressed
- Feeling hopeless
- Feeling angry or irritable
- Feeling overwhelmed or “burned out”

Positive Ways to Deal with Stress

- Talking about how you feel
- Exercise
- Seeking out family and friends for support
- Writing your thoughts and feelings in a journal
- Turning a negative thought in response to a stressor into a positive one
- Taking one bite of the elephant at a time when you start something new
STRESSOR (Antecedent event)
↓
NEGATIVE THOUGHT TO STOP (Belief)
↓
REPLACE THE NEGATIVE WITH A
POSITIVE THOUGHT
↓
POSITIVE EMOTION &
BEHAVIOR (Consequence)

Session 3
Managing Stress Homework

- What are some stressful situations you have had this week?
- What things did you do to decrease your stress?

Parent Newsletters

- Four times during the course of the program, teens are provided with a newsletter to review with their parents that covers the content in the program

Positive Outcomes of 3 Pilot Studies with the COPE TEEN Program

- Increase in nutrition and activity knowledge
- Increase in healthy lifestyle beliefs
- Decrease in perceived difficulty
- Increase in healthy lifestyle choices and behaviors
- Increase in self-esteem
- Decrease in weight and BMI
- Increase in HDLs
- Decrease in LDLS
- Decrease in depressive and anxiety symptoms

Methods for the COPE Clinical Trial

- 11 Schools were randomly assigned to COPE or the Attention Control Healthy Teens Program
- Teachers attended a day of training on their intervention program and were supplied with all manualized materials, including power points, teen handbooks, and instructor manual
- Teachers integrated their intervention program into their health course curriculum once a week for 50 minute sessions over 15 weeks
- Observers rated the teachers on intervention fidelity four times during the course of the semester

Physical Activity Behavior Outcome

Teens who received the COPE curriculum had significantly greater steps per day than the teens who received the Healthy Teens curriculum

* Statistically significant
BMI Immediately Post-Intervention
COPE participants had a lower average BMI than the Healthy Teens participants even though their BMI was higher at baseline.

Depression Post-Intervention
Among teens with extremely elevated depression scores at baseline, those that received the COPE curriculum had on average, a lower depression score than those that received the Healthy Teens curriculum at the 15-Week follow-up.

Alcohol Use Post-Intervention
Alcohol use was significantly less in the COPE group than in the Healthy Teens group at the 15-week follow-up.

Social/Academic Outcomes
The Social Skills Rating System showed that the COPE group had higher average scores on the Cooperation, Assertion, and Academic Competence subscales.

Other 6 Month Post-Intervention Findings
- For the COPE teens in the healthy weight category at baseline, 143 (97.3%) remained in the healthy weight category at 6 months; and four (2.7%) moved to the overweight category. For those in Healthy Teens, 187 (91.2%) remained in the healthy weight category at 6 months; 15 (7.3%) progressed to the overweight category; and three (1.5%) moved to the obese category.
- 11.9% of COPE teens reported alcohol use versus 17.1% in the attention control group (p=.06).
Teen and Parent Feedback

- Seventy-eight percent of the COPE teens reported the program was helpful on the post-intervention evaluation questionnaire with hundreds of comments regarding specifically how COPE helped them.
- Students reported the most helpful program elements in COPE were content on stress and coping, nutrition and exercise.
- Ninety-two percent of the parents indicated the program was helpful for their teens and 94% of parents reported that they would recommend the program to family or friends.

Specific Teen Feedback

- Exercising when you are sad or angry helps you not get so stressed.
- I learned how to control yourself when you’re mad.
- COPE helped me feel a little better about myself.
- Exercise is fun and should be a part of everyday life.
- I’ve actually started walking more and taking longer routes to increase my steps.
- I look at food labels.
- My motivation has drastically increased.
- I learned how to set goals to be more active.

Specific Parent Feedback

- She learned a lot about how to handle stressful situations.
- The program has made my teenager more aware of the need for physical activity to safeguard her health.
- It helped me take better care of myself.
- It assisted in overall communication with my child.
- It helps me to prevent diabetes and overweight.
- It has helped me choose better foods for my family and motivate them to exercise regularly.

Implications

- COPE can be used as either a preventive or management intervention program for overweight/obesity in adolescents.
- The program is manualized and designed to be delivered in individual, group or school-based/clinic settings.
- Work is now ongoing to adapt the program for school-age children and college-age youth as well as children and teens in Appalachia.

Essential Elements of Conducting Intervention Studies

********The Five Ps********

- Prevalence of the problem and the “so what” factor
- Passion
- Planning
- Persistence to get through the “character-builders!”
- Patience
The “So What” Factor in Intervention Research

- “So what” is the prevalence of the problem and is it modifiable through an intervention?
- “So what” will be the end outcome of the study once it is completed?
- “So what” difference will the study make in improving health, education or healthcare quality, costs and, most importantly, patient, family or community outcomes?

The State of Intervention Studies

- Determining effects of interventions is currently a top research priority
- Only approximately 20-25% of studies test interventions
- Common problems in intervention studies
  - Lack of a theoretical framework to guide interventions
  - Lack of sufficient power to detect differences between study groups
  - Lack of an appropriate attention control intervention
  - Failure to limit sources of error

Major Benefits of Conducting Intervention Studies

- A true experiment or randomized controlled trial is the strongest design for testing cause and effect relationships and provides strong evidence upon which to change/improve practice

Rating System for Levels of Evidence (from Melnyk & Fineout-Overholt, 2011)

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<tr>
<th>Level</th>
<th>Description</th>
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<tbody>
<tr>
<td>I</td>
<td>Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials or evidence-based clinical practice guidelines based on systematic reviews of RCTs</td>
</tr>
<tr>
<td>II</td>
<td>Evidence obtained from at least one properly designed randomized controlled trial</td>
</tr>
<tr>
<td>III</td>
<td>Evidence obtained from well-designed controlled trials without randomization</td>
</tr>
<tr>
<td>IV</td>
<td>Evidence obtained from well designed case-control and cohort studies</td>
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</table>

Rating System for Levels of Evidence

<table>
<thead>
<tr>
<th>Level</th>
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</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>Evidence from systematic reviews of descriptive and qualitative studies</td>
</tr>
<tr>
<td>VI</td>
<td>Evidence from a single descriptive or qualitative study</td>
</tr>
<tr>
<td>VII</td>
<td>Evidence from opinion of authorities and/or reports of expert committees</td>
</tr>
</tbody>
</table>

Modified from: Guyatt & Rennie, 2002 and Harris et al., 2001
Important Factors to Consider When Initially Considering an Intervention Study

- Prior Work – you must know what has been done and be able to synthesize that body of research
- Feasibility
- The Setting(s) and Subjects - characteristics
- The Study Team
- All Aspects of the Interventions: content, length, medium, who will deliver, dose, likelihood of impacting the outcome, cost, reproducibility, measurement of fidelity, details of the attention control intervention

A PhD or DNP?

- PhDs are research scientists who generate external evidence through rigorous research to guide practice and policy
- DNPs are the best translators of evidence into clinical practice and policy to improve healthcare quality and health outcomes; they generate internal evidence and are expert evidence-based practice mentors

Conclusions

- We must work together to accelerate the translation of research findings into clinical care in the form of evidence-based practice to improve healthcare quality and patient outcomes

Persistence is a Key to Success

Theodor S. Geisel wrote a children’s book that was rejected by 23 publishers. The 24th publisher sold 6 million copies of the first “Dr. Seuss Book.”

A key ingredient for success is persistence as there will be many “character-building” experiences along the way!!

“At least I have found 9000 ways that it won’t work.”

Thomas Edison

There are times in the journey when you will be shocked
And Stressed!

And Fatigued!

The Next 2-5 Years
What will you do tomorrow and in the next 2 to 5 years if you know that you could not fail?

Shoot for the moon, even if you miss, you will hit the stars

Les Brown

There is a magic in thinking big!

The Most Inspirational Video Ever!

Contact Information

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References

