Understanding the Impact of Adverse Childhood Experiences on Adult Health

Alesia O. Jones, PhD

Leah A. Patton, MD

Shalini Kumar, BS

UIC UNIVERSITY OF ILLINOIS
COLLEGE OF MEDICINE | ROCKFORD

Disclosures

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Goals and Objectives

1. Participants will be able to define Adverse Childhood Experiences (ACEs).

2. Participants will be able to describe the consequences of ACEs.

3. Participants will learn about the role of resiliency as a potential protective factor against the negative outcomes of ACEs.

4. The current study investigated the relationship between ACEs and adult health among patients receiving care in a family medicine setting. The current study also examined the relationship between ACEs, resiliency, and mental health.

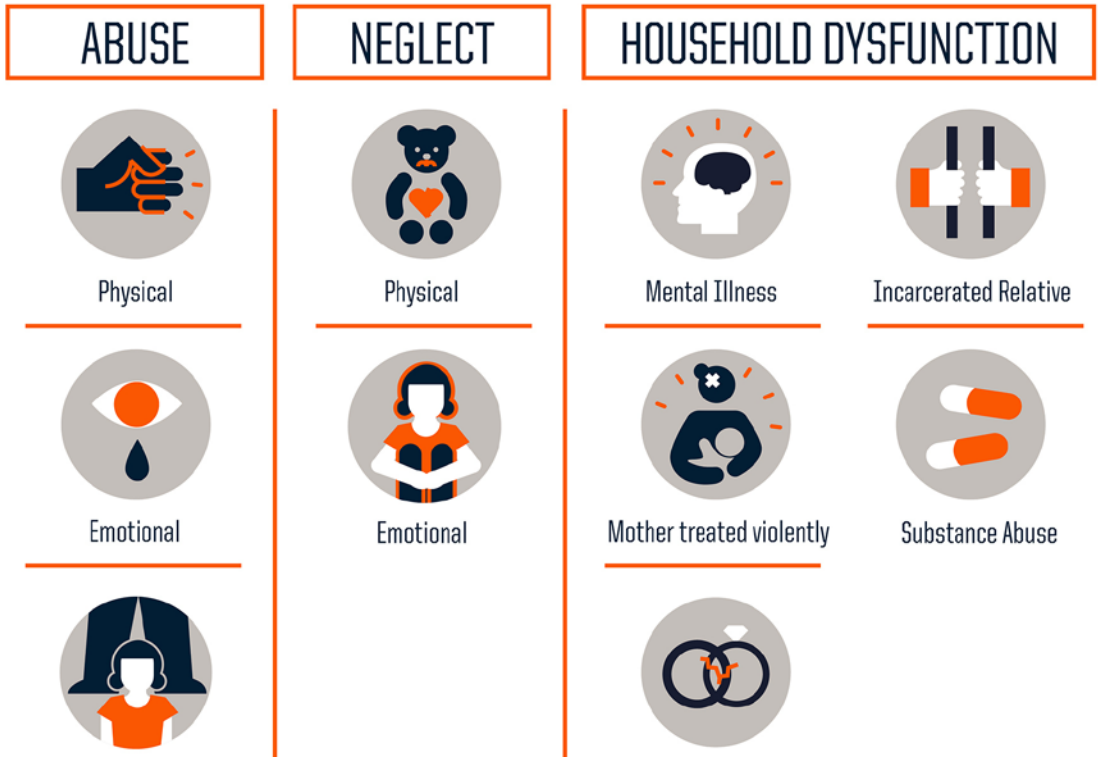
5. Participants will be able to apply trauma-informed care screening and strategies in a family medicine setting.

What are ACEs?

Adverse Childhood Experiences:

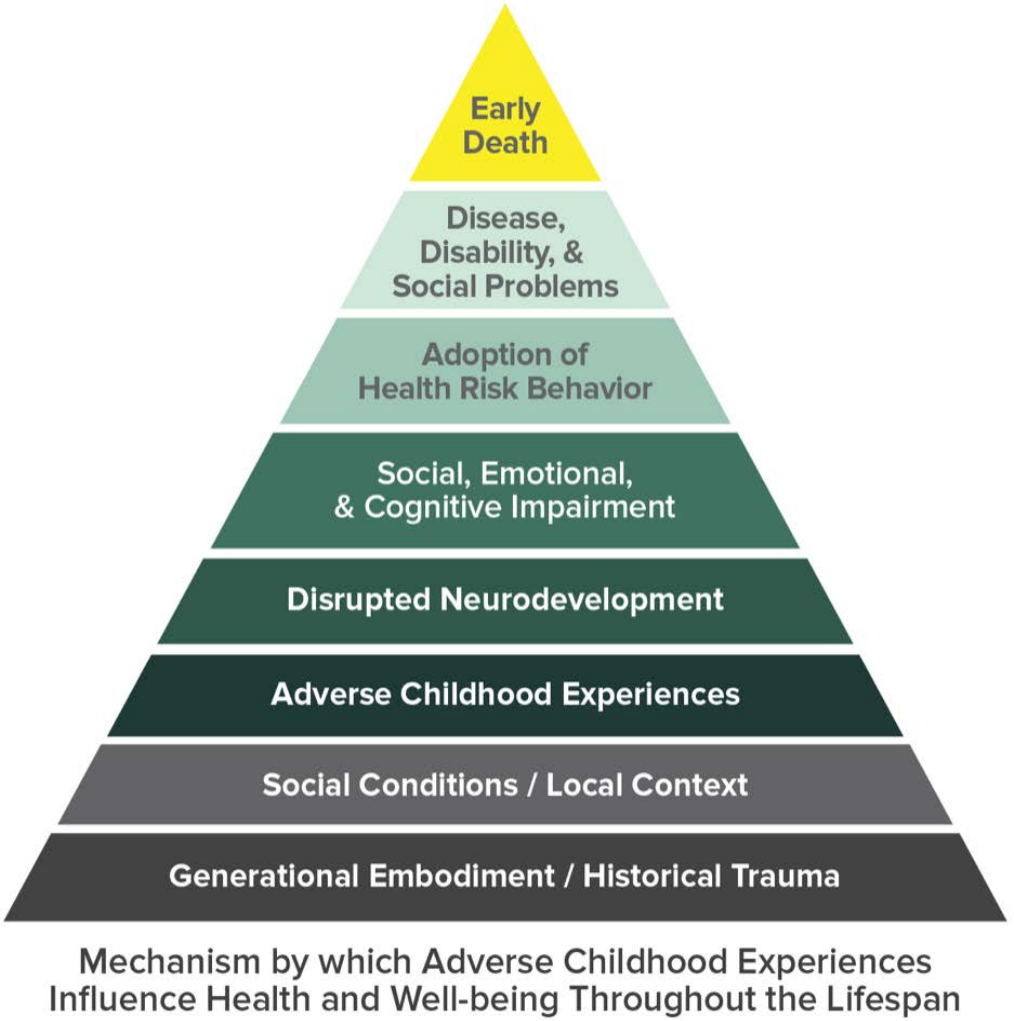
- Potentially traumatic events that can have negative, lasting effects on health and well-being.[1]

- Major risk factors for chronic medical conditions, poor mental health and a poor quality of life.[1]



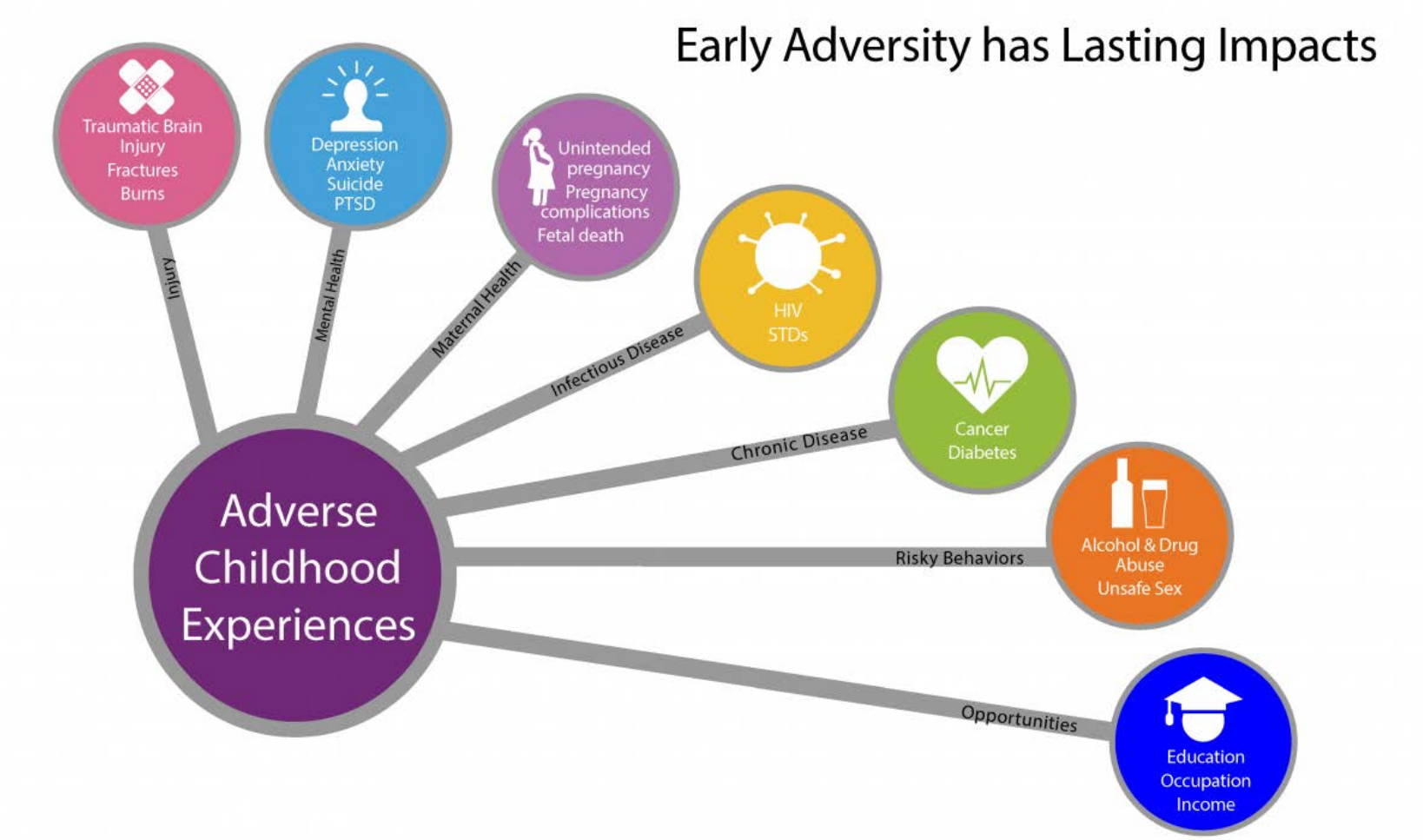
Kaiser ACE Study[2]

- N ~ 17,000
- Questionnaires:
  - Family health history questionnaire
  - Health appraisal questionnaire



Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Consequences of ACEs[3]



Resiliency

- Resiliency refers to the ability of an individual to cope with adversity and trauma, and adapt to challenges or change.[4]
- Resiliency focuses attention on positive contextual, social, and individual variables that interfere or disrupt developmental trajectories from risk to problem behaviors, mental distress, and poor health outcomes.[5]
- The relationship between resiliency and adverse childhood experiences is less understood.
- Resiliency may be an important protective factor.

Purpose of Study

Examine the relationship between ACEs and adult health in a family medicine setting:

1) Mental health symptoms
   - -Depressive symptoms
   - -Anxiety symptoms
   - -Posttraumatic Stress Disorder symptoms
2) Chronic medical conditions
3) Examine role of resiliency

Method

- Adult patients 18 years and older
- Read English, 10-15 min
- Currently receiving services, consent, complete before end of apt.
- Exclusion criteria:

  -Patients deemed suicidal or psychosis, any acute issue preventing them from taking part in the study
- Clinic psychologist contacted if patient experience/report distress
- All patients received resource list

Table 1. Demographic Information

Variables	n (%)
Age	
18-20	8 (4.4)
21-30	30 (16.7)
31-40	43 (23.9)
41-50	30 (16.7)
51and over	69 (38.3)
Gender (%)	
Male	34 (18.8)
Female	147 (81.2)
Race/Ethnicity	
African American/Non-Hispanic	37 (20.4)
Asian American/Pacific Islander, non-Hispanic	1 (0.6)
Caucasian, Non-Hispanic	63 (34.8)
Hispanic	69 (38.1)
Multiracial	10 (5.5)
Other	1 (0.6)
Marital Status	
Married/Partnered	69 (38.1)
Single	71 (39.2)
Separated	5 (2.8)
Divorced	24 (13.3)
Widowed	12 (6.6)

n=182

Method

Self-report Instruments

- **Adverse Childhood Experiences Questionnaire (ACEs)** asks about adverse childhood experiences during respondent's first 18 years of life. The experiences consist of verbal abuse, physical abuse, sexual abuse, having a battered mother, parental separation or divorce, and four types of household dysfunction. Respondents were asked to check a box if they experienced the adverse event in childhood.[6]

- **The Center for Epidemiologic Studies Depression Scale-Revised (CESD-R10)** is a screening measure for depression and depressive disorder.[7]

- **Connor Davidson Resiliency Scale-Brief (CDRS)** measures the respondent's ability to cope with stress and adversity.[8]

Method

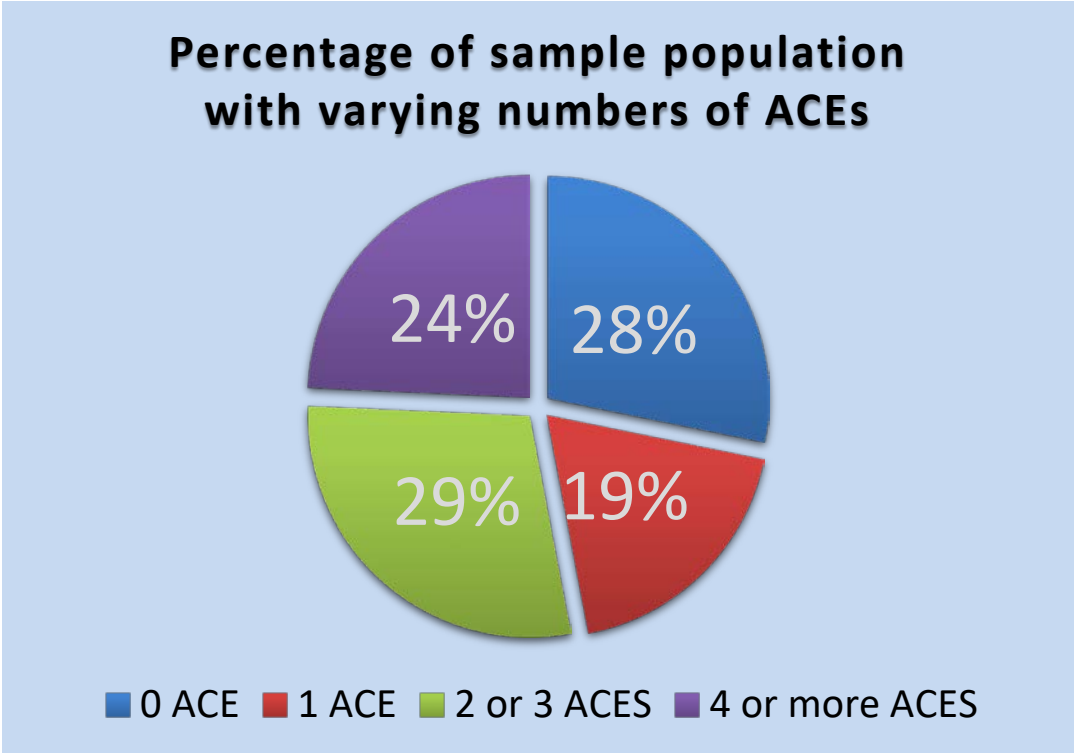
- **Generalized Anxiety Disorder-7 (GAD-7)** is a widely used self-report measure developed to screen for anxiety disorders.[9]
- **Primary Care PTSD Screen (PC-PTSD)** is comprised of four items, each of which corresponds, respectively, to one of the four factors associated with the PTSD construct (i.e., re-experiencing, avoidance, numbing, and hyperarousal).[10]
- Demographic form

Data Analysis Plan

- Relationships between ACEs (at least one ACE and no ACE) and health outcomes, resilience, and medical conditions was analyzed using parametric and nonparametric bivariate statistics.
- Regression analyses was used to assess the protective effect of resiliency.
- Significance level was at $p<.05$ using SAS 9.4.

Results

- The mean ACE score was 2.3 (SD=2.3)
- 71.8 % of patients reported at least one ACE
- Almost ¼ of patients reported 4 or more ACEs
- ACEs groups=
  - ACEs n=129
  - No ACEs n=51



Results

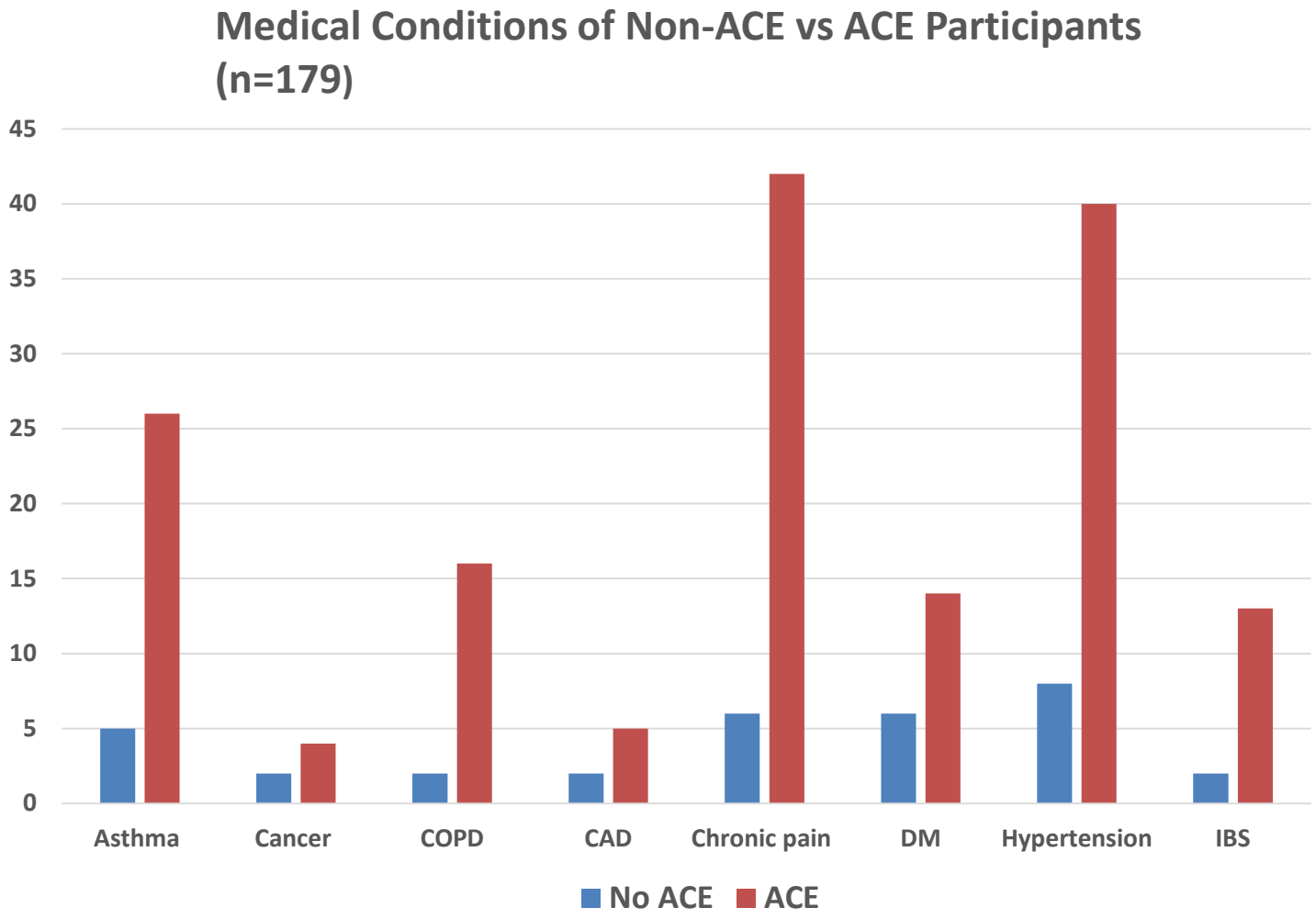
Table 2. Means and Standard Deviations Between ACE groups and Mental Health Outcomes

Outcome variable	ACES					
	No ACES			ACE of 1 or more		
	M	SD	n	M	SD	n
PTSD	0.33	0.97	51	1.30	1.55	129
Anxiety	3.39	5.06	51	8.18	6.85	129
Depression	6.09	4.21	51	11.3	7.65	129
Resiliency	30.0	7.28	51	26.3	8.45	127

Results

- Significant differences was found between the two groups for:
  a. anxiety, $t(123)=5.15$, $p < .001$
  b. depressive symptoms, $t(160) = 5.86$ $p < .001$.
  c. PTSD symptoms, $H= 18.8$, 1 df, $p<.001$.
- A significant negative relationship was found for resiliency, $t(176) = -2.78$, $p = .01$
- Linear regression analyses indicated that resiliency was significant in predicting:
  a. anxiety, $F(1, 125)=33.9$, $p<.001$
  b. depressive symptoms, $F(1,176)=102.1$, $p<.001$
- Logistic regression analyses revealed resiliency also predicted PTSD symptoms, $\chi2(1) = 39.7$, $p < .001$.

Results



ACEs was associated with chronic pain (p<.001) and hypertension (p=.03).

Discussion

- The majority of patients reported at least one ACE.
- Patients who reported a history of ACEs were more likely to report mental health symptoms consisting of depression, anxiety and PTSD.
- Patients reporting at least one ACE had lower mental health scores if they had higher resiliency.
- Participants who reported ACEs were more likely to report chronic pain and hypertension.

Discussion

Limitations:

- One family practice setting was used in the current study. Despite this, we were able to capture ethnic minority groups underrepresented in research yet highly impacted by ACEs in their communities.
- We examined symptoms and did not confirm any mental disorder diagnoses.
- Providers were not involved in providing ACEs to their patients to facilitate patient care.

Conclusion

- Link between ACEs and health outcomes supporting trauma-informed primary care.[11]
- Importance of a multidisciplinary team to address the needs of this patient population.
- Provider education on use of screening of ACEs, risk identification and response, and building patient resiliency.

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Any Questions?

alesiah@uic.edu