

Understanding Adverse Childhood Experiences – ACES
Presented Sunday - 11 3 19 – Redeeming Life Ministries
[Dale Fletcher – Faith and Health Connection Ministry](#)

- **Understanding ACES Title Slide. Introduction - PPT**
 - Dale Fletcher – Founder of Faith and Health Connection ministry
 - Bishop Ronnie Duncan (Bishop, Garden of Shalom ministry and Chief Diversity Officer, Agape Hospice in Rock Hill)

 - Share about ACEs (Early Life trauma & toxic stress) as it may give us greater insight about factors that likely have contributed to many of our lifelong choices and behaviors and even influenced our biology and our health.
 - **Today is Part 1** – Information about the science of early life trauma and its life-long impact.
 - Beginning Thursday evenings on November 14 – Bishop Duncan and I will be leading **Part 2** – Several sessions on the Biblical prescription for healing and resilience for issues that may have occurred – or are occurring now - due to early life trauma/stress.

- **Key Points That Will be Addressed**
 - One’s physical, mental and social health is directly interrelated with one’s spiritual health or the condition of their heart.
 - There is a very strong relationship between many health and social issues and early life traumatic experiences or chronic, toxic stress.
 - Our attempted solutions to deal with tough circumstances are often unhealthy, unlawful or sinful.
 - Invite you to reflect and ask yourself – “What impact has my early life experiences had on my health or behavior in the past or presently?” “How might I have learned to adapt to life and its stressors in unhealthy or inappropriate ways?”
 - Our Christian faith offers spiritual solutions for our social and health issues.

- **PLEASE ASK QUESTIONS - PPT**

- **God’s Design for Perfect Wholeness/Wellness - PPT**
 - Spirit, Soul and Body Diagram
 - Gen 1:27 – “So God created human beings in his own image. In the image of God he created them; male and female he created them.”
 - A perfectly sound brain - with parts that especially develop during early years
 - A spiritual heart that is loving, tender and unblemished

- **The Fall and Life After Eden**

- Sin and evil messes up God's design for perfect wholeness
- Perfection Meets Imperfection - **PPT**
 - Satan and Evil Forces
 - Original Sin
 - Sins of Others Against Us
 - Our Sinful Choices/Behavior
- We Live in a "Stressful" and Sinful Environment – A Fallen World
 - Our responses to "Stressors" throughout life will shape us:
 - Spiritually – deep in our heart
 - Mentally
 - Emotionally
 - Physically
 - Socially
 - Healthy responses to stressors of life ---> good health. Life.
 - Unhealthy responses/adaptations ---> typically leads to poor health. Death. In **Deuteronomy 30** we find a spiritual truth: If we follow God's ways, it promotes life. If we follow our own ways and the ways of the world, it promotes death.
 - **READ:** I'm going to be sharing with you some **findings from the Adverse Childhood Experience Study**... We'll call it "**the ACE Study**". *The ACE Study confirms, with scientific evidence, that adversity and toxic, chronic stress early in life increases physical, mental, behavioral and social problems later in life.*

- **Brain Science and Toxic Stress in Childhood - PPT**

Before I talk about the ACE Study, I want to share some facts about the brain and how it develops.

Research shows that interactions **with** other people and objects are vital nutrients for the growing and **developing brain**, and different **experiences** can cause the **brain to develop** in different ways. In part, our brain develops in a way that attempts to assist us in adapting to the world we live in.

In a way that we cannot fully appreciate, all of our memories, especially the strong memories, are stored not only in the brain but in other parts of the body in physical form.

And the brains are especially sensitive to our experiences in early childhood. What is experienced most frequently will lead to stronger connections in the various parts of the brain.

Every child is unique and the way their brains develop are unique.

- **Effects of Toxic Stress/Maltreatment – PPT**

Research Findings indicate that toxic stress in childhood effects brain development in very predictable ways. Not all stressful experiences generates the same effects.

There seem to be 3 key **variables that determine the effects of stress/maltreatment:**

- 1 - the type of maltreatment
- 2 - gender of the child
- 3 - age of the child at the time of the maltreatment

As the brain develops, there are sensitive periods for each brain region when the size and functional abilities of the region are most affected by experience and are most vulnerable to toxic stress. New abilities build on the growth and development from earlier months and years. Over time, elaborate systems of specialized brain regions develop that help us to navigate increasingly complex environments.

Different regions of our brains have a specific functions. When the brain develops normally, these parts of the brain work well and these functions are well performed. But when toxic stress is experienced, especially in early childhood, these areas of the brain are not well developed, and these functions become impaired:

- Ability to focus. Pay attention.
- Social interaction
- Decision making
- Ability to handle emotional stress
- Learning
- Memory to name a few

Persistent Stress Changes Brain Architecture - PPT

Traumatized brains look different from non-traumatized brains in 3 predictable ways:

1. The Thinking Center is under-activated.
2. The Emotion Regulation Center is under-activated.
3. The Fear Center is over-activated.

So a very important takeaway is that toxic stress can be hardwired into one's biology.

Research in the field of science called **epigenetics** suggests that stressful experiences can influence chemical attachments in our cells that influence the reading of our genetic code in ways that can have negative effects on the way our cells function.

This may be an explanation as to why ACEs (Adverse Childhood Experiences) are related to so many health and social problems.

- **Neuroplasticity - PPT**

Resilience research shows that our brains are plastic and that our bodies can heal through implementing protective factors and resilience-building practices based on ACEs science.

We can be encouraged that **positive life experience** can negate, even change, the negative effects of early life trauma and have positive effects on human development, health and well-being.

Researchers have learned that responses to stressful life events may be passed along to future generations. So, the science provides us with hope that our ways of interacting with one another in loving ways can have positive changes in a person's genes are expressed and function.

The wiring of our brains can change.

- **The ACE Study - PPT**

We've been looking at the impact of toxic stress on individuals in early life.

Let's transition and look at the effects of toxic stress on a population from a public health perspective. This is called **epidemiology**. Epidemiology is the method used to find the causes of health outcomes and diseases in populations

We're going to look at a large epidemiological study about the impact of Adverse Childhood Experience. Dr. Anda and Dr. Felitti are the principle researchers of the study that has become known as "The ACE Study".

- **Health Related Behaviors. How are they Developed? How do they Come About? - PPT**

In the late 1900s researchers became to understand that many unhealthy, even addictive, behaviors stemmed from people's attempts to cope significant life circumstances or stressors and the emotional and mental state resulting from these challenging life circumstances, such as anxiety and depression. This was a plausible explanation as to why many people begin to smoke cigarettes and continue that as a habit. Nicotine was a drug that was a solution for them, albeit an unhealthy solution. It helps people cope with being in a depressive state.

Soon after publishing studies related to cigarette addiction, Dr. Anda at the CDC met Dr. Vincent Felitti, who was then the Director of the Department of Preventive Medicine at Kaiser Permanente in San Diego.

Dr. Felitti shared his findings with Dr. Anda – that **childhood sexual abuse early in life was related to morbid obesity in women.**

Dr. Felitti sensed that overeating and subsequent obesity was a response to this terrible form of childhood trauma. Based on interviews with his weight loss program participants Felitti believed that morbid obesity could be a defense against unwanted sexual advances.

- **Could Major Health Problems Be Rooted in Early Life Adversity? - PPT**

Drs. Anda and Felitti wondered. Was childhood trauma or adversity the root cause for major diseases, health conditions and disability?

So, they decided to take a public health approach on the impact of childhood abuse and similar adverse childhood experiences.

- **The Life Course Model. Mechanisms by Which ACES Influence Health – PPT**

This diagram might be called a life course model. It depicts the thinking of Drs. Anda and Felitti that early death and disease may be rooted in early childhood trauma.

Explain the progression from bottom to top.

And this is important because what is predictable is preventable.

- **The ACE Study (again) - PPT**

Dale Recounts How He Learned of the ACE Study - I learned about the Adverse Childhood Experiences Study – The ACE Study - in 2012 when I was preparing to give a short talk titled “*Caring for Our Spirit. Why It’s Essential in Our Fight Against Obesity.*”

I came across a journal article titled ‘*Obesity: Problem, Solution or Both?*’ Vincent Felitti, MD, The Permanente Journal, Spring 2010

The ACE Study is the largest study of its kind, with over 17,000 participants. It was developed and co-sponsored by Kaiser Permanente (*managed care insurance organization*) of San Diego, California, and the Centers for Disease Control and Prevention in Atlanta, Georgia in the early ‘90s. Dr. Vincent Felitti and Dr. Rob Anda are the co-principal investigators of the ACE Study.

Design of the ACE Study began in 1991; in 1994 the CDC provided funding to conduct the ACE Study at the Department of Preventive Medicine in San Diego.

Surveys were taken from 1995 to 1997. About half were female; 74.8% were white; the average age was 57; 75.2% had attended college; all had jobs and good health care, because they were members of the Kaiser [health maintenance organization](#). Participants were asked about different types of [childhood trauma](#) that had been identified in earlier research literature their ages ranged from 19 to 94 years.

Study participants are still being followed to assess the relationship of ACEs to causes of death, incidence of diseases, health care utilization, and use of prescription medications.

- **10 Categories of Toxic Stress - PPT**

This slide shows the 10 categories of Adverse Childhood Experiences that were studied.

An ACE Score is simply a count of the number of categories of ACEs that each person reported -- from 0 to 10. Each category counts as 1 point in the ACE Score. So, if a person experienced physical abuse, no matter how many times, or what the severity of the abuse, the ACE Score is 1; if the person experienced physical abuse and had a substance abusing parent, the ACE Score is 2, and so forth.

- **ACES Score Prevalence % - PPT**

As you can see from the percentages on the slide, **ACEs were common** in this **middle class well educated population**.

- **A Dose Response. More ACES --> More Health Problems - PPT**

The study showed that **People who had higher ACE scores were more likely to have health problems**.

This is called a dose-response relationship

- **ACES and Smoking - PPT**

The study found that the higher one's ACE Score, the more likely they would smoke more than 1 pack per day as an adult.

So let's connect some dots! Early life trauma can result in depression and anxiety. Since nicotine can reduce symptoms of depression and anxiety and the associated emotions, smoking is an adaptive behavior.

It's an attempted solution for a deeper problem.

- **Connecting the Dots - PPT**

As I share these next examples, if you experienced any early life trauma, you may be able to relate to *'what's happened to you'* and how you learned to *'adapt'* to those difficult circumstances.

So, you might be thinking.... Did what happen early in my life influence some of my health-related behaviors? Are those circumstances still influencing some of my habits in a meaningful way?

You may more clearly be able to **"connect the dots"** between some of your past - or even current - life struggles with your earliest life experiences.

- **Other Specific Examples**

Now I'm going to share with you many examples of the relationship between ACE scores and health and social problems.

They say that 'a picture is worth a 1,000 words' So I'll show you a handful of graphs to help you further.

SHOW 3 OTHER PPTS with Dose Response Examples

Childhood Experiences Underlie Chronic Depression – PPT

Depression is the leading cause of disability. As we mentioned before, ACEs and their memories are stored in the body, and lead to mental, physical, behavioral health problems later in adulthood.

- **ACE Score and Severe Obesity – PPT**

As I mentioned earlier, the ACEs Study stemmed from a weight loss program for morbidly obese people. It should not be surprising that ACE scores and severe obesity have a strong relationship.

Obesity is often a physical symptom, or marker, of a deeper emotional or spiritual issue.

Behaviors that lead to obesity, such as poor eating or overeating and inactivity, often occur to help the person:

Avoid or escape the hurt and emotional pain from:

- Loss (death, separation or divorce)
- Trauma (abuse of any kind)
- Guilt

Shame
Rejection or abandonment
Feeling unloved or unaccepted
Loneliness
Emptiness
Lack of identity, worth or self-esteem

Cope with:

No sense of purpose or meaning in life
Hopelessness, despair or depression
Bitterness or unforgiveness
Anger
Anxiety, worry or fear
Conflicts in relationships

- **Obesity and Trauma Quote – PPT**

Dr Felitti includes this quote in the original journal article about the ACE Study.

- **ACES and Impaired Memory in Childhood - PPT**

This is another example. Dale listed this as an example of how ACEs has played out in his own life.

- **ACES in South Carolina – PPT**

Data that is specific to York County, SC. The county in which the church exists.

- **Examples (a listing) of ACE-Attributable Problems – PPT**

Here is a summary listing of some of the health and social problems documented by ACE Study publications.

Because ACEs have a powerful impact on many health and social problems, the ACE researchers concluded that **ACEs are the leading cause of health and social problems in our nation.**

- **Lifetime Effects from ACES - PPT**

So, over a lifetime, exposure to ACEs early in life can impact on how one's **brain develops, modify their cells**, and impact on how a person **adapts** to life events.... often in unhealthy ways.

Childhood trauma could be an explanation for much of the unemployment, incarceration, poverty and adult homelessness that exists in **our county, state and nation.**

A researcher writes this in an issue of the journal *Pediatrics*: "... many adult diseases should be viewed as developmental disorders that begin early in life and that persistent health disparities associated with poverty, discrimination, or maltreatment could be reduced by the alleviation of toxic stress in childhood."

Shonkoff, Garner et al (2011)

Pediatrics

<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/EBCD/Documents/Boyce%20PAS%20talk.pdf>

ACEs might be the **root cause** of **many** serious academic, **social** and behavioral **problems** that have the potential to prevent a child from receiving the full benefits of education (Kauffman, 2016). ... In fact, an **ACE** score of 3 or higher makes children 32 times more likely to struggle in school.

- **ACES and Intergenerational Transmission - PPT**

From the ACE Study and the science of epigenetics, we see how people who are exposed to ACEs tend to develop the same behaviors and health and social problems that become ACEs for the next generation.

So you see this down arrow on the right side of the pyramid.

One of our challenges is to disrupt the intergenerational transmission of ACEs.

- 2 Slides About Chronic Disease and Coping Devices. – 2 PPTs

- **Barometer - PPT**

Our behaviors and our bodies are a barometer for how we're handling life and adapting to the stressors of life, **including early life trauma.**

So, our unhealthy and sometimes addictive behaviors and physical and mental and conditions and even social issues are often symptoms of deeper unresolved spiritual issues or risk factors.

- **Spiritual Risk Factors (Issues of the Heart) – PPT**

Childhood traumas are **wounds to one's heart – to one's spirit.**

The issues of the heart reflected on this slide are a form of 'Spiritual Risk Factors' for unhealthy behavior, poor health and some of our nation's social issues.

These are the root issues that a person must heal from to become more whole – emotionally, spiritually, mentally and physically.

- **Matthew 15:19 and Proverbs 4:23 – PPT**

Matthew 15:19 reminds us that nothing good comes from a heart that is not well.

A wounded or damaged heart if not healed will tend to manifest itself as one or more of the ‘spiritual risk factors’ And the coping behaviors and chronic diseases that have been documented in the ACE Study.

Proverbs 4:23 tells us how important it is to take care of our heart!

- **Our Deepest Spiritual Needs - PPT**

Many ACES Behaviors (Adaptations & Responses to Toxic Stressors) are Related to Our Attempts to Meet Our Deepest Spiritual Needs - as seen on this slide.

We all inherited Spiritual DEATH from the Original Sin that Adam and Eve passed on to us which was *separation from God*. *Because of that we try **to FILL** the void or relational hole.*

And for the person who has experienced significant life trauma – whether it be as a child or as an adult – the deep wounds to their hearts are often manifested in unhealthy, addictive or violent behaviors or as health conditions that stem from the unhealthy behaviors. Many of these problems are attempted solutions to meet a deeper spiritual need.

We mess up our life, and often the lives of others, when we try to meet these deep needs apart from God – not following and applying his principles found in the Bible. We’ll briefly look at some key ways that God meets our deep needs in the resilience part of this training.

TRANSITION. PAUSE and Invite Holy Spirit to Guide You.

- **Your Personal ACES History - PPT**

What we’ve looked at may be a very sensitive area to some of you.

If this topic brings up emotions that are difficult for you to handle, we will have an opportunity for prayer and ministry afterwards.

If there is a raw spot in your soul/spirit then you may benefit from help from the Bishop or a Christian counselor to work through things.

I pray that we each have the courage to be honest with our self and explore our hearts to see if there is a healing work that God wants to do ... to make us more whole.

- **ACES Listing (again) - PPT**

To remind you, these are the 10 categories of ACEs for your reflection.

- **Spiritual Issues & Needs Require Spiritual Solutions – PPT**

ACES are wounds to the spirit. And spiritual issues require spiritual solutions. The most effective solution through our relationship with the God of the Bible, with His Son Jesus and by applying the principles found in his Word by the guidance and power of Holy Spirit.

The Bible provides a framework for understanding life and guidelines for living as he designed us to live. Through his living Word, we get to know Him.

Relevant scripture:

“All Scripture is inspired by God and is useful to teach us what is true and to make us realize what is wrong in our lives. It corrects us when we are wrong and teaches us to do what is right. 17 God uses it to prepare and equip his people to do every good work.”
2 Timothy 3:16-17

“My son, pay attention to what I say; listen closely to my words. Do not let them out of your sight, keep them within your heart; for they are life to those who find them and **health to a man's whole body.**” Proverbs 4:20-22

“So get rid of all the filth and evil in your lives, and humbly accept the word God has planted in your hearts, for it has the power to save your souls.... 25 But the man who looks intently into the perfect law that gives freedom, and continues to do this, not forgetting what he has heard, but doing it—he will be blessed in what he does.” James 1:21, 25

“Show me your ways, Lord, teach me your paths.” Ps 25:4

So, the Bible holds the principles for living that, if we believe and follow, gives us salvation, life, increased personal resilience, and healing from early life trauma.

- **3 Scriptures/Quotes - PPT**

- **Part 2 – The Spiritual/Biblical Solution – A Series Begins Thursday Night, November 14th**

- **Biblical Principles for Common Spiritual Risk Factors – PPT**

We will be looking at God's Word and addressing & applying His truths and love so that we can walk in greater freedom.

- **Closing Prayer - PPT**

Eph 3:16-21 - I pray that out of his glorious riches he may strengthen you with power through his Spirit in your inner being, ¹⁷ so that Christ may dwell in your hearts through faith. And I pray that you, being rooted and established in love, ¹⁸ may have power, together with all the Lord's holy people, to grasp how wide and long and high and deep is the love of Christ, ¹⁹ and to know this love that surpasses knowledge—that you may be filled to the measure of all the fullness of God.

²⁰ Now to him who is able to do immeasurably more than all we ask or imagine, according to his power that is at work within us, ²¹ to him be glory in the church and in Christ Jesus throughout all generations, for ever and ever! Amen.

- **Opportunities for Ministry Today**

- At the alter
- Ministry team come forward