

Adverse Childhood Experiences and their Relationship to Adult Health and Well-being

**A 20-year collaborative effort between Kaiser Permanente,
17,337 adult members, and the Centers for Disease Control**

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Summary of the ACE Study

- The ACE Study is the largest study ever done to determine the long-term adult effects of ten common categories of adverse life experiences in childhood. 17,337 middle-class adults were involved in this retrospective and 20-year *prospective* analysis.
- The very existence of these experiences was found to be quite common, though unrecognized because they are lost in time and further protected by shame, by secrecy, and by social taboos against routinely exploring certain areas of human experience. Our typical medical history completely avoids them.

Their effects a half century later in adult life are powerfully and proportionately related to adult well-being, health risks, mental illness, job performance, social malfunction, suicide, a range of biomedical diseases including cancer, and premature death. If you are unfamiliar with the ACE Study, simply look up <Adverse Childhood Experiences Study> on the Internet and on YouTube. You will find a deluge of meaningful information.

Today's Goals

- To help you decide whether to integrate this internationally-documented information into your clinical practice. If so, *Why?* and *How?*
- I will show you how this has worked out for 1.3 million middle-class adult members undergoing comprehensive medical evaluation over 30 years at Kaiser Permanente right here in San Diego.
- While highly *appreciated* by the patients, the adverse childhood information was commonly *resisted* by my colleagues who told me, “If I wanted to be a damned Shrink, I’d have been one. I’m a ----.” or “That was 50 years ago. What the Hell am I supposed to *do* with that information?”
- Unexpectedly, the economic benefits, as well as the clinical benefits of our approach, were found to be huge, attracting international attention as well as supportive legislation from 23 State Legislatures in the US. You can easily check this by entering on the Internet, <Adverse Childhood Experiences Study – State Legislatures> and picking from the deluge of results.

Why do this?

- 1.) Your *patients* will benefit. After integrating the ACE Questions into our 10- page Medical History Questionnaire that everyone filled out at home prior to coming in for comprehensive medical evaluation, I was routinely stopped in the hallway several times a day by patients who thanked me for asking ‘Those questions’ in their Medical History Questionnaire.
- 2.) You will benefit. Patients with intractable problems will now have their underlying causality understood as the basis for treatment, rather than merely being treated for their manifest symptomatology. I personally found it a to be great relief by no longer being stressed from dealing with intractable patient problems.
- 3.) Whoever pays the *bill* for medical care will benefit. In a 135,000 adult patient sample, a University of California mathematician found that integrating the ACE Questions into our 10-page biomedical history questionnaire led to a 35% reduction in outpatient visits and an 11% reduction in ER visits in *their* subsequent year compared to *their* prior year. For any large organization like a State, an insurance company, or a large employer, that finding has multi-billion-dollar implications. If you want evidence for this , just do an internet search: <Adverse Childhood Experiences Study-cost of medical care>.

How does one do this?

- This is a key question because most of us are not eager to ask patients about unspeakable subjects like incest, parental abandonment, or household suicide. We found this inhibition was solved by obtaining this information initially by an *inert* mechanism: by integrating these uncomfortable questions into our very comprehensive medical history questionnaire filled out at home before coming in. This was highly acceptable to patients and comfortable for us as clinicians. Having this information in hand, our approach was to say, “I see on the questionnaire that Can you tell me how that has affected you in your life?” And we listened, Period. No humbug about “...how terrible that must have been, etc.” We listened, and implicitly *accepted* that person. When patients stopped me in the hall to thank me for asking ‘those questions’, they often went on to tell me how grateful they were to their Examiner who, hearing the dark secrets of their life, “Was so nice to me and even wants to see me again.” We found that *Asking, Listening* and implicitly *Accepting* is a powerful form of *Doing*!

What does doing this look like?

This is just a part of the cardiovascular section of our Female Questionnaire

CARDIO-VASCULAR

Have you had or do you have:	Y	N		Y	N		Y	N
1.) high blood pressure?	<input type="radio"/>	<input type="radio"/>	5.) a coronary arteriogram?	<input type="radio"/>	<input type="radio"/>	10.) congestive heart failure?	<input type="radio"/>	<input type="radio"/>
a.) If yes , do you take medication?	<input type="radio"/>	<input type="radio"/>	6.) angina pectoris (heart pains)?	<input type="radio"/>	<input type="radio"/>	11.) abnormal blood clot formation?	<input type="radio"/>	<input type="radio"/>
			a.) If yes , do you take nitroglycerin?	<input type="radio"/>	<input type="radio"/>	12.) varicose veins?	<input type="radio"/>	<input type="radio"/>
2.) a cholesterol problem?	<input type="radio"/>	<input type="radio"/>	7.) a silent heart attack?	<input type="radio"/>	<input type="radio"/>	13.) intermittent claudication?	<input type="radio"/>	<input type="radio"/>
a.) If yes , do you take medication?	<input type="radio"/>	<input type="radio"/>	8.) a heart attack for which you were hospitalized more than 3 days?	<input type="radio"/>	<input type="radio"/>	14.) narrowing of the arteries in your neck?	<input type="radio"/>	<input type="radio"/>
3.) a heart valve problem?	<input type="radio"/>	<input type="radio"/>	9.) a 'clot buster' treatment for a heart attack?	<input type="radio"/>	<input type="radio"/>	15.) a heart or circulatory problem not listed here?	<input type="radio"/>	<input type="radio"/>
4.) an abnormal treadmill test?	<input type="radio"/>	<input type="radio"/>						

Do you get:

16.) pressure or tightness in your chest, with exertion or walking uphill? ☐ Y ☐ N

a.) If **yes**, does the pain: ☐ allow for continuation of activity? ☐ force you to stop what you are doing? ☐ force you to slow down?

☐ go away within 5 minutes of stopping? ☐ occur while you walk on flat ground?

b.) If **yes**, does the pain spread? ☐ Y ☐ N

c.) If **yes**, does it spread to your: ☐ neck or jaw? ☐ inner left arm? ☐ outer left arm?

☐ wrist or forearm? ☐ stay only in the chest? ☐ another part of the body?

17.) pain in the legs that forces you to stop walking? ☐ Y ☐ N

a.) If **yes**, do these leg pains or cramps ☐ come on at the same distance each time, on flat ground? ☐ come on faster on hills?

☐ come on faster when walking rapidly? ☐ go away within a minute or so of stopping?

18.) episodes of rapid or irregular heartbeat? ☐ Y ☐ N

How we integrated the ACE Questions

in various parts of this woman's Questionnaire

I have had:	Y	N	39.) nephritis or glomerulonephritis (Bright's Disease).	<input type="radio"/>	<input type="radio"/>	problems that are not mentioned.		
8.) a breast biopsy or aspiration that was NOT cancer.	<input type="radio"/>	<input type="radio"/>	40.) ectopic pregnancy.	<input type="radio"/>	<input type="radio"/>	63.) abnormal blood clots during pregnancy.	<input type="radio"/>	<input type="radio"/>
9.) a lumpectomy for cancer.	<input type="radio"/>	<input type="radio"/>	41.) a kidney stone.	<input type="radio"/>	<input type="radio"/>	64.) other abnormal blood clots in the past.	<input type="radio"/>	<input type="radio"/>
10.) a mastectomy for cancer.	<input type="radio"/>	<input type="radio"/>	42.) pyelonephritis.	<input type="radio"/>	<input type="radio"/>	65.) to be taken off the pill because of clotting problems.	<input type="radio"/>	<input type="radio"/>
11.) fibrocystic breast diagnosis.	<input type="radio"/>	<input type="radio"/>	43.) I had a PAP smear:					
12.) a breast problem not on the list.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/> never.					
			<input type="radio"/> more than a year ago.					
			<input type="radio"/> in the past year.					
			<input type="radio"/> that was once abnormal.					
I am:	Y	N	I am:	Y	N	I have:	Y	N
13.) currently pregnant.	<input type="radio"/>	<input type="radio"/>	44.) a virgin.	<input type="radio"/>	<input type="radio"/>	66.) been physically abused as a child.	<input type="radio"/>	<input type="radio"/>
14.) still having menstrual periods.	<input type="radio"/>	<input type="radio"/>	45.) not sexually active within the past year.	<input type="radio"/>	<input type="radio"/>	67.) been verbally abused as a child.	<input type="radio"/>	<input type="radio"/>
15.) definitely in menopause.	<input type="radio"/>	<input type="radio"/>	46.) no longer sexually active.	<input type="radio"/>	<input type="radio"/>	68.) been sexually molested as a child or adolescent.	<input type="radio"/>	<input type="radio"/>
a.) If yes, because:			47.) sexually active with a male partner.	<input type="radio"/>	<input type="radio"/>	69.) been raped.	<input type="radio"/>	<input type="radio"/>
of a hysterectomy. <input type="radio"/>			48.) sexually active with a female partner.	<input type="radio"/>	<input type="radio"/>	70.) been threatened or abused as an adult by a sexual partner.	<input type="radio"/>	<input type="radio"/>
of age. <input type="radio"/>			49.) sexually active with more than 1 partner.	<input type="radio"/>	<input type="radio"/>	71.) Has your partner ever threatened, pushed, or shoved you?	<input type="radio"/>	<input type="radio"/>
of other reasons. <input type="radio"/>	Y	N	50.) satisfied with my sex life.	<input type="radio"/>	<input type="radio"/>	72.) Have you ever threatened, pushed, or shoved your partner?	<input type="radio"/>	<input type="radio"/>
16.) not certain about my present state.	<input type="radio"/>	<input type="radio"/>	51.) in need of birth control advice.	<input type="radio"/>	<input type="radio"/>	73.) Have you ever had a partner threaten or abuse your children?	<input type="radio"/>	<input type="radio"/>
I have:			52.) possibly at risk for AIDS.	<input type="radio"/>	<input type="radio"/>	Have you ever?		
17.) vaginal itching.	<input type="radio"/>	<input type="radio"/>	53.) diagnosed with HIV / AIDS.	<input type="radio"/>	<input type="radio"/>	74.) lived in a war zone?	<input type="radio"/>	<input type="radio"/>
18.) a vaginal discharge.	<input type="radio"/>	<input type="radio"/>	I have had:			75.) been rejected for the armed service?	<input type="radio"/>	<input type="radio"/>
19.) vaginal dryness.	<input type="radio"/>	<input type="radio"/>	54.) urethritis.	<input type="radio"/>	<input type="radio"/>	76.) been rejected for life insurance?	<input type="radio"/>	<input type="radio"/>
20.) pain with intercourse.	<input type="radio"/>	<input type="radio"/>	55.) genital herpes.	<input type="radio"/>	<input type="radio"/>			
21.) chronic pelvic pain.	<input type="radio"/>	<input type="radio"/>	56.) gonorrhea.	<input type="radio"/>	<input type="radio"/>			
I currently have:			57.) syphilis.	<input type="radio"/>	<input type="radio"/>			
22.) no periods.	<input type="radio"/>	<input type="radio"/>	58.) a sexually transmitted disease not on this list.	<input type="radio"/>	<input type="radio"/>			
23.) regular periods.	<input type="radio"/>	<input type="radio"/>						
24.) irregular periods.	<input type="radio"/>	<input type="radio"/>						
25.) very irregular periods.	<input type="radio"/>	<input type="radio"/>						
26.) heavy periods.	<input type="radio"/>	<input type="radio"/>						
27.) very heavy periods.	<input type="radio"/>	<input type="radio"/>						
28.) a lot of pain with my periods.	<input type="radio"/>	<input type="radio"/>						

This is what we end up having

A digital scan creates this partial output from our 38-year-old patient's Yes answers.
It is further amended in the Exam Room.

WOMEN'S HEALTH

- Patient does a breast exam: at least once a month
- Patient's last mammogram was: never.
- Patient is still having menstrual periods.
- Patient currently has irregular periods.
- Patient currently has a lot of pain with her periods.
- She has not been sexually active within the past year.
- She is no longer sexually active.
- Type of birth control used: tubal ligation
- Number of pregnancies: four or more
- Number of live births: three
- Patient has been physically abused as a child.
- Patient has been verbally abused as a child.
- Patient has been sexually molested as a child or adolescent.
- Patient has been threatened or abused as an adult by a sexual partner
- Her partner has threatened, pushed, or shoved her.
- Her partner has threatened or abused her children.

And now?

Routinely obtaining this level of comprehensive medical history and creating a legible initial record without face-to-face questioning is a huge advance at essentially no cost. Moreover, we found that collecting this information at home by a lengthy questionnaire worked extremely well. We then would further annotate that history directly with the patient. We thus moved from a biomedical to a biopsychosocial mode of practice with which we and 440,000 middle-class adults over an 8-year period were very comfortable. It enabled us to understand the causal basis of many intractable clinical problems, and to focus our treatment plans on the *cause* rather than just the manifest symptoms. We discovered a Public Health Paradox wherein we found that many of our most intractable public health problems were indeed *problems* from a societal standpoint, but from the patient's standpoint were often unconsciously attempted *solutions* to unspoken experiences during their developmental years. Let us now see some patients.

What is the Core Diagnosis Here?



Age 8



Age 28

In 51 weeks:
408 ➡ 132 lbs.



Age 29

Which photo represents the patient's *problem*?

**This man explains that his ‘Problems’ are actually
Treatments for Adverse Childhood Experiences.**



Another teacher-Patient

Frontiers of Treatment
in Obesity and Smoking

How *Common* are these Adverse Childhood Experiences?

	Prevalence (%)
Abuse, by Category	
Psychological (by parents)	11%
Physical (by parents)	28%
Sexual (anyone)	22%
Neglect, by Category	
Emotional	15%
Physical	10%
Household Dysfunction, by Category	
Alcoholism or drug use in home	27%
Loss of biological parent <18	23%
Depression or mental illness in home	17%
Mother treated violently	13%
Imprisoned household member	6%

What Can We Do Today?

- Create and integrate in a comprehensive biomedical history questionnaire, for all patients, questions about adverse childhood experiences.
- Understand their relevance by Asking, “How has this affected you later in life?” Then, simply Listen, and be Accepting of that person and their history.
- Asking, Listening, and implicitly Accepting is a powerful form of Doing. It is therapeutic.

What Will You Do With This?

You might want to experiment with devising your own medical history questionnaire to get a first-hand feel of whether it enables you to access important information to improve your practice. You can certainly use the Kaiser Questionnaire for ideas on developing your own, but you can't copy it because it is copyrighted. However, you are free to take ideas from it; and if you improve it, I'd be grateful if you sent *me* a copy of your version.

You might also give an anonymous form to a few dozen patients, asking whether they found your new questionnaire helpful in understanding their health and well being.

Further Information

Michael Balint's book, "The Doctor, His Patient, and the Illness". Balint is a psychoanalyst who spent many highly productive years as part of a major primary care clinic in England. His superb book should be borrowed from the library and read.

Balint's book will help understand the great potential therapeutic power *you* have in *your* physician-patient relationship. Then you can add your own best ideas, dealing with a newly understood relationship.

Internet and YouTube searches for 'Adverse Childhood Experiences Study'.

Occasional use of Psychotherapy and Hypnotherapy. Videotape pt interviews for staff training. Patients have been surprisingly agreeable to this if assured it is for medical teaching.

Request a copy of the Kaiser comprehensive patient medical history questionnaire and an anonymized actual patient output that we had in hand before even meeting our patient.