

ACE in the hole

The ground-breaking Adverse Childhood Experience (ACE) study demonstrated a clear correlation between childhood trauma (including parental substance misuse) and later ill-health – not least addiction. By Harry Shapiro

It all began in the 1980s in San Diego with the Permanente Medical Group's twenty week Positive Choice Weight Loss Program, treating men and women most of whom weighed at least twenty stone. The programme used a pretty extreme technique called supplement absolute fasting where the person consumes nothing during that period other than water and a nutritional supplement called Optifast. Those who stuck to the programme shed significant amounts of weights. Yet, much to bafflement of those running the programme, they were also the ones most likely to drop out. Why?

A detailed exploration of the life histories of around 300 drop-out patients was undertaken; the striking finding was that most people had grown up in dysfunctional households, and moreover, been subject to childhood sexual abuse. The clinicians concluded that for these people, over-eating was an attempt to find a solution to dark secrets which remained hidden by shame, guilt and social taboos. The indulgence in 'comfort food' is well named, but by the same token, 'it's hard to get enough of something that almost works' was actually painted on the wall where the weight loss programme was conducted. In other words, maybe the next bar of chocolate or doughnut will do it.

The research team led by Dr Vincent Felitti, then wondered if the same search for comfort to self-medicate childhood trauma, could be found in those with drink, drugs and smoking problems

and could such trauma also increase the likelihood of a range of other mental and physical diseases?. After all, drinking and smoking is associated with relaxation and reducing anxiety and you could interpret the action of 'having a fix' as an attempt to repair something that's broken. So was born the Adverse Childhood Experience (ACE) study which began in 1995 and is still running.

The 17,000 strong cohort was selected from patients who attended the Kaiser Permanente private healthcare facility in San Diego. They were middle class with fully paid up health insurance, an average age of 57, most had been to college and 80% were white.

The research team designed a simple questionnaire which asked the patients if they had any childhood experiences of the following – and the response levels are indicated in brackets:

- Recurrent and severe physical abuse (11%)
- Recurrent and severe emotional abuse (11%)
- Contact sexual abuse (22%)
- Growing up in a household with:
 - An alcoholic or drug user (25%)
 - A member of the family being imprisoned (3%)
 - A mentally ill, chronically depressed or institutionalised member (19%)
 - The mother being treated violently (12%)
 - Neither biological parent present (22%)

Emotional neglect was studied in a second wave of the study.

A simple scoring system was devised; for every 'yes' answer, the patient scored 1 point irrespective of how many times the adverse event (e.g sexual contact) occurred. The results were startling and unambiguous; for all the physical and mental diseases that accounted for patient presentation from addictions to depression and heart disease, there was a direct correlation with the scores logged. So taking adult alcoholism as an example, just over 2% of those with a score of 0 had become alcoholics compared to 16% for those scoring 4 or more. For smoking there was a 250% increase in the likelihood that somebody scoring 6 would be a smoker and if as a child you could score 6, there was a 46 fold increase in the chance of you becoming an injecting drug user.

The results shed possible new light on one of the most famous studies into the nature of addiction, conducted by Lee Robins of returning Vietnam soldiers in the mid 1970s. It was well-known that many soldiers out in the war zone were using heroin and there was great concern that treatment services would be overwhelmed by returning heroin addicts. However, Robins discovered that after 10 months back home, only 5% of the study group were still using. For the first time, this blew apart the standard medical and public belief that 'once an addict always an addict', suggesting that even chronic drug use could be linked



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entirely to traumatic experience which can be overcome once the fear no longer exists. The ACE study results suggested another possibility; that the 5% who were still using might have scored highly on the ACE questionnaire compared to the others.

In one of the many papers to come out of the ACE study, Dr Felitti wrote that the results of the study strongly indicate that most theories of addiction should be side-lined in favour of “one that explains it in terms of its psychodynamics; unconscious although understandable decisions being made to seek chemical relief from the on-going effects of old trauma, often at the cost of accepting future health risk. Expressions like ‘self-destructive behaviour’ are misleading and should be dropped because, while describing the acceptance of long-term risk, they overlook the importance of the obvious short-term benefits that drive the use of these substances.”

These findings could easily be used as a platform for anti-stigma work. Some years ago, Barnado’s produced a controversial poster depicting a baby with a syringe sticking in its arm. The charity was criticised for sensationalism, but in light of the ACE study, they might have had a point and one could see how addiction could be framed in the light of childhood trauma.

While there has been plenty of intellectual interest in the findings (invitations to present the world over), the team have found it much harder to

encourage practitioners to incorporate them into clinical action. Dr Felitti told *Druglink*, ‘we heard all the excuses like, ‘there’s no time to ask all those questions’; ‘you can’t ask questions like that, patients will be furious and they won’t tell you the truth anyway’; ‘if I’d wanted to be a shrink, that’s what I would have done’. And of course, doctors weren’t sure what to do with the information once it had been revealed. And the answer to that is – it depends. It can be hugely beneficial for people to have a major release from the unconscious stress that affects their life often very profoundly. They can share the worst secret of their lives and still not be judged. What often determines visits to the doctor is not just illness, it’s fear of illness’.

And the ACE team were able to demonstrate this in a very practical sense conducting a prospective study, looking at what happened to people having revealed what was previously hidden. There was a 35% drop in doctor visits and an 11% drop in A&E hospital visits a year after the evaluation. In the words of an old BT advert, ‘It’s good to talk’.

Since 1998, trauma-oriented questions were incorporated into the routine health appraisal carried out at Kaiser Permanente. Once the routine medical testing has been completed, along with a questionnaire that the patient had filled out at home – they would then be seen by an examiner who had all the notes in

front of them and would know how to move from initial niceties to discussing the difficult questions. Dr Felitti says that in only a few months, the staff became effective askers and listeners to the many patients who were only too willing to have somebody listen sympathetically to stories of childhood trauma.

Dr Felitti concluded in his paper, “the evidence supporting our conclusions about the basic cause of addiction is powerful and its implications are daunting. The prevalence of adverse childhood experiences and their long-term effects are clearly a major determinant of the health and social well-being of the nation. This is true whether looked at from the standpoint of social costs, the economics of health care, the quality of human existence, the focus of medical treatment or the effects of public policy.”

But the findings were not necessarily welcomed – and not just from a practical point of view – as they support, ‘old psychoanalytic views especially Freud [emphasis added] and is at odds with current concepts, including those of biological psychiatry, drug treatment programs and drug-eradication programs. Our findings are disturbing to some because they imply that the basic causes of addiction lie within us and the way we treat each other, not in drug dealers or dangerous chemicals. They suggest that billions of dollars have been spent everywhere except where the answer is to be found”.