ACEs at Cork Simon:
Exploring the connection between early trauma and later negative life events among Cork Simon service users.


“When people tell you the truth about their lives, and you listen, you understand their life course.”

Dr. Robert Anda, Childhood trauma expert and co-investigator of the original ACE Study
Cork Simon background

Cork Simon Community works with some of the most vulnerable and marginalised people. We operate a ‘low threshold’ service, meaning we accept and support people with multiple needs, chronic addictions and challenging behaviours. As a consequence we often work with people excluded from other services - people who have no-where else to turn. We work in solidarity with men and women over the age of 18 and each year support about 1,200 people on their pathway back to independent or supported living. Our door is always open and we support people for as long as they need us.

ACE background

ACE stands for Adverse Childhood Experiences. These traumatic events, experienced before the age of 18, have been shown to have long-term negative impacts on health and well-being. Children are especially sensitive to repeated trauma because their brains and bodies are just developing. High doses of adversity during childhood have been found to alter brain development as well as the immune system, with serious implications for later physical, mental and social health.

ACE scores range from 0 to 10 and are assessed through a simple 10 question survey, with each question representing an area of trauma. Answering yes to a question counts as one ACE.

5 of the 10 types of childhood trauma measured through the ACE questionnaire are personal and five relate to other family members:

<table>
<thead>
<tr>
<th>Personal (abuse and neglect)</th>
<th>Other family members (household dysfunction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional abuse</td>
<td>Loss of parent through divorce, death or abandonment</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>Mother treated violently</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>Substance abuse in family</td>
</tr>
<tr>
<td>Emotional neglect</td>
<td>Mental illness in family</td>
</tr>
<tr>
<td>Physical neglect</td>
<td>Incarcerated family member</td>
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</table>
ACEs are very common - 67% of the population have at least 1 ACE.

However high ACE scores (scores of 4 or more) have long been associated with increased risk to a person's health and well-being.

The ACE questionnaire was born from a ground-breaking US public health study conducted by the CDC (Centres for Disease Control and Prevention) and Kaiser Permanente (an American health maintenance organisation) and involved more than 17,000 people. This study found a remarkably strong link between multiple traumatic events in childhood (ACEs) and chronic diseases, as well as social, emotional and behavioural problems. They found that as an ACE score increases, so does the risk of disease, social and emotional problems.

**ACEs at Cork Simon**

A recent study, *Cork Simon Community: Moving Towards Trauma Informed Care. A Model of Research and Practice*, by Dr. Sharon Lambert and Graham Gill-Emerson, examined the level of trauma among Cork Simon service users and how our services could better respond to people who have experienced trauma.

Trauma among Cork Simon service users was measured through the administration of the ACE questionnaire to 50 people supported by the Adult Homeless Integrated Team (AHIT) - a HSE funded multidisciplinary team operating from Cork Simon’s emergency shelter among other homelessness services in the city.

Significant levels of childhood trauma were reported – levels notably higher than those experienced by the general population in the original ACE study.

**Demographics of the 50 people who took part in the ACE survey:**

- The average (mean) age of participants was 31 years (ages range 20-45)
- 77.6% were men and 20.4% were women
- 50% had been homeless less than 5 years, 30% between 5 and 9 years and 20% had been homeless for 10 years or more.
- Current accommodation type was a mix of sleeping rough, emergency, unstable and stable accommodation
100% of Cork Simon service users who completed the questionnaire had experienced 1 or more ACEs. over 77% experienced 4 or more ACEs. A score of 4 or more ACEs is known to put an individual at a significantly increased risk of poor health and well-being. By comparison, 67% of the general public in the original ACE study had experienced 1 or more ACE and only 12.5% scored 4 or more.

<table>
<thead>
<tr>
<th>1 or more ACE</th>
<th>Original ACE study (general population)</th>
<th>Cork Simon ACE study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or more ACE</td>
<td>67%</td>
<td>100%</td>
</tr>
<tr>
<td>4 or more ACEs</td>
<td>12.5%</td>
<td>77%</td>
</tr>
</tbody>
</table>

1 in 3 Cork Simon service users had experienced 7 or more ACEs and close to 1 in 10 had 10 ACEs.

The average (mean) number of ACEs per Cork Simon service user was 5.15.
The 3 highest scoring ACEs were:

1. **Verbal abuse**
   Experienced by 75% - a rate 10 times higher than the general public in the original ACE study.

2. **Substance misuse by a family member**
   Experienced by 71% - 2.6 times higher than the general public in the original ACE study.

3. **Physical abuse**
   Experienced by 67% - 2.4 times higher than the general public in the original ACE study.

This tells us is that people using Cork Simon’s services have suffered alarming levels of abuse, neglect and distress during their formative years.

The results show that a significant majority of Cork Simon service users suffered verbal and physical abuse at home during their childhood. More than 1 in 3 suffered sexual abuse during their childhood. A quarter experienced physical neglect and two thirds endured emotional neglect. Over 70% lived with someone with an addiction issue, more than half lived with someone with mental health difficulties, half grew up in one parent families and close to a third grew up in households where a family member was in prison. 4 in 10 witnessed domestic violence towards their mother.
Comparing Men and Women

- The mean ACE score for men was 5.1 and for women was 5.8.

- A higher proportion of men have ACE scores of between 4 and 10, however a higher proportion of women have ACE scores of between 7 and 10.

There are some differences in the extent to which men and women have experienced ACEs. Where ACEs are higher among women, they are generally significantly higher.

- The following 3 ACEs were higher among women:
  - Sexual abuse (w:60% m:30%)
  - Emotional neglect (w:100% m:59%)
  - Loss of parent (w:60% m:43%)

- The following 2 ACEs were higher among men:
  - Verbal abuse (m:78% w:70%)
  - Substance abuse in the family (m:76% w:60%)

Differences between individual ACEs between men and women:
Comparing Age Groups

Ages ranged from 20 to 45 years. The mean age was 31 years.

Survey participants can be divided into the following age groups:

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>18 – 26 years (n.10)</td>
<td>20.4%</td>
</tr>
<tr>
<td>27 – 36 years (n. 31)</td>
<td>63.3%</td>
</tr>
<tr>
<td>37 – 46 years (n. 8)</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

We see that 18-26 year olds are affected by ACEs to the greatest extent:

1. 100% of 18-26 year olds have 4 or more ACEs.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>ACE score of 4 or more</th>
<th>ACE score of 7 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 26</td>
<td>100%</td>
<td>40%</td>
</tr>
<tr>
<td>27 – 36</td>
<td>68%</td>
<td>29%</td>
</tr>
<tr>
<td>37 - 46</td>
<td>88%</td>
<td>50%</td>
</tr>
</tbody>
</table>

2. At 6.6, 18-26 year olds have the highest mean ACE score.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Mean ACE score</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 – 26 (n.10)</td>
<td>6.6</td>
</tr>
<tr>
<td>27 – 36 (n. 31)</td>
<td>4.84</td>
</tr>
<tr>
<td>37 – 46 (n. 8)</td>
<td>6.13</td>
</tr>
</tbody>
</table>

3. 18-26 year olds report the highest scores across 7 out of 10 ACE items. (Highest scores are highlighted orange)

<table>
<thead>
<tr>
<th>ACE Scale Item</th>
<th>18-26 year olds</th>
<th>27-36 year olds</th>
<th>37-46 year olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbal Abuse</td>
<td>90%</td>
<td>73%</td>
<td>75%</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>80%</td>
<td>65.5%</td>
<td>75%</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>40%</td>
<td>24%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Physical Neglect</td>
<td>50%</td>
<td>20.7%</td>
<td>25%</td>
</tr>
<tr>
<td>Emotional Neglect</td>
<td>80%</td>
<td>58.6%</td>
<td>87.5%</td>
</tr>
<tr>
<td>Loss of Parent</td>
<td>70%</td>
<td>38%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Mother victim of Domestic Violence</td>
<td>30%</td>
<td>44.8%</td>
<td>50%</td>
</tr>
<tr>
<td>Substance Abuse in Family</td>
<td>100%</td>
<td>65.6%</td>
<td>75%</td>
</tr>
<tr>
<td>Mental Illness in Family</td>
<td>80%</td>
<td>48.3%</td>
<td>52.5%</td>
</tr>
<tr>
<td>Incarcerated Family Member</td>
<td>40%</td>
<td>24%</td>
<td>37.5%</td>
</tr>
</tbody>
</table>
Rates of physical ‘neglect’, ‘mental illness in the family’ and ‘substance abuse in the family’ are notably higher among 18-26 year olds than they are among the other age groups:

- **Physical neglect**, reported by 50% of 18-26 years, is twice as high among this age group compared to the next highest scoring age group.
- **Mental illness in the family**, reported by 80% of 18-26 years, is 1.5 times higher among this age group, compared to the next highest scoring age group.
- **Substance abuse in the family**, reported by 100% of 18-26 years, is 1.3 times higher among this age group compared to the next highest scoring age group.
ACEs and Homelessness

ACEs have been found to be strong predictors of adult homelessness. Effectively reducing child abuse and neglect may ultimately help prevent critical social problems including homelessness.¹

We see the interplay of ACEs and homelessness in our results – 100% of service users experienced at least 1 ACE (a rate 1.5 times higher than the general public in the original ACE study) and 77% experienced 4 or more ACEs (a rate 6 times higher than the general public in the original ACE study).

We also see a general correlation between service users ACE scores and the length of time they have been homeless: The higher a service users ACE score, the longer they are likely to be homeless. Those with the highest ACE scores have been homeless the longest.

![Graph showing average years homeless vs. ACE score]

We see a general correlation between length of time homeless and ACE scores. While there is variation, over all we see a linear increase in the length of time people have been homeless and high ACE scores.

![Graph showing average ACE score vs. years homeless]

Those with the highest ACE scores (7-10) have been homeless the longest.

Health & well-being assessment

Service users’ health and social issues, drug and alcohol use and homeless histories were also recorded along with results of the ACE questionnaire. Combined, they paint a picture of troubled lives from a young age, deep levels of disadvantage and mental distress, critical illness and injury.

<table>
<thead>
<tr>
<th>Disadvantage</th>
<th>(Average refers to mean)</th>
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<tbody>
<tr>
<td>• Average duration of homelessness was 6 years.</td>
<td></td>
</tr>
<tr>
<td>• Average age left school was 15 years.</td>
<td></td>
</tr>
<tr>
<td>Alcohol &amp; Drugs</td>
<td></td>
</tr>
<tr>
<td>• Average age of first use for alcohol was 12 years old.</td>
<td></td>
</tr>
<tr>
<td>• Average age of first use for cannabis was 14 years old.</td>
<td></td>
</tr>
<tr>
<td>• Average age of first heroin use was 23 years old while it was 26 years old for average age at first injected.</td>
<td></td>
</tr>
<tr>
<td>• 82% had a previous treatment experience and the average number of treatment attempts was 3.</td>
<td></td>
</tr>
<tr>
<td>Physical and mental health</td>
<td></td>
</tr>
<tr>
<td>• Average number of visits to accident and emergency departments was 17 and the average number of Intensive Care stays was 1.89.</td>
<td></td>
</tr>
<tr>
<td>• 47% reported suffering a serious head injury.</td>
<td></td>
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<tr>
<td>• 62% reported they had overdosed in the past.</td>
<td></td>
</tr>
<tr>
<td>• 90% reported they had been seen by a psychiatrist or psychologist, and 90% stated they believed they had psychological problems but only 23.5% reported knowing of a diagnosis.</td>
<td></td>
</tr>
<tr>
<td>• 70% reported being currently prescribed medication (mainly anti-psychotics, SSRIs, benzodiazepines, methadone and sleeping tablets).</td>
<td></td>
</tr>
<tr>
<td>• 71.4 % had a history of suicidal thoughts and 44.8 % had self-harmed in the past.</td>
<td></td>
</tr>
</tbody>
</table>
**Average timeline for Cork Simon Service Users:**

<table>
<thead>
<tr>
<th></th>
<th>First used Alcohol</th>
<th>First used Cannabis</th>
<th>Left School</th>
<th>First used Heroin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>12 years</td>
<td>14 years</td>
<td>15 years</td>
<td>23 years</td>
</tr>
</tbody>
</table>

**Indicators of mental health, addiction, illness and injury among Cork Simon service users:**

![Bar chart showing indicators of mental health, addiction, illness and injury among Cork Simon service users.](chart.png)
Impact of High ACE Scores (4 or more ACEs)

High ACE scores (scores of 4 or more) have long been associated with increased risk to a person’s health and well-being.

Across a range of health and wellbeing factors, 81% of the time Cork Simon service users with ACE scores of 4 or more reported worse outcomes than those with ACE scores of less than 4.

Those with ACE scores of 4 or more first used alcohol and drugs at a younger age and reported double the rate of overdose compared to those with ACE scores less than 4. They also reported poorer mental health and were more than twice as likely to have suffered critical illness and domestic violence.
Across a range of factors (not all but many) relating to health and wellbeing, as service users ACE scores increased, worse outcomes were reported:

**Average age first used drugs**

- ACE 1 - 3: 19
- ACE 4 - 6: 19
- ACE 7 - 10: 14

**Average age first injected**

- ACE 1 - 3: 28.7
- ACE 4 - 6: 26.6
- ACE 7 - 10: 24

**History of overdose**

- ACE 1 - 3: 36%
- ACE 4 - 6: 67%
- ACE 7 - 10: 81%

**History of head injury**

- ACE 1 - 3: 40%
- ACE 4 - 6: 55%
- ACE 7 - 10: 57%
**Seen by psychiatrist/psychologist/counsellor**

- ACE 1 - 3: 82%
- ACE 4 - 6: 95%
- ACE 7 - 10: 100%

**History self harm**

- ACE 1 - 3: 36%
- ACE 4 - 6: 52%
- ACE 7 - 10: 50%

**History suicidal thoughts**

- ACE 1 - 3: 60%
- ACE 4 - 6: 71%
- ACE 7 - 10: 79%

**History domestic violence**

- ACE 1 - 3: 22%
- ACE 4 - 6: 57%
- ACE 7 - 10: 80%
High ACE scores and engagement with services:

The associated consequences of high ACE scores include:

- Difficulty reading facial and social cues
- Heightened startle responses
- Avoidance
- Memory problems
- Poor decision-making skills
- Aggression

These responses must be understood as ‘normal’ trauma responses but importantly these are factors that prevent individuals from appropriately engaging with mainstream services.
What does this mean for our services?

We are developing a Trauma Informed Service.

A trauma-informed approach facilitates a recognition of challenging behaviours as ‘survival strategies’ and in doing so enhances a services ability to engage with people in a more empathetic manner. A trauma informed service asks: ‘What happened to you?’ rather than ‘what’s wrong with you?’. ‘Reluctance to engage’ is replaced with ‘struggling to engage’.

A trauma-informed approach refers to how an organisation thinks about and responds to people who have experienced trauma. Through this approach, the whole organisation understands the prevalence and impact of ACEs, the role trauma plays in people’s lives and the complex and varied paths for healing and recovery.

Steps taken to develop a Trauma Informed Service:

1. Assessment of the existence and extent of a ‘trauma loaded environment’ through an exploration of childhood trauma levels among service users, that is, through the ACE study. The ACE study was administered by members of the Adult Homeless Integrated Team (AHIT) – a HSE funded service, operating at Cork Simon’s emergency shelter.

2. A trauma informed assessment of Cork Simon services, conducted by Dr. Sharon Lambert, lecturer and researcher at University College Cork’s School of Applied Psychology and Graham Gill-Emerson, Addiction Counsellor with Cork Simon and member of the HSE’s Adult Homeless Integrated Team. This assessment included an examination of the physical environment, policies and practices.

3. A trauma impact assessment of staff and volunteers working in this trauma laden environment, conducted by Dr. Sharon Lambert (staff) and Graham Gill-Emerson (volunteers).

4. Trauma informed training delivered to all Cork Simon staff and volunteers by Dr. Sharon Lambert.

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2 https://www.samhsa.gov/nctic/trauma-interventions
The process and results of the four steps are detailed in the report, *Cork Simon Community: Moving Towards Trauma Informed Care. A Model of Research and Practice*. Dr Sharon Lambert & Graham Gill-Emerson. 2017.

Conclusions and recommendations of the report:

### Conclusion

1. The report found Cork Simon’s service, in the main, to be operating in a trauma sensitive manner.
2. Areas identified for improvement are mostly constrained by resources, such as single occupancy rooms, lack of staff rooms, waiting list for counselling service, a Day Service that is now too small for demand.
3. There were a number of issues identified that are beyond Cork Simon’s control as they are directed by national policies. Examples include intake paperwork that is not strengths-based and ‘centre of interest’ policy which does not take account of personal choices which may be based on an avoidance of memories of trauma situation as a means of seeking safety.

### Short term recommendations – internal and administrative

1. Establish a Trauma Change Team that will drive the implementation and roll-out of Trauma Informed Care.
2. Introduce a trauma screening tool.
3. Address trauma and trauma contagion at all team meetings.
4. Review current paperwork for Service Users with an emphasis on positives and strengths.
5. Provide informational material on stress and trauma for Service Users.
6. Review waiting list systems - identify ways of making these align with trauma informed principles.
7. Improve staff self-care (self-care training, reorganising structure of supervision and regularly remind staff to use internal and external resources).

### Long term recommendations – resource / advocating

1. Advocate for additional resources to address building issues such as a larger Day Service site, single room occupancy and/or communal housing first sites.
2. Advocate for Service Users on a national basis to ensure that national policies that impact on people who are homeless can be trauma informed.

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3 The ‘centre of interest’ policy is a policy designed to ensure that services and supports are provided for people who are homeless in the area that can be best considered their main centre of interest. It is designed to prevent the concentration of people who are homeless and homeless services in the country’s main cities and it restricts people who are homeless from access to housing in areas that are not deemed to be their main centre of interest.