2018 Learning Brief #1

Improving understanding of SA youth: how adverse events impact mental and physical health, and exploring new ways to accurately measure and understand the impact of ACEs on children.

BACKGROUND TO THE LEARNING BRIEF:

Waves for Change (W4C) conducts annual baseline studies at the start of each new year; to establish the current status of the population we will work with.

This learning brief reviews the W4C 2018 participant intake. It provides us with a better understanding of who our participants are, and a better comprehension of expected results.
8/10 CHILDREN HAVE EXPERIENCED AT LEAST ONE ADVERSE CHILDHOOD EVENT

W4C works with young people who have been exposed to repeat adverse childhood events (ACEs) and who lack access to consistent caring adults. ACEs include multiple types of abuse, neglect, violence between parents or caregivers, other kinds of serious household dysfunction such as alcohol and substance abuse, and peer, community and collective violence.

W4C connects young people to our surf therapy programmes by establishing local referral networks.

Baseline measures help us evaluate the effectiveness of our referral networks. Baseline also ensures our surf therapy programmes match the needs of participants being referred to W4C.

At baseline, W4C uses a scale to measure children’s exposure to ACEs, over the 6 months prior to joining the W4C programme.

The findings thereof are displayed here...

One in 5 W4C children has been exposed to 4 or more ACEs

A person with 4 or more ACEs is*:

- 2.5 times more likely to have chronic obstructive pulmonary disease (progressive lung diseases including emphysema & chronic bronchitis)
- 4.6 times more likely to experience depression
- 12 times more likely to be suicidal

79% of W4C children have experienced at least one ACE during the past 6 months

Did you know that children exposed to at least one ACE often have lower school grades, decreased reading ability, higher rates of truancy, and increased likelihood of drop out or be suspended or expelled?*

* D. Bruskas & D. H. Tessin, (2013). Adverse Childhood Experiences and psychosocial well-being of women who were in foster care as children. The Permanente Journal, Summer 2013/ Volume 17 No. 3.
ADVERSITY DOESN’T HAPPEN TO CHILDREN, IT HAPPENS INSIDE THEM...

Research tells us that:

- The 2016 Optimus* study shows 40% of children in South Africa are victims of violence and abuse every year; causing poor neuro-cognitive development, emotional problems, externalising behaviours, substance use, and poor physical health
- Exposure to ACEs can disrupt early brain development and compromise functioning of the nervous and immune systems
- A number of unhealthy lifestyle choices have been linked to growing up in adverse household conditions. Researchers have found higher rates of adult smoking, drug abuse, physical inactivity, poor diet, alcoholism, and risky sexual behaviors among individuals who experienced childhood maltreatment or household dysfunction


Source: https://delawarecountycasa.org/child-abuse-brain-development/
2018 Baseline data showed children experienced **above average exposure to ACEs** in the 6 months prior to joining W4C’s surf therapy programme.

However,

**self-reported data** for (amongst others) self-image, negative or anti-social behaviour, emotional well-being, physical health, and lifestyle choices **appeared unusually high**; for children from this target population.

**Referral reports** from parents and teachers included observations of anti-social behaviour that **did not match self-reported data** from child participants.

Literature agrees **self-report data contains response bias**, which affects the reliability of such data, as **respondents may be unwilling or unable to respond accurately** for countless reasons.
In 2018, W4C teamed up with the Laureus Sport for Good Foundation and the New School University (Washington DC) to trial physiological measures, testing children’s autonomic stress response. Stress is a physiological response experienced on encountering a threat that we feel we do not have the resources to deal with. Autonomic stress response is a system that works automatically, without a person’s conscious effort.

The fight-or-flight response (also called hyperarousal, or the acute stress response) is a physiological reaction that occurs in response to a perceived harmful event, attack, or threat to survival.

Over time, repeated activation of the stress response takes a toll on the body. Research suggests that chronic stress contributes to high blood pressure, promotes the formation of artery-clogging deposits, and causes brain changes that may contribute to anxiety, depression, and addiction.

Did you know?

Extensive research on the biology of stress shows that healthy development can be derailed by excessive or prolonged activation of stress response systems in the body and the brain, with damaging effects on learning, behaviour, and health across the lifespan.*

Physiological pilot data at 2018 baseline

- Children appeared to be autonomically amped, including an excessive activation of stress response systems;
- High vagal tone and high sympathetic activity were found; this pattern is found among people who live under constant threat and who have to continually self-regulate to not get attacked;
- Which is associated with complete autonomic denervation and early morbidity.

Accurate self-reported behaviour measures are difficult to capture. Research suggests that children who are autonomically amped are more inclined to hold prejudice and reject social authority. In 2018, we introduced a set of gender norm questions to test children’s perception of sex, gender and pro/anti social attitudes towards the opposite sex, as a proxy for pro/anti social behaviour traits.

We found, at 2018 baseline, that unhealthy gender norms exist in the W4C population.

New pro-social and gender sensitive curriculum and staff training have been incorporated to W4C’S 2018 surf therapy courses to boost pro-social, gender transformative behaviours.

Keep a look out for the outcomes in a follow-up learning brief in October 2018
Despite the possible self-report bias, positive differences were found at 2018 baseline, between children who have been in W4C’s programme for 6 months and new children who have not received surf therapy through W4C’s programme.

When compared to 2018 children, 2017 data showed W4C’s surf therapy had a positive effect on children, for example, these children:

* Trust more big people
* Have more big people can talk to when they feel upset or have a problem
* Feel stronger sense of belonging with family and friends
* Identify less with gangs
* Feel boys and girls can do the same things
BUT, given the self-reported information received from our participants at 2018 baseline, we are left with questions, such as:

- Do our children (between ages 9 and 14) understand how they feel and what happens in their bodies?
- Do our children have a heightened sense of ability and well-being?
- Do we ask the right questions in the right way, to enable our children to answer unambiguously?
- Are our children comfortable and able to answer questions honestly?
- What other measures/approaches can we use to (more) accurately understand out participants better?

We know our 2018 participants have been exposed to numerous adverse childhood events and carry the effects of this repeat exposure to trauma. We also know surf therapy is helping improve stress response and behaviour outcomes.
Based on what we have learnt from our 2018 baseline study, we will:

- **Reduce reliance on self-reported data**

- Quality, not quantity: self-reported data will be collected from a representative sample of participants, to **strengthen the quality of data, as opposed to the quantity**

- **Identify and probe proxy measures** for negative behaviours, such as gender prejudices, access to caring adults, sharing feelings, and perceived stress

- **Pilot physiological measures** (e.g. heart rate variability, behavioural measures using age-appropriate online activities, wave patterns and activity of the brain, and regulation of stress-related hormones, including cortisol) to look at the effect of adversity, and subsequent impact of surf therapy, on children’s bodies and cognitive functioning

- **Conduct focus group discussions** with children, parents/caregivers and teachers, to explore surf therapy outcomes in depth, and in context