The Life Course of Methamphetamine Users in New Zealand.
Episode 1: Childhood and Family

This research provides, for the first time, a life-course-based qualitative study of ex-methamphetamine users in New Zealand. The family environment of 41 ex-meth users is analysed using a revised eleven category measure of adverse childhood experiences. In findings that exceed the original ACE study, 91% exposed to one category were also exposed to at least one other, while 77% experienced four or more (especially parental separation, parental substance abuse, and emotional and physical neglect). Overall, 80% believe their family exerted a direct or indirect influence on their later drug use. But despite commonly shared ACEs, the narrative sketches provided demonstrate each life-course is unique relative to what, when and how ACEs occurred. With five ACEs each on average, this research adds further evidence to the body of knowledge that demonstrates exposure to multiple adverse life experiences during childhood is a key precursor to later frequent substance use. In line with the 2018 New Zealand government inquiry into mental health and addiction, substance abuse may be considered for many - but not all - an adaptive counterproductive coping mechanism to adverse childhood experiences. However, five male interviewees were exposed to none or one ACE. With 'good' and 'fortunate' childhoods, and loving and supportive parents, their contrary childhoods support the importance of prosocial authoritative parenting practices. Nevertheless, strong and positive parent-child bonding could not prevent them from developing serious and long-term poly drug use habits.

INTRODUCTION

In New Zealand, media stories about methamphetamine or 'P'[1] use regularly appear in newspapers, where "the scourge of P addiction" is commonly depicted as indiscriminately destroying individual lives, families and whole communities (Northern Advocate 2017). From these media depictions, and everyday interpretations, a popular anti-meth narrative has emerged that presumes this "evil" drug to be so "highly addictive" that, like a "virus," it does not distinguish between gender, age, ethnicity or socioeconomic-status (Quill 2016; 2016b). "*The thing about P*," argued a concerned educator, "*is that it has no class conscious. It doesn't decide who its victim will be. It just claims anyone and everyone … The biggest concern is that if someone tries meth, a big percentage will get hooked. And some cannot get off it, ever*" (Quill 2016b). Indeed, this research series will demonstrate the serious and adverse impact meth use can exert on individuals and their families. Likewise, research in New Zealand indicates meth use can potentially increase the risk of cardiovascular and mental health problems, is associated with violent behaviour for those with existing mental health problems and a predisposition for violence (Policy Advisory Group 2009), and is closely connected to organised criminal activity (Wilkins et al. 2017; Clayton 2017). Nevertheless, this popular narrative runs contrary to survey data on meth use in New Zealand.

In New Zealand, 43% of adults have admitted using an 'illegal drug' in the previous 12-months, while 14% admitted to monthly use (McQuillan 2017). By contrast, about 8% of adults said they have used amphetamine/methamphetamine in their lifetime (Winstock 2016), with between 0.7% and 3% using in the previous 12-months, and about 0.2% admitting to monthly use (Ministry of Health 2014; Policy Advisory Group 2015; Ministry of Health 2016; McQuillan 2017; MacLean

[1] The letter 'P' that is used as a synonym for meth is an abbreviation of 'pure', which was originally used to differentiate amphetamine or 'speed' cut with glucose or dextrose from uncut 'pure' amphetamine.

2018).[2] Contrary to the 'one hit and you are hooked' narrative, only 1-in-4 to 1-in-15 of those who used meth in the last year use on a monthly basis. However, 36% arrested for a criminal offense in 2015 reported using meth in the previous 12 months, which is 12 to 35 times the general population (Johnson 2018). The elevated prevalence rates of frequent substance use among New Zealand's prisoners correlates with their elevated rates of severe psychiatric disorders, including major depression and PTSD (Brinded et al., 2001). This indicates widespread self-medication of a drug that was originally marketed and prescribed as an antidepressant (Rasmussen 2008).

In addition, *New Zealand Health Survey* data clearly demonstrates meth use in New Zealand is unevenly distributed in regards to gender, age, ethnicity and social class. Contrary to the view that meth use increases year-on-year, between 2011 and 2019 meth use remained relatively stable, with 0.7% to 1.1% of the adult population having used in the last year (Ministry of Health 2019). Regarding gender, meth use among males is two to three times higher than females. Regarding age, those aged 25-44 use meth at a higher rate than other age groups. Regarding ethnicity, Māori are two to three times more likely to have used meth than European/Pākehā and Pacific adults, with Asians the least likely ethnic group to use meth (Ministry of Health 2016; 2019). Regarding socioeconomic-status, about five times more people living in the 'most deprived' neighbourhoods use meth than those living in the 'least deprived' neighbourhoods (Ministry of Health 2019). Thus, the most likely meth users are Māori males aged 25-34 living in the most socioeconomically deprived neighbourhoods. Conversely, meth use is essentially non-existent among older NZ-Asian women living in well off neighbourhoods.

This popular narrative also runs contrary to the developmental life-course view of addiction. As Szalavitz (2016) has shown, only 10-20% of meth, heroin and cocaine users become addicted,

[2] In the New Zealand Health Survey, an 'amphetamine' includes: 'P' ('pure' methamphetamine); 'ice' (crystal methamphetamine); and 'speed' (amphetamine).

while (like criminal offending trajectories) about 90% of all substance addictions start in adolescence and most end by age thirty. According to Family Drug Support, for example, 15% of meth users in New Zealand are considered 'dependent' on the substance (Bayer 2020). Szalavitz also demonstrated addiction does not simply 'appear' overnight but 'unfolds' over time, while the road to addiction is paved with childhood trauma (along with a predisposition to mental illness). Even though there is no significant trauma history in up to one-third of those who become addicted, about two-thirds of addicted people have suffered at least one extremely traumatic childhood experience. Importantly, the higher the exposure to trauma the greater the addiction risk. Szalavitz thus conceptualizes addiction as a learning disorder, because it is an adaptive coping style that becomes counterproductive when the addictive behavior persists despite ongoing negative consequences.

Maté (2008: 136) has likewise argued mere exposure to a drug with "addictive potential" does not make a person susceptible to addiction. The small minority of drug users who do become addicted become so because they were already susceptible. This is why Bruce Alexander's (2008) dislocation theory of addiction presumes only those individuals who are severely dislocated are vulnerable to addiction. For Alexander, psychosocially integrated people have no need to devote themselves to a narrow and dangerous lifestyle as their individual and social needs have been sufficiently met. Research indicates children who have encountered adverse childhood experiences (ACEs) have worse health outcomes and higher rates of addiction than others (and the greater the number of ACEs the higher the risk of poor health outcomes) (Hughes et al. 2017). Since adverse childhood experiences are the key (but not only) precursors that go into manufacturing addiction, Maté believes the key question is not '*Why the addiction?*', but rather, '*Why the pain?*' (Maté 2008).

New Zealand's Ministry of Health concurs with Szalavitz, Maté and Alexander, as it has identified the following as key individual, interpersonal and structural risk factors: (1) mental illness; (2)

exposure to traumatic life experiences, such as child abuse and neglect; (3) family violence and household dysfunction; and (4) belonging to a marginalised and lower-socio-economic group (Ministry of Health 2009; 2015). Additionally, the highly publicised 2018 New Zealand government inquiry into mental health and addiction conceptualized addiction as a "*counterproductive coping mechanism*" for economic deprivation, intergenerational and childhood trauma, sexual abuse, family and partner violence, neglect, anxiety, bullying, loneliness, isolation, social exclusion and disconnection (Paterson et al. 2018: 44). In their submissions to the inquiry, New Zealanders called for addiction to be recognised as a counterproductive response to stress, anxiety and trauma, and believe research and policy endeavours "must engage more fully with life-course theory" (ibid: 50) and a "life-course approach" (ibid: 83). In addition, intervening early in the life-course and at critical transition points to prevent adverse childhood experiences was seen as the "best medium- to long-term investment in mental wellbeing" (ibid: 50). However, life-course-based research is required to help identify these critical transition points.

This paper - 'episode 1' in a '10-episode meth drama series' - is a direct response to that call by providing, for the first time, a life-course-based qualitative study of frequent meth use in New Zealand. With each episode both standing on its own and standing on the shoulders of previous episodes, this research aims to identify turning points in the onset, persistence and desistance from meth use throughout the life-course. By bringing the person to the forefront, this narrative-heavy series of IRB-approved papers can be seen as the qualitative complement to survey data collected annually about 'frequent meth users' using the Illicit Drug Monitoring System (which is part of the National Drug Policy) (Wilkins et al. 2019). In episode 1, an introduction to the series is provided, then the interviewees' family environment is analysed using a revised eleven category measure of adverse childhood experiences (ACE).

THE LIFE-COURSE METHOD

This series seeks to 'test' the popular narrative mentioned above by placing the respondent's meth use in a life-course context. By integrating personal, social and environmental factors, life-course theories focus on changes in relationships and behavior as people twist and turn along the pathway of life, and how, in turn, these changes affect behaviours such as drug use patterns. A life-course approach sets out to obtain data on:

human agency	health, wellbeing, and subjective aspects of meaning and satisfaction
linked lives	relationships in family, school, work, friendship, marriage and other social domains
Timing	event histories in these major domains of activity
location	social, cultural and historical context (Giele and Elder 1998)

The life-course view acknowledges "people's lives are uniquely shaped by the timing and sequencing of life events" (i.e., at what age and life phase did an experience or event occur?) (Scott and Alwin 1998: 99). The life-course approach also recognises the "mutual influence of person and social context over time" (Giele and Elder 1998). Since people are influenced by, and, in turn, influence others, the life-course approach also recognises the bi-directional nature of relationships (White Riley 1998). Thus, we can enquire into how a group of New Zealanders transition from non-meth user → to meth user → to ex-meth user as they go through vital changes, encounter new circumstances and relationships, and make certain choices whilst situated within a changing cultural, social structural, and historical setting (Clausen 1998). This research uses a retrospective life-course approach in order to identify the pathways or '*turning points*' into-through-and-out of meth use (Boeri and Whalen 2009; Teruya and Hser 2010). A detailed outline of this research project and its participants can be accessed at: **********.com.

The source of the data is as follows:

N	Primary Data Source (obtained via snowballing method)
35	In-depth semi-structured interviews with ex-meth users (100 hours of recorded data)
6	In-depth interviews with mother/wives/ex-wife/partner/ex-partner of ex-meth users (10 hours of recorded data)
	Supplementary Data Source (obtained from an online meth support group)
6	Transcribed testimonies of ex-meth users (7 hours of video data)
18	Transcribed live online chats with ex-meth users (20 hours of video data)
65	**Approximately 1 million words of transcribed empirical data**

Table 1. Gender and Ethnicity for Interviews 1-35 and Testimonies 1-6.

N	Gender	N	Ethnicity (self-ascribed)
23 (56%)	Male	30 (73%)	Pākehā/European/New Zealander/Kiwi
18 (44%)	Female	11 (27%)	Māori (including one Māori parent)

Regarding gender and ethnicity (Table 1.), over-representation of males and Māori reflect the characteristics of the general meth using population. Regarding date of birth, 30 were born between 1962-1980, and 11 between 1981-1995. Almost half (46%) were born in the 1970s. Regarding residence, they have lived throughout all of New Zealand's provinces in various villages, towns and cities. Regarding socioeconomic-status of interviews 1-35, 20% grew up in poor working class families, 20% in upper working class, 34% in lower middle class, 20% in middle class, and 6% in upper middle class families. Their parent's occupations include some of the following: farmer, factory worker, labourer, truck-driver, builder, engineer, small-business-owner, horse-trainer, teacher, nurse, sex worker, meth dealer, policeman and neurologist. The 35 semi-structured interviews that are the heart of this research were divided into two parts: (1) *Life in Review* (episodes 1-5), and (2) *Meth Use* (episodes 6-10). In part 1, interviewees were asked to review their life from the beginning to the present, including the following nine life domains:

family	school	work
friendships	romantic relationships	marriage
parenting	psychological and physical health	religion and/or spirituality

Each interview focused on the significant relationships, experiences and events in each of the above main life domains in order to understand the turning points and role transitions in their life. They were also asked about their legal and illegal drug use history, and at the end of each life domain were asked whether family (or school, or work, etc.) has influenced their drug use, and, conversely, whether their drug use has impacted on family relations (or their schooling, or work, etc.). Part 2 focused specifically to their meth use (wherein they had used for at least 6 consecutive months), again going back to the beginning and tracing it over time to the present.

With 35 main 'characters' and 30 supporting 'cast members', this research follows both the format of a Netflix drama series and the life-course method itself. Spread over 10 papers, episodes 1-5 will trace their life-course over time from childhood through adolescence and into adulthood as they transition from family to school to work, and as they navigate friendships, romantic relationships, marriage and parenting. Episodes 6-10 will trace their meth use from onset to desistance, and to life post-meth use. 'Drama' is an apt word to describe the life of the frequent meth user, for as Interview-3 stated, "*When you are a quite heavy user everything is just fucking drama*". Or as Interview-10 said, "*There is always drama in the meth world*". The stimulant effect of meth partly explains the dramatic nature of living with meth, but as Testimony-1 said, "*Meth thrives on heartache and heartbreak*".

Adverse Childhood Experiences

Studies into adverse childhood experiences (ACEs) have established a strong link between exposure to childhood abuse and adult health risk behaviours, such as substance abuse (Felitti et al. 1998). Adverse childhood experiences cover three categories of abuse (psychological, physical and sexual), two categories of neglect (physical and emotional), and four categories measuring exposure to household dysfunction (exposure to domestic violence, substance abuse, mental illness, and/or imprisonment) (ibid). The present study, however, has added the categories 'parental separation' and 'authoritarian parenting', and combined 'gang involvement' with 'imprisonment of a family member'.

Recognising meth use is, first and foremost, a deviant act (i.e., a violation of societal and legal norms), parental separation and authoritarian parenting have been added because a summary of the main findings from the most influential longitudinal panel studies in criminology have found those children who become juvenile delinquents are more likely to have experienced: (1) divorce; (2) harsh and inconsistent discipline (authoritarian parenting); (3) poor parental attachment and a lack of family support (i.e., emotional neglect); (4) lack of parental monitoring and supervision (i.e., physical neglect); and (5) physical and emotional abuse (Thornberry and Krohn 2003). Conversely, positive parent–child relations and strong parent-child bonding strongly protect against later delinquency (Hawkins et al. 2003).

On each of the eleven categories (see Table 2), extant knowledge clearly demonstrates a strong link between exposure to the measure and heightened risk for delinquency and/or later frequent substance use. Regarding ***parental separation*** (which affected 74% of interviewees, and at least 4 of the 6 testimonies), longitudinal studies from New Zealand (Henry et al. 1993) and elsewhere (Kolvin et al. 1988; Mednick et al. 1990) have pinpointed parental separation as an important risk factor for delinquency and frequent substance use.

Regarding ***emotional neglect*** (which affected 71% of interviewees, and at least 2 of the 6 testimonies), longitudinal research has pinpointed lack of positive parental involvement with the child to be a key predictor of later delinquent behaviour (Patterson, DeBaryshe, and Ramsey 1989). Likewise, Maté (2008) found having parents who were not emotionally present to be common among frequent substance users. Poorly attuned parent-child relationships provide an insufficient template for the development of a child's "psychological and neurological self-regulation systems" (Maté 2008: 239). As a result, people with poor self-regulation are more likely to look outside oneself for emotional soothing.

Regarding ***parental substance abuse*** (which affected 69% of interviewees, and at least 4 of the 6 testimonies), research indicates it interrupts a child's normal development, which places them at heightened risk of developing emotional, behavioural and mental health problems (Calhoun et al. 2015). For 20 of the 24 interviewees the main substance was alcohol, thereby indicating its disproportionate harmful effects on children relative to illegal substances.

Regarding ***physical neglect*** (which affected 66% of interviewees, and at least 2 of the 6 testimonies), inadequate parental monitoring and supervision is one the most important parenting variables predicting delinquency (Thornberry and Krohn 2003). In a study of delinquent boys sent to Epuni Boys' Home in the 1970s and 1980s (such as Interview-17), Cohen (2011) found an absent father to be the most common factor. Of the 19 males interviewed, 11 had an absent father.

Regarding ***domestic violence*** (which affected 40% of interviewees, and at least 4 of the 6 testimonies), violent homes are regarded as one of the highest risk factors for the development of delinquent behaviour (Bowers et al. 1994). Thus, children exposed to domestic violence are at higher risk of developing short-and-long-term negative consequences (Kolbo et al. 1996).

Regarding ***physical abuse*** (which affected 34% of interviewees, and at least 4 of the 6 testimonies), parental physical abuse has been found to be a strong predictor of delinquency (Loeber et al. 2003).

Regarding ***imprisonment and/or gang involvement*** (which affected 31% of interviewees), parental incarceration places children and young people at heightened risk of developing emotional, psychological and behavioural problems (e.g., insecure attachments, internalizing and externalizing behaviours) (Parke and Clarke-Stewart 2001). In New Zealand, children of adult gang members are at heightened risk of being abused and neglected (Ministry of Social Development 2016), with both factors contributing to frequent substance use.

Regarding ***authoritarian parenting*** (which affected 29% of interviewees), research indicates it is a strong predictor of child adjustment problems and delinquency (Patterson and Dishion 1985). Conversely, consistent, warm and supportive prosocial authoritative parenting practices strongly protect against delinquency (Farrington 2010).

Regarding ***mental illness*** (which affected 29% of interviewees), parental mental illness can negatively interfere with a child's cognitive, emotional, behavioural and social development, such as hindering attachment formation, thereby increasing the risk for frequent substance use (Manning and Gregoire 2009).

Regarding ***psychological abuse*** (which affected 26% of interviewees), adolescents subjected to psychological abuse as a child tend to exhibit more internalizing and externalizing behaviour problems, thus heightening the risk of frequent substance use (Claussen and Crittenden 1991).

Regarding ***sexual abuse*** (which affected 26% of interviewees, and at least 3 of the 6 testimonies), Maté (2008) found the addict's life to be marked by an excess of pain, in particular physical, emotional and sexual abuse.

Importantly, ACEs usually co-occur or cluster together. In the original study, Felitti et al. found 87% exposed to one category were also exposed to at least one other, with 17% experiencing four or more. In the present study, 91% of interviewees exposed to one category were also exposed to at least one other, with 77% having experienced 4 or more (especially parental separation, parental substance abuse, and emotional and physical neglect). In addition, the original ACE study found

ACE scores to be cumulative, thus compared to persons with zero ACEs (only two in the present study), those with 4 or more were seven times more likely to be alcoholic, and ten times more likely to have injected a street drug (Felitti et al. 1998). In the present study, each interviewee has, on average, experienced 5 ACEs (see Tables 2, 3, 4). Despite using meth at a significantly lower rate in general, females experienced, on average, more ACEs than males (5.9 vs. 4.2 per individual), with 10-out-of-16 exposed to 6 or more. This indicates females may be less likely to resort to substance use to alleviate emotional and social distress. As emerging science shows, females are more robust, resilient and resistant to illness (Saini 2017). Māori experienced more ACEs than Pākehā (6.2 vs. 4.5 per individual), with 6-of-9 exposed to 7 or more (see Table 4). This helps to explain why they use meth at rates two to three times that of Pākehā. And of the five who were exposed to none or one ACE, all were male. Since studies into ACEs believe health risk behaviours, such as substance abuse, mostly function to alleviate the emotional and social distress that results from ACEs, then morally the question to ask victims of multiple ACEs is not '*What is wrong with you?*' but rather, '*What happened to you?*'

Only three pairs of interviewees share the exact same cluster of ACEs - Interviews 13 and 18 (1 ACE), interviews 23 and 28 (4 ACEs), and interviews 8 and 33 (6 ACEs). But with each pair there is variation in the timing, duration, quality, cause and/or consequences of each ACE. Thus while ACEs are commonly shared, each life-course is unique relative to what, when and how ACEs occurred (as the twelve selected narrative sketches below demonstrate). And unlike longitudinal data on criminal careers - which has found chronic high-rate offenders to have accumulated the most severe childhood deficits and to be early starters and late finishers (Thornberry and Krohn 2003) - there is no discernible correlation between the number of ACEs and the age of onset, frequency, quantity and duration of later meth use. For example, interview-22 encountered no ACEs yet was a heaviest meth user for the longest period of time, whereas, interview-1 experienced 8 ACEs yet used at a non-escalating moderate level between ages 40-45.

Table 2. Number of ACEs per Interviewee.

-1 to I-35	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
Gender	♂	♂	♀	♀	♀	♂	♀	♀	♀	♀	♀	♀	♂	♂	♂	♂	♂	♂	♀	♂	♂	♂	♂	♀	♂	♀	♂	♂	♀	♀	♀	♂	♀	♂	♂	
Ethnicity	P	P	P	P	P	P	P	M	P	P	P	P	P	P	P	P	M	P	P	P	P	M	P	P	P	P	M	P	M	M	P	M	M	P	M	
Year of Birth: 19~	62	62	65	67	68	68	69	69	70	70	70	71	71	71	72	72	72	73	73	74	75	75	75	76	77	79	79	80	80	82	84	87	87	89	95	
Parental Separation	13			5		8	7	16			9		16	18		12	0	13	12	0	5		9	1	4	2	7	12		0	16	1	4		8	**26**
Emotional Neglect	•			•	•	•	•	•	•	•	•	•			•	•	•		•		•		•	•	•	•		•	•	•		•	•	•		**25**
Substance Abuse	A				A	A	AI	AI	A	A	AI			AI	I	A	AI		I	AI			A	AI		A	A	A	I	A		AI	A		I	**24**
Physical Neglect	•		•	•		•	•	•		•	•				•	•	•			•	•		•		•	•	•	•	•		•	•		•	**23**
Domestic Violence			•			•	•	•			•			•		•			•	•				•			•				•	•		•	**14**
Physical Abuse	•		•		•		•	•									•								•				•	•	•	•		•	**12**
Prison/Gang							•				•				•		•		•					•			•		•	•		•			•	**11**
Authoritarian	•				•			•				•									•					•			•	•		•	•			**10**
Mental Illness			•	•		•	•				•			•					•					•								•			•	**10**
Psych Abuse	•		•		•					•	•						•									•				•	•					**9**
Sexual Abuse	•		•	•	•									•						•				•						•	•					**9**
TOTAL ACEs	**8**	**0**	**6**	**5**	**6**	**6**	**8**	**7**	**2**	**4**	**8**	**2**	**1**	**5**	**5**	**5**	**8**	**1**	**6**	**5**	**4**	**0**	**4**	**7**	**3**	**7**	**5**	**4**	**4**	**9**	**4**	**9**	**7**	**1**	**7**	

Ethnicity: P = Pākehā; M = Māori. **Parental Separation:** age at separation. **Substance Abuse:** A = Alcohol; I = Illegal Drugs; AI = Alcohol and Illegal Drugs.

Table 3. ACEs by Ethnicity and Gender.

	ADVERSE CHILDHOOD EXPERIENCES	Māori n9	Pākehā n26		Male n19	Female n16	TOTAL n35
1	Parental separation	7 (78%)	19 (73%)		16 (84%)	10 (63%)	**26 (74%)**
2	Emotional neglect	6 (67%)	19 (73%)		11 (58%)	14 (88%)	**25 (71%)**
3	Substance abuse in the family	8 (89%)	16 (62%)		11 (58%)	13 (81%)	**24 (69%)**
4	Physical neglect	8 (89%)	15 (58%)		13 (68%)	10 (63%)	**23 (66%)**
5	Exposure to verbal and/or physical domestic violence	5 (56%)	9 (35%)		7 (37%)	7 (44%)	**14 (40%)**
6	Physical abuse	6 (67%)	6 (23%)		4 (21%)	8 (50%)	**12 (34%)**
7	Imprisonment and/or gang involvement	6 (67%)	5 (31%)		5 (26%)	6 (38%)	**11 (31%)**
8	Authoritarian parenting style	5 (56%)	5 (19%)		3 (16%)	7 (44%)	**10 (29%)**
9	Mental illness in the family	2 (22%)	8 (31%)		4 (21%)	6 (38%)	**10 (29%)**
10	Psychological abuse	2 (22%)	7 (27%)		2 (11%)	7 (44%)	**9 (26%)**
11	Sexual abuse	1 (11%)	8 (31%)		3 (16%)	6 (38%)	**9 (26%)**
	TOTAL	**56**	**117**		**79**	**94**	**173**
	AVERAGE	**6.2**	**4.5**		**4.2**	**5.9**	**5.0**

Table 4. ACEs Clustered Together (including ethnicity and gender).

Number of ACEs	0	1	2	3	4	5	6	7	8	9	10	11
50%												
47%												
44%												
41%												
38%												
35%												
32%												
29%												
26%												
23%												
20%												
17%					M♂	M♂						
14%					P♂	P♂		M♂				
11%					P♂	P♂	P♂	M♀	M♂			
9%		P♂			P♀	P♂	P♀	M♀	P♂			
6%	M♂	P♂	P♀		P♀	P♂	P♀	P♀	P♀	M♂		
3%	P♂	P♂	P♀	P♂	P♀	P♀	P♀	P♀	P♀	M♀		
Participants (n35)	**2**	**3**	**2**	**1**	**6**	**6**	**4**	**5**	**4**	**2**	**0**	**0**

FOUR TO NINE ACEs: TWELVE NARRATIVE SKETCHES

Whilst placing childhood experiences into their appropriate categories is an important and necessary task, this does not provide us with knowledge about their lived childhood experiences and the subjective aspects of their lives. Indeed, what gives the life-course approach its *life* is the socially situated sentient individual, who, in their own words, integrates events and experiences and gives them meaning (Giele and Elder 1998). Thus the following twelve selected narrative sketches firstly provide validation for the selection of each measure chosen and the extant knowledge referenced above, and, secondly, provide rich contextual qualitative data about the unique events, processes and emotions they experienced, the meanings they made out of their adverse childhood experiences, and/or how they adapted to adversity and change.

Four ACEs

For those interviewees who experienced four ACEs, 4-out-of-5 experienced parental separation and emotional neglect *and* physical neglect.

Interview-23's parents were so devoted to their careers that he never received "*any*" parenting, and so was "*fully disconnected*" from them during his whole childhood. At seven, they sent him off to a boarding school 30 minutes away, only returning home for half a day every second Sunday. At 9, his mother turned up at boarding school to tell him his parents were divorcing. She left after 30 minutes, and left him to deal with it on his own. Of his parent's neglect, he said, "*How could you do that to a child*"? He attributes being successful at sports in providing him the relief and self-confidence needed to survive both his adverse home environment and a brutal boarding school system. He therefore had no time for drugs during his teens and early-twenties because he was trying to get his body to "*a point of perfection*". But at 24 this body failed him when he was diagnosed with a cancerous tumour. Disconnected from family support, and believing the tumour was going to kill him, he thought, "*Let's go and live everything that I haven't done*". His drug use

"*snowballed really big*", and within six months he went from a healthy sport-loving person who "*hated*" drugs to a heavy ecstasy and meth user who was dealing illegal drugs supplied by a "*very well connected*" gang member at the heart of New Zealand's illegal drug industry.

Interview-10's white, middle-class parents provided materially, but her mother was very self-centred and emotionally and physically absent (she never heard her mother say 'I love you'). Too busy playing her favourite sport to think about her children, Interview-10's overriding childhood memory is her mother simply not being there. While her father was a "*wickedly funny man of few words*", he was very "*emotionally aloof*". She was a "*weird child*" who felt like an outsider in her own family. She was also a very sensitive empath child who would feel things intensely. As a sensitive adult, opiates (her drug of choice) switched off these feelings and was the only thing that numbed her pain. She was born legally blind, and believes not being able to visually bond with people negatively impacted on her ability to develop relationships. In primary school she was severely bullied for wearing glasses, but excelled academically. Because she was uncool she desired to be one of the popular kids. Her first boyfriend at 15 – a notorious bad boy cannabis user - was her entry into being cool; but also into illegal drug use.

Five ACEs

For those interviewees who experienced five ACEs, 6-out-of-7 experienced parental separation, substance abuse *and* physical neglect.

Interview-14's parent's marriage was "*really disastrous*", and he was "*exposed to*" and "*dragged through*" their "*constant break-ups and arguments*". His mother was molested by her adoptive father, which "*she has never dealt with*". Following the birth of his younger sister, his mother suffered post-natal depression and spent a few months at a psychiatric institute. He has "*recollections*" of being sexually abused at 4, and at 5 suffered "*minor sexual abuse*" at the hands of an older Māori boy, who was both his neighbour and friend. At 15, he "*lost the plot*" after a

close female friend died and his 14-year-old sister was sexually abused by their 30-year-old married male second cousin. Then between 17-20 he was institutionalized on 4 separate occasions for "*drug induced psychosis*". He believes having his drink spiked with LSD "*snapped open some door in my brain – or a window – that just stayed open*".

Interview-29's parents were not in a relationship when she was born. Her 20-year-old mother handed her over to her "*awesome*" but "*tough*" and economically deprived maternal grandmother. She did not have a good relationship with her mother growing up, because "*she didn't like me and I didn't like her*". Her father was president of a gang chapter, who was in and out of her life, and "*in and out of jail*". When she was 15 her uncle – born in the same year and also raised by her grandmother – was killed in a car accident. This "*devastating*" turning point event "*took a big toll*" on her emotionally, and triggered her schooling to end and her drug use to begin. Then at 17, life "*got real tough*" when her father was sentenced to 16 years in prison for murdering his wife of two years.

Six ACEs

For those who experienced six ACEs, 3-out-of-4 experienced emotional neglect, substance abuse, domestic violence *and* mental illness.

Interview-6 was an unplanned "*surprise*". His mother was 38 when she had him, and his oldest sister already 18. His parents "*fought a lot*", which "*quite upset*" him. When he was eight, his "*very loving*" but "*quite violent*" mother died of lung cancer, causing him to became "*very withdrawn*" and "*very unhappy*". Because his father was "*absent*" and "*neglectful*", he was often home alone, which he expectedly found "*scary*". At 11, his father remarried, but his step-mother "*found it hard to deal with*" him being a "*very quiet*" stay-at-home "*bookish kid*", so she banned him from being around home during the day. At 13, his "*pretty unhappy*" step-mother tried to commit suicide. For many years, he felt responsible for his step-mother's suicide attempt, his

mother's death, and his father and step-mother "*arguing all the time*". He "*couldn't wait to leave*" home, because the only place he felt happy was when *not* at home. After leaving at 17 to attend university, he was "*very resentful*" of the way his father and step-mother were toward him, and "*very critical*" of the way they brought him up, especially "*their lack of care*". He also thought they were "*alcoholics*".

Interview-3's mother suffered a "*horrific*" and ongoing "*traumatic*" episode when she was young, which left her with severe mental health issues. Stressed from having five children and "*an undiagnosed schizophrenic*" for a wife, her often absent father would occasionally put "*holes in the walls where he had put her head*". Due to her mother's psychotic behaviour, interview-3 and her siblings were "*quite ostracised*" in their tiny village, because when her mother *"spun out she really made enemies with people*". When she was 6, her mother was placed in a psychiatric institute for 6-months, where she underwent electroshock treatment. She and her two older brothers were placed in state care for about 12-months, wherein she was sexually abused. At 9, she was sexually abused by a neighbour. At 11, she was sexually abused by her father's drunk co-worker. Expectedly, this abuse had "*quite an impact*" on her life-course, partly because living in an isolated village meant she had to see these "*fucking people every day*". Her mother would "*constantly*" take her to the doctor, and say, "*There is something wrong with her*". At 11, she was prescribed 21 pills per day, but her mother never made sure she took them. As a teen, she would take any drug that "*altered my state-of-mind"*". As the "*black sheep*" in the family, she left home at 16 to "*get out of the village*". But it took her to age 40 to figure out who she was.

Seven ACEs

For those who experienced seven ACEs, 4-out-of-5 experienced parental separation, substance abuse, emotional neglect, physical neglect, domestic violence *and* physical abuse.

Interview-17's parents divorced when he was 8-months old. His father was a violent man who forced his mother to care for his father's ailing diabetic mother. He now recognizes his life path would have been "*easier*" if he had lived with his mother. His father "*lost the plot*" when his ailing mother died, and he became an "*alcoholic*" who would drink "*24/7*" at home or the local pub. Living in a poor suburb of the city, his father's notorious "*party house*" was a place where "*alcoholic drunks*", "*bikies*" and gang members socialised. It was a very male oriented household "*with no mother figure*", although his father's associates "*would bring dirty girls home*". As the youngest, he was always "*showing off*" trying to impress his father and his associates. For example, he started drinking beer at age 4, and by 5 could skull a 750ml bottle. However, his older brother could skull a litre glass flagon of beer at 7, a feat he "*never achieved*". His father would always tease him about this by saying, "*Your brother is better than you*". At 13, he had his "*first real fight*" with his father after his father severely beat his brother. He attacked his father, who reacted by smashing a beer bottle over his head ("*luckily it didn't smash*"). He then held a knife to his father's throat, but decided he wasn't "*worth*" cutting. Fearful his father would attack him whilst sleeping, he took off and "*started hanging around the street*", wherein he joined his first of numerous gangs. He now believes the "*bad shit*" he witnessed and experienced as a child both moulded the way he sees things in life and left "*no doubt*" as to which path he was going to travel. That life pathway included: being incarcerated at 17 for having "*axed this guy in the head*"; being charged with murder at 19; being imprisoned at 34 for "*firebombing a child molester's house*"; becoming a president of a local gang chapter; and "*flying around at high speeds*" for about 3 years using and dealing large quantities of meth whilst "*fully believing*" he was "*the second coming of Christ*".

Interview-35 "*grew up all over the country*". When young, he moved every year at the start of the farming season, because his father would "*lose his temper*" with his boss, and then lose his job. At 6, he lived in car for 18-months, as he helped his father sell meth while his mother worked

as a sex worker to support their meth habit. His father, "*a notorious gang member*", physically abused his mother throughout their relationship. His mother left when he was 8, whereupon she started a relationship with a meth cook, who before being imprisoned on meth charges had become a positive father figure to interview-35. When 8, he returned with his father to their home village to sort out his deceased great-grandmother's assets, but his father "*lost the plot*" and "*started attacking the whole household*". He was charged with 21 counts of grievous bodily harm. The judge "*deemed him criminally insane*", and sent him to a psychiatric institute, where he was diagnosed as being "*schizophrenic bipolar*". He has a "*love to hate – hate to love*" type of relationship with both parents. While he loves his mother, he hates that her daily intravenous meth use led to her being very neglectful. While he loves his father, he hates that he regularly beat his mother. His father told him he did this to help "*desensitize*" him to a cruel world. Witnessing this abuse "*had a psychological impact*" on the way he processes emotions. Thus he doesn't get sad when people die, he doesn't cry at funerals, and he wouldn't be bothered if he died tomorrow. Due to "*all the shit*" he witnessed as a child, people have told him he should be "*another statistic who has fallen through the cracks*" and "*out there committing crimes*". He thinks he has "*defied the odds*" because he doesn't believe in holding on to "*negative energy*". His desensitized coping mechanism has been to adopt an "*I just don't care*" attitude.

Eight ACEs

For those who experienced eight ACEs, 4-out-of-5 experienced parental separation, emotional and physical neglect, substance abuse, psychological and physical abuse, *and* prison/gang involvement.

Interview-1's parent's had a "*shotgun*" wedding after his 18-year-old mother unexpectedly got pregnant with his older brother. But marriage and children did not prevent his "*pretty non-existent*" father from repeatedly engaging in extra-marital affairs. Because his parents were "*emotionally*

distant", he believes him and his three siblings "*all lacked love*". His older brother became a "*nasty sadistic bully*" who was mentally, physically and sexually abusive toward him and his younger sister. He was also sexual abused by a male babysitter when 5 or 6. And between 11 and 13 he was sexually abused repeatedly by a classmate just one-year older. As a child, he was "*terrified*" of his strict disciplinarian mother, and would run away if he did something wrong because the punishment "*would be horrendous*". At 13 - whilst suffering "*horrific*" vengeful bullying at the hands of his older brother's victims while attending a private school – his parents suddenly announced they were divorcing, which was a "*significant event*" in his life-course.

Interview-11's parents also married because her mother unexpectedly fell pregnant with her and her twin sister. She repeatedly said them, "*I wish I had never had you kids. You ruined my life*". Due to her mother's mental health issues her parents had a "*very bad relationship*", which resulted in regular arguments, physical altercations and "s*mashing things against the walls*". She would "*dread going home*" from school as she didn't know "*what kind of drama*" was awaiting her. When she was nine her father had an affair, which caused her parents to separate and triggered her mother to twice attempt suicide. The first attempt involved her slitting her wrists with a broken bottle in front of her three daughters. Her mother was then admitted to a psychiatric institute for 9-months. Her mother was "*really messed up*" because she was repeatedly raped at 15 by her three biological brothers (all gang members) and two other patched members. Since she "*never dealt with*" this victimization then she was "*incapable of showing love*". *"Desperate*" *to* have a relationship with her mother, she chose to live with her mother at 14. This was a key turning point, as she now recognises she would have been "*way better off*" staying with her father, because she would have "*had a more stable teenage upbringing*", and so probably wouldn't have made the "*bad choices*" she did. Since her mother let her do whatever she wanted, at 14 she was "*drinking to get absolutely wasted"* at parties.

Nine ACEs

Both Interview-30 and Interview-32 experienced parental separation, emotional and physical neglect, substance and physical abuse, prison/gang involvement *and* authoritarian parenting.

Interview-30 was raised by her maternal grandparents, who were "*very religious*", "*very strict*" and "*very disciplinary*". She was also raised by two uncles and two aunties, who also gave her "*beatings*". Her father, a "*chronic alcoholic*", left when she was 3-months old, and she didn't meet him until her late-20s. Her mother was into "*partying*" and "*drinking*" before marrying and having 3 other children. Her mother was "*always hating on*" her, and always giving her a "*hiding*". Being "*confused*" was the dominant emotion of her childhood. Until about 8, she was confused who her parents were. She was also confused about the role she was meant to play in relation to her older uncles and aunties and younger step-siblings. And she was confused that the people who seemingly loved her also physically abused her (thus she equated abuse with love). When 5, her 14-year-old uncle began sexually abusing her. For years, he did "*some real fucked up shit*" to her "*all the time*". At 12, she told her mother about the abuse, but her mother didn't believe her. This rejection was a key turning point event, as the following day she "*walked away*" from her mother and "*started to rebel against everyone*" and "*everything*", beginning with "*hating*" the religion that had ruled her existence. She quickly went from being a very conservative and obedient child of God getting A+ grades to "*hanging out with the wrong people*" and "*getting into drugs*". She got caught stealing, got expelled from high school for selling cannabis, and began sex work the day she turned 17, which led to meeting a 42-year-old senior member of one of New Zealand's biggest gangs. He also happened to be a frequent meth user and the gang's main meth cook.

Interview-32 was also raised by his grandparents, who were "*rough and tough*". Due to constant fighting, his parents "*took off and did their own thing*" when he was 18-months-old. He subsequently had "*minimal*" contact with his father, while his mother's severe mental illness led to her being confined to a psychiatric institute for some years. His drug use and delinquency "*came*

on" when he moved to his maternal auntie's house at 11, because then he could do whatever he wanted as he "*didn't have a dad or mum to tell me what's up".* He was "*surrounded*" by drug use where '*alcohol was a big thing'*. While his grandfather gave him alcohol from age 10, and he was influenced by older peers in their economically deprived neighbourhood to use cannabis from age 9, "*at the end of the day*" he wanted to make his own decisions in life. This sense of independence is a key motif, which stems from him being abandoned by his parents and forced to find his own way. By 18 he had found his way to meth.

Being Different

According to Szalavitz (2016: 52), it is very common for those who became addicts to have felt, during their childhood, "fundamentally different and uncomfortable in their own skin" (because they were unloved, abused, anxious, alienated, in danger, etc.). 10 of the 16 females interviewed, and 5 of the 19 males, either: (1) felt like an "*outsider*" or "*black sheep*" in the family who was "*just different from everyone else*", (2) was "*confused*" about their identity and place in the family, and so felt a "*deep sense of not belonging*", (3) had a *"general feeling of being unloved and unsafe*", (4) felt like an "*emotionally sensitive person*" (such as being an "*empath*" or "*always angry*"), or (5) suffered from anxiety and/or low self-esteem (which expressed itself in self-blame, self-harm, separation anxiety). Interview-31, for example, "*never ever fitted in*" when she moved to a new town at 8, and because she "*never clicked*" she always felt "*just really uncomfortable*" and "*like a fish out of water*". And since her very jealous older sister was always trying to "*drown*" her (beginning with trying to literally drown her in the bath when she was 8-weeks old), then she has "*always been on the outside*" of her two sister's relationship. She rebelled against her situation, and by 13 was seriously delinquent, "*lost as fuck*", making "*some bad decisions*" and "*taking the wrong turns with the wrong people*". At 14 she was raped by an 18-year-old friend, and then got

into an abusive same-sex relationship with a 23-year-old. By 15 she was using drugs to self-medicate the emotional distress caused by a life that had become "*real shit*".

Non-Adverse Upbringing.

Importantly, 2 interviewees (2 and 22) were fortunate to have avoided all adverse childhood experiences. Additionally, Interview-34 only experienced 'emotional neglect' from his "*very intelligent*" but "*emotionally absent*" father, while 2 brothers (13 and 18) only experienced parental separation after their father had an extra-marital affair when they were teenagers. What characteristics do these five males share? Interview-2's happy childhood was "*good all the way through*" as he lived the ideal farm life with parents who were "*just excellent*" and "*never argued*". Likewise, Interview-22 had "*such a good upbringing*" on the family farm with his "*loving*" parents where everything was done "*prim and proper*" and "*nicely, by the book*" (although "*if you did wrong you will get a boot up the arse*"). Interview-34 had a "*good childhood*" growing up in an "*upper-middle class*" "*Anglican household*" in one of New Zealand's wealthiest suburbs. His home environment was economically "*privileged"* and "*very safe*", his relationships with both parents always "*strong*", and his parents "*instilled*" in him "*the moralistic things*". Likewise, Interviews 13 and 18 had a "*fortunate upbringing*" with their "*pretty normal*" and "*awesome*" parents who were loving, supportive and "*strong on things like values and morals and ethics*". Additionally, all five had loving and supportive mothers. Essentially, one or both parents practised authoritative parenting, which theoretically consists of emotionally available, warm, communicative and supportive parents who set firm rules, yet also allow some autonomy (Farrington, 2010). By providing a mixture of structure and freedom, authoritative parenting facilitates healthy psychosocial development (Steinberg *et al.*, 2004). But while strong and positive parent–child bonding protects against delinquency (Hawkins, et al., 2003), it could not

prevent each of them developing serious and long-term poly drug use habits. For example, Interview-13 was a heavy daily cannabis user for about 25 years; Interview-22 was a heavy meth user for almost 20 years; and Interview-2 spent 10 years desperately struggling to desist from his very heavy and expensive meth use habit.

Conclusion

As Table 5 shows, 80% of the interviewees believe their family environment exerted a direct or indirect influence on their later drug use. Conversely, half thought their drug use impacted negatively on their relations with immediate family members (with four saying their drug use helped them to bond closer with one or both parents).

Table 5. Bi-directional Family Influence

	Yes	No
Did family influence drug use (excluding meth)	28 (80%)	7 (20%)
Did drug use (excluding meth) impact on family relations	22 (62%)	13 (37%)
Negative impact:	18 (51%)	
Positive impact:	4 (11%)	

With five ACEs each on average, this research adds further evidence to the body of knowledge that demonstrates exposure to traumatic and adverse life experiences during childhood is a key precursor to poor health outcomes, such as substance abuse, later in life. This research therefore indicates prosocial and protective authoritative parenting practices are required at the beginning of the life-course to help avert the developmental path of frequent substance use from unfolding. But this evidence does not then lead to the conclusion that the adverse quality of family life and parental conduct are, in themselves, sufficient to cause children to become frequent meth users.

This is because some children socialised and conditioned under equally unfavourable conditions do not become frequent meth users (for example, at least 15 interviewees' sibling(s) did not become meth users) – while those not exposed to any ACEs can become frequent meth users. Thus a "rough causal explanation" may be proffered that is the result of a non-deterministic and contingent "dynamic interplay" between the various adverse experiences acting upon the child and adolescent (Glueck and Glueck, 1952: 184). One limitation of this conclusion stems from the time-series-based methodology employed, as we are yet to determine the influence school, work, friendships, romantic relationships, health and spirituality also exerted on later meth use. Nonetheless, the government inquiry is correct to conclude that for many - but not all - substance abuse may be considered an adaptive *counterproductive coping mechanism* to adverse childhood experiences. Thus, should we be surprised that Interview-1 has taken drugs throughout his life (especially alcohol) to "*have a good time and to feel good*" because "*I can't raise myself to a happy place without it*"?

References

Bayer, Kurt. 2020. "Housewives of P county: Why more Kiwi women are getting hooked on meth." *New Zealand Herald*, January 12. Retrieved January 12, from https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid =12293252

Boeri, Miriam., and Thor Whalen. 2009. *Older Drug Users: A Life Course Study of Turning Points in Drug Use, 2009-2010*. Inter-university Consortium for Political and Social Research.

Bowers, Louise., Peter K. Smith, and Valerie Binney. 1994. "Perceived family relationships of bullies, victims in middle childhood." *Journal of Social and Personal Relationships* 11(20):215–232.

Brinded, Philip, Alexander Simpson, Tannis Laidlaw, Nigel Fairley, and Fiona Malcolm. 2001. "Prevalence of Psychiatric Disorders in New Zealand Prisons: A National Study." *The Australian and New Zealand journal of psychiatry* 35:166-73.

Calhoun, Stacy, Emma Conner, Melodi Miller, and Nena Messina. 2015. "Improving the outcomes of children Affected by parental substance abuse: a review of randomized controlled trials." *Substance Abuse and Rehabilitation* 5:15-24.

Clausen, John A. 1998. "Life Reviews and Life Stories." In Janet Z. Giele and Glen H. Elder (eds.), *Methods of Life*

Course Research: Qualitative and Quantitative Approaches (189-212). Thousand Oaks, CA: Sage Publications.

Claussen, Angelika H., and Patricia M. Crittenden. 1991. "Physical and psychological maltreatment: relations among types of maltreatment." *Child Abuse & Neglect* 15(1-2):5–18.

Clayton, Tristram. 2017. "Kiwi criminals deported from Australia strengthening gangs." *New Zealand Herald*, February 24.

Cohen, David. 2011. *Little Criminals: The Story of a New Zealand Boys Home*. Auckland: Random House.

Farrington, David P. 2010. "Family influences on delinquency". In D. W. Springer and A. R. Roberts (eds.) *Juvenile Justice and Delinquency* (203-222). Sudbury, Mass.: Jones and Bartlett.

Felitti, Vincent J., Robert K. Anda, Dale Nordenberg, David F. Williamson, Alison M. Spitz, Valerie Edwards, Mary P. Koss, and James S. Marks. 1998. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults. The Adverse Childhood Experiences (ACE) Study." *American Journal of Preventative Medicine* 14(4):245-258.

Giele, Janet Z., and Glen H. Elder. 1998. Life Course Research. Development of a Field. In, Janet Z. Giele and Glen H. Elder (eds.), *Methods of Life Course Research: Qualitative and Quantitative Approaches* (5-27). Thousand Oaks, CA: Sage Publications.

Glueck, Sheldon, and Eleanor Glueck. 1952. *Delinquents in the Making: Paths to Prevention*. New York: Harper.

Hawkins, David J., Brian H. Smith, Kark G. Hill, Rick Kosterman, Richard F. Catalano, and Robert D. Abbott. 2003. "Understanding and Preventing Crime and Violence. Findings from the Seattle Social Development Project." In Terence P. Thornberry and Marvin D. Krohn (eds.), *Taking Stock of Delinquency: An Overview of Findings from Contemporary Longitudinal Studies* (255-312). New York: Kluwer Academic/Plenum Publishers.

Henry, Bill, Terrie E. Moffitt, Lee Robins, Felton Earls, and Phil Silva. 1993. "Early family predictors of child and adolescent antisocial behaviour: who are the mothers of delinquents?" *Criminal Behaviour and Mental Health* 3(2):97–118.

Hughes, Karen, Mark A Bellis, Katherine A Hardcastle, Dinesh Sethi, Alexander Butchart, Christopher Mikton, Lisa Jones, and Michael Dunne. 2017. "The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis." *The Lancet Public Health* 2(8):356-366.

Johnson, Alan. 2018. *Kei a Tatou. It is us. State of the Nation Report*. Wellington: The Salvation Army Social Policy and Parliamentary Unit.

Kolbo, Jerome R., Elenaor H Blakely, and David Engleman. 1996. "Children who witness domestic violence: A review of empirical literature." *Journal of Interpersonal Violence* 11(2):281–293.

Kolvin, I, F.T. Miller, M Fleeting, P.A. Kolvin. 1988. "Social and parenting factors affecting criminal-offense rates." *British Journal of Psychiatry* 152(1):80–90.

Loeber, Rolf, David P. Farrington, Mary Stouhamer-Loeber, Terrie E. Moffitt, Ayshalom Caspi, Helene Raskin White, Evelyn H. Wei, and Jennifer M. Beyers. 2003. "The Development of Male Offending. Key Findings From Fourteen Years of The Pittsburgh Youth Study." In Terence P. Thornberry and Marvin D. Krohn (eds.), *Taking Stock of Delinquency: An Overview of Findings from Contemporary Longitudinal Studies* (93-136). New York: Kluwer Academic/Plenum Publisher.

MacLean, Danica. 2018. "Northland meth programme making a difference." *Northern Advocate*, October 13.

Retrieved October 14, from https://www.nzherald.co.nz/northern-advocate/news/article.cfm?c_id =1503450 &object id= 12140821

Manning, Cressida, and Alain Gregoire. 2009. "Effects of parental illness on children." *Psychiatry*, 8(1):7-9.

Maté, Gabor. 2008. *In the Realm of Hungry Ghosts: Close Encounters with Addiction*. Berkeley, California: North Atlantic Books.

McQuillan, Laura. 2017. "Global Drug Survey 2017: How Kiwis are using drugs and booze." *stuff.co.nz*, May, 24. Retrieved May 10, 2018, from https://www.stuff.co.nz/national/health/92677551/global-drug-survey-2017-how-kiwis-are-using-drugs-and-booze

Mednick, Birgette R., Robert L. Baker, and Linn E. Carothers. 1990. "Patterns of family instability and crime: The association of timing of the family's disruption with subsequent adolescent and young adult criminality." *Journal of Youth and Adolescence* 19(3):201–220.

Ministry of Health. 2009. *Research into knowledge and attitudes to legal drugs: A study among the general public and people with experience of illegal drug use*. UMR Research; Acqumen LTD and UMR Ltd.

Ministry of Health. 2014. *Amphetamine Use 2015/16: New Zealand Health Survey*. Wellington: Ministry of Health.

Ministry of Health. 2015. *National Drug Policy 2015 to 2020*. Wellington. Ministry of Health.

Ministry of Health. 2016. *Amphetamine Use 2015/16: New Zealand Health Survey*. Wellington: Ministry of Health.

Ministry of Health. 2019. *Amphetamine Use 2018/19: New Zealand Health Survey*. Wellington: Ministry of Health.

Ministry of Social Development. 2016. *Adult gang members and their children's contact with Ministry of Social Development service lines*. Wellington: Ministry of Social Development.

Northern Advocate. 2017. New tools in battle against meth. *New Zealand Herald*, August 31. Retrieved August 31, from https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid =11914127

Parke, Ross, and K. Alison Clarke-Stewart. 2001. *From Prison to Home: The Effect of Incarceration and Reentry on Children, Families, and Communities*. U.S. Department of Health and Human Services.

Paterson, Ron, Mason Durie, Barbara Disley, Dean Rangihuna, Jemaima Tiatia-Seath, and Josiah Tualamali'i. 2018. *He Ara Oranga. Report of the Government Inquiry into Mental Health and Addiction*. Wellington: Ministry of Health.

Patterson, Gerald R., Barbara DeBaryshe, and Elizabeth Ramsey. 1989. "A Developmental Perspective on Antisocial Behavior." *American Psychologist* 44(2):329–335.

Patterson, Gerald R., and Thomas Dishion. 1985. "Contributions of Families and Peers to Delinquency." *Criminology* 23(1):63–79.

Policy Advisory Group. 2015. *Tackling Meth: Progress Report*. October 2015. Wellington: Department of the Prime Minister and Cabinet.

Quill, Annemarie. 2016. "Mum wished P-addicted son would die." *New Zealand Herald*, September 3.

Quill, Annemarie. 2016b. "Mums tackle 'Voldemort' of Bay's drug scene - meth." *New Zealand Herald*, December 4.

Rasmussen, Nicolas. 2008. *On Speed: From Benzedrine to Adderall*. New York and London: New York University Press.

Saini, Angela. 2017. *Inferior: How Science Got Women Wrong-and the New Research That's Rewriting the Story*. Boston: Beacon Press.

Scott, Jacqueline, and Duane Alvin. 1998. "Retrospective Verses Prospective Measurement of Life Histories in

Longitudinal Research." In Janet Z. Giele and Glen H. Elder (eds.), *Methods of Life Course Research: Qualitative and Quantitative Approaches* (pp.5-27). Thousand Oaks, CA: Sage Publications.

Steinberg, Laurence, He Len Chung, and Michelle Little. 2004. "Re-entry of Young Offenders From the Justice System: A Developmental Perspective." *Youth Violence and Juvenile Justice* 1(1):21–38.

Szalavitz, Maia. 2016. *The Unbroken Brain: A Revolutionary Way of Understanding Addiction*. New York: St Martin's Press.

Teruya, Cheryl., and Yih-Ing Hser. 2010. "Turning Points in the Life Course: Current Findings and Future Directions in Drug Use Research." *Current Drug Abuse Review* 3(3):189–195.

Thornberry, Terence P., and Marvin D. Krohn. 2003. "Common Themes, Future Directions." In Terence P. Thornberry and Marvin D. Krohn (eds.), *Taking Stock of Delinquency: An Overview of Findings from Contemporary Longitudinal Studies* (313-326). New York: Kluwer Academic/Plenum Publisher.

White Riley, Matilda. 1998. "A Life Course Approach, Autobiographical Notes." In Janet Z. Giele and Glen H. Elder (eds.), *Methods of Life Course Research: Qualitative and Quantitative Approaches* (pp.5-27). Thousand Oaks, CA: Sage Publications.

Wilkins, Chris, Jitesh Prasad, Khoon Yoong Wong, and Marta Rychert. 2015. *Recent Trends in Illegal Drug Use in New Zealand, 2006-2014*. *Findings from the Illicit Drug Monitoring System*. Auckland: SHORE and Whariki Research Centre, College of Health, Massey University.

Wilkins, Chris, Jitesh Prasad, Khoon Yoong Wong, and Marta Rychert. 2017. *Recent Trends in Illegal Drug Use in New Zealand, 2006-2016*. *Findings from the Illicit Drug Monitoring System*. Auckland: SHORE and Whariki Research Centre, College of Health, Massey University.

Wilkins, Chris, Marta Rychert, Jose S Romeo, and Thomas Graydon-Guy. 2019. *What is the price of meth, cannabis, ecstasy and LSD in your region?* Auckland: SHORE & Whariki Research Centre, College of Health, Massey University.

Winstock, Adam R. 2016. *The Global Drug Survey 2015 Findings*. London: Global Drug Survey.