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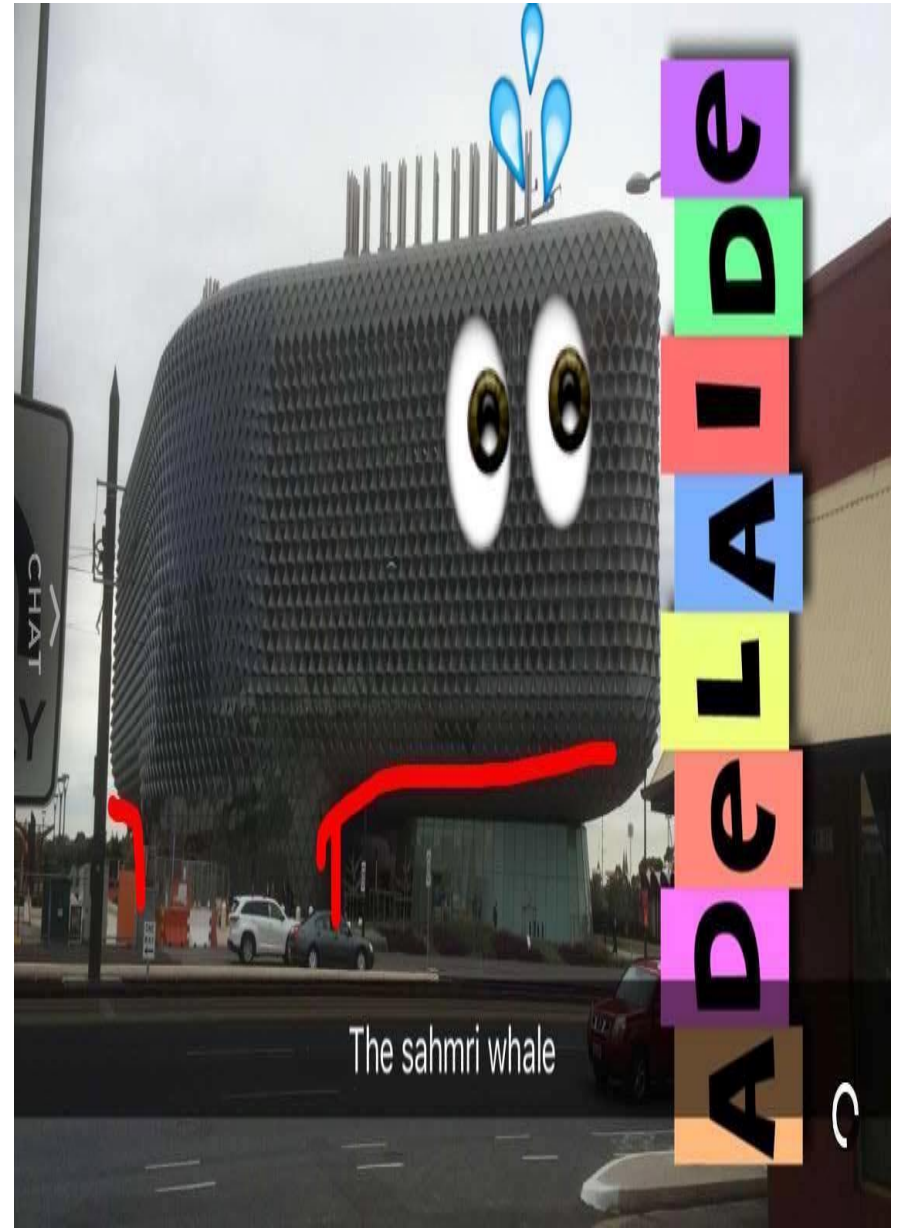
Sebastian Rositano, School of Medicine, Faculty of Health Science

Social Victimisation and Depression in South Australia

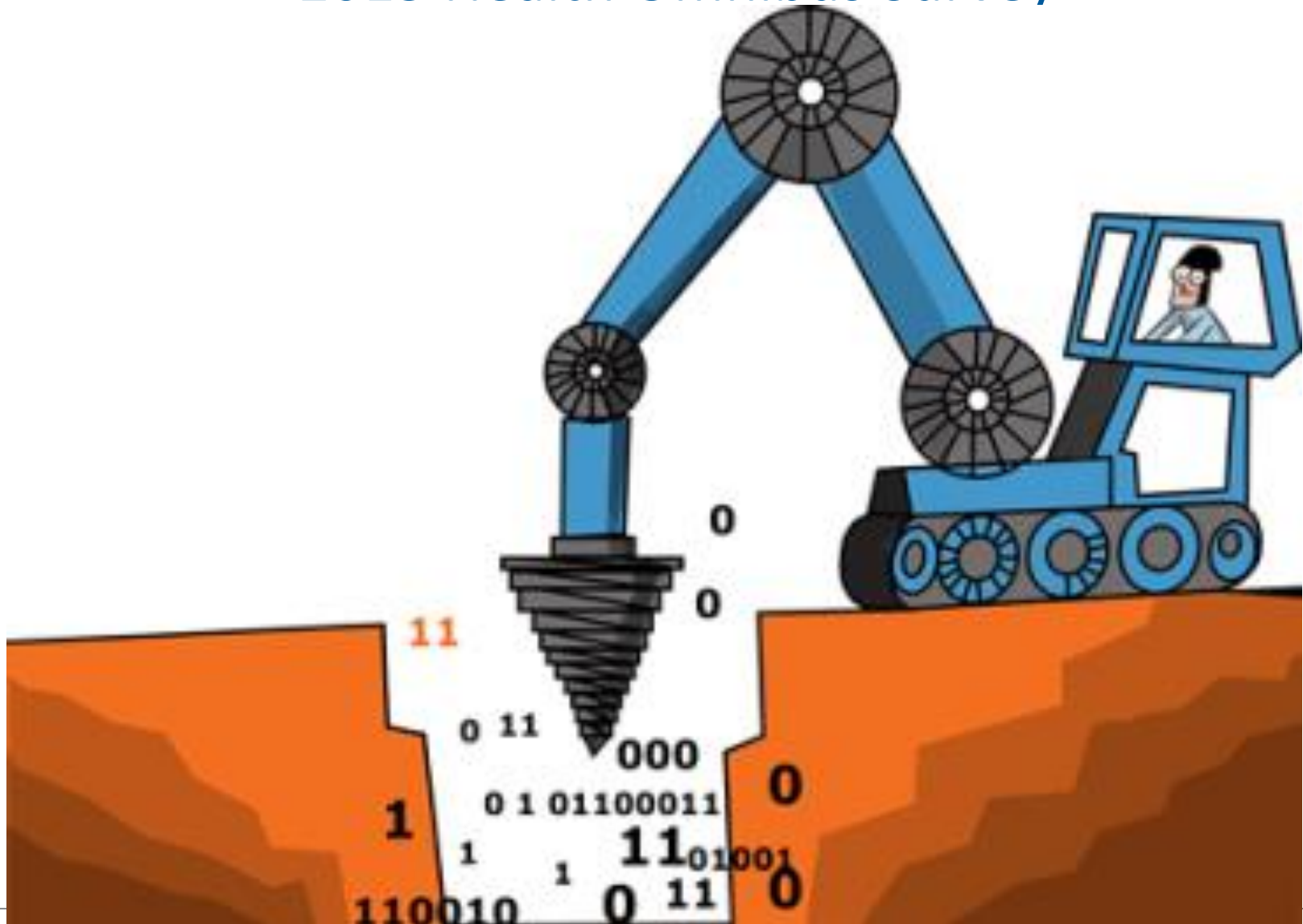
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SAHMRI: Mind and Brain Theme



SAHMRI Mind and Brain Theme Data from 2015 Health Omnibus Survey



Background & Aims

- Targeted intervention and prevention needs... targets.
 - Strong evidence base on risk factors for depression.
 - But what about sexual abuse and bullying?
- Research questions:
 - What is the prevalence of bullying and sexual abuse in the South Australian population?
 - How do bullying and sexual abuse increase the odds of depression experience on the population level?
- Hypotheses:
 - Presented with results.

Learning Reflection - 1

- Contributing to multidisciplinary teams (1.2.3).
 - Shared language, active listening for effective/efficient interactions and to motivate mutual contribution.
 - Regular, reciprocated clarification and monitoring of roles and timelines.

Methods

- 2015 South Australian Health Omnibus Survey Data
 - N = 3005, face-to-face, cross-sectional, random sampling.
- Relevant questions: (definitions not provided)
 - Antidepressant use.
 - Sexual abuse? Or ever bullied at either work or school?
 - “Age of most recent” experience.
 - “Number” of experiences.
 - BMI and demographics.

Learning Reflection - 2

- Epidemiological Analysis (3.2.4)
 - Define objectives
 - Descriptive Analysis
 - Rates (and confidence intervals)
 - Multivariate analysis
 - Logistic regression.
 - Recording methods.

Results: Broad Overview

- Antidepressants
 - 16% lifetime use. 9% current use.
- Bullying:
 - 45% experienced bullied.
 - 67% only in school.
- Sexual Abuse
 - 10% of respondents experienced abuse.
 - 83% of sexual abuse was experienced by females.
 - 53% only experienced sexual abuse under age 15.

Sexual Abuse and Depression

Figure 1: Number of Sexual Abuse Experience N = 297

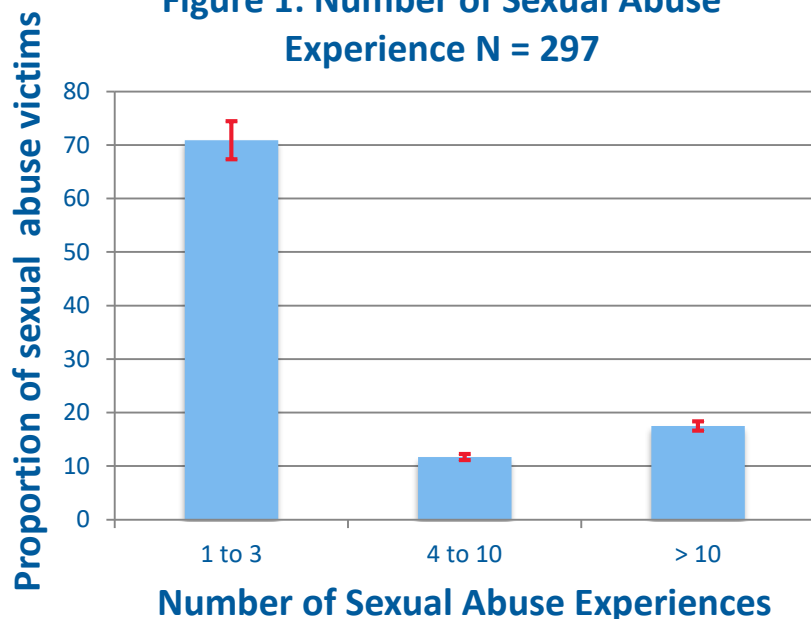
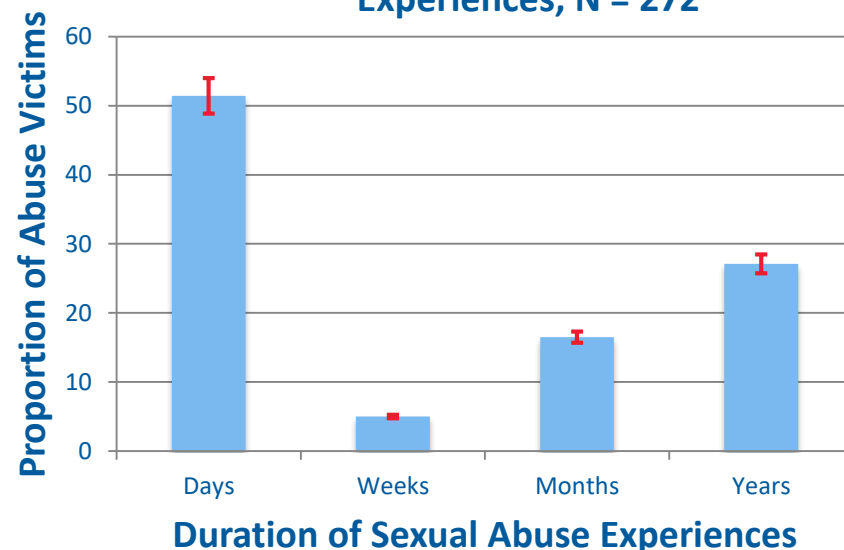


Figure 2: Duration of Sexual Abuse Experiences, N = 272



As predicted: sexual abuse increased the odds of experiencing depression.

- Child victimisation OR = 2.50 (1.65-3.82).
- Adult victimisation OR = 2.45 (1.53 – 3.91).

Sexual Abuse and Depression

- Against predictions:
 - Childhood victimisation was **NOT** a greater risk factor than adult victimisation.

Bullying



Bullying and Depression

Figure 3: Number of Bullying Experiences, N = 1,388

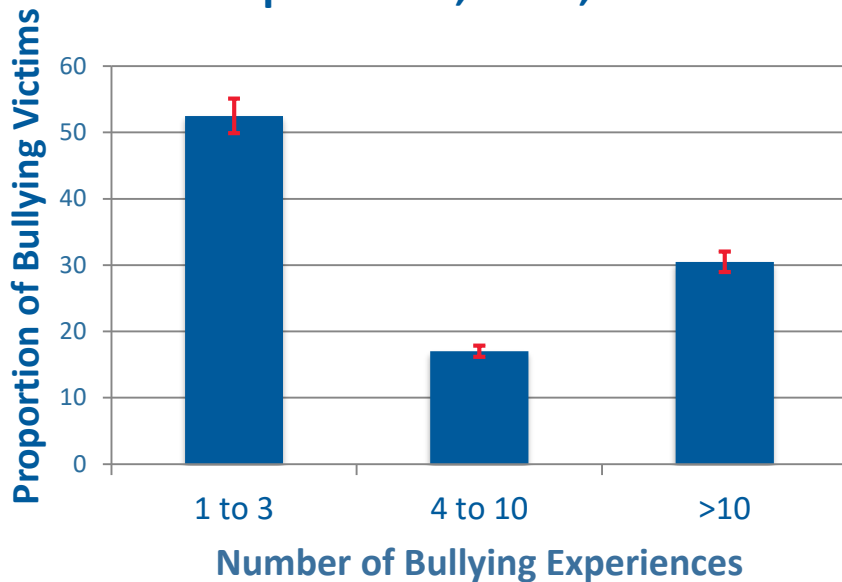
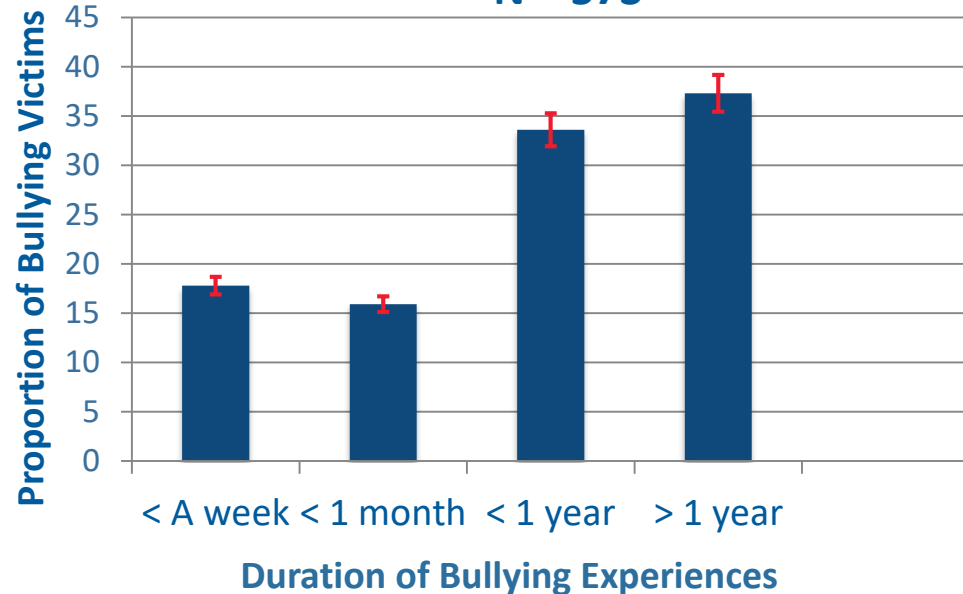


Figure 4: Duration of Bullying in Sample N = 573



- As predicted:
 - Workplace Bullying was a risk factor for depression
 - OR = 1.92 (1.45-2.55)

Bullying and Depression

- Against predictions:
 - School bullying unrelated to adult depression.

Bullying and Sexual abuse?

- As predicted:
 - Sexual abuse **increased** the likelihood of depression in victims of bullying
 - OR = 1.95 (1.29 – 2.95).
 - Childhood bullying did not predict adult sexual abuse.

Bullying and Sexual abuse?

- Against predictions:
 - Bullying did **NOT** increase the likelihood of depression in sexual abuse victims
 - Sexual abuse predicted adult bullying experience:
 - Childhood sexual abuse highest risk (OR = 3.23, 2.25-4.87)
 - Adult sexual abuse next highest risk (OR = 2.05, 1.28-3.23)

Discussion – Conclusion?

- New Findings:
 - Population effect of workplace bullying.
 - Child sexual abuse is a risk factor for workplace bullying.
- Limitations:
 - Most recent experience \neq total experience.
 - Antidepressant use \neq depression experience.
 - Causation?
- Where to from here:
 - Future research (Repeat? PAR? Trauma models?).
 - Future policy (Prevention, Screening, Funding?).

Learning Reflection -3

- Effective Communication for research impact (1.2.8)
 - Use of verbal, visual and written media across audiences (universities, consumer groups, student conferences).
- Importance of intersectoral population-wide prevention for mental health (5.1.4).

Questions?

- Thanks to:
 - Opportunity: Ma-Li, Michael & Julio.
- My role:
 - Data screening + analysis, SPSS, Excel.
 - Literature search, critical appraisal, hypothesis formation.
 - Result interpretation and policy implications.
 - Writing up results.
 - Presentation and discussion of results with the SAHMRI Consumer Feedback group.
 - Identifying other key data required for further analysis.
 - Liaising with other research groups for future investigations of these findings.
 - Advising other research projects.
 - Participating in journal club meetings.
Presenting in journal club meetings.

References (1)

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References (2)

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South Australian Health Omnibus Survey.

- Annually since 1991. Clustered, Multi-Stage, Systematic Sample.
- High response rate (>70%); around 3,000 interviews. 77% from metropolitan area.
- 440 ABS Collection Districts (CDs) Randomly Chosen (340 Metro, 100 Country with population >1k). CDs are geographical areas with approximately 200 dwellings.
- ‘Cluster’ of 10 households randomly chosen per CD.
- Non-replacement sample of people aged 15 years and over (max age was 97).
- All variables were weighted to better align each individual case with the distributions of age, sex and metropolitan or rural/regional location for the total population (via individual probability of selection as well as census benchmarks)

Selection – *The South Australian Health Omnibus Survey 15 Years on: Has Public Health Benefited?*.
 From: <https://www.researchgate.net/publication/222100636> *The South Australian Health Omnibus Survey 15 Years on Has Public Health Benefited*[accessed May 01 2019].

<i>Stage 1 - Selection of CDs</i>	<ul style="list-style-type: none"> • 340 metropolitan and 100 country CDs are selected 	<ul style="list-style-type: none"> • Skip interval = the number of households divided by the number of CDs required
<i>Stage 2 - Selection of households within CDs</i>	<ul style="list-style-type: none"> • Ten households per selected CD are chosen using a fixed skip interval from a random starting point. 	<ul style="list-style-type: none"> • Starting point = random number between one and the skip number
<i>Stage 3 - Selection of individuals within households.</i>	<ul style="list-style-type: none"> • The person who was last to have a birthday (aged 15 years or over). 	
<i>Additional criteria</i>	<ul style="list-style-type: none"> • Selected persons are non-replaceable 	<ul style="list-style-type: none"> • 6+ visits are made to each household before the selected individual is classified as a non-contact. • Selections found to be hotels, motels, hospitals, nursing homes and other institutions are excluded from the survey.

Survey Questions

- For antidepressants, sexual abuse and bullying:
 - Have you ever used any of these antidepressants? (participants showed list of PBS antidepressants).
 - Have you ever been bullied at work or at school? (number of occurrences)
 - Thinking about your last bullying experience, could you please tell me what age you were at the time?
 - How long did this bullying experience last?
 - How m
 - In your lifetime, have you ever experienced any type of sexual abuse? (number of occurrences)
 - When the abuse last occurred, could you please tell me what age you were at the time?
 - How long did this abuse last?
- BMI and Demographics:
 - What is your height?
 - What is your weight?
 - What is your marital status?
 - What is your gender?
 - Before tax is taken out, what range best describes your household's income, from all sources, over the last 12 months?

General Characteristics

Category	Number in Category	Percent of total sample
Females	1527	50.8%
Experienced Bullying	1388	46.2%
Experienced Sexual assault	298	9.9%
Married and De Facto	1873	62.4%
Separated/Widowed	417	13.9%
Never married	713	23.7%
Income < 20K	201	9.9%
20K < Income < 80K	773	38.1%
80K < Income < 140K	734	36.2%
140K < income < 180K	175	8.6%
Income > 180K	145	7.2%
Indigenous	47	2.2%
Living Rurally	754	25.1%
Taken antidepressants	488	16.3%

Household income: data missing from 977 participants, who were excluded from this analysis.

In 2015, approximately equal men (N=1478; 49%) and women (N=1527; 51%).

Representative proportion of Aboriginal and Torres Strait Islander South Australians (2.2%)

Table 1: Crude factor results, * = significant Chi at $p < 0.001$; ^ = not significant at $p > 0.05$

Predictor Categories	n	% of sample	Antidepressant use in category
*Female Gender all ages.	1,527	50.8%	19.9%
*Female gender below age 25.	232	48.7%	16.4%
*Age < 25.	474	15.8%	10.5%
*Experienced Bullying	1,388	46.2%	21.8%
*Experienced Sexual abuse	298	9.9%	39.3%
*Divorced/Separated	417	13.9%	28.3%
*Never Married	290	11.1%	24.1%
*Income <20K	201	9.3%	24.9%
*Income <80K	1,103	51.2%	13.1%
^Income <140	1837	85.0%	17.5%
^Rural Living	752	21.1%	16.3%
^Indigenous Ethnicity	46	2.1%	26.1%

The predictive factors for this model were those that had significant associations with depression as shown in Table 1. These included gender, income (HHI), bullying, sex abuse and age. The results for this are presented in Table 2 below.

Unadjusted Odds ratios

Category	n	No. with anti-D exposure	% of category with anti-D	Crude OR	95% CI	
					Lower	Higher
*Female Gender all ages.	1,527	304	19.9	1.74	1.42	2.12
*Experienced Bullying	1,388 (46.2%)	303	21.8	2.15	1.76	2.65
*Experienced Sexual abuse	298 (9.9%)	117	39.3	4.01	3.15	5.26
*Married	1873 (62.4%)	268	14.3	0.691 (risk reduction)	0.568	0.840
*Divorced/Separated	417 (13.9%)	118	28.3%	2.36	1.86	3.00
*Never Married	290 (11.1%)	70	24.1%	1.61	1.21	2.16
*Income <20K	201 (9.3%)	50	24.9%	1.61	1.14	2.26
*Income <80K	1,103 (51.2%)	145	13.1%	1.66	1.63	2.17
`Income <140	1837 (85%)	323	17.5%	0.90	0.67	1.23
*Age < 25	474 (15.8)	50	10.5%	0.56 reduction	0.41	0.77
`Rural Living	752 (21.1%)	123	16.3%	1.07	0.81	1.26
`Indigenous Ethnicity	46 (2.1%)	12	26.1%	1.68	0.86	3.27
*Female gender below age 25.	232 (48.7)	38	16.4%	3.48	1.80	6.72

* = p value for Chi square < 0.001; ' = chi square not significant at p < 0.05. Anti-D = antidepressants.

Table 2: Results of logistic regression. Hosmer & Lemeshow $\chi^2(8) = 7.17$, $p = 0.519$; 82.3% of anti-depressant cases were identified. Partnered includes married/defacto. * = $p < 0.001$.

Predictor	Base Group	Comparator	Adjusted OR	95% CI
Gender	Males	Females	1.31	1.03 - 1.67
*Bullied	No Bullying	Bullying	1.91	1.50 - 2.44
*Sexual abused	No abuse	Abused	2.74	1.99 - 3.78
Income	<20k	20-80k	0.98	0.66 - 1.45
		80-140k	0.623	0.39 - 0.98
		140-180k	1.13	0.65 - 1.96
		>180k	0.835	0.46 - 1.51
*Relationship Status	Partnered	Separated	2.18	1.58 - 3.01
		Never Married	1.97	1.35 - 2.85
*Age	>65 years	15-25	0.78	0.46 - 1.32
		25-35	1.19	0.70 - 2.02
		35-45	1.54	0.98 - 2.79
		45-55	1.59	0.92 - 2.75
		55-65	0.93	0.53 - 1.65

Data Input: ([Help](#)) ([Example](#))

Bullying

		Disease	No Disease	Totals
Exposed		303	1085	1388
Non-exposed		185	1432	1617
Totals		488	2517	3005
1-α	<input type="text"/>	<input type="button" value="Reset"/>	<input type="button" value="Calculate"/>	

Result:

Result	Point Estimate	Lower C.I.	Upper C.I.
Relative Risk	1.90806	1.90806	1.90806
Attributable Risk	0.10389	0.10389	0.10389
Attributable Risk Percent	47.59068%	47.59068%	47.5907%

Result	
Population Attributable Risk	0.04799
Population exposure	46.18968%
Population Attributable Risk Percent	29.54913%

Sexual Abuse

Data Input: ([Help](#)) ([Example](#))

	Disease	No Disease	Totals
Exposed	117	181	298
Non-exposed	371	2336	2707
Totals	488	2517	3005
1-α	<input type="text"/>	Reset	Calculate

Result:

Result	Point Estimate	Lower C.I.	Upper C.I.
Relative Risk	2.86473	2.86473	2.86473
Attributable Risk	0.25557	0.25557	0.25557
Attributable Risk Percent	65.09272%	65.09269%	65.09274%

Result	
Population Attributable Risk	0.02534
Population exposure	9.91681 %
Population Attributable Risk Percent	15.60625 %

Results: Broad Overview

- Antidepressants
 - 16.3% (14.9-17.6%) used; 8.7% (7.6- 9.6%) current use.
- Bullying:
 - 45.4% (43.6-47.2%) were bullied.
 - Of these 66.6% (64.1-69.1%) only in school.
- Sexual Abuse
 - 9.9% (8.8-10.9%) total population experienced abuse.
 - 53.0% (47.3-58.4%) occurred under age 15.
 - 83.1% (78.8-87.4%) in females.

Sexual Abuse – Additional Data

- Sexual abuse – 246F, 54M
- Adult sexual abuse risk factors:
 - As Predicted:
 - Female gender, bullying history, antidepressant use.
 - Against predictions:
 - BMI > 25 protective of adult sexual abuse
 - Low SES, marital status not significantly related
- Childhood sexual abuse risk factors:
 - As Predicted:
 - Female gender, bullying history, antidepressant use, marital status (divorced/separated vs married, OR = 2.17 (1.28-3.69))
 - Against predictions:
 - BMI > 25, low SES, Indigenous ethnicity unrelated

Sexual Abuse – additional data

- 9.9% (8.81-10.9) reported sexual abuse history
- 83.1% occurred in females
- Of Anti.D users,
 - 23.2% were abused
 - 41% of this occurred in adulthood
- 53.0% (47.3-58.4) occurred under age 15.
- Child sexual abuse: gender difference, $p < 0.001$
 - Males (35 of 49 were <15 , 71.4% (58.8-84.1))
 - Females (119 of 241 were <15)

Bullying – additional data

- Total Sample:
 - 45.4% (43.6-47.2) reported being bullied
 - 66.6% (64.1-69.1) occurred below age 18
 - 48.6% were female (n = 1388)
- Anti-depressant group:
 - 60.6% were bullied
 - 56.2% in childhood

Bullying – additional data

- 700M, 690F.
- Risk factors for school bullying:
 - As Predicted: Marital status, sex abuse did not predicted.
 - Against predictions: MALE, high SES, marital stau; BMI, antidepressants did not.
- Risk factors for workplace bullying:
 - Predicted: FEMALE, low SES, sex abuse history
 - Against predictions: BMI, anti-D not significant.

⊕ **Table 1: Predictors of CSA**

	n/N	%	OR	95% OR	p value
Gender*					
Males	1189/3005		1.00		
Females	1816/3005		3.48	2.32-5.12	p < 0.001
Antidepressant Use*					
No Antidepressant Use	2439/3005		1.00		
Antidepressant Exposure	566/3005		4.35	3.11-6.08	p < 0.001
Marital status*					
Married	1533/3003	51.1	1.00		
De Facto	339/3003	11.3	1.09	0.64-1.84	p = 0.739
Separated/Divorced	258/3003	8.6	2.99	1.95-4.59	p < 0.001
Widowed	160/3003	5.3	0.89	0.41-1.97	p = 0.779
Never Married	713/3003	23.7	0.53	0.32-0.88	p = 0.015
Household Income*					
Greater than 40,000 AUD	1412/2295		1.00		
Less than 40,000 AUD	883/2295		1.60	1.09-2.35	p = 0.015

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 2: Predictors of ASA

	n/N	%	OR	95% OR	p value
Gender*					
Males	1189/3005		1.00		
Females	1816/3005		8.89	5.11-15.45	p < 0.001
Antidepressant Use*					
No Antidepressant Use	2439/3005		1.00		
Antidepressant Exposure	566/3005		2.89	2.00-4.18	p < 0.001
Marital status*					
Married	1445/3003	51.1	1.00		
De Facto	285/3003	11.3	1.29	0.74-2.29	p = 0.37
Separated/Divorced	416/3003	8.6	3.02	1.87-4.89	p < 0.001
Widowed	343/3003	5.3	0.93	0.38-2.27	p = 0.88
Never Married	514/3003	23.7	1.15	0.73-1.80	p = 0.55
Household Income*					
Greater than 40,000 AUD	883/2295		1.00		
Less than 40,000 AUD	1412/2295		0.98	0.63-1.53	p = 0.937

* Not stated or missing data not included. Raw data here reflects unweighted frequencies but data was automatically weighted during odds ratio calculation.

Table 3: Covariate List A and Antidepressant Use (Demonstrates that both covariate list A and list B were important to use to avoid confounding).

	n/N	%	OR	95% OR	p value
BMI*					
BMI < 25	1071/2706		1.00		
BMI > 25	1635/2706		1.45	1.17-1.79	p = 0.001
Gender*					
Males	1189/3005		1.00		
Females	1816/3005		1.74	1.43-2.12	p < 0.001
HHI*					
Greater than 40,000 AUD	883/2295		1.00		
Less than 40,000 AUD	1412/2295		1.71	1.35-2.16	p < 0.001
Bullying History*					
Have not experienced bullying	1675/2994		1.00		
Have experienced bullying	1319/2994		2.17	1.78-2.65	p < 0.001
Marital status					
Married	1445/3003		1.00		
De Facto	285/3003		1.35	0.98-1.85	p = 0.065
Divorced/Separated	416/3003		3.29	2.45-4.43	p < 0.001
Widowed	343/3003		1.47	0.96-2.24	p = 0.074
Never Married	514/3003		1.07	0.83-1.38	p = 0.681

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 4: ASA and Antidepressant Use.

	n/N	%	OR	95% OR	p value
ASA*					
No ASA	2847/3005		1.00		
ASA	158/3005		2.89	2.00-4.18	p < 0.001

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 5: CSA and Antidepressant Use.

	n/N	%	OR	95% OR	p value
CSA*					
Not CSA	192/3005		1.00		
CSA	2813/3005		4.35	3.11-6.08	p < 0.001

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 6: CSA vs ASA and Antidepressant Use.

	n/N	%	OR	95% OR	p value
CSA vs ASA*					
ASA	158/350		1.00		
CSA	192/350		1.44	0.89-2.32	p = 0.135

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 7: Abuse Duration and Antidepressant Use

	n/N	%	OR	95% OR	p value
Abuse Duration*					
<1 Year	233/327		1.00		
> 1 Year	94/327		1.83	1.06-3.15	p = 0.030

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 8: Abuse Number and Antidepressant Use

	n/N	%	OR	95% OR	p value
Number of Abuse experiences*					
< 3	244 /361		1.00		
> 3	117/361		2.04	1.23-3.38	p = 0.006

* Not stated or missing data not included. Raw data here reflects unweighted [frequencies](#) but data was automatically weighted during odds ratio calculation.

Table 9: CSA and Antidepressant Use between genders.

	n/N	%	OR	95% OR	p value
CSA between Genders*					
Males	37/192		1.00		
Females	155/192		0.97	0.34-1.54	p = 0.397

* Not stated or missing data not included. Raw data here reflects unweighted frequencies but data was automatically weighted during odds ratio calculation.

Table 10: ASA and Antidepressant Use between genders.

	n/N	%	OR	95% OR	p value
ASA between genders*					
Females	147/158		1.00		
Males	11/158		2.17	0.719-6.54	p = 0.169

* Not stated or missing data not included. Raw data here reflects unweighted frequencies but data was automatically weighted during odds ratio calculation.

Appendix C: Multivariate Analysis:

Table 11: Predictors of CSA

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
Gender	Male	Female	2.90	1.89-4.35	p < 0.001
Marital Status	Married	De Facto	0.97	0.53-1.77	p = 0.92
		Divorced/Separated	2.05	1.23-3.41	p < 0.001
		Widowed	0.49	0.18-1.36	p = 0.173
		Never Married	0.59	0.31-1.14	p = 0.126
HHI	>40K	<40K	1.37	0.89-2.07	p = 0.145
Antidepressant History	No use	Current or Previous Use	2.98	2.01-4.43	p < 0.001

N = 1994. Model was statistically significant $\chi^2(8) = 86.7, p < 0.001$. Hosmer and

Lemeshow, $\chi^2(8) = 10.7, p = 0.219$. Model correctly predicted 94.3% of CSA cases and explained 12% of the variance in CSA (Nagelkerke R).

Table 12: Predictors of ASA

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
Gender	Male	Female	8.34	4.48-14.52	p < 0.001
Marital Status	Married	De Facto	1.19	0.66-2.11	p = 0.564
		Divorced/Separated	2.34	1.42-3.86	p < 0.001
		Widowed	0.69	0.28-1.68	p = 0.69
		Never Married	1.30	0.82-2.07	p = 0.261
Antidepressant History	No use	Current or Previous Use	2.22	1.52-3.26	p < 0.001

N = 2,681. Model was statistically significant $\chi^2(7) = 134.3$, $p < 0.001$. Hosmer and

Lemeshow, $\chi^2(8) = 11.5$, $p = 0.177$. Model correctly predicted 95.8% of ASA cases and explained 16.5% of the variance in CSA (Nagelkerke R).

⊕ **Table 13: ASA and Antidepressants (Covariate List A)**

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
ASA	No ASA	ASA	2.45	1.53-3.91	p < 0.001
Gender	Male	Female	1.52	1.18-1.95	p = <u>0.001</u>
Marital Status	Married	De Facto	1.15	0.78-1.69	p = 0.495
		Divorced/Separated	3.12	2.17-4.49	p < 0.001
		Widowed	1.32	0.75-2.31	p = 0.331
		Never Married	2.27	1.63-3.16	p < 0.001
HHI	>40K	<40K	1.44	1.09-1.89	p = 0.010
BMI	<25	>25	1.71	1.31-2.22	p < 0.001
Bullying history	No bullying	Bullying experience	2.12	1.66-2.72	p < 0.001

N = 1,959. Model was statistically significant $\chi^2(9) = 159.2, p < 0.001$. Hosmer and

Lemeshow, $\chi^2(8) = 5.91, p = 0.657$. Model correctly predicted 82.0% of Antidepressant cases and explained 12.6% of the variance in Antidepressant use (Nagelkerke R).

Table 14: CSA and Antidepressants (Covariate List A)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
CSA	No CSA	CSA	2.51	1.65-3.82	p < 0.001
Gender	Male	Female	1.55	1.21-1.98	p < 0.001
Marital Status	Married	De Facto	1.17	0.93-1.73	p = 0.43
		Divorced/Separated	3.01	2.09-4.23	p < 0.001
		Widowed	1.35	0.77-2.46	p = 0.30
		Never Married	2.39	1.72-3.32	p < 0.001
HHI	>40K	<40K	1.40	1.06-1.85	p = 0.016
BMI	<25	>25	1.59	1.23-2.07	p < 0.001
Bullying history	No bullying	Bullying experience	2.07	1.62-2.66	p < 0.001

N = 1,950. Model was statistically significant $\chi^2(9) = 163.6, p < 0.001$. Hosmer and

Lemeshow, $\chi^2(7) = 4.92, p = 0.669$. Model correctly predicted 82.2% of Antidepressant cases and explained 12.9% of the variance in Antidepressant use. (Nagelkerke R).

Table 15: CSA vs ASA and Antidepressant Use (Covariate List A)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
Abuse	ASA	CSA	0.98	0.52-1.86	p = 0.97
Gender	Male	Female	0.53	0.25-1.15	p = 0.11
Marital Status	Married	De Facto	0.96	0.37-2.53	p = 0.94
		Divorced/Separated	2.70	1.25-5.84	p = 0.01
		Widowed	0.95	0.18-5.04	p = 0.95
		Never Married	3.58	1.49-8.57	p = 0.004
HHI	>40K	<40K	0.84	0.43-1.65	p = 0.61
BMI	<25	>25	1.68	0.89-3.17	p = 0.11
Bullying history	No bullying	Bullying experience	0.76	0.40-1.43	p = 0.39

N = 143. Model was statistically significant $\chi^2(9) = 19.5$, $p = 0.022$. Hosmer and Lemeshow,

$\chi^2(8) = 5.72$, $p = 0.678$. Model correctly predicted 66.8% of Antidepressant cases and explained 12.1% of the variance in antidepressant use (Nagelkerke R).

Table 16: Duration of Abuse Experiences and Antidepressant Use (Covariate List A)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
Duration	< 1 year	> 1 year	2.30	1.15-4.61	p = 0.018
Gender	Male	Female	0.56	0.26-1.22	p = 0.15
Marital Status	Married	De Facto	0.91	0.39-2.50	p = 0.85
		Divorced/Separated	3.57	1.52-8.36	p = 0.03
		Widowed	1.12	0.20-6.15	p = 0.89
		Never Married	4.22	1.71-10.43	p = 0.02
HHI	>40K	<40K	0.71	0.35-1.46	p = 0.35
BMI	<25	>25	1.83	0.95-3.51	p = 0.07
Bullying history	No bullying	Bullying experience	0.72	0.37-1.41	p = 0.33

N = 138. Model was statistically significant $\chi^2(9) = 26.7$, $p = 0.002$. Hosmer and Lemeshow,

$\chi^2(8) = 8.72$, $p = 0.367$. Model correctly predicted 68.5% of Antidepressant cases and explained 17.5% of the variance in CSA (Nagelkerke R).

Table 17: Total number of Abuse experiences and Antidepressant Use (Covariate List A)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
Number of Experiences	<3	>3	2.04	1.08-3.86	p = 0.028
Gender	Male	Female	0.53	0.25-1.13	p = 0.10
Marital Status	Married	De Facto	0.88	0.33-2.35	p = 0.79
		Divorced/Separated	2.72	1.25-5.94	p = 0.12
		Widowed	0.83	0.15-4.48	p = 0.82
		Never Married	2.56	1.49-8.49	p = 0.004
HHI	>40K	<40K	0.78	0.39-1.55	p = 0.48
BMI	<25	>25	1.65	0.89-3.05	p = 0.110
Bullying history	No bullying	Bullying experience	0.78	0.44-1.496	p = 0.465

N = 150. Model was statistically significant $\chi^2(9) = 24.45, p = 0.004$. Hosmer and

Lemeshow, $\chi^2(8) = 11.42, p = 0.117$. Model correctly predicted 66.4% of Antidepressant cases and explained 14.9% of the variance in Antidepressant use (Nagelkerke R).

Table 18: CSA and Antidepressant Use between Genders (Covariate List B)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
CSA	Male	Female	1.13	0.44-2.90	p = 0.79
Marital Status	Married	De Facto	0.93	0.25-.52	p = 0.11
		Divorced/Separated	3.27	1.22-8.78	p = 0.91
		Widowed	1.22	0.15-9.89	p = 0.19
		Never Married	3.28	0.84-12.8	p = 0.85
HHI	>40K	<40K	1.10	0.46-2.65	p = 0.087
BMI	<25	>25	1.00	0.42-3.39	p = 0.99
Bullying history	No bullying	Bullying experience	0.79	0.33-1.91	p = 0.61

N = 74. Model was statistically significant $\chi^2(9) = 9.25$, $p = 0.321$. Hosmer and Lemeshow,

$\chi^2(7) = 10.6$, $p = 0.155$. Model correctly predicted 66.5% of Antidepressant cases and explained 10.5% of the variance in Antidepressant use (Nagelkerke R).

Table 19: ASA and Antidepressant Use between Genders (Covariate List B)

Variable Name	Reference Group	Comparator Group	OR	95% CI	P value
ASA	Female	Males	9.87	1.87 – 51.9	p = 0.007
Marital Status	Married	De Facto	0.82	0.17-3.88	p = 0.801
		Divorced/Separated	2.10	0.56 – 7.82	p = 0.27
		Widowed	0.75	0.04-13.83	p = 0.84
		Never Married	1.39	1.29-14.87	p = 0.17
HHI	>40K	<40K	0.73	0.23-2.31	p = 0.59
BMI	<25	>25	3.20	1.21-8.51	p = 0.02
Bullying history	No bullying	Bullying experience	0.76	0.28-2.13	p = 0.61

N = 68. Model was statistically significant $\chi^2(8) = 19.11$, $p = 0.014$. Hosmer and Lemeshow,

$\chi^2(8) = 4.72$, $p = 0.787$. Model correctly predicted 67.5% of Antidepressant cases and explained 14.9% of the variance in Antidepressant use (Nagelkerke R).