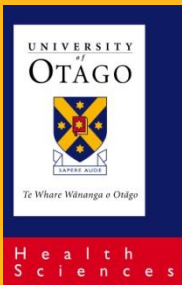


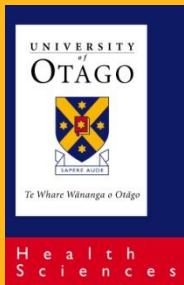
Treatment Outcomes In a Youth Dedicated AOD Therapeutic Community

Ria Schroder
National Addiction Centre



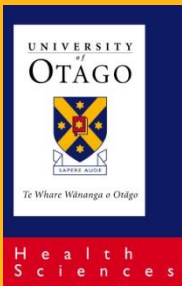
Acknowledgements

- Doug Sellman
- Chris Frampton
- Daryle Deering
- Jim Marsters and Odyssey Youth Staff
- Youth participants and their families
- Ministry of Health – National Drug Policy (NDP) Discretionary Fund
- University of Otago Research Grants (UORG)



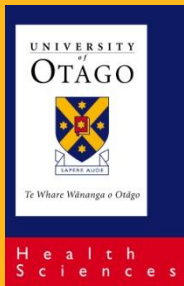
Overview

- Context of research
- Intro to Odyssey House Youth Programme
- Method
- Outcomes
- Predictors of outcomes
- Implications



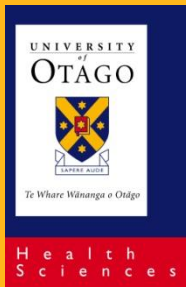
Why do this study?

- Rates of AOD misuse in NZ
- Need for treatment
- No existing data on effectiveness of youth AOD treatment in NZ
- Improve AOD treatment services for youth



What do we know about AOD treatment effectiveness?

- Treatment is better than no treatment
- Effectiveness of treatment related to a number of client and programme variables
- Constantly need to be reviewing treatment process and practices to enhance treatment services and outcomes



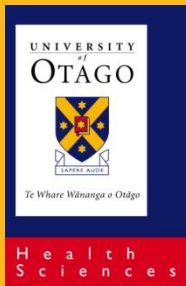
Odyssey House Christchurch Youth Programme

Day Programme Building



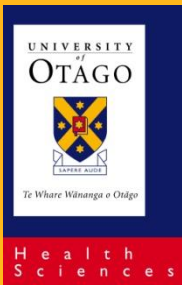
Residential Programme
Building





Odyssey Youth Programme Christchurch

- Established 2004
- South Island Regional Service
- Therapeutic Community (TC) Model
- Day and Residential Programme



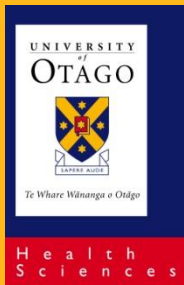
Entry Criteria

Day Programme

- 13-19 years
- Have met criteria for substance dependence
- Living in a situation that encourages and supports attendance
- Temporarily or permanently excluded from educational placement or no vocational placement due to substance misuse.
- Voluntarily comply with the rules and regulations of the Odyssey House Trust.
- Medically suited to the programme

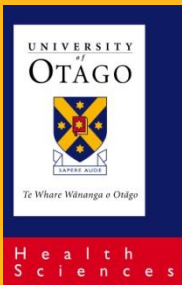
Residential Programme

- 14-18 years
- Have met criteria for substance dependence
- Have no educational or vocational placement
- Engage in persistent criminal offending related to substance use
- Have no stable home environment
- Voluntarily comply with the rules and regulations of the Odyssey House Trust.
- Medically suited to the programme



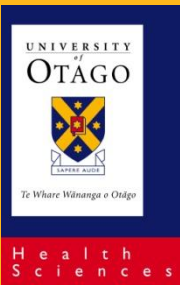
Programme aims

- Provide a comprehensive treatment approach to young people and their families at risk of substance misuse and associated problems
- Provide a friendly environment for young people who are alienated in mainstream society
- Expose young people to adults who role model respectful relationships with each other and with young people
- Develop in young people a positive attitude towards health and social services
- Provide challenge, enjoyment and excitement through recreational experiences which are an alternative to substance use
- Provide a case management approach which involves, when possible, liaison with families/whanau and allied professionals
- Create opportunities for young people to try new things and develop strengths

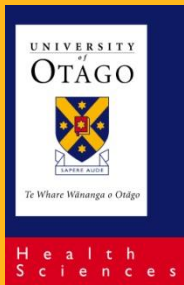


Programme aims

- Improve young people's physical and mental health
- Develop educational opportunities so that the young person can experience success and return to educational and vocational training in mainstream communities
- Provide access to appropriate information that will enable young people to make informed decisions regarding alcohol, tobacco, drugs and other harmful substances
- Encourage family/ whanau involvement
- Reduce criminal offending
- Provide an integrated approach with agencies and services involved in the treatment of the young person to maximise the resources available while in treatment

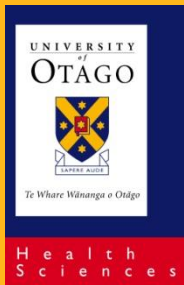


ODYSSEY YOUTH OUTCOMES STUDY



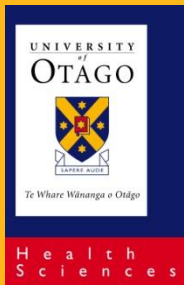
Method

- Prospective quantitative study
 - Youth who entered Day or Residential programme between Feb 2006-Jan 2010
 - Agreed to be interviewed
 - Followed up for 12 months
 - 5 interviews – (baseline, 6 & 12 weeks, 6 & 12 months)
 - Family interviews
 - File searches



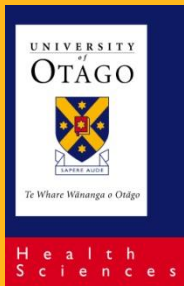
Measures

- Measured multiple domains
 - Substance use
 - AUDIT
 - CUDIT
 - SCID
 - Timeline Follow Back
 - HONC
 - General and mental health
 - M.I.N.I
 - SCL-90R
 - SF-36



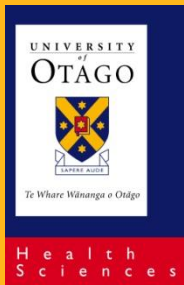
Measures

- Behavioural strengths & difficulties
 - SDQ
- Criminal involvement
 - No. of criminal activities
 - Involvement with police
 - Criminal conviction at baseline
- Family relationships
- Education and Employment



Results

- Analysis of baseline and 12 month follow up data only
- Description of participants
- Outcomes
- Predictors of outcome

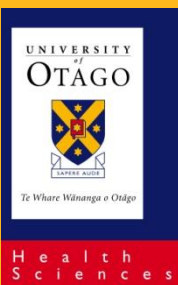


Who Participated?

- 80 youth
 - Representing 60% of 143 OYP attendees
 - Representative sample in terms of age, gender, programme type, presenting AOD and other diagnoses, source of referral, criminal status and time spent in justice or CYFS facilities
 - But less ethnically diverse and less like to have a diagnosis of conduct disorder than non-participants

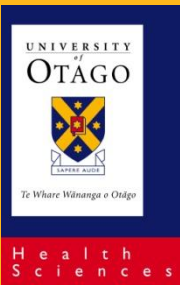
Sociodemographics

| Variables | All Participants |
|-----------------------------|------------------------|
| Mean age | 16.3 years (14.1-18.8) |
| Gender | |
| Male | 73% |
| Ethnicity | |
| Non Maori | 52% |
| Maori | 48% |
| Programme Type | |
| Residential | 75 % |
| Day | 25 % |
| Criminal Charges/Conviction | |
| Yes | 85% |
| Living Circumstances | |
| With family | 54% |
| Controlled Env'n | 28% |
| Illegal source of income | 45% |
| Source of Referral | |
| Justice | 59% |
| Health | 29% |



Substance Use

| Variables | Lifetime Diagnosis | Current Diagnosis |
|----------------------|--------------------|-------------------|
| Nicotine Dependence | | 93% |
| Cannabis Dependence | 90% | 90% |
| Alcohol Dependence | 73% | 60% |
| Stimulant Dependence | 25% | 12% |
| AUDIT mean score | | 24 |
| CUDIT mean score | | 23 |



Mental Health

| Current Diagnosis | % |
|----------------------|-----|
| Conduct Disorder | 91 |
| ADHD | 53 |
| Major Depression | 30 |
| Social Phobia | 21 |
| Concurrent SUD & MHD | 66 |
| Lifetime SUD & MHD | 100 |

TREATMENT OUTCOMES



Substance use outcomes

| Variables | Baseline | 12 month follow up | Change Score | p |
|---|-------------|--------------------|--------------|----------------------|
| AUDIT Score (n=44) mean (sd) | 23.1 (8.8) | 16.2 (7.6) | 7.0 (1.5) | <0.01 ^{a**} |
| CUDIT Score (n=48) mean (sd) | 22.6 (7.1) | 19.0 (6.9) | 3.6 (8.9) | 0.01 ^{a*} |
| Median drinks per drinking day | 18.0 (n=40) | 16.6 (n=48) | 5.2 (n=34) | 0.06 ^b |
| Median joints per use day | 2.8 (n=40) | 2.0 (n=48) | 0.9 (n=34) | <0.01 ^{b**} |
| Median cigarettes per use day | 15.0 (n=40) | 11.0 (n=49) | 2.0 (n=35) | <0.01 ^{b**} |
| Median alcohol % days abstinent | 74.2 (n=40) | 83.3 (n=49) | 4.8 (n=35) | 0.04 ^{b**} |
| Median cannabis % days abstinent | 5.5 (n=40) | 35.7 (n=49) | 0.0 (n=35) | 0.28 ^b |
| Median nicotine %days abstinent | 0.0 (n=40) | 0.0 (n=49) | 0.0 (n=35) | 0.66 ^b |
| Median total % days abstinent | 2.4 (n=40) | 28.6 (n=49) | 0.0 (n=35) | 0.04 ^{b**} |
| Nicotine Dependence (HONC) (n=57) Yes (%) | 53 (93.0) | 49 (86.0) | | 0.22 ^b |

*p < 0.05. **p < 0.01.

a=paired samples t-test

b=wilcoxon signed ranks test

Health outcomes

| Variables | Baseline mean (sd) | 12 month follow up | Mean Change Score | p ^a |
|---|--------------------|--------------------|-------------------|----------------|
| Psychological Symptoms (SCL90-R) | | | | |
| somatisation (n=53) | 0.8 (0.8) | 0.6 (0.6) | 0.2 (0.6) | 0.04* |
| obsessive-compulsive (n=52) | 1.1 (0.8) | 0.9 (0.7) | 0.3 (0.7) | 0.01* |
| interpersonal sensitivity(n=53) | 0.9 (0.9) | 0.7 (0.8) | 0.2 (0.8) | 0.03* |
| depression (n=53) | 0.9 (1.0) | 0.7 (0.8) | 0.2 (0.8) | 0.06 |
| anxiety (n=52) | 0.8 (0.9) | 0.6 (0.8) | 0.2 (0.7) | 0.03* |
| hostility (n=53) | 1.1 (1.0) | 1.0 (0.9) | 0.1 (1.1) | 0.53 |
| phobic anxiety (n=51) | 0.5 (0.8) | 0.3 (0.6) | 0.2 (0.7) | 0.06 |
| paranoid ideation (n=53) | 1.0 (0.9) | 0.7 (0.8) | 0.3 (0.8) | 0.01* |
| psychoticism (n=51) | 0.7 (0.8) | 0.4 (0.7) | 0.2 (0.6) | 0.01* |
| global severity index (n=53) | 0.9 (0.8) | 0.7 (0.6) | 0.2 (0.6) | 0.01* |
| General Health (SF-36) | | | | |
| social functioning (n=53) | 78.1 (27.9) | 86.3 (22.5) | -8.3 (26.7) | 0.03* |
| role emotional (n=53) | 69.1 (42.3) | 84.3 (32.4) | -15.1 (37.9) | 0.01* |
| mental component scale (n=50) | 42.0 (11.9) | 46.1 (9.2) | -4.1 (9.9) | 0.01* |

*p < 0.05. **p < 0.01.
a=paired samples t-test

Behavioural outcomes

| Variables | Baseline mean (sd) | 12 month follow up | Mean Change Score | p ^a |
|--|--------------------|--------------------|-------------------|----------------|
| Behavioral Difficulties (SDQ-Youth Report) | | | | |
| emotional difficulties (n=50) | 3.3 (2.7) | 2.7 (2.2) | 0.6 (2.0) | 0.06 |
| conduct problems (n=53) | 4.3 (2.0) | 3.8 (2.0) | 0.6 (2.5) | 0.11 |
| hyperactivity (n=53) | 5.8 (1.9) | 4.9 (2.2) | 0.8 (2.1) | <0.01** |
| peer problems (n=53) | 2.7 (1.8) | 2.5 (1.4) | 0.2 (1.8) | 0.54 |
| prosocial behaviours (n=52) | 6.9 (1.7) | 7.0 (1.8) | -0.1 (2.3) | 0.71 |
| total difficulties score (n=53) | 16.0 (5.2) | 13.9 (5.4) | 2.1 (5.5) | 0.01* |
| Behavioral Difficulties (SDQ-Family Report) | | | | |
| emotional difficulties (n=46) | 6.2 (2.6) | 4.4 (3.1) | 1.9 (3.1) | <0.01** |
| conduct problems (n=47) | 6.6 (2.0) | 4.0 (3.0) | 2.6 (3.1) | <0.01** |
| hyperactivity (n=48) | 7.9 (1.9) | 6.4 (2.7) | 1.5 (2.7) | <0.01** |
| peer problems (n=45) | 3.3 (2.3) | 2.4 (1.7) | 0.9 (2.1) | 0.01* |
| prosocial behaviours (n=44) | 6.8 (1.9) | 7.8 (2.1) | -1.0 (2.5) | 0.01* |
| total difficulties score (n=43) | 24.2 (5.9) | 16.8 (8.3) | 7.4 (8.6) | <0.01** |

*p < 0.05. **p < 0.01.

a=paired samples t-test

Criminal behaviour outcomes

| Variables | Baseline | 12 month follow up | Change Score | p |
|---|-------------|--------------------|--------------|----------------------|
| Median no. of criminal activities | 11.0 (n=57) | 5.0 (n=57) | 5.0 (n=57) | <0.01 ^{a**} |
| Legal Source of Income (n=57) Yes | 32(56.1) | 51 (89.5) | | <0.01 ^{b**} |
| Trouble with police (n=56) Yes | 52 (92.1) | 48 (84.2) | | 0.70 ^b |
| Trouble with community (n=56) Yes | 20 (35.1) | 11 (19.3) | | 0.11 ^b |

*p < 0.05. **p < .01.

a= wilcoxon signed ranks test

b=McNemar test

Family relationship and living circumstances outcomes

| Variables | Baseline | 12 month follow up | Change Score | p ^a |
|---|-----------|--------------------|--------------|----------------------|
| Family atmosphere (youth report) (n=52) Mean (sd) | 2.9 (1.3) | 2.9 (1.2) | 0.0 (1.4) | 1.00 |
| Family atmosphere (family report) (n=49) Mean (sd) | 3.8 (0.9) | 2.8 (1.2) | 1.0 (1.3) | <0.01** |
| Closeness of relationship (family) (n=49) Mean (sd) | 1.9 (0.8) | 1.9 (0.9) | -0.0 (1.2) | 0.90 |
| Median no. of negative life events (n=57) | 7.0 | 5.0 | 2.0 | <0.01 ^{b**} |
| Current living circumstances (n=57) | | | | 0.69 ^c |
| Family | 29 (50.0) | 30 (52.6) | | |
| Controlled Environment | 16 (28.1) | 11 (19.3) | | |
| Independent | 5 (8.8) | 11 (19.3) | | |
| Foster Care | 2 (3.5) | 2 (3.5) | | |
| Homeless | 2 (3.5) | 2 (3.5) | | |
| Other | 3 (5.3) | 1 (1.8) | | |
| Stable living environment (n=57) Yes | 37 (64.9) | 43(75.4) | | 0.21 ^c |
| Unemployed (n=57) Yes | 37 (64.9) | 39 (68.4) | | 0.83 ^c |

*p < 0.05. **p < 0.01.

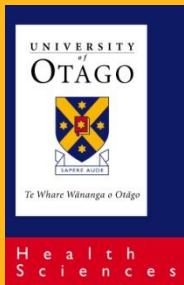
a=paired samples t-test unless otherwise indicated

b=Wilcoxon signed ranks test

c= McNemar test

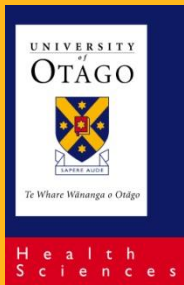
Length of stay and treatment retention outcomes

| | |
|--|-----------------|
| Variables (n=79) | |
| Median length of stay (days) Range (days) | 64.0 0.0-399 |
| Early drop out (< 1 month) (%) | 16 (20) |
| Optimal stay (≥ 90 days) (%) | 28 (35) |



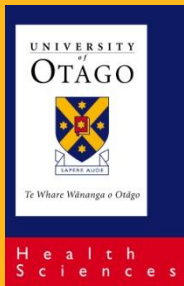
Predictors of Outcomes

- Outcome measured as
 - Improved scores
 - ‘good’ improvement
- Predictors of Improved scores
 - less severe difficulties
- Predictors of ‘good’ improvement
 - Having greater difficulties
- Predictors of early treatment dropout
 - Being self-motivated & having less complex needs



Summary

- Significant improvements in a variety of areas
- Overall pattern of stability or improvement in all areas
- Youth with complex issues are presenting, being retained and showing improvement in treatment



Implications for Treatment Services

- Worth persevering with youth with complex needs
- Small changes do matter
- Retention an on going & important issue
 - Role of external motivation
 - Consideration of group mix
 - Programme factors