

Bridging the Gap  
Program Evaluation:  
*‘Taking off in a good way’*



## Summary Report

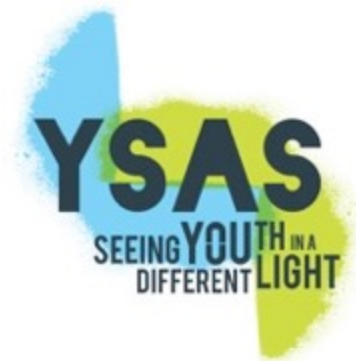
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VICTORIA POLICE

each



This is an evaluation of an adventure-based early intervention program for young people. The project was financed by Victoria Police and delivered in partnership with Eastern Access Community Health and Youth Support & Advocacy Service. The Bridging the Gap program was independently evaluated by Adventure Works Pty. Ltd.

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## Key messages

Key findings from this evaluation confirm that Bridging the Gap (BtG), an adventure-based early intervention program for young people at risk of substance use and offending behaviours provided an engaging and effective program. As such, it met a need within the existing Australian service system.

The key processes used within this pilot program helped to build a sense of belonging for the participants, strengthened the local community service system and its capacity to respond effectively to this target group of young people, and improved participant's capacity to connect with their broader community. The use of outdoor activities, group discussions, individual goal-setting and risk-planning activities were effective in helping to build critical life skills such as self-awareness, goal-setting and self-management. These skills were developed in the lead-up to a five-day River, reinforced after the Journey, assisting to develop self-reflection, positive self-identity, positive decision-making and self-confidence in participants.

The evaluation demonstrates preliminary support that BtG achieved its desired aim to intervene early and improve the short- and medium- term life courses of at-risk young people. Benchmarked against similar interventions internationally, BtG proved to be a strong model. Initial evidence indicates that a range of positive outcomes were achieved for the individual young participants, their families and communities. While BtG also achieved positive effects on participants' substance use overall, it would be appropriate to consider further ways BtG could support substance use changes in future programs and to ensure there are no contamination effects between participants. It is possible that it may take a longer time period for changes in substance use in these young people to materialise.

The role, approach and skills of the BtG facilitators were critical to the overall success of the program and its outcomes. Given mixed results from school staff regarding outcomes for the young people, greater involvement by school staff, such as engagement of an advocate within the school setting, would likely increase positive changes achieved by a young person in their school environment and assist a more positive approach to the young person by their school.

The findings also highlighted the importance of ongoing involvement of parents / guardians / carers for BtG participants to sustain the positive changes they gained from the program.

The design and delivery of BtG was informed by research evidence on effective early interventions for young people at risk of substance use and offending behaviours. It will be important to build on the evidence-base gained from this evaluation of BtG as a pilot program, make some improvements to its design and delivery, including in relation to creation of a positive group culture, strengthening the involvement of parents and families, school staff and the broader community, and enhancing some elements of the program design, coordination, therapeutic processes and program activities.

Finally, an examination of the longer-term outcomes and cost-savings of this program compared with other interventions and pathways for young people is warranted, especially in terms of the potential of BtG to intervene at a critical transition period between primary and high school, to steer young people towards positive behaviours and away from substance use, further offending and ultimately more serious involvement in the criminal justice system as they mature towards adulthood.

## Executive summary

‘Bridging the Gap’ (BtG) was an adventure-based early intervention program for at-risk young people at risk of substance use and offending behaviours delivered over a 10-week period in the state of Victoria from mid-September to the end of November 2015.

The BtG program was delivered as a collaboration between local police and two youth support services in Manningham and the surrounding region of Victoria, and met a particular need for young people aged 13-16 years at risk of substance use and offending behaviours. A team of six professionals co-facilitated the program, led by a Coordinator (EACH Youth and Family Team) and comprising a Wilderness Worker (EACH Wilderness Program), a Senior Constable and Acting Senior Sergeant (Victoria Police), a Youth Support and Advocacy Service (YSAS), and a contracted outdoor leader for the five-day River Journey (from EACH). The facilitation team received wider organisational support from their respective agencies.

Therapeutic features of the program included uses of outdoor activities for personal and group development along with goal-setting and risk-planning with individual participants prior to a 5-day canoe journey down the Murray River from 19-23 Oct 2015. Prior to the journey participants were assisted to develop three SMART goals they hoped to achieve on the Journey (SMART= Specific, Measurable, Attainable, Realistic and Timely). A BtG facilitator then provided two goals for each participant. Goals included prompts to explain what they meant and what strategies they might use. Follow-up after the Journey included revisiting participant’s goals and reflecting on their achievements.

The BtG model was informed by research evidence on effective interventions for young people at risk of offending, antisocial behaviour and drug/alcohol use. With this evidence in mind, the program was designed and implemented based the following principles:

1. Interventions should address the causes of offending and be used to target young people based on their individual needs
2. Interventions should be developed with an understanding of young people in their own social, cultural, ethnic and community context
3. Interventions should be aimed at the risk/needs levels of young people
4. Successful interventions require quality program delivery – adequate dosage and trained and skilled staff
5. Interventions should be developed based on evidence, and evaluated to contribute to the evidence base
6. Collaborative approaches yield positive results.

The program design drew upon international research evidence that demonstrated adolescent problem behaviours such as substance abuse and delinquency, teen pregnancy, school dropout, violence, depression and anxiety may be reduced through preventive efforts addressing common risk and protective factors predictive of these problem behaviours<sup>1</sup>.

Australian researcher Ross Homel's (1999)<sup>2</sup> developmental crime prevention approach identified opportunities to intervene in 'pathways to offending' during key life course transitions, including the transition from primary to high school, and for early intervention to aim to address risk and protective factors that influence the likelihood a young person will engage in future offending behaviours.

Based on practice knowledge and experience, the BtG partner agencies recognised that young people to be targeted for early intervention in relation to substance abuse would likely present with the following range of risks:

- levels of use of alcohol or illicit substances such as Marijuana (substance use may be daily, or less frequent, such as weekly or monthly, experimental, occasional, or regular)
- conflict with family or alienation from parent/s, including possibly residing away from family
- educational or learning difficulties
- early disengagement from school, education, training and/or employment
- early involvement with the youth justice system, e.g. charges or convictions, good behaviour bonds, diversion programs, community orders, Youth Justice case-manager allocated
- association with anti-social or high-risk peers
- mental ill-health symptoms or diagnosis (e.g. depression or anxiety)
- lack of healthy recreational activities or prosocial peer groups
- absence of relationships with positive adult role models such as parent/s or others
- early, limited, or no prior contact with support services such as youth workers, substance abuse services, counsellors, psychologists etc.

The research evidence also highlighted the potential risks for young people associated with the delivery of a group program such as BtG, including:

1. Net widening - increased contact with the criminal justice system
2. Labelling - negative self-identity as a result of being associated with the program
3. Negative peer influence - whereby the likelihood of deviance is increased through participation and exposure to more experienced and volatile young people.

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<sup>1</sup> Arthur, M.W, Hawkins, J.D., Pollard, J.A., Catalano, R.F. & Baglioni, A.J. (Jnr). Measuring Risk and Protective Factors for Substance Use, Delinquency and Other Adolescent Problem Behaviours. *Evaluation Review*, Vol. 26 No.6, December 2002, 575-601. <http://erx.sagepub.com>

<sup>2</sup> Homel, R. (1999). *Pathways to Prevention: Developmental and Early Intervention Approaches to Crime in Australia*. Canberra: Commonwealth Attorney-General's Department.

Given this, the BtG facilitation team undertook proactive and intentional actions to ameliorate risks, including within the program design itself, in terms of the targeting and recruitment processes employed, and throughout the implementation of the various program components.

Based on the quantitative and qualitative evidence gathered within this evaluation, BtG achieved its desired aim to intervene early with young people at-risk of or using substances and at-risk of or displaying offending behaviours. Benchmarked against similar interventions internationally, BtG was found to be effective. The evaluation demonstrated that a range of positive outcomes were achieved for the individual young participants who completed the program, along with their families and communities.

The benefits for young people who participated in BtG included:

- Improved mental health
- Improved physical wellbeing
- Increased life effectiveness
- Increased personal motivation
- Enhanced decision-making/ positive choices
- Improved self-control
- Development of sense of belonging
- Increased knowledge of the effects and harms associated with substance use
- Reduced substance use overall
- Reduced behaviour misconduct
- Progress from pre-contemplation to contemplation and from contemplation to action
- Enhanced future outlook
- Enhanced family relationships
- Enhanced parenting attitudes and approaches
- Reduced parental stress
- Improved school engagement
- Increased confidence to deal with challenges at school
- Increased likelihood of future help-seeking
- Increased participation in positive activities and/or community groups
- Increased likelihood of engagement with services in the future
- Enhanced relationships between police and young people
- Strengthened relationships and capacities of local police and community agencies.

While some behaviours such as substance use and offending behaviours did not reduce for several participants, it is likely that these will take longer to show significant and sustainable change. Feedback regarding a number of these outcomes in the school setting were also mixed.



Based on quantitative and qualitative findings, this evaluation concluded:

1. *Preliminary evidence suggests BtG is an effective intervention for its intended aim and objectives, resulting in a range of positive outcomes for young people, their families and communities at the end of the program and three months later.*
2. *The intended target group of at-risk young people were effectively recruited and engaged.*
3. *Group selection and formation were vital and adequate.*
4. *Program structure and components were effective in achieving desired aims, with minor enhancements recommended.*
5. *The therapeutic processes and content were effective, and could be enhanced further.*
6. *Increased parent and family involvement may enhance outcomes for young people and their families.*
7. *Closer links with schools may enhance outcomes for young people in the school environment.*
8. *Additional community connections may enhance outcomes for young people and their communities.*
9. *Staff skills and approach are critical and were vital to the success of this program.*
10. *Preliminary evidence suggests BtG is an effective evidence-informed and evaluated early intervention for young people at risk of substance abuse and related harms, with potential to become a best practice evidence-based bush adventure therapy intervention for at-risk youth.*



## Context

### About Bridging the Gap (BtG)

'Bridging the Gap' (BtG) is an adventure-based early intervention program for at-risk young people delivered in Victoria over a ten-week period from September to November 2015. The program recruited and selected young males 13-16 years who were 'at-risk' of alcohol and other drug use (AOD). BtG was funded through a Victorian Law Enforcement Drug Fund grant which was awarded to Victoria Police (VicPol) and delivered in partnership with Eastern Access Community Health (EACH) and Youth Support and Advocacy Service (YSAS). BtG was independently evaluated by Adventure Works Pty. Ltd. (AW).

Twenty young males were referred to the program, eleven began the program and seven young males completed the program. Participants were generally relatively 'early' users of alcohol and other drugs (AOD), several had been cautioned by police for antisocial behaviour, several had parents with substance abuse issues, a number had experienced difficulties with learning or schoolwork since primary school, and all had experienced family conflict and violence. This meant that the young people were already struggling with a range of associated risk issues.

Given the intention to recruit young people as participants with minimal or early levels of substance use and related behaviours, local high schools (via principals, assistant principals and other staff with student wellbeing responsibilities) and local community support services were targeted for referral of suitable young people to the BtG program. Youth alcohol and other drug (AOD) services were not targeted for recruitment as young people engaged with their services would likely have more established and entrenched substance use and related issues.

### Rationale, aims and objectives of BtG

BtG was developed to address the following issues of concern:

- Increased and high prevalence of drug and alcohol abuse and risk-taking in young people in the Manningham Police Service Area (PSA)
- Recent significant increases in drug-enforcement (drug-trafficking and possession) charges in Manningham and surrounds, and
- Recognition of the role of substance abuse behaviours as potential drivers in youth criminal offending and victimisation.

Based on addressing the above issues, BtG aimed to provide early intervention for at-risk young people aged 13-16 years living in Manningham and surrounds, including intervening in alcohol or other drug use (AOD) and associated harms. The BtG adventure-based program offered an accredited qualification in Snorkeling (water safety skills) as both an incentive for young people to participate, and as a tangible achievement for participants upon completion of the program.

The BtG was based on the following key individual and community level objectives:

#### *Individual-level*

1. To reduce participant drug and alcohol use and associated harms, including antisocial behaviour and offending
2. To increase participant engagement in positive activities and/or community groups

3. To increase understanding of the effects and consequences of substance abuse and related harms
4. To increase self-esteem, sense of belonging and positive self-identity of participants (i.e. reduce drivers for substance abuse and offending)
5. To develop positive relationships between police and young people.

#### *Community-level*

6. To strengthen working relationships between Victoria Police and other community-based agencies and stakeholders in Manningham involved in addressing youth drug and alcohol abuse.

#### **BtG as an evidence-informed pilot program**

A summary of the literature regarding crime prevention approaches in Australia was compiled by the NSW Attorney General and Justice Department in 2011<sup>3</sup>. This summary referred to social crime prevention as one of a number of preventive approaches, with Homel's (1999)<sup>4</sup> developmental crime prevention approach sitting within this.

The developmental crime prevention approach sees opportunity to intervene in 'pathways to offending' during key life course transitions, including the transition from primary to high school. Early intervention is seen as aiming to address risk and protective factors that influence the likelihood a young person will engage in future offending behaviour. While the evidence-base in Australia is small, it is promising in terms of the long-term individual and community benefits from this approach, including long-term cost-effectiveness. One study showed long-term negative outcomes due to the problem of stigmatising or negative labelling of participants, a risk recognised by the BtG program.

In addition, robust international research demonstrates that adolescent problem behaviours such as substance abuse and delinquency, teen pregnancy, school dropout, violence, depression and anxiety may be reduced through preventive efforts addressing common risk and protective factors predictive of these problem behaviours<sup>5</sup>.

Based on evidence relating to what was known already about effective interventions with young people at risk of offending, antisocial behaviour and alcohol and drug use, the BtG model was designed and delivered using the following key principles:

- Interventions should address the causes of offending and be used to target young people based on their individual needs

<sup>3</sup> Morgan, A., Boxall, H., Lindeman, K. and Anderson, J. (2011). Effective Crime Prevention for Implementation by Local Governments. Australian Institute of Criminology Research and Public Policy Series 120. State of New South Wales (Department of Attorney General and Justice).

[http://aic.gov.au/publications/current%20series/rpp/100-120/rpp120/07\\_approaches.html](http://aic.gov.au/publications/current%20series/rpp/100-120/rpp120/07_approaches.html)

<sup>4</sup> Homel, R. (1999). *Pathways to Prevention: Developmental and Early Intervention Approaches to Crime in Australia*. Canberra: Commonwealth Attorney-General's Department.

<sup>5</sup> Arthur, M.W., Hawkins, J.D., Pollard, J.A., Catalano, R.F. & Baglioni, A.J. (Jnr). Measuring Risk and Protective Factors for Substance Use, Delinquency and Other Adolescent Problem Behaviours. *Evaluation Review*, Vol. 26 No.6, December 2002, 575-601. <http://erx.sagepub.com>

- Interventions should be developed with an understanding of young people in their own social, cultural, ethnic and community context
- Interventions should be aimed at the risk/needs levels of young people
- Successful interventions require quality program delivery – adequate dosage and trained and skilled staff
- Interventions should be developed based on evidence, and evaluated to contribute to the evidence base
- Collaborative approaches yield positive results.

### Program structure and components

The BtG program was comprised of the following 12 modules. Key BtG facilitator and parent activities were undertaken (and recorded) at key points, during and at the completion of the program from mid-September to the end of November 2015.



# Approach

## Evaluation aims and design

The evaluation used a quasi-experimental design to examine the effectiveness of the BtG program in relation to achieving intended aims and objectives for participants (individual-level outcomes) and the local community (community-level outcomes) (i.e. an Outcome Evaluation). For comparison purposes, individual-level outcomes were assessed for each *participant* (i.e. young people who commenced and completed the BtG program); *early-leavers* (young people who commenced but did not complete the program); and *non-participants* (young people referred to the program who was deemed suitable, but did not commence the program).

The evaluation design also examined program processes for achieving outcomes (i.e. a Process Evaluation) and an in-depth analysis of program development and delivery with suggestions for future iterations (i.e. a Formative Evaluation).

Overall, the design placed an equal emphasis on qualitative information and quantitative information. The project was approved Victoria Police Human Research Ethics Committee (VicPol HREC) on 17<sup>th</sup> September 2015.

## Evaluation methods

The evaluation gathered evidence on outcomes, processes and learnings for future programs using the following qualitative and quantitative methods:

- Pre- and post- program surveys or interviews with parents and participants regarding the young person's AOD use
- Interviews and focus groups with participating agencies regarding the effectiveness of the program and the program learnings
- Victoria Police offending statistics for participants across the program timelines.

Feedback was gained from the young people, their parents/carers, their key school staff, the referrers and BtG facilitators about:

- Program development and implementation
- Engagement of the intended target group
- Outcomes for the young people, their family, and the local community
- Any unintended or unwanted outcomes as a result of the program, or any other non-program influences which impacted on outcomes
- Components or processes of the program important in achieving any positive outcomes
- Facilitator reflections on program learnings for future delivery.

### *Evaluation measures:*

Quantitative measures included common risk and protective factors, indicators or mediators towards intended program outcomes. Evidence-based risk factors utilised by the Communities

that Care whole-of-community approach to prevention and early intervention were utilised and organised under the domains of Community, Family, School, and Individual/Peer:<sup>6</sup>

Risk factors relating to Individual/Peer, School and Family domains were examined as indicators or mediators towards intended program outcomes. The intended individual- and community-level outcomes (e.g. reduced substance use) were also examined directly. Community-level risk factors which were not directly targeted by BtG were not examined.

Established standardised psychometric measures were reviewed as quantitative measures of change across the indicator and outcome variables of interest. Seven standardised (quantitative) measures were selected for the BtG outcomes evaluation: *Substance Use; General Health, Wellbeing and Safety; Mental Health; Behaviour Conduct; Life Effectiveness; Participant Evaluation Survey; Participant Evaluation Survey*. Other quantitative questions were constructed by the BtG evaluation team and incorporated into surveys to cover indicators and outcomes not covered by available standardised measures.

Qualitative measures were as constructed to enquire about:

- contextual issues such as evidence-based and other risk factors present for the young people and their families
- program outcomes and indicators not covered by standardised measures
- program processes considered important in relation to engagement and outcomes
- any detrimental impacts of the program
- any non-program influences on outcomes across the timeframe of the program
- facilitator learnings about implementation.

#### Data sources and time points

Data collection time points and sources of information were the same for early-leavers and non-participants as for participants. It was anticipated these comparisons would enable exploration of group selection issues, barriers to participation, program outcomes and other factors influencing outcomes for these three groups of young people. During the initial interview with each participant (prior to group selection), BtG facilitators administered a short survey with quantitative measures. This data was considered the Baseline or Time Point 1. Additional information regarding both process and client outcomes was gathered at three further time-points:

1. *Pre-program* - collected in the early weeks of the program with the young people and their families (Time Point 2)
2. *Post-program* - collected at the end of the 12-week program (Time Point 3)
3. *Follow-up* - collected three months after the end of the program (Time Point 4).

In addition, information about program processes and participant outcomes were gathered from BtG facilitators during the fourth and eighth modules of the 12-module program.

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<sup>6</sup> Developmental Research and Programs Inc. (1993). Communities That Care: Risk-focused Prevention Using the Social Development Strategy; An approach to Reducing Adolescent Problem Behaviors. <https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=143996>

## Strengths and limitations

### Quantitative methods

This evaluation provides preliminary support for the efficacy of the BtG program. The qualitative results backed up the quantitative results and provided rich explanations about the nature of outcomes achieved.

The strengths associated with the quantitative aspects of the evaluation included:

- Multi-dimensional outcome measures were used to assess short- and longer-term changes in youth development areas targeted as program objectives.
- Comparisons between participant-, parent-, school staff- and BtG facilitator-reported data, and comparisons with age-based meta-analytic benchmarks were used to help assess the effects of the BtG program.

Limitations of the quantitative aspects of included:

- Use of a non-experimental research design, small sample size, participant attrition, missing data, and inclusion of one non-validated questionnaire.

While an attempt was made to include a control or comparison group, participants were not randomly assigned to treatment conditions, and the difficulties of contacting non-participants meant there was no control or comparison group, meaning that firm conclusions about causality were unable to be made. Inclusion of a comparison or wait-list control group could be a focus of future work, and would be necessary to demonstrate the effectiveness of the BtG intervention. Participant attrition and missing data, combined with the small sample size limits the statistical power of the current study.

### Qualitative methods

The strengths of the qualitative aspects of the evaluation included:

- Multi-dimensional data sources used to assess the effectiveness of program processes in achieving intended aims and to illuminate learnings from delivery of this pilot program.
- Comparisons between participants-, parent-, school staff- and BtG facilitator-reported data added richness and depth to this investigation.
- Information about barriers to participation and outcomes for non-participants and early-leavers provides limited case study findings.
- The use of semi-structured interviews with all stakeholders allowed further exploration and triangulation of data regarding participant outcomes, effective program processes and program learnings overall.

Limitations included:

- The time required of all stakeholders to complete extensive surveys, interviews and focus group questions was a significant burden on all involved.

- Efforts were made to ensure objectivity of qualitative thematic analysis, however the evaluation was not resourced to use statistical software for qualitative analysis.

Participant attrition and missing data from early-leavers and non-participants and their parents/carers and school staff meant the comparison information was less detailed than hoped. Nevertheless, given the small sample size, the qualitative aspect of this evaluation has been paramount for confidence in overall findings.

## Results

### Target group, referral and participation

The target group for BtG was young people at risk of or with early substance use and early offending behaviours, and the program clearly did recruit, engage and provide support to the intended target group.

The young people referred to BtG had experienced family conflict and violence, educational/ learning difficulties, disengagement from school, early involvement with the youth justice system, association with anti-social peers, early mental health symptoms, lack of healthy recreational activities, absence of positive adult role-models and lack of wider social support. This list of risks and difficulties demonstrated that referrals were appropriate, and provided insight into the therapeutic needs of the target group.

Of the twenty referrals received, seven young people completed BtG, four began but pulled out early, and nine young people were referred but didn't begin the program. The participants who completed the program participated in 10-12 of 12 modules (called 'participants'), the four young people who began the program pulled out after 1,2 or 6 modules (called 'early-leavers'), and nine young people did not commence the program (called 'non-participants').

Staff from youth services EACH and YSAS provided a level of ongoing engagement and support during and after the program for not only participants, but also for young people who left the program early (early-leavers) and for those who did not commence the program (non-participants).

### Quantitative results

A solid body of quantitative information was available for the seven participants of BtG but the information able to be gathered regarding young people who did not complete the program (four early-leavers) and those who did not commence the program (nine non-participants) was extremely limited. Quantitative analyses therefore were not possible for these groups.

Significant results were obtained for the seven participants despite the small sample size regarding both participant self-reported and BtG facilitator-reported Mental health at the end of the program, with Very Large ES.



Further significant results were obtained regarding BtG facilitator-reported Life effectiveness skills and other outcomes in constructed items (Physical wellbeing, School engagement, Family relationships and Future outlook).

BtG facilitators may be considered more attuned to changes due to their training and experience, or may be more positively biased due to (necessarily) holding a strengths-based approach with the participants and also wanting to see positive changes given their own efforts. Lead-in change tendencies as reported by participants were mixed, showing possible increased substance use and reduced General health, wellbeing and safety, and improved Mental health.

Discussions with participants during the program, and responses from other stakeholders suggest the baseline self-reported participant substance use may have been under-reported. Results overall indicate a tendency for positive outcomes across all measures and sources at both the end of the program (Post) and three months after the program (Follow-up) compared to Pre-program results.

Figure 1 demonstrates that BtG short-term effect sizes are higher than Bowen and Neill's (2013) aged-based short-term benchmarks for 10-17 year olds. Further, the short-term effects for Overall Mental Health, Healthy Risk Taking and Communication Skills are statistically significant. If an effect size is within the associated benchmark confidence interval it would be within the expected range. Values below the benchmark confidence interval indicate weaker than expected effects, and values above indicate stronger than expected effects. While other differences are not statistically significant they may be considered indicative.

Overall, benchmarking indicates that BtG achieved stronger than expected effects across a range of outcomes when compared with similar programs internationally.

Results of the five standardised quantitative measures are combined across sources in Table 1 to produce overall outcome trends for each measure. The results indicate positive change, all at a moderate to strong level except for the Wellbeing subscale in the General health, wellbeing and safety measure, which indicated positive change at a very small level.

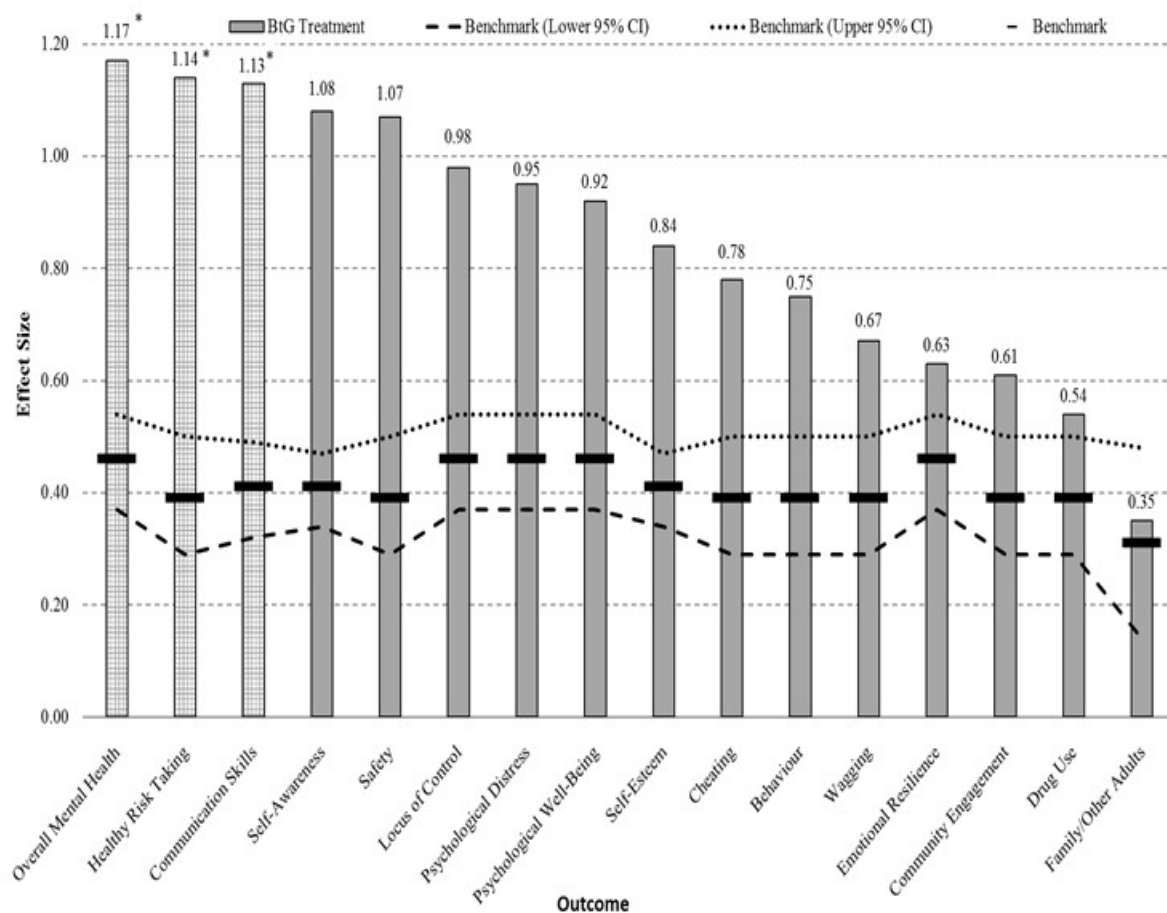




	Self-report		Parent		School Staff		Facilitator Average			Rating
Youth Development <sup>7</sup>	ST ES	FU ES	ST ES	FU ES	ST ES	FU ES	ST ES	LT ES	Overall Summary Comment	Out of 6 Stars
Substance Use	-0.06	-0.49						-0.55	Moderate positive change	★★★★
General Health, Well-being & Safety										
Alcohol/Other Drugs	0.18	0.83	0.00	0.39	0.70	-0.87		0.41	Moderate positive change	★★★★
Well-being	-0.17	0.07	0.21	0.37	-0.14	-0.09		0.08	Very small positive change	★
Safety	1.07	-0.25	0.35	1.03	0.71	0.04		0.98	Strong positive change	★★★★★
Achieving Potential	0.16	0.54	-0.52	1.75	-0.24	0.79		0.83	Strong positive change	★★★★★
Effects of Behaviour	0.75	0.96	-0.21	1.56	-0.98	1.16		1.08	Strong positive change	★★★★★
Family/Other Adults	0.35	0.23	-0.58	1.82	0.93	-1.08		0.56	Moderate positive change	★★★★
Overall	0.70	0.69	-0.14	1.26	-0.02	0.40		0.96	Strong positive change	★★★★★
Life effectiveness										
Emotional Resilience	0.63	-0.87	0.05	0.09	-0.20	0.37	1.89	0.49	Moderate positive change	★★★★
Goal Setting	0.40	-0.12	0.59	-0.23	1.36	0.25	1.99	1.06	Strong positive change	★★★★★
Healthy Risk Taking	1.14	-0.59	0.09	0.85	0.53	-0.04	1.80	0.95	Strong positive change	★★★★★
Locus of Control	0.98	-0.51	0.03	0.21	0.66	-0.71	1.49	0.54	Moderate positive change	★★★★
Self Awareness	1.08	-0.59	0.18	0.16	0.70	0.27	1.24	0.76	Moderate to strong positive change	★★★★★
Self Esteem	0.84	-0.11	0.03	0.47	0.32	0.46	2.24	1.06	Strong positive change	★★★★★
Self Confidence	0.37	0.41	0.56	0.19	0.00	0.67	2.12	1.08	Strong positive change	★★★★★
Communication Skills	1.13	-0.79	-0.08	0.12	0.15	0.22	1.59	0.59	Moderate positive change	★★★★
Community Engagement	0.61	-0.42	-0.19	0.64	0.26	0.14	1.39	0.61	Moderate to strong positive change	★★★★★
Cooperative Teamwork	0.18	-0.11	-0.42	0.42	-0.25	0.50	1.42	0.44	Moderate positive change	★★★★
Overall	1.11	-0.66	0.04	0.34	0.36	0.36	2.03	0.90	Strong positive change	★★★★★
Mental Health										
Psychological Distress	0.95	-0.38	-0.45	2.73	0.06	0.48	0.42	0.95	Strong positive change	★★★★★
Psychological Well-being	0.92	-0.55	-0.16	0.37	0.09	-0.29	2.19	0.64	Moderate to strong positive change	★★★★★
Overall	1.17	-0.67	-0.39	1.39	0.05	-0.21	1.39	0.68	Moderate to strong positive change	★★★★★
Behavioural Conduct	-0.34	-0.90	-0.70	-0.93	1.96	-1.06	-0.21	-0.55	Moderate positive change	★★★★

**Table 1. Summary of effect sizes for participant-, parent-, school staff- and BtG facilitator-reported short- and longer-term changes in participants**

<sup>7</sup> Legion: ST = Short-Term; FU = Follow-Up; LT = Longer-term, ES = Effect Size (Hedges *g*), + ve = Positive, =ve = Negative



**Figure 1. BtG participant short-term effect sizes against Bowen and Neill's (2013) aged-based short-term benchmarks for 10-17 year olds.**

### Qualitative results

A solid body of qualitative information was available for the seven participants of BtG and some limited qualitative information was able to be gathered regarding young people who did not complete the program (four early-leavers) and those who did not commence the program (nine non-participants). Limited qualitative analysis therefore was possible for these groups, presented in the form of case studies.

Qualitative information was used to make some initial comparisons regarding engagement issues and outcomes across the three groups of young people as well as providing rich explanations about the nature of the outcomes achieved. Qualitative findings included:

- Factors that may have assisted with engagement and participation include: Parental encouragement/stable living and family environment; a strong interest in the activities offered; a readiness to make changes; and a lack of competing priorities/a lot going on.

- In terms of outcomes seen across comparison groups, it appears there were significant improvements across a range of areas for all seven participants according to parents of the participants themselves. There were improvements seen at school according to two teachers, and no significant deterioration was seen at school for the other five. All seven participants were still engaged in education in 2016, and six were willing to receive support beyond the program.
- In contrast, for early-leavers across the evaluation period, there was minimal improvements and overall deterioration for two young people, for two young people the concerns were the same, three were not going to school, two had worsened school attendance and/or behaviour at school, three were not willing to engage with any support, and one was willing to see an EACH facilitator.
- For non-participants, there was no or minimal change for two young people, slight deterioration for one, and unknown outcomes for six (i.e. information was not available).

Overall, the comparison group information provides additional support for the participants having made significant positive changes as a result of the program. The above results indicate that overall:

- Significant positive changes in substance use were made by two participants, including one who reported regular poly drug use prior to the program, and another who ceased cannabis use
- Alcohol use was not reduced and may have increased for three
- There was no change in cannabis use for one
- Two participants who reported no substance use prior to the program reported that they had maintained their abstinence at completion of the program and at follow-up
- In comparison, substance use reported by early-leavers showed high levels of substance use and/or increased use at Follow-up.

These results demonstrate that BtG achieved positive effects on participants' substance use overall and highlight it would be appropriate to consider further ways that BtG could support substance use changes and ensure there are no contamination effects between participants in future programs. It is also possible that other outcome indicators such as increased self-confidence and sense of purpose may take a longer time period to take effect on substance use, meaning that positive substance use effects may continue long after the program.

#### *Qualitative results on individual-level outcomes:*

- Reduced overall substance use by two, possible increase or no change by three regular substance users, and no change for two who did not use substances prior to the program (while early-leavers showed high and increased levels)
- Motivated participants to make some positive changes in their lives
- Strengthened participants' positive feelings and views about their future
- Helped participants see their themselves in a different and positive way and had helped others to see them in a different and positive way
- Improved participants' physical and mental health
- Built participants' confidence to deal with any challenges at school
- Increased participants' knowledge about the harmful effects of alcohol or other drug use.

#### *Qualitative results on family- level outcomes:*

- Helped enhance participants' family relationships.

#### *Qualitative results on Community-level outcomes:*

- Provided a sense of belonging and connection with the group, which is likely to help participants fit into other groups in the future
- Provided a positive connection with program staff who were able to support them
- Provided a positive experience of gaining support from workers and services, meaning they will be more likely to seek support from a worker or program in the future
- For a majority, provided a more positive view of police.

#### **Participant feedback**

The evaluation sought feedback from the participants about the individual program components. Overall participants reported favourably in terms of their enjoyment, as outlined below.

<b>Participant feedback on program processes (n=7)</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Number of participants</b>
How much did you like each of the following program activities? (1=didn't like it, 10= loved it)			
Enjoyment rating of program overall	8.05	1.16	7
Enjoyment rating of individual program components			
Challenge course	8.71	1.70	7
Snorkelling	8.86	1.46	7
Guest visits by the AOD worker	6.71	3.30	7
Sports rafting	7.71	3.25	7
Caving	8.14	2.19	7
Banner making	6.83	2.79	6
Wilderness journey	7.43	3.15	7
River sledding	9.50	0.84	6
Multi-media day	7.40	3.21	5
2-day beach camp	9.57	1.13	7
Feedback regarding the BtG program overall			
How did you find the program design, what was included, how it was put together?	9.67	0.82	6
How did you find the organisation of the program, how things flowed, having everything you needed on the day/for the trip?	9.67	0.52	6
How did you find the facilitators and how they got along with you and managed the group?	8.00	3.52	6

**Table 2. Participant feedback about program activities, processes and components**

## Conclusions

Overall, from the findings of this evaluation we concluded:

1. *Preliminary evidence suggests BtG proved to be an effective intervention for its intended aim and objectives, resulting in a range of positive outcomes for young people, their families and communities at the end of the program and three months later.*
2. *The intended target group of at-risk young people were effectively recruited and engaged.*
3. *Group selection and formation were vital and adequate*
4. *Program structure and components were effective in achieving desired aims, with minor enhancements recommended.*
5. *The therapeutic processes and content were effective, and could be enhanced further.*
6. *Increased parent and family involvement may enhance outcomes for young people and their families.*
7. *Closer links with schools may enhance outcomes for young people in the school environment.*
8. *Additional community connections may enhance outcomes for young people and their communities.*
9. *Staff skills and approach are critical and were vital to the success of this program.*
10. *Preliminary evidence suggests BtG is an effective evidence-informed and evaluated early intervention for young people at risk of substance abuse and related harms, with potential to become a best practice evidence-based bush adventure therapy intervention for at-risk youth.*



## Recommendations to improve BtG

Findings from the process and formative elements of this evaluation are important in informing the suitability of BtG for continuation and/or expansion, or for future iterations. Feedback about outcomes and processes was sought about various aspects of the program from multiple stakeholders including young people, parents, school staff, referrers and BtG facilitators (made up of lead agency staff and partner agency staff). Areas of investigation included:

- Program development and implementation
- Engagement of the intended target group
- Outcomes for the young people, their family, and the local community
- Any unintended or unwanted outcomes as a result of the program, or any other non-program influences which impacted on outcomes
- Components or processes of the program important in achieving any positive outcomes
- Facilitator reflections on program learnings for future delivery.

The findings from these multiple feedback mechanisms suggested how BtG could be improved if it were to continue beyond the initial pilot stage. Seventy-six recommendations have been developed from these findings, presented under ten themes.

The primary recommendation of this evaluation report is that:

1. BtG should be continued with adequate funding and if possible, rolled out in other jurisdictions.

### Promotion, recruitment, engagement and participation

Based on the information about young people who completed at least 10 of the 12 program modules (i.e. participants), those who left the program after 1-6 modules (early-leavers), and those who were referred but didn't begin the program (non-participants), the following promotion, recruitment, engagement and participation strategies are recommended.

2. Promotion and recruitment planning and commencement should begin at least six weeks but ideally three months prior to the start of the program.
3. Prior consideration should be given to any exclusion criteria based on the activities to be offered and the skills of the facilitators.
4. Having a geographical catchment of more than one local government area enables timely recruitment and recruitment of young people who do not know each other, which may have benefits.
5. Promotion to the full range of local schools for this age group, as well as community services, is an effective strategy to recruit this target group.
6. Given the co-occurring risk factors with early substance use/risk, it is equally suitable to target young people with behaviour conduct issues, risk of disengaging from school, early contact with police, difficult family backgrounds, risk-taking behaviours and lacking positive peer and adult relationships.
7. The program can be promoted in a way that is appealing and avoids negative labelling of participants, aided by use of a catchy logo and slogan/motto.

8. This program provides an engaging pathway to support at-risk young people who are interested in outdoor activities, and should be offered with a range of alternative pathways for those not interested in this specific medium.
9. Once a program is delivered successfully and valued by young people, families and community services involved, promotion by word of mouth and de-identified photos will assist.
10. Assertive engagement is a fundamental recruitment strategy for this target group, including going out to schools and homes/families of referred young people to provide information and build rapport and trust.
11. Some suitable young people who would benefit from this intervention will require more than a 6 to 12-week period to build trust and relationship, and may benefit from alternative engagement strategies such as a 'taster day' experience. Such young people may have less stable lifestyles and family support, and require additional support to engage.
12. Assistance with transport/logistics is at times required to enable participation in the program, for example, via pick-ups, meeting at the train station, taxi vouchers, or waiting with the young person if a parent is delayed picking them up.

### Group selection and formation

Based on feedback from participants and staff, the selection of the group and formation of the group culture were considered vital to the success of the program.

13. In-depth assessment of young people and their family prior to commencement will assist selection of a suitable group and individual therapeutic planning.
14. BtG is considered suitable for male, female or mixed gender groups, although additional planning and reflection should occur regarding female and mixed gender groups which were not subject to the current evaluation.
15. A two-year age span of participants (rather than three years) may promote group cohesion by ameliorating differences in maturity, social dynamics and leadership capacities of participants.
16. The level and nature of substance use and criminal activity are important considerations in group selection.
17. Planning intentional strategies to build trust and promote positive group culture, and to manage early group issues are important to prevent negative peer influences and ensure the culture doesn't glorify or promote substance use or other risk-taking behaviours (see further below under therapeutic components).

### Program structure and components

The success of BtG as a pilot program suggested future programs could be built upon the current structure and components with a number of enhancements.

18. The 12-module program will ideally be delivered over 12-week period (rather than a 10 week period), with consideration of school terms so as to avoid school holiday times and avoid finishing just prior to Christmas (when gains may be lost over the summer holiday period).
19. Use of snorkelling, snorkelling accreditation and water themes/ metaphors were effective although not essential to achieve program outcomes, and alternative outdoor activities and themes could be trialled in future iterations.



20. To enhance and consolidate the benefits for participants, the length of the journey could be extended to seven or ten days (rather than five).
21. The follow-up camp was highly enjoyable and rewarding for participants, although could be trialled as a day activity in future iterations to reduce costs.
22. The graduation celebration, along with the provision of program materials (such as DVD photos and videos) are useful to reinforce the achievements and positive experiences of participants.
23. If funding permitted, a second stage of the program would be beneficial to build on changes made, for example including: group community development activity; outdoor activity skills and life skills development and further therapeutic experiences; another journey; enhanced one-to-one individual support; a focus on educational and/or training pathways; 'ambassador'/'peer mentor'/'guest-speaking roles for participants to reinforce changes and strengthen peer support and leadership capacities.

### Therapeutic considerations

The program venue needs to create a safe, contained 'holding space' for therapeutic group work. Further feedback suggested a refinement of some therapeutic processes and content to improve therapeutic outcomes.

24. Suitability of the indoor group space/venue is very important. It needs to be a youth-friendly, welcoming and appealing space that minimises external distractions, provides good access to toilets and drinks, is close to public transport, has adequate acoustics and ventilation, and is close to outdoor spaces.
25. Group safety, trust, cohesion and a 'team' culture should be strengthened in intentional ways from the outset and throughout the program, for example within the development of individual and shared goals, discussion of roles, responsibilities and program boundaries, and via a range of opportunities for leadership.
26. Managing group 'drug talk' and preventing participants bragging about substance use or antisocial behaviours (misconduct) needs to be intentionally addressed at the outset and throughout the program, for example via the inclusion of personal and group safety within group rules, increased emphasis on ways to respond to peer pressure and support others' positive intentions for change.
27. Individual goal-setting and risk-planning activities are highly effective tools to build critical life skills including self-awareness, goal-setting and self-management. These activities worked well prior to the journey, and could potentially be tried at the outset of the program and built on just prior to the journey and again after the Journey.
28. The emphasis on embedding self-reflection, positive decision-making and positive self-identity/self-confidence development throughout the program was highly beneficial.
29. Enhanced emphasis on psycho-educational/therapeutic content regarding critical life skills for young people who have experienced trauma may be warranted (and may assist substance use outcomes as much as psycho-education regarding substances and risks).
30. Increased use of small group discussions (rather than the whole group) from the start of the program may assist development of safety and trust within the group, as well as to enhance participation through increased comprehension and concentration.



31. Increased weaving of the therapeutic content into experiential outdoor activities may assist this target group to engage and learn more effectively than didactic, discussion-based or even arts-based activities.
32. Consideration could be given to the inclusion of environmental and conservation activities as a means of further developing responsibility and care, and engagement with nature and positive activities and community groups.
33. Use of a journal during the Journey may strengthen learnings and skills such as self-reflection, literacy (including emotional) /expression/ communication, and goal-directed behaviour.
34. A strengths-based approach with frequent individual encouragement was important to build trust, relationships, self-confidence, learnings and changes made by participants. Even more opportunities for reflection and celebration throughout the program may further reinforce positive individual and program narratives.
35. Further consideration could be given to program processes to reduce offending behaviours given police data did not show clear outcomes in this regard.

### Parent and family involvement

For participants to sustain changes in the family environment, enhanced involvement of parents/guardians/carers is required. Feedback from parents clearly indicated provision of a specific parent/carer support component to the program may further support positive change in the young people and their families.

36. Allocation of a 'systems worker' to provide intentional family and school support to strengthen positive changes in the young people and their systems of support.
37. Opportunities for parents to meet as a group over a number of occasions for informal peer support as well as facilitated discussions (ideally by program facilitator and/or suitable youth and family worker) along with Individual support for parents at specific points or as needed throughout the program.
38. Opportunities for young people to share their outdoor skill learnings with parents, to demonstrate their leadership capacities and build their positive self-identity within their family.

### Closer links with schools

Given the mixed results from school staff regarding outcomes for the young people, enhanced engagement of an advocate within the school setting is recommended, with participant consent, to support positive change by the young person in their school environment and a positive approach to the young person by the school.

39. As above, allocation of a 'systems worker' to provide linkages and support for families and schools.
40. Early identification and engagement of an appropriate school staff member as an advocate to encourage each young person through the program and within their school setting.
41. Involvement of the nominated school staff member in new processes within the program, such as three-way discussions (young person, school staff member, BtG facilitator) regarding issues, strengths and goals and progress from the school perspective, at the outset, following the journey, and at the end of the program

42. Attendance by a school staff member in the graduation to bear witness to the experiences and developments of the young person, towards being able to communicate these within the school setting and enable school staff and students to better support positive changes being made by participants.
43. A 'tutoring' element closely connected to or provided by the program may provide a 'safe' space for participants to gain support for their educational issues such as low literacy or numeracy.

### Community connections

Key program processes that build a sense of community for the young people, strengthen the local community service system and its capacity to respond effectively to this target group, and promote young people's connection with the broader community were seen as beneficial.

44. The community partnerships established within this pilot program are considered both a key process for the young people and a key outcome for their community.
45. The experience of a safe and trusting sense of community and belonging was key for the young people and likely to enhance their capacity to participate in these beyond the program.
46. Direct involvement of police officers in the program as facilitators appeared to build bridges between at-risk young people and the police facilitators in terms of enhancing understanding and trust. This is seen as an important step towards improving dynamics between young people and police within the broader community and enabling an effective community policing response. The role of improved young people-police relationships in helping to deter future offending could be examined further.
47. For program delivery, the establishment of three to four community partnerships is considered optimal.
48. Enhanced links to additional community resources within the program, or a second stage, are an option to support participants' engagement with the wider community and build on positive changes made. For example:
  - a. visits from/to community members/ groups to hear personal stories relating to relevant topics (for example, positive workplace settings which may be accessible to this target group, positive adult male role models talking about the importance of gender equality, non-violence, strategies to manage strong feelings, handling peer pressure, etc.).
  - b. visits to local community-based recreational and developmental opportunities, such as to Scouting facilities or other community groups, to assist participant pathways into other positive social, recreational and volunteering opportunities.
49. The inclusion of a community-recognised certificate (such as snorkelling) was useful for engagement in the program and a sense of achievement, while an understanding of the limits to their skills is also important and options to further these skills.
50. Inclusion of a community-recognised first aid certificate may have merit in terms of strengthening the emphasis on safety.
51. Inclusion of information regarding pathways to further outdoor skill and recreational opportunities and access to equipment beyond the program (offer of loan, hire or gifts) may assist participants to continue their participation and development in these activities.

## The staff team

Feedback from participants, parents and schools staff demonstrated that the approach and skills of the facilitators was critical to the success of the program and its outcomes.

52. A full-time program coordinator to oversee program establishment, engagement and delivery, ideally with skills in engagement and support of this target group and their families.
53. For a group size of 10 to 12 participants, at least four facilitators (ideally from mixed disciplines and genders) are needed for program days, and five for the Journey.
54. Where possible, all facilitators participate in all program activities, including the Journey.
55. A staff team that includes professional youth work and therapeutic outdoor adventure skills is essential.
56. Given the backgrounds of the target group, it is important the staff team have the skills and expertise to engage and support young people with trauma backgrounds, and emotion-regulation, conduct issues and mental health issues.
57. The direct involvement of police officers enables important additional outcomes to be achieved and is recommended. Involvement of police officers in different positions and ranks worked well for this program.
58. Direct involvement of a youth alcohol and other drug service is beneficial in terms of their specialist educational and therapeutic capacity, and to assist engagement into their services beyond the program.
59. The following characteristics and strengths are important in facilitators:
  - a. a non-judgmental, strengths-based attitude of genuine interest, care and optimism
  - b. passion, commitment and leadership skills to build positive relationships and inspire positive change
  - c. capacity to build rapport, affirm, support, guide and challenge this target group
  - d. reliability, tolerance, patience, flexibility, initiative/problem-solving and creativity to engage and adapt to the needs of these young people who may be distractible
  - e. a level of therapeutic skills to support emotional safety and positive change in young people
  - f. able to draw on their life experience as well as relevant training and experience
  - g. able to work well as team player, with good communication, adaptability and a 'can do' attitude
  - h. able to follow program policies and procedures, plans and documentation.
60. All facilitators need to allocate adequate time during the program delivery timeframe for preparation, review, logistics such as transport assistance, and incidentals such as conversations with a young person or parent. (It is estimated that one day of preparation for each staff member is required for each program delivery day).
61. Ensure subcontracted organisations and staff (such as snorkelling instructors) have experience with the target group and/or are assisted to provide education/training in a format that is engaging and fun, such as incorporating games, props, role-plays, etc.
62. Nominating a facilitator to be a key support worker for each participant may ensure suitable tracking of the young person's needs and therapeutic opportunities while enabling increased depth of relationship.

## Replication

Program governance and management structures are important considerations for future replication of the BtG program.

63. Victoria Police in partnership with EACH hold the intellectual rights to the BtG program and its evaluation, and permission should be sought to replicate or adapt the program and to use any existing partnerships.
64. A program governance structure and/or advisory group including managers and program Coordinator (for example, to agree on key program processes and intended outcomes and their monitoring) may support the integrity of the replication and the success of the program.
65. Identification and engagement of suitable key program partners at the local level and engagement of appropriate managers from key partner organisations enables suitable authorisation of staff involvement and level of resourcing required for their role.
66. In addition to this evaluation report and any other program documentation, Victoria Police and/or EACH should be consulted to inform/train to assist fidelity of the program implementation at the program and/or practice level.
67. Commitment by partner organisations and facilitators to program aims and methods, combined with flexibility.
68. Adequate lead-in time is required to plan the budget including funding and in-kind support available, including for facilitation if program funding aims and target groups align.
69. Adequate resourcing of staffing, whether funded or in-kind, as follows:
  - a. a full-time Coordinator role for six months
  - b. a full-time outdoor therapy worker for four months
  - c. a part-time or full-time 'systems' worker for four to six months
  - d. two or three additional facilitators from relevant local services and/or Victoria Police to contribute one to two days per week for four months and ideally able to participate in the Journey
  - e. a fifth facilitator for the Journey Engagement, coordination and leadership of a strong facilitator group by the Coordinator.
70. Adequate resourcing and budget allocations for: indoor venue, outdoor activities, outdoor equipment and clothing, food, transport.
71. Adequate lead-in time for program facilitators to collaborate on program planning (e.g. processes, roles, communication mechanisms), preparation, promotion and engagement prior to program commencement.
72. Adequate allocation of time by program facilitators during program delivery for individual and group preparation, review, communication, documentation, logistics and incidentals.
73. Development of a suitable participant recruitment strategy endorsed by governance and facilitator groups.

### Becoming evidence-based

The current evaluation provided initial evidence that the BtG program was effective in achieving its stated aims and objectives. BtG is evidence-informed and contributes quality practice-based evidence to the field. However, given the small participant numbers and the absence of an experimental research method, this evaluation provides a preliminary evidence-base for the program.

To further develop BtG into an evidence-based intervention, the following research activities are recommended:

74. Undertake review of the bush adventure therapy and associated at-risk youth literature regarding evidence-based components that may further enhance the current BtG model.
75. With the evaluation team, develop a scaled-down, affordable evaluation framework for implementation with future BtG programs and iterations, to monitor implementation and outcomes, towards building the sample size and confidence in results.
76. Consider gaining funding to strengthen the evidence regarding the outcomes and impacts of the program, for example, to undertake a trial of the program using a stronger experimental design, longitudinal research, and/or cost-analysis research.



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