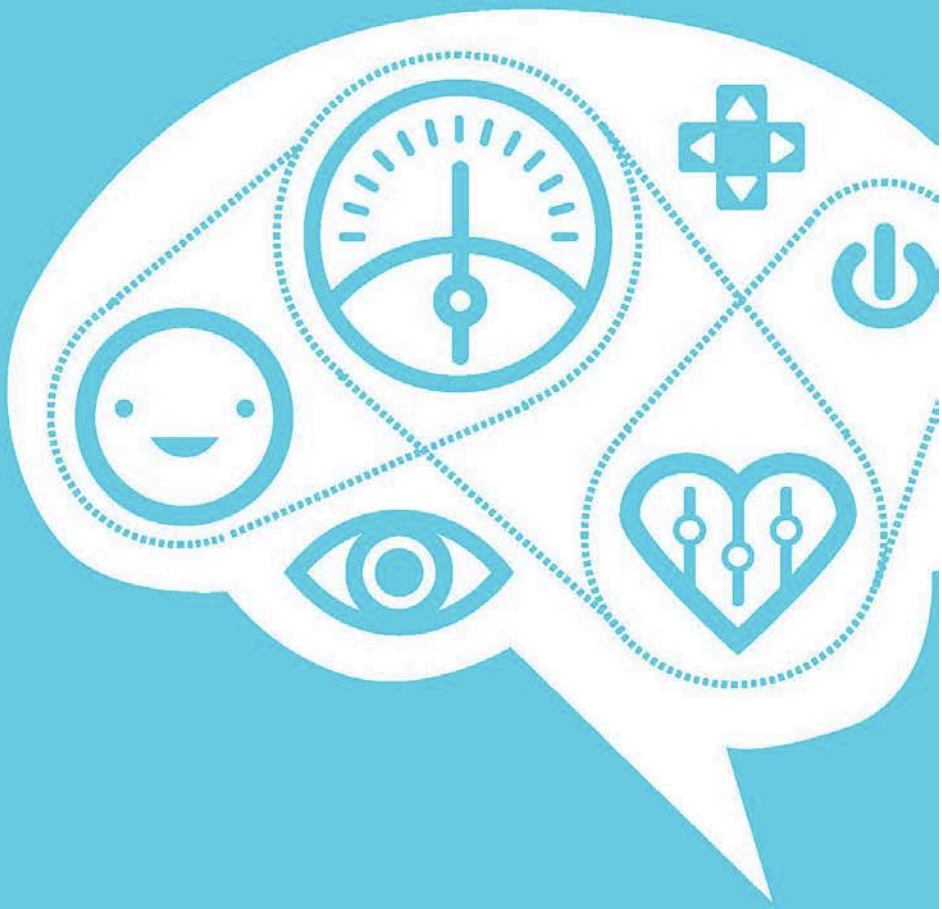
Next Generation Youth AOD Project
ERIC Pilot Study Evaluation Report



eRIC

emotion regulation impulse control

Report prepared by Kate Hall, Angela Simpson and Elise Sloan

August 2017

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The authors would like to acknowledge the philanthropic support of Helen Macpherson Smith Trust.

The authors would like to acknowledge the contribution of the ERIC research team: Associate Professor Petra Staiger (Deakin University), Professor Amanda Baker (University of Newcastle), Dr Richard Moulding (Deakin University), Dr Alison Beck (University of Newcastle), Dr Natasha Perry (Hunter New England Health Service), and Dr Karen Hallam (YSAS). We would like to recognise the contribution of Bonita Berridge, Lucinda Leggett and the ERIC project team, Dominic Ennis, Juliette Hammond and Emily Gordon.

Thank you for the valued contribution of our pilot sites in regional Victoria: YSAS, Grampians Community Health, Ballarat Community Health, Nexus Primary Health and Gateway Health. The authors of the report would like to acknowledge and thank the youth AOD practitioners who contributed to the ERIC feasibility and acceptability evaluation.

Finally, we wish to acknowledge and express our gratitude to the young people who agreed to take part in the evaluation.

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

ERIC is a skills based transdiagnostic intervention developed by Kate Hall and Angela Simpson that builds skills in vulnerable young people with complex mental health and alcohol and other drug (AoD) issues. ERIC specifically teaches young people how to regulate their emotions and manage impulsivity, two areas that are often developmentally impacted due to trauma. ERIC skills are essential for healthy social and emotional development.

An ERIC feasibility and acceptability pilot was conducted in regional Victoria as part of the project activities for the Next Generation Youth AOD Project. The ERIC pilot study aligns with the broader aims of the Next Generation Youth AoD Project of improving the reach, efficiency and effectiveness of regional youth AoD services by building workforce capacity. The ERIC pilot in regional Victoria measured outcomes for youth AoD practitioners (and young people) with the aim of assessing whether ERIC is a viable intervention that can contribute to our best practice models of treatment in the youth AoD sector.

A key finding of the pilot was that ERIC is an intervention that is feasible and acceptable to youth AoD practitioners. The results also indicated that after exposure to the ERIC processes and skills, young people showed improvements on measures of:

1. The ability to accurately recognise emotions,
2. The use of effective strategies to control emotions,
3. The reduction in avoidance of emotions,
4. The ability to engage in goal directed behaviour when distressed,
5. Impulse control,
6. Symptoms of anxiety and stress / psychological distress.

The workforce development outcomes of the pilot were mixed due to the high rates of attrition in worker participants. However, qualitative reports highlighted the acceptability of the ERIC resources. All practitioners who completed the 12 week training and coaching period achieved competency in ERIC.

The results of the pilot support the feasibility and acceptability of ERIC as an intervention that can target emotion regulation in young people who have multiple and complex mental health and substance use needs. Workforce development training models require senior management, supervisor and broader organisational readiness to address attrition in comprehensive competency based training completion. This indicates that the ERIC intervention warrants further investigation and application in the youth AoD field.

TERMS OF REFERENCE

Deakin University and Victoria's YSAS (Youth Support and Advocacy Service) undertook a three year partnership agreement from 2014-2017 that supported a joint appointment between the two organisations and a joint research agenda. The joint research agenda focused on understanding emotion regulation deficits in vulnerable young people and translational research for the treatment of youth addiction and mental health issues. Kate Hall and Angela Simpson developed a theoretically derived intervention (ERIC) to target emotion regulation difficulties in young people with mental health and substance use issues, informed by a) the empirical literature on emotion regulation difficulties and b) the translational science literature. YSAS and Deakin University were funded by the Helen Macpherson Smith Trust foundation to deliver a capacity development project for regional Victoria termed *The Next Generation Youth AoD Project*. In line with the broader aims of the project, namely to improve the reach, efficiency and effectiveness of regional youth AoD services, the ERIC pilot study was conducted to build workforce capacity in the delivery of evidence informed interventions. The ERIC pilot study was conducted across the Hume and Grampians regions and the outcomes of the research pilot are reported in this report. The broader activities conducted during the delivery of the *Next Generation Youth AoD Project* are presented elsewhere in accompanying reports.

BACKGROUND

Young people seeking help from youth AoD services commonly present with multiple and complex needs. ERIC is a psychological skills based program developed for, and with, vulnerable young people. ERIC targets social and emotional skill development in vulnerable young people in order to cultivate and strengthen individual protective factors for mental health and wellbeing.

The transition from adolescence to young adulthood is a critical period of vulnerability for the development of mental health and substance use disorders in young Australians. Rates of comorbidity between mental health and substance use disorders are also the highest within this age group. (Kessler et al., 2005; McGorry, 2009). Young people seeking help for AoD issues are a particularly vulnerable group of young Australians. A census of 1000 young people accessing youth AoD services in Victoria found: 34% percent had a mental health diagnosis in addition to their AoD issues; 41.5% had engaged in self-harming behaviour in their lifetime; 64% reported past involvement in the criminal justice system; 53% reported a history of abuse and/or neglect; and 33% reported past involvement with child protection services (Mitchell et al., 2016). While an enormous amount of work has been done in workforce capacity development in the area of dual diagnosis over the past 10 years in Australia, a gap has remained in our developmentally informed service delivery to young people. Targeted social and emotional skill development is needed, alongside our AoD treatment, in order to increase the individual protective factors for young people with histories of neglect, trauma and disadvantage.

Healthy emotion regulation (ER) develops throughout childhood and adolescence in response to consistent, caring and secure relationships with our primary caregivers. Vulnerable young people, may not have had an opportunity to develop helpful ER habits. Research has shown that deficits in healthy ER appear to be relevant to the development, maintenance, and treatment of various forms of mental health concerns, including substance use (Kober, 2013), depression (Hofmann, Sawyer, Fang, & Asnaani, 2012), the anxiety disorders (Mennin, Holaway, Fresco, Moore, & Heimberg, 2007), the eating disorders (Lavender et al., 2015), and borderline personality disorder (BPD; Carpenter &

Trull, 2013). Consequently, ER has been conceptualised as a transdiagnostic process, or a core dimension which underlies multiple issues (Gratz, Weiss, & Tull, 2015; Kring & Sloan, 2009; Sloan et al., submitted). In a body of research conducted in partnership with Victoria's YSAS in 2016, the authors conducted a study of mental health symptoms (anxiety, depression, disordered eating, borderline personality disorder, alcohol and drug use), in 306 youth AoD service users in Victoria. It was found that 89.2% of participants exceeded the clinical cut off for at least one of these disorders, 72.3% of participants for two or more, 51.7% for three and 27.2% for four or more disorders (Sloan et al., 2017, submitted). This study supports what practitioners have anecdotally observed for many years. That although young people present for AoD treatment with multiple and interrelated mental health symptoms, the complex interplay between these symptoms means that current mental health treatments are an imperfect fit. However, we propose that emotion regulation and impulsivity are promising transdiagnostic treatment targets for young people who present to AoD services.

ERIC PILOT STUDY AIMS AND OBJECTIVES

The ERIC pilot study aimed to determine the acceptability, feasibility and fidelity of implementing ERIC in regional youth AoD services. Data from youth AoD practitioners and young people were collected.

The objectives of the current pilot were:

- To evaluate the implementation and fidelity of the ERIC training and implementation model.
- To evaluate the outcomes of ERIC training and coaching on practitioners' competency.
- To determine the impact of the ERIC intervention on young people's alcohol and other drug use, ability to regulate emotions, impulsive behaviours, psychological distress, and use of mindfulness and acceptance–based skills.
- To determine the impact of being trained in ERIC on youth AoD practitioners' ability to regulate their own emotions, reduce impulsive behaviours, reduce psychological distress, and increase their use of mindfulness and acceptance–based skills.

PROJECT ACTIVITIES

PROJECT TEAM AND TEAM OF RESEARCH INVESTIGATORS

Recruitment of the YSAS-based project team was undertaken and comprised a Deakin University Research Fellow, Dr Angela Simpson, and a practice leader, Juliet Hammond. A team of internationally recognised experts were invited to join the research team to design and oversee the study and comprised chief investigators and associate investigators from Deakin University, Newcastle University and the Centre for Social and Emotional Early Development. The team of investigators represented experts in the area of clinical psychology, emotions, addiction, substance use treatment and training fidelity research. The team of investigators designed the research study, oversaw that data collection procedures and choice of data collection measures and regular chief investigator teleconferences were conducted throughout the project to ensure research methodology and implementation of the research protocol were of the highest ethical and scientific standard. The Chief Investigator, Dr Kate Hall, and Deakin Human Research Ethics Committee oversaw the ethical and scientific governance of the research pilot.

Formation of Expert Advisory Group (EAG)

An Expert Advisory Group (EAG) was created with project partners to ensure senior representation on the project and ensure sustainability in the use of ERIC beyond the life of the project. EAG terms of reference included providing expert advice regarding sustainability of capacity development within services, local service knowledge and ongoing troubleshooting throughout the implementation of the project. The EAG included representatives from the Victorian Department of Health and Human Services, Deakin University, YSAS, and CEOs and managers from Grampians Community Health, Nexus Primary Health, Ballarat Community Health, Gateway Health, Primary Care Connect, and Uniting Care. The EAG was chaired by Chief Investigator (KH) and the Project Manager, Dominic Ennis (YSAS).

Recruitment of Youth AoD Practitioners

A systematic communication and engagement strategy was developed to support recruitment and retention of participating agencies and workers in order to mitigate the risk of drop out as the project progressed. Two broad regional areas of Victoria (Hume and Grampians) were the focus of engagement, with agencies with existing partnerships with YoDAA initially approached. Agencies received a formal proposal and information about the ERIC project with a formal invitation from YSAS CEO Andrew Bruun to be involved in the study. Once services agreed to take part, memorandums of understanding (MOUs) were signed.

Youth AoD practitioners who predominantly work with youth aged 15 – 25 years were recruited from the 11 participating sites. The participating services included Grampians Community Health, Nexus Primary Health, Ballarat Community Health, Gateway Health (Wodonga and Wangaratta), and Primary Care Connect. Nineteen practitioners were recruited for this project and subsequently attended one of the three scheduled workshops. Before attending the ERIC workshop, all practitioners received a plain language statement outlining what involvement in the research project consisted of, before providing their informed consent to partake. They were advised that participation in the research was voluntary, and they were free to withdraw at any time without any negative consequences.

Training and Coaching

ERIC's implementation and training model was informed by a systematic review of the most effective methods for implementing Motivational Interviewing in the AoD sector, conducted by some of the ERIC chief investigators (Hall, Staiger, Simpson, Best, & Lubman, 2016). The training and implementation model included a one-day workshop, a 12 week coaching period and a competency-based approach to assess intervention adherence and fidelity. The evidence-based training methods used in the project strived to achieve enduring practice change, thus increasing the chance of young people receiving an evidence based intervention and in turn achieving positive outcomes.

Participating youth AoD practitioners were intensively trained in the delivery of ERIC and supported in implementing the intervention by receiving coaching and feedback from an experienced ERIC coach. The training was conducted by the developers of ERIC, Kate Hall and Angela Simpson. Training was piloted with 5 youth AoD practitioners from YSAS, before two 1-day training workshops were conducted in Stawell and Benalla. The full day workshops involved an orientation to the research protocol including the process of obtaining informed consent from young people to take part in the study. Orientation to all online resources housed on the 'My ERIC' google site and an online discussion forum was conducted. The training workshop also provided an overview of the theoretical underpinnings of the ERIC intervention, and an opportunity for experiential learning through facilitated delivery of the ERIC clinical materials.

During the 12-week period following training, practitioners took part in fortnightly telephone-based coaching sessions with an experienced ERIC coach (Angela Simpson and Bonnie Berridge). Initial piloting with the YSAS cohort and feedback from the EAG determined that individualised phone coaching resulted in the highest adherence and attendance. This method was supported by senior managers because it posed the least interruption to service delivery and reduced unnecessary travel time to participate in training activities.

During the individual coaching sessions practitioners were able to discuss case-based examples of their use of the ERIC worksheets and processes, with the coach providing guidance about possible worksheets to deliver. Sessions also involved troubleshooting any difficulties the practitioner had in delivering the materials. Coaching sessions also allowed any difficulties with recruiting young people to the study to be addressed. Halfway through the coaching period, practitioners were invited to submit an audio recorded role play or a session with a young person to allow their coach to listen to the session and provide personalised feedback about their use of the resources. These methods are broadly considered gold standard training methods to ensure implementation fidelity.

Recruitment of Young People

The participating youth AoD practitioners were asked to recruit any of the young people they were working with aged between 16-25 years to the study. To assist with overcoming any uncertainty or reluctance about how to recruit young people, a research assistant (Emily Gordon) visited participating sites in the Grampians region to facilitate this process. Additionally, weekly newsletters were circulated to encourage practitioners to continue inviting young people to sign up to the study, with a tally of number recruited for each service updated each week.

DATA COLLECTION AND METHODS

Procedure and Measures

The current feasibility pilot is a mixed methods design collecting quantitative and qualitative data from both youth AoD practitioners and the young people with whom they work. In addition to providing basic demographic information, practitioners and the young people were asked to complete a number of questionnaires at baseline and at 6 weeks after the end of the training and coaching period. Questionnaires completed by practitioners *and* young people covered the areas of: emotion regulation (Difficulties of Emotional Regulation Scale-16 [DERS-16]; Bjureberg, et al., 2015, acceptance and experiential avoidance (Acceptance and Action Questionnaire [AAQ-II] Bond et al., 2011), and mindfulness (Cognitive and Affective Mindfulness Scale [CAMS-R] Feldman, Hayes, Kumar, Greeson & Laurenceau, 2007). Additionally, at baseline and post-intervention, young people completed questionnaires addressing: drug and alcohol use (Alcohol Use Disorders Identification Test Consumption [AUDIT-C] Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998; NIDA-Modified ASSIST, National Institute on Drug Abuse, 2015), and psychological distress (Depression, Anxiety and Stress Scales [DASS-21] Lovibond & Lovibond, 1995).

Before the 1-day workshop, practitioners submitted an audio-recorded role play, and an audio recorded session with an existing client who had given informed consent, providing a snapshot of how practitioners worked with young people prior to using the ERIC resources. Following the workshop, practitioners were encouraged to invite all new and existing clients on their case load to take part in the research. Eligibility criteria included: young people aged between 16 and 25 years, capable of giving informed consent with no severe cognitive impairment, no acute crisis presentation, not

currently homeless, psychotic, or actively suicidal. Young people were advised participation was voluntary, with no negative impact to their treatment or relationship with the worker or service if they declined. Baseline questionnaires were then completed by the young people, facilitated by the practitioner.

Practitioners submitted additional audio recordings of role plays and ERIC sessions with young people as a measure of fidelity halfway through the coaching period, and six weeks after coaching had ended. The follow-up audio recordings were rated by researchers using an adherence and competence scale developed for this intervention. The follow-up battery of questionnaires were completed by practitioners six weeks after coaching had ended, and their feedback on the acceptability and feasibility of the resources was obtained.

Six weeks following the end of the coaching period, a research assistant (EG) contacted the young people who had participated in the study by via phone or email to re administer the battery of questionnaires. Successful completion of follow up measures resulted in young people receiving a $20 Coles Myer gift card.

RESULTS

YOUNG PEOPLE

Participants were young people aged between 16-25 years who were receiving treatment at one of the participating regional or metro youth alcohol and other drug (AoD) and/or mental health services. Fifty six young people receiving AoD treatment were recruited, completing the baseline questionnaires. Of these, 31 (55.4%) completed the treatment program and follow up assessments. This attrition rate is in accordance with that of research conducted with this population. Of the participants who completed the intervention, 19 (61.3%) were female, 10 (32.3%) were male and 2 (6.5%) identified as other. The mean age of participants was 19.7 years (SD=2.9). The majority of participants were born in Australia (90.3%) with a small contingent born in New Zealand (3.2%), South Sudan (3.2%) and Malaysia (3.2%). One young person (3.2%) identified as being of Aboriginal or Torres Strait Islander descent. On average, young people had been engaged with their worker for an average of 8.3 months.

Emotion Regulation Outcomes

Figure 1 illustrates that from baseline to six week follow up, young people experienced improvement in emotion regulation across all five domains contained in the DERS-16 questionnaire, including a) their ability to resist acting on a temptation or urge that could result in harm (IMPULSE), b) their ability to behave in a way that is in line with their goals even when distressed (GOALS), c) their ability to use effective and appropriate strategies to manage overwhelming emotions (STRATEGIES), d) the avoidance of emotions (NON-ACCEPTANCE), and e) their awareness of, and ability to recognise, identify and understand emotions as they show up (CLARITY).

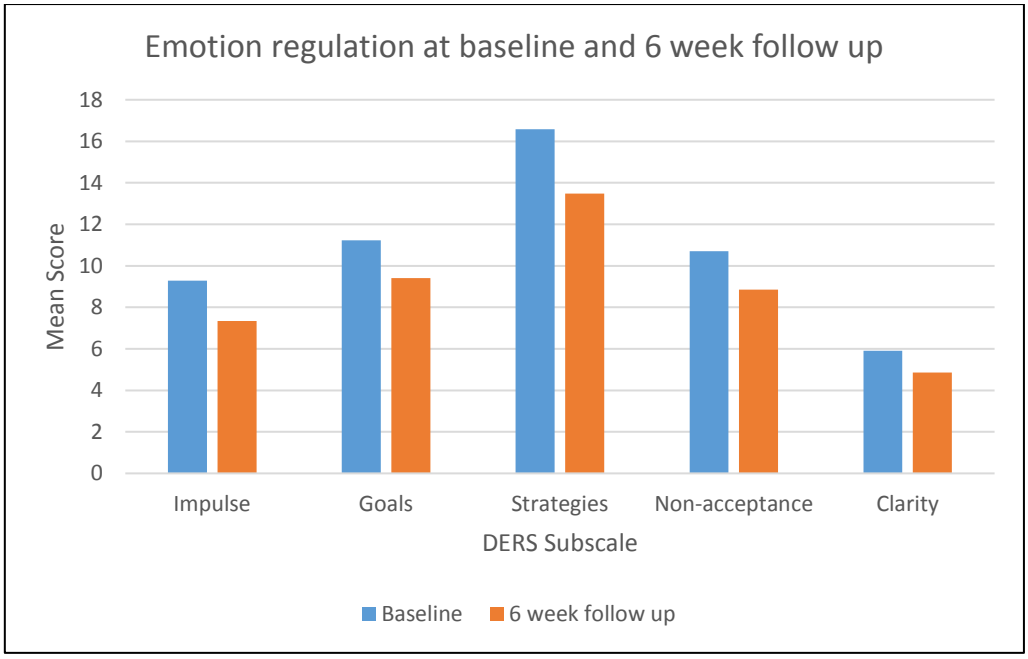


Figure 1. *Changes in emotion regulation in young people from baseline to follow up*

Mindfulness and Experiential Avoidance Outcomes

Figure 2 shows the average score for experiential avoidance and mindfulness across two time points; baseline and 6 week follow up. Experiential avoidance refers to the avoidance of difficult thoughts and emotions, as well as the readiness to take action based on values (AAQ-II; Bond, Hayes, Baer, Carpenter, Orcutt, Waltz, & Zettle, 2011). The mindfulness outcome measure (CAMS-R; Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) reflects participants' ability to direct their attention to the present, and remain aware, accepting and non-judgemental of thoughts and feelings in daily life. As seen in Figure 2, negligible change is apparent for experiential avoidance and mindfulness from baseline to follow up.

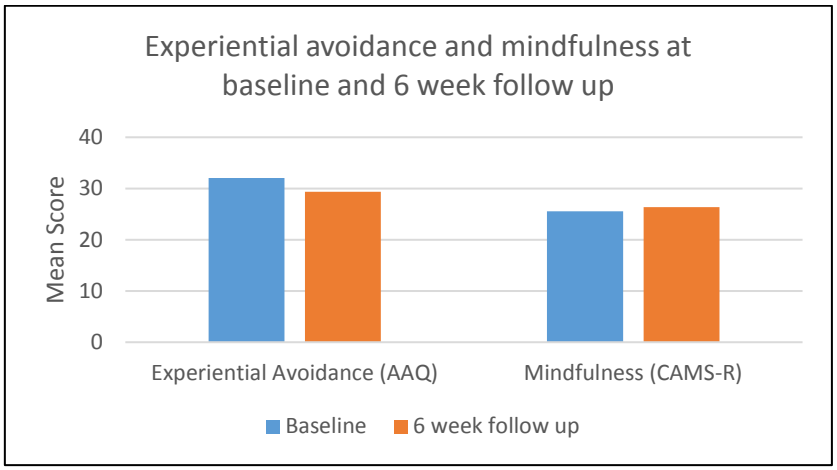


Figure 2. *Changes in experiential avoidance and mindfulness in young people from baseline to follow up*

Psychological Distress Outcomes

Figure 3 shows the average scores for self-reported symptoms of depression, anxiety and stress across the two time points as measured by the Depression, Anxiety and Stress Scale (DASS-21; Lovibond & Lovibond, 1995). Across each domain, there is a decrease in symptoms from baseline to follow up, indicating a reduction in psychological distress.

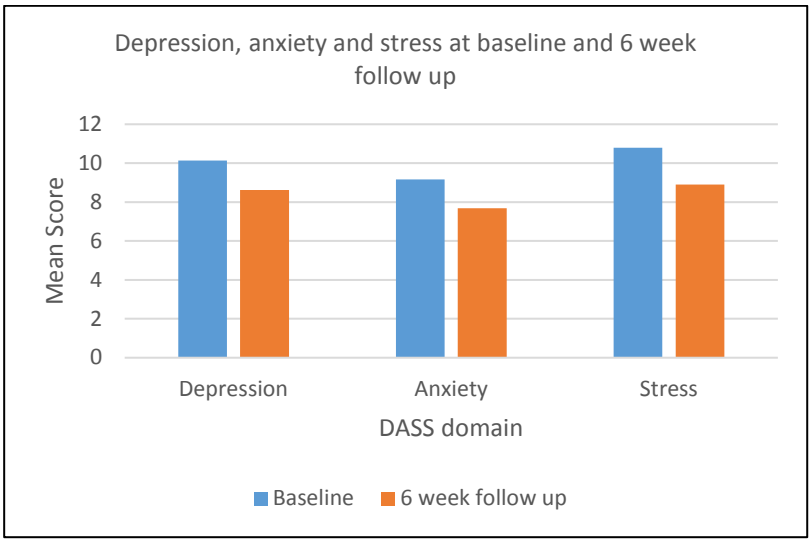


Figure 3. *Changes in depression, anxiety and stress in young people from baseline to follow up*

Drug and Alcohol Use Outcomes

Alcohol and drug use were measured by the Alcohol Use Identification Test- Consumption (AUDIT-C; Bush, et al., 1998) and the National Institute on Drug Abuse (NIDA, 2015) scales. Both of these measure the consumption and/or frequency of alcohol and drug use. As evident in Figure 4, alcohol and drug use frequency increased over the two time points.

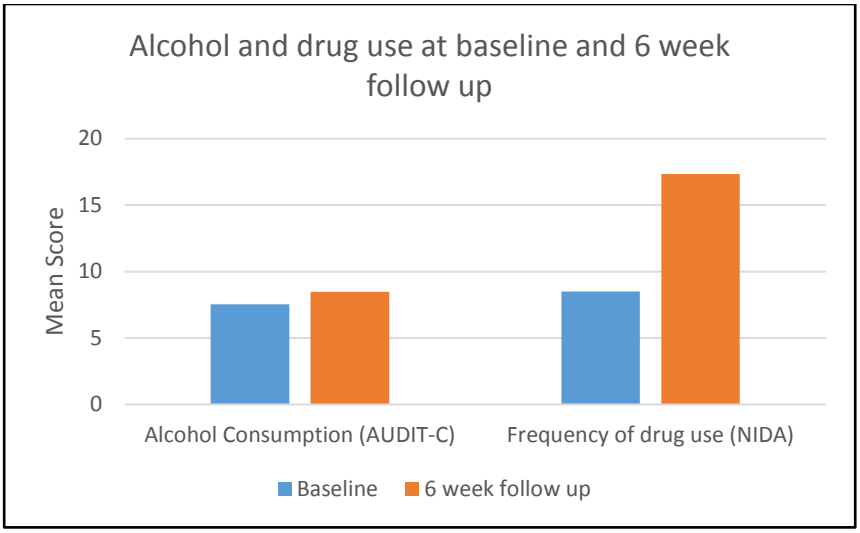


Figure 4. *Changes in alcohol and drug use in young people from baseline to follow up*

Mean differences in outcome measures

Descriptive statistics (mean and standard deviation) for each of the outcome measures are presented in Table 1. Additionally, Table 1 shows the results of Wilcoxon Signed-Ranks Tests conducted to investigate the median differences for each outcome measure at baseline, and at 6 weeks follow up. Effect sizes were calculated based on Cohen's (1998) criteria of .1 = small effect, .3= medium effect, .5= large effect.

Table 1.

Young Person Data: Means, Standard Deviations, Pre-Post Z Scores and Effect Sizes

		Pre-Treatment	Post Treatment		
Variable	N	M (SD)	M (SD)	Pre-Post z score	Cohen's *d*
DERS-Impulse	31	9.3 *(3.2)*	7.3 *(2.4)*	-2.94**	-0.53
DERS-Goals	31	11.2 *(2.7)*	9.4 *(3.3)*	-2.790**	-0.50
DERS-Strategies	31	16.6 *(5.7)*	13.5 *(5.9)*	-3.20***	-0.44
DERS-Non-acceptance	31	10.7 *(4.2)*	8.9 *(3.9)*	-2.46*	-0.49
DERS-Clarity	31	5.9 *(2.2)*	4.9 *(1.9)*	-2.715**	-0.03
AAQ	31	32.1 *(8.7)*	29.4 *(10.5)*	-.16	-0.49
CAMS	31	25.6 *(4.4)*	26.3 *(5.0)*	-.81	-0.15
DASS-Depression	31	10.1 *(4.6)*	8.6 *(5.9)*	-1.63	-0.29
DASS-Anxiety	31	9.2 *(4.2)*	7.7 *(4.0)*	-2.11*	-0.38
DASS-Stress	31	10.8 *(3.6)*	8.9 *(4.1)*	2.75**	0.49
AUDIT	31	7.6 *(3.6)*	8.5 *(3.2)*	-.365	-0.07
NIDA	30	8.5 *(4.7)*	17.4 *(4.9)*	-4.71	-0.86

Note: *p<.05, **p<.01, *** p<.001

A statistically significant improvement in emotion regulation was found following treatment. These improvements were demonstrated across all five DERS domains with medium-large effect sizes, indicating an (1) improvement in the ability to accurately recognise emotions (CLARITY), (2) improved use of effective strategies to control emotions (STRATEGIES), (3) reduction in avoidance of emotions (NON-ACCEPTANCE), (4) improvement in the ability to engage in goal directed behaviour when distressed (GOALS), and (5) better impulse control (IMPULSE). Symptoms of anxiety and stress, as measured by the DASS, improved at follow up with medium-large effect sizes. However, there were no statistically significant improvements in symptoms of depression. There was no statistically significant change in alcohol and other substance use, nor were statistically significant changes observed in experiential avoidance or use of mindfulness.

YOUTH AOD PRACTITIONERS

Nineteen practitioners attended one of the three 1-day training workshops and subsequently enrolled in the study. Seven practitioners withdrew from the study, attributing this to a change in role, insufficient available work time to devote to familiarising themselves with the resources, or difficulty recruiting young people in the target age range for the study. One practitioner was lost to follow up. Eleven (57.9%) completed the delivery of ERIC and the follow up questionnaires. These practitioners comprised of five females (45.5%) and six males (54.5%). The following findings require caution when interpreting, given the small sample size and limited power to detect statistically significant differences between the outcome measures from baseline to follow up.

Figures 5, 6 and 7 provide an overview of the region, sector and workplace of participating practitioners. Figure 5 illustrates that most of the practitioners who completed the training and coaching were located in the Grampians region. Two-thirds of the practitioners were located in the Melbourne metropolitan region. A large proportion of the practitioners (82%) identified as working predominantly in the youth sector (Figure 6), with the large majority of practitioners working in outreach (64%) as indicated in Figure 7.

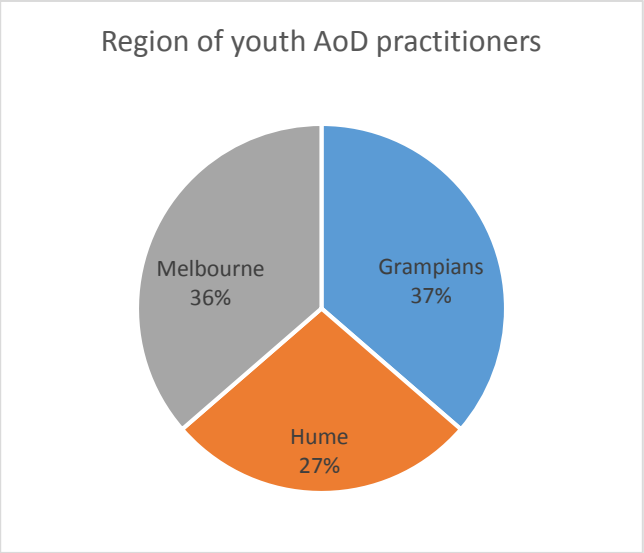


Figure 5. *Region of participating youth AoD practitioners*

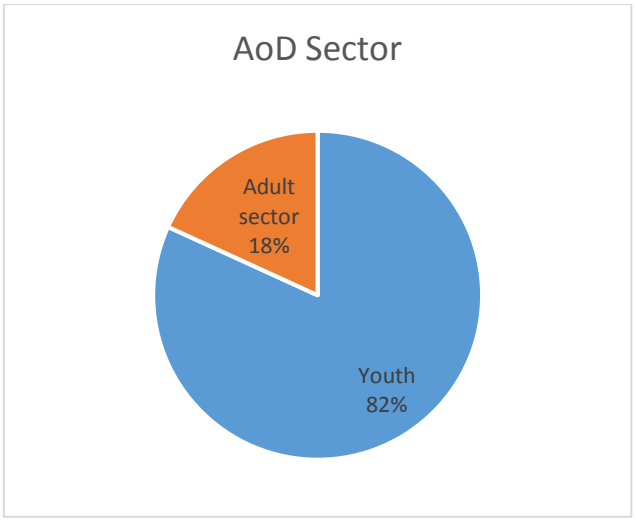


Figure 6. *Sector that practitioners identify working in*

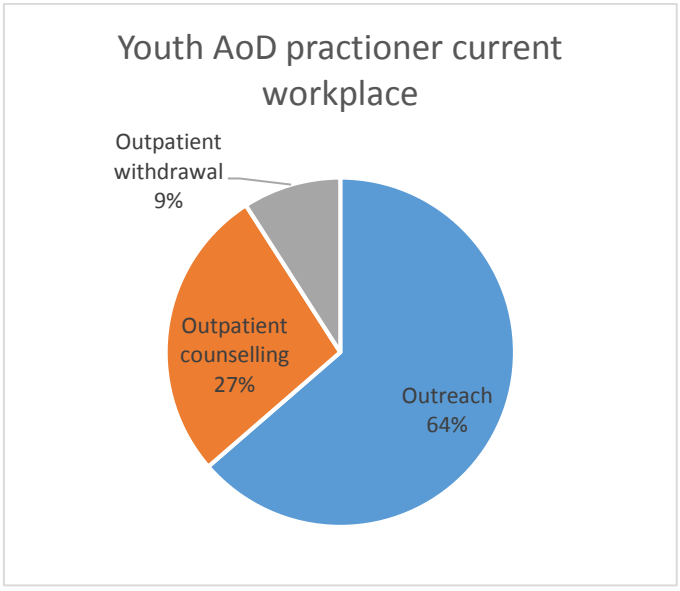


Figure 7. *Workplace of youth AoD practitioners*

The majority of youth AoD practitioners (72.8%) had been working in this field for under three years, with a further 27.3% working in the sector for over five years. In regards to education, three (27.3%) had completed a bachelor's degree, and eight (72.7%) a graduate certificate or diploma.

Emotion regulation outcomes

The chart in Figure 8 illustrates from baseline to 6 week follow up the change in youth AoD practitioners' average scores on the five domains of the DERS: a) their ability to resist acting on a temptation or urge that could result in harm (IMPULSE), b) their ability to behave in a way that is in line with their goals even when distressed (GOALS), c) their ability to use effective and appropriate strategies to manage overwhelming emotions (STRATEGIES), d) the avoidance of emotions (NON-ACCEPTANCE), and e) their awareness of, and ability to recognise, identify and understand emotions as they show up (CLARITY). A trend of decreasing scores can be observed across the two time points in Figure 8.

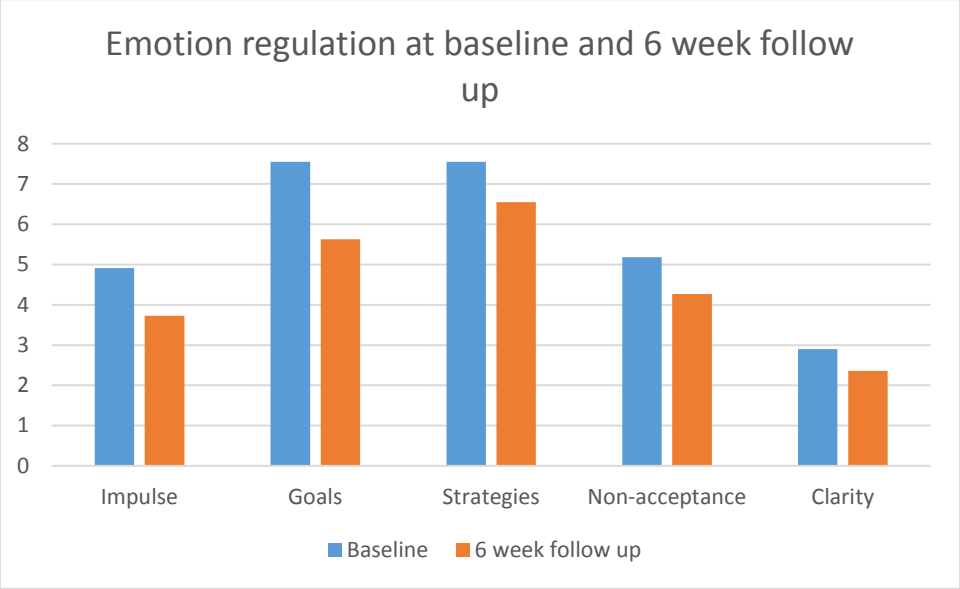


Figure 8. *Changes in emotion regulation in practitioners from baseline to follow up*

Mindfulness and experiential avoidance outcomes

Figure 9 shows the average score for experiential avoidance and mindfulness across two time points; baseline and 6 week follow up for youth AoD practitioners. Experiential avoidance refers to the avoidance of difficult thoughts and emotions, as well as the readiness to take action based on values (AAQ-II; Bond, et al., 2011). The mindfulness outcome measure (CAMS-R; Feldman, et al., 2007) reflects participants' ability to direct their attention to the present, and remain aware, accepting and non-judgemental of thoughts and feelings in daily life. Negligible change is apparent for experiential avoidance and mindfulness from baseline to 6 week follow up

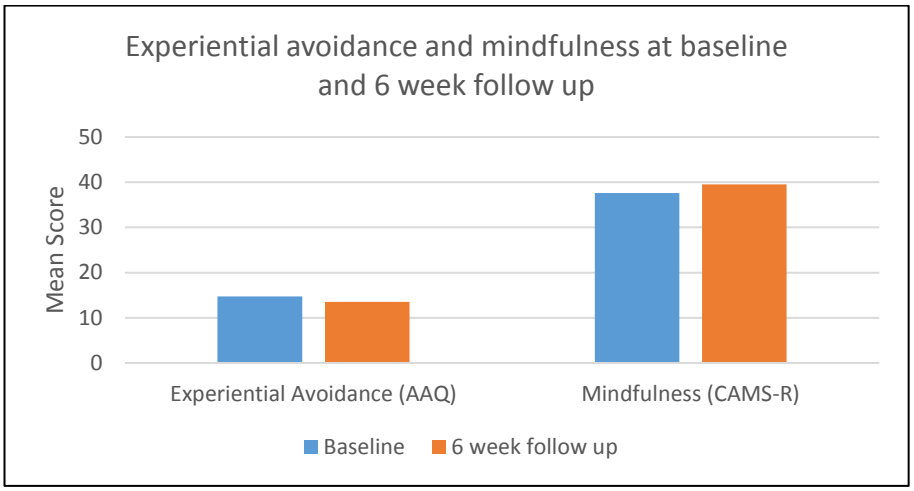


Figure 9. *Experiential avoidance and mindfulness in practitioners from baseline to follow up*

Mean differences in outcome measures for youth AoD practitioners

Descriptive statistics (mean and standard deviation) for each of the outcome measures are presented in Table 2. Additionally, Table 2 shows the results of Wilcoxon Signed-Ranks Tests conducted to investigate the median differences for each outcome measure at baseline, and at 6 weeks following treatment. Effect sizes were calculated based on Cohen's (1998) criteria of .1 = small effect, .3= medium effect, .5= large effect.

Table 2.

Youth AoD Practitioner Data: Means, Standard Deviations, Pre-Post Z Scores and Effect Sizes

		Pre-Treatment	Post Treatment		
Variable	N	M (SD)	M (SD)	Pre-Post z score	Cohen's *d*
DERS-Impulse	11	4.9 *(2.5)*	3.7 *(1.2)*	-1.49	-0.45
DERS-Goals	11	7.6 *(3.7)*	5.6 *(2.3)*	-0.51	-0.15
DERS-Strategies	11	7.6 *(3.3)*	6.6 *(2.6)*	-1.16	-0.35
DERS-Non-acceptance	11	5.2 *(3.5)*	4.3 *(1.6)*	-0.74	-0.22
DERS-Clarity	11	2.9 *(1.3)*	2.4 *(0.8)*	-1.86	-0.56
AAQ	11	14.7 *(7.9)*	13.5 *(7.2)*	0.61	-0.18
CAMS	11	37.6 *(6.0)*	39.5 *(6.4)*	0.26	-0.08

Table 2 indicates that there were no significant differences in emotion regulation, experiential avoidance, or mindfulness observed at follow up for practitioners.

Qualitative Feedback from Participating Youth AoD Practitioners

Qualitative findings from the project highlighted the acceptability of ERIC to practitioners who participated in the program. A large proportion of practitioners who participated in the study experienced ERIC as a resource which was *"sensible"*, *"easy to use and understand"* and *"straight to the point"*. This is highlighted by one practitioner who stated that:

> *"ERIC contained easy to use tools, worksheets, language and frameworks for working with young people with dual diagnosis and complex presentations."*

Practitioners experienced the ERIC coaching as an important component of the program which assisted them in applying the concepts that they had learnt. For example, practitioners stated that:

> *"The ERIC coaching has given me a chance to reflect on how I work, and think about which worksheets to use, and how to introduce them. I've felt really supported."*

"I found the coaching sessions useful to keep me on track with timelines. I also found the feedback really useful to keep me 'en pointe'; to talk though scenarios for the use of various sheets; and affirming to the areas of practice I'm already doing well in. It's not often that we as workers receive such timely and helpful feedback based on actual observation of our practise - it was a really enjoyable process!"

"I would like to thank <coach's name> as I found her coaching great and the conversations/ideas beneficial. She provided some great constructive criticism which I feel is needed to further enhance ERIC skills and worker development. I think the coaching is important for workers commencing ERIC and while some workers may feel they are being 'assessed' I think overall they give an opportunity to explore and provide a sense of security while learning."

*"They (*coaching sessions*) were great as a lot of other training just consists of giving you the information without the opportunity to get feedback about skills development while employing the new interventions."*

"Coaching with ERIC felt like great targeted intervention based external supervision. A place to reflect, develop, grow while being validated and supported when trialling the interventions, even when experiencing periods of uncertainty."

"(Coaching allowed me to) *learn about the ways I have avoided my own discomfort in sessions, realising this was helpful to sit through to enable clients to learn more about their own emotion regulation."*

The importance of coaching was also highlighted in workers' competency in delivering ERIC. At the 6 week follow up, all 12 workers who had submitted final audio recorded role plays achieved competency in the use of the ERIC resources. Practitioners acknowledged their discomfort at being asked to submit audio recordings, but acknowledged the benefit of doing so, with some commenting:

"Recordings were uncomfortable to complete, but largely helpful to get rich reflection out of client sessions. Understanding where I could have taken sessions in different directions pertaining to ERIC and counselling more broadly. Avoiding the recordings would have meant missing out on growth as a clinician."

"The opportunity to get coaching and submit audio tapes for feedback, although this made me really anxious, was great. So many times you go to two-day training and then don't use what you've learned. You slip back into what you usually do. The coaching and ongoing support has helped me apply what I've learned and keep challenging myself to sit with the discomfort of trying something new with clients."

The feasibility of ERIC within youth AoD settings was also evident from practitioner feedback, which highlighted the ease with which ERIC was implemented within their service setting. One practitioner stated that *"the use of the worksheets were not time consuming, and thus easy to add into current work practice"*, while another stated that ERIC was *"a great fit to the way [she] worked."* Other comments about the perceived benefit of ERIC to current practice included:

"Being involved in ERIC has given me the opportunity to work with a broader range of clients. I feel confident to work with more complex clients as the materials explain some tricky concepts in a way that is easy to understand."

"I feel more confident to bring up different concepts as I can use the worksheets to back up what I'm saying. It helps give a bit of credibility to the work that I do."

"I enjoyed and valued the structure, how the program added to what I was already doing, the very useful work sheets for clients, and how ERIC tools are used easily by other age groups even though development and research was for youth."

"Clinicians like myself need and crave practical resources and useful data developed out of good research."

All practitioners acknowledged they were very likely (67%) or likely (33%) to continue using the resources in the future, suggesting ERIC will continue to be used in these participating services, suggesting enduring practice change and increasing the likelihood of positive outcomes for young people.

CONCLUSIONS AND RECOMMENDATIONS

The results of the current study are promising in terms of the outcomes for young people. Results indicated statistically significant decreases in severity of anxiety and stress and increases in emotional regulation skills. Specifically, significant improvements were demonstrated on a measure of: (1) the ability to accurately recognise emotions, (2) use of effective strategies to control emotions, (3) reduction in the avoidance of emotions, (4) the ability to engage in goal directed behaviour when distressed, and (5) better impulse control. Importantly, the ERIC worksheets delivered in this study directly target these emotion regulation components, with an acceptance-based stance actively encouraged for workers. The qualitative feedback from workers on the ERIC materials and training and coaching model demonstrated ERIC is both acceptable and feasible and, if seen through to completion, the training model results in participants achieving competency. The pilot results from the present study indicate larger effectiveness studies of ERIC are warranted. Although not significant, the trend toward an increase in substance use in young people was concerning. However a review of the data collection methods identified a potential bias in the reporting of substance use. At baseline, the AOD practitioners administered the survey measures to young people. Whereas at 6 week follow up, substance use was measured via email with an anonymous survey link. It is highly probable, therefore, that young people under reported their substance use at baseline, when responding to questions from their practitioner.

No statistically significant changes were found in the outcome data for practitioners in terms of emotion regulation, mindfulness, or experiential avoidance. While the observed average scores on each of the DERS domains changed in the desirable direction, this was not statistically significant. It could be argued that practitioners already scored well in emotional regulation and might not have been motivated to engage in their own learning of new emotion regulation habits and skills if they were not experiencing a detrimental impact. It is important to note that results must be interpreted with caution, given the small sample size of practitioners (n=11) and reduced power to detect statistically significant differences.

Importantly, all of the practitioners who completed the training and coaching period were able to achieve competence as assessed by the bespoke adherence and competence scale created to assess the fidelity of ERIC when delivered by practitioner. Additionally, based on the qualitative feedback from practitioners, it is evident that the ERIC resources are acceptable for use in the delivery of skills-based training to young people seeking help for substance use issues in regional settings. The coaching

aspect of the training and implementation model was also received positively by the youth AoD practitioners, with an acknowledgement that this supported their use of the materials, potentially contributing to enduring practice change beyond the project. These data are encouraging, however, the high attrition rate of AoD practitioners from the project is problematic. The AoD workforce is traditionally challenging to train due to complex and varied roles, a high turnover of staff and competing work demands and limited resources.

An aim of the ERIC feasibility and acceptability pilot in regional Victoria, was to improve the reach, efficiency and effectiveness of regional youth AoD services by building workforce capacity to consistently deliver ERIC. At completion of this project, an important conclusion is that capacity development in the youth AoD sector is very difficult. In spite of top down and bottom up project management strategies to mitigate the risk of practitioner drop out, there was still significant attrition (42.1%). The majority of reasons for practitioner withdrawal were reported as insufficient time available to dedicate to increasing familiarity with the resources, despite organisational support in the form of CEO representation on the EAG, and team managers agreeing to allow practitioners time to be involved in the project.

ERIC is an intervention created specifically for youth AoD practitioners, developed through an iterative process of piloting and feedback from young people seeking treatment for AoD issues and their practitioners. In spite of this, it was difficult to engage all participants in fortnightly coaching sessions, with less than half of the practitioners completing all 6 of the offered sessions. Moreover, it was difficult to engage practitioners in the research component of the project. Practitioners were asked to recruit all eligible young people on their case load. However, there were significant barriers to recruitment, such as lack of confidence to introduce research, fears about possible ruptures to rapport, and uncertainty about how to administer the research protocol. While measures were taken by the research team to address this, by providing comprehensive protocol training and a research assistant support to workers, this resulted in a relatively small number of young people recruited to the project (n=56). The difficulties experienced while conducting this project highlight the challenges associated with conducting real world research in the youth AoD sector.

Currently, young people with multiple and complex needs do not have their emotion regulation needs met through standard psychosocial interventions in youth services. ERIC provides a model of care that meets this gap by building capacity to empower practitioners to address emotion regulation skills in young people with multiple and complex needs. However, while practitioners' qualitative feedback supports the feasibility and acceptability of ERIC, attrition rates in training need to be addressed in order for ERIC to be sustainably implemented in youth AoD services.

LIMITATIONS

Due to the small sample size of young people and practitioners, all results need to be interpreted with caution. Self-report measures of emotion regulation and substance use are subject to bias in participant reporting. Future research into the effectiveness of ERIC is required with large sample sizes and more objective measures of emotion regulation skill development.

RECOMMENDATIONS

The project builds on the significant development work and piloting that has already been undertaken regarding the ERIC intervention. Results of the feasibility and acceptability study in regional Victoria support the feasibility and acceptability of ERIC as an intervention that can target emotion regulation within complex populations of young people who have multiple and complex mental health and

substance use needs. This indicated the ERIC intervention warrants further investigation and application in the youth AoD field, applying a training and coaching model that supports practitioners in the aim of achieving enduring practice change.

REFERENCES

Aldao, A., & Nolen-Hoeksema, S. (2010). Specificity of cognitive emotion regulation strategies: a transdiagnostic examination. *Behaviour Research and Therapy, 48(10)*, 974-983.

Bjureberg, J., Ljótsson, B., Tull, M.T., Hedman, E., Sahlin, H., Lundh, L-G., Bjärehed, J., DiLillo, D., Messman-Moore, T., Gumpert, C.H., & Gratz, K.L. (2015). Development and validation of a brief version of the difficulties in emotion regulation scale: the DERS-16. *Journal of Psychopathology and Behavioral Assessment*, 1-13.

Bond, F.W., Hayes, S.C., Baer, R.A., Carpenter, K.C., Guenole, N., Orcutt, H.K., Waltz, T., & Zettle, R.D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42,* 676-688.

Bradley KA, Bush K, Davis TD, Dobie DJ, Burman ML, Maynard CM, & Kivlahan DR. (2003). Two brief alcohol screening tests from the Alcohol Use Disorders Identification Test (AUDIT): validation in a female VA patient population. *Archives of Internal Medicine, 163*, 821–839.

Bush K, Kivlahan DR, McDonell, MB, Fihn SD, & Bradley KA. (1998). The AUDIT alcohol consumption questions (AUDIT-C): an effective brief screening test for problem drinkers. *Archives of Internal Medicine, 158*, 1789-1795.

Department of Health, Commonwealth of Australia. (2012). *The roadmap for national mental health reform 2012–2022: An initiative of the Council of Australian Governments*. Retrieved from: https://www.coag.gov.au/sites/default/files/communique/The%20Roadmap%20for%20National%20Mental%20Health%20Reform%202012-2022.pdf.

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J-P. (2007). Mindfulness and emotion regulation: the development and initial validation of the cognitive and affective mindfulness scale-revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment, 29*, 177-190.

Gratz, K.L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26, 41-54.

Hall, K., Staiger, P. K., Simpson, A., Best, D., & Lubman, D. I. (2016). After 30 years of dissemination, have we achieved sustained practice change in motivational interviewing? *Addiction*, *111*(7), 1144-1150.

Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *The Psychological Record*, 54, 553-578.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York, NY, US: Guilford Press.

Lovibond, P.F., & Lovibond, S.H. (1995). The structure of negative emotional states: comparison of the depression anxiety stress scales (DASS) with the Beck depression and anxiety inventories. *Behaviour Research and Therapy, 33,* 335-343.

National Institute on Drug Abuse. (2015). *APA Level 2 substance use screen adapted NIDA-modified ASSIST*. Accessed 23 February 2016. <https://www.drugabuse.gov/nidamed-medical-health-

professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/american-psychiatric-association-adapted-nida>

Brief Overview of ERIC: Helping young people regulate their emotions and control impulsive behaviours.

What is ERIC?

ERIC is a modular package designed to promote healthy social and emotional development for all young people, by cultivating helpful **E**motion **R**egulation and **I**mpulse **C**ontrol skills. ERIC is appropriate for highly vulnerable young people seeking help in AOD, mental health and primary care settings who present with complex mental health issues such as anxiety, depression, disturbed eating, self-harm and substance use[1,2].

ERIC differs from the existing single disorder intervention packages by targeting emotion regulation and impulse control, two *transdiagnostic* processes that have been implicated in the development and maintenance of broad range of substance use and mental health concerns[3,4]. ERIC has been co-designed and extensively piloted with young people who are service users to ensure that ERIC is acceptable.

ERIC incorporates an implementation model for youth services. This model has been developed to build capacity in all youth sectors, to improve treatment and service efficiency and to aid in implementation fidelity [5,6]. For an overview of the components of the ERIC treatment program and the training and implementation model, see Table 1.

Table 1. *Elements of ERIC*

ERIC treatment program	ERIC training and implementation model
1. 8 ERIC Domains	1. ERIC training workshop
1. ERIC world View 2. Case conceptualisation model	2. ERIC coaching and feedback protocol
3. ERIC intervention outcomes	3. ERIC FaCtS- competency measure
4. 20+ ERIC worksheets	4. Self-directed training materials
5. Four clinical tools	5. Moderated discussion forum 6. Video resources

What does ERIC target?

ERIC builds skills across eight domains (Figure 1). These domains were derived from the empirical and theoretical literature on emotion dysregulation. Each domain targets important processes or strategies to help young people regulate their emotions and control impulsive behaviours. These domains have been operationalised in to 24 qualitative outcomes for young people through extensive piloting of ERIC. The ERIC outcomes are therapeutic intentions, targets or goals that have been defined in meaningful ways to guide young people and clinicians towards targeted skill development.

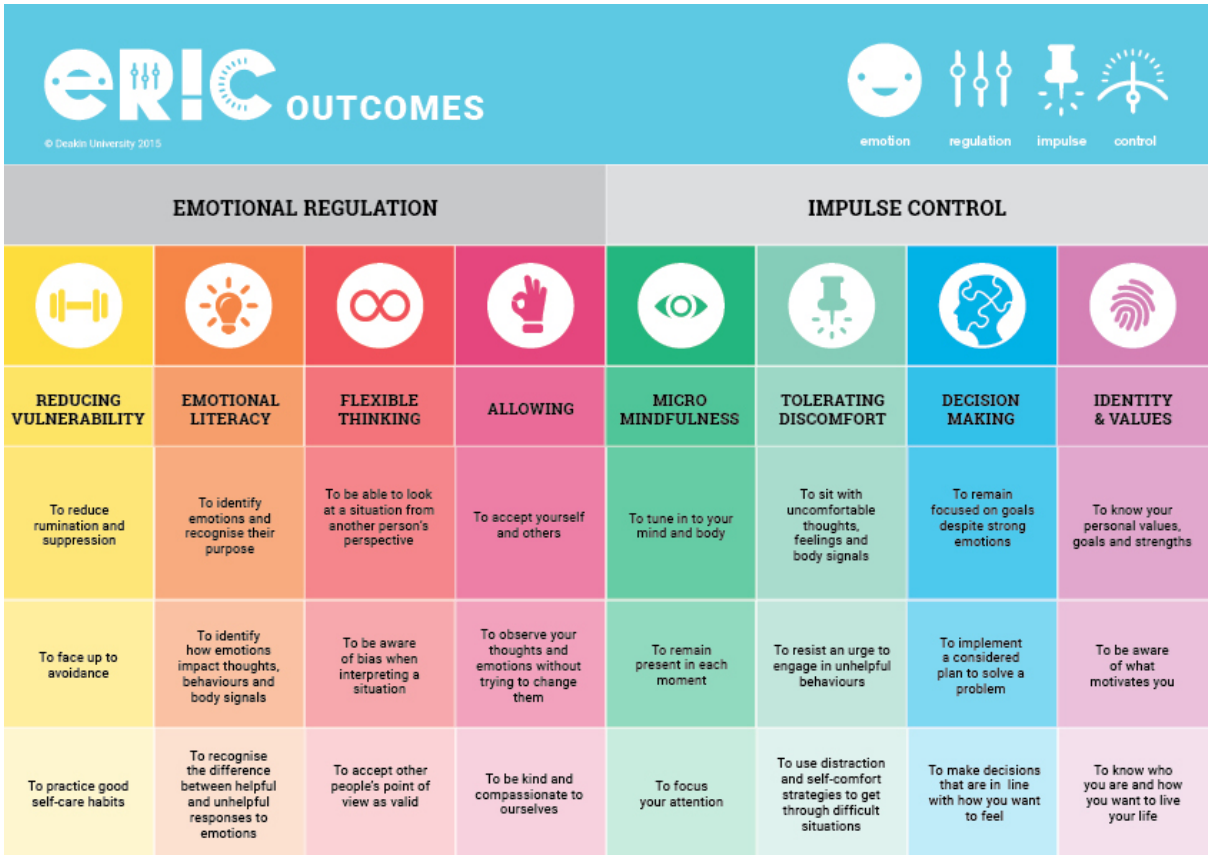
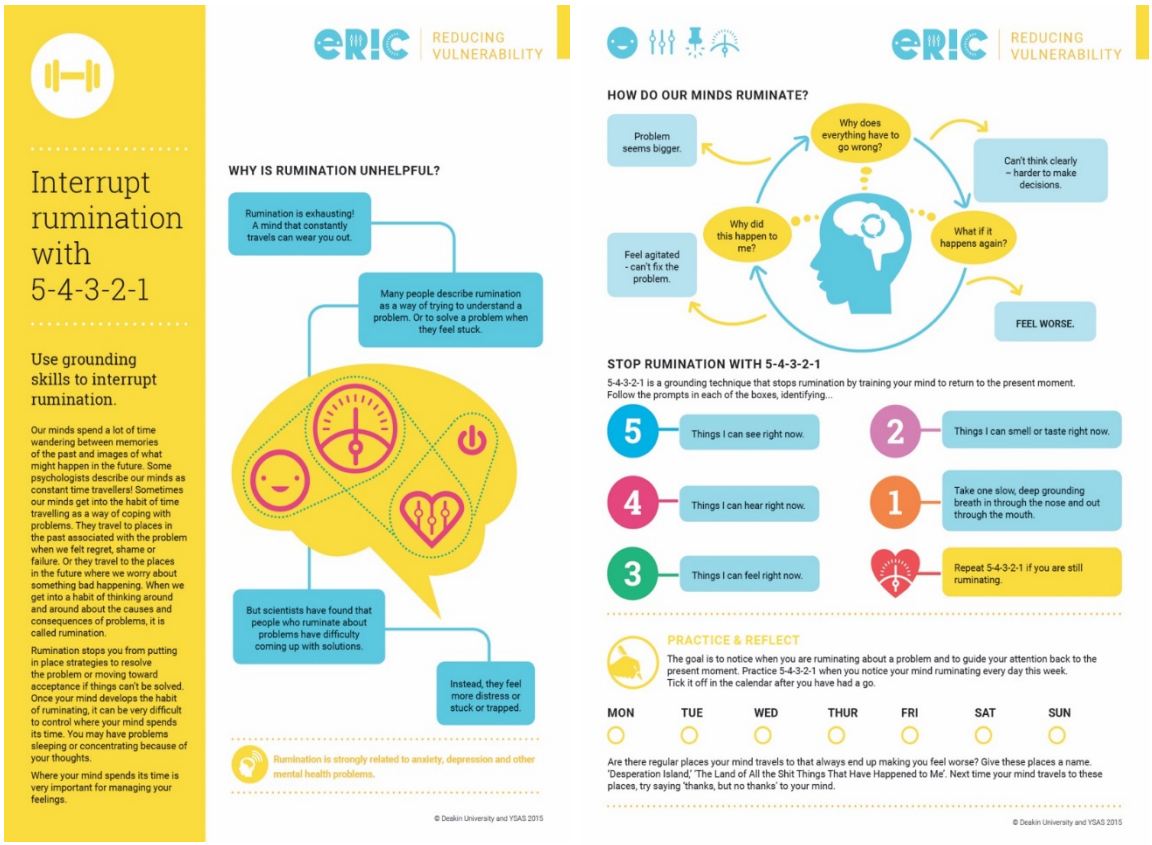


Figure 1. The 8 ERIC domains and outcomes for young people

What are the ERIC resources?

ERIC has 20 worksheets, which target a particular evidence-based process or skill for the 8 domains. Worksheets can be delivered in individual or group based treatment settings and can be flexibly adapted to the setting.

Figure 2. Example of an ERIC worksheet from the 'Reducing Vulnerability' Domain.



Interrupt rumination with 5-4-3-2-1

Use grounding skills to interrupt rumination.

Our minds spend a lot of time wandering between memories of the past and images of what might happen in the future. Some psychologists describe our minds as constant time travellers! Sometimes our minds get into the habit of time travelling as a way of coping with problems. They travel to places in the past associated with the problem when we felt regret, shame or failure. Or they travel to the places in the future where we worry about something bad happening. When we get into a habit of thinking around and around about the causes and consequences of problems, it is called rumination.

Rumination stops you from putting in place strategies to resolve the problem or moving toward acceptance if things can't be solved. Once your mind develops the habit of ruminating, it can be very difficult to control where your mind spends its time. You may have problems sleeping or concentrating because of your thoughts.

Where your mind spends its time is very important for managing your feelings.

eRIC | REDUCING VULNERABILITY

WHY IS RUMINATION UNHELPFUL?

Rumination is exhausting! A mind that constantly travels can wear you out.

Many people describe rumination as a way of trying to understand a problem. Or to solve a problem when they feel stuck.

But scientists have found that people who ruminate about problems have difficulty coming up with solutions.

Instead, they feel more distress or stuck or trapped.

Rumination is strongly related to anxiety, depression and other mental health problems.

© Deakin University and YSAS 2015

eRIC | REDUCING VULNERABILITY

HOW DO OUR MINDS RUMINATE?

Problem seems bigger.

Why does everything have to go wrong?

Can't think clearly – harder to make decisions.

Why did this happen to me?

What if it happens again?

Feel agitated - can't fix the problem.

FEEL WORSE.

STOP RUMINATION WITH 5-4-3-2-1

5-4-3-2-1 is a grounding technique that stops rumination by training your mind to return to the present moment. Follow the prompts in each of the boxes, identifying...

5 Things I can see right now.

4 Things I can hear right now.

3 Things I can feel right now.

2 Things I can smell or taste right now.

1 Take one slow, deep grounding breath in through the nose and out through the mouth.

Repeat 5-4-3-2-1 if you are still ruminating.

PRACTICE & REFLECT

The goal is to notice when you are ruminating about a problem and to guide your attention back to the present moment. Practice 5-4-3-2-1 when you notice your mind ruminating every day this week. Tick it off in the calendar after you have had a go.

MON TUE WED THUR FRI SAT SUN

Are there regular places your mind travels to that always end up making you feel worse? Give these places a name. 'Desperation Island,' 'The Land of All the Shit Things That Have Happened to Me'. Next time your mind travels to these places, try saying 'thanks, but no thanks' to your mind.

© Deakin University and YSAS 2015

Example of ERIC clinical tools.

ERIC Tools have been specifically developed to assist workers to use ERIC in their treatment planning.

ERIC Case Model (Figure 3) contextualises the emotion regulation and impulse control skills in ERIC in the broader social and cultural context. It acknowledges how these skills exist along the developmental continuum for young people.

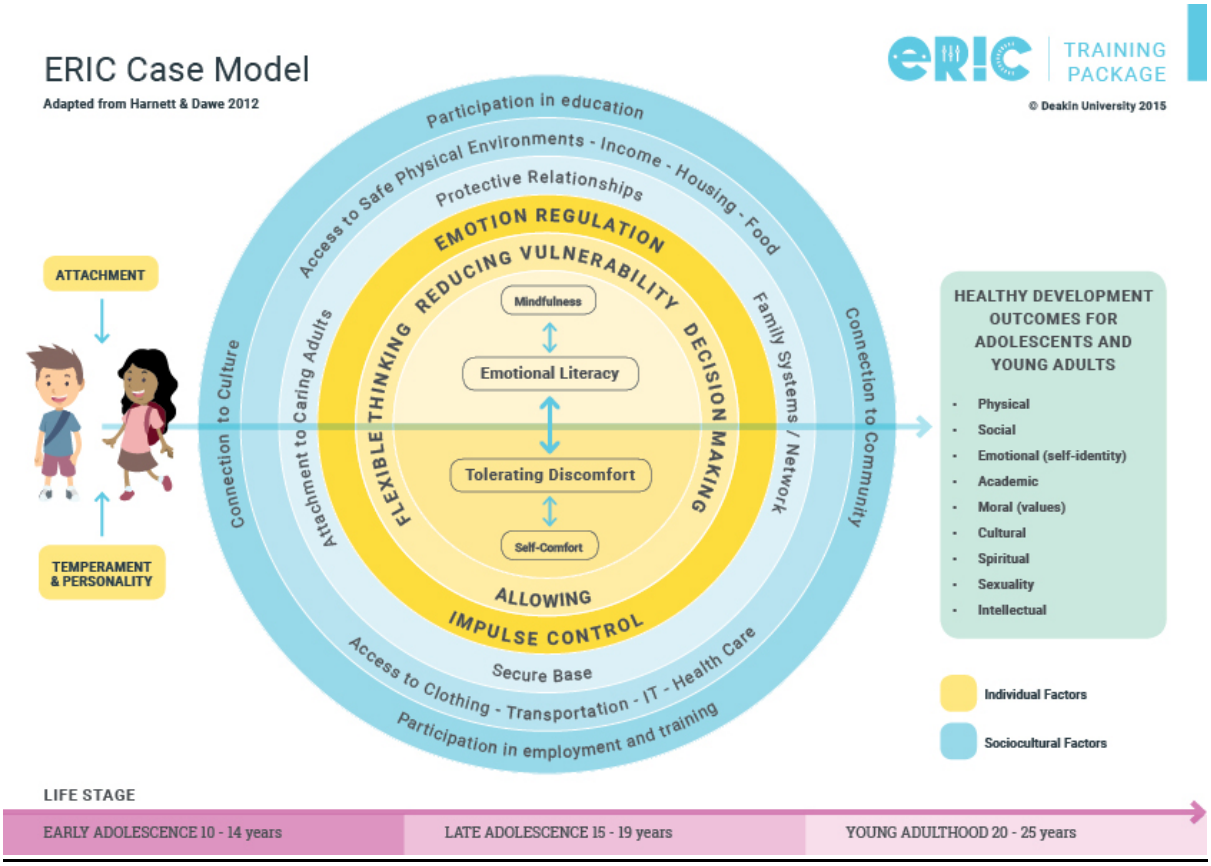


Figure 3. ERIC Case Model

My ERIC Targets (Figure 4) is a clinical tool which can be used to help clinicians identify skill deficits and strengths in emotion regulation and impulse control. It may be completed by the clinician in collaboration with the young person or used by the clinician and/or their supervisor.

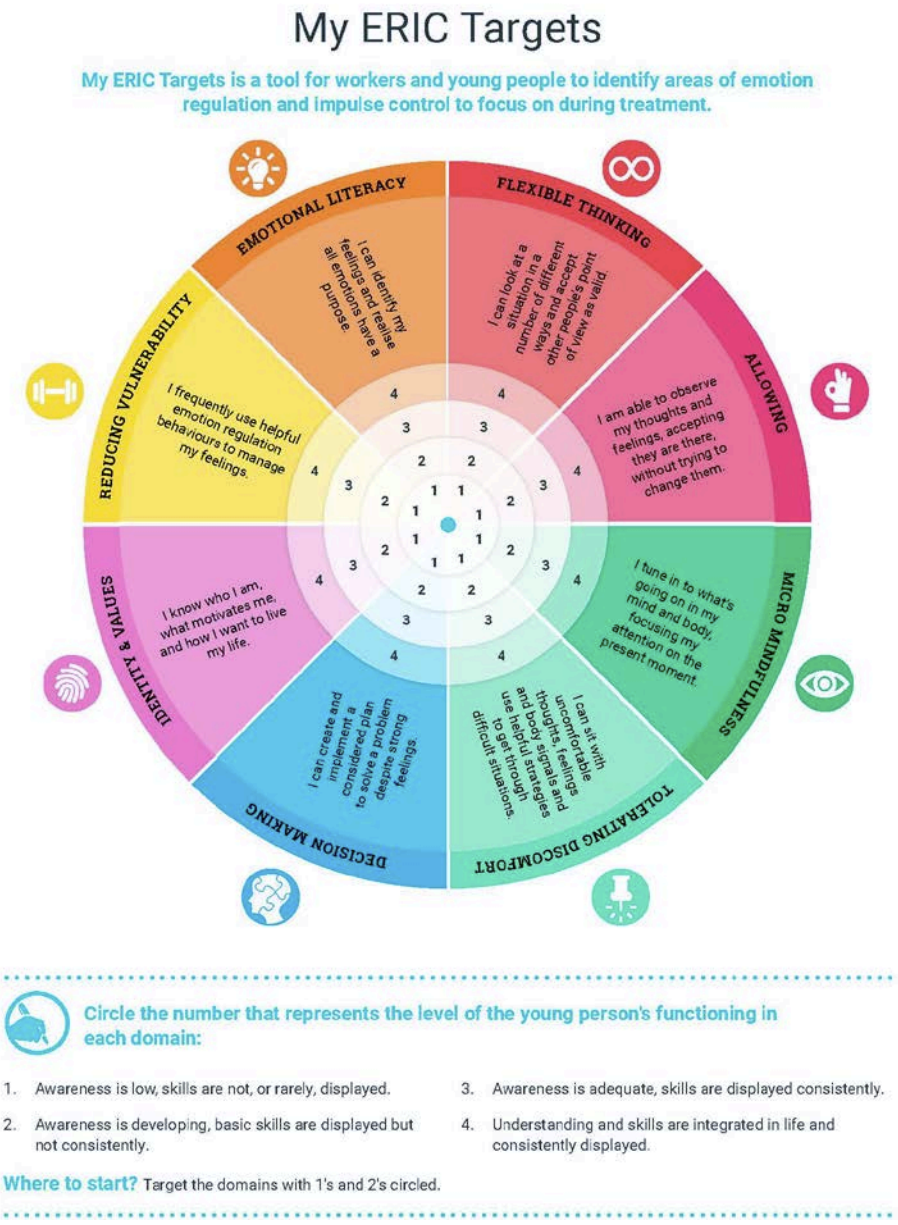


Figure 4. My ERIC Targets

The ERIC Pyramid (Figure 5) summarises the many empirically based strategies and processes targeted in the ERIC domains. ERIC provides psychoeducation, skills training, self-reflection and real world practice to: (1) reduce the use of unhelpful strategies, and (2) increase the use of helpful or adaptive strategies to manage intense emotions and urges to act impulsively.

Figure 5. ERIC Pyramid

The ERIC pyramid emphasises the importance of building a broad base of emotion regulation and impulse control skills that can be used to respond to different contexts and triggers. The Often and Sometimes Strategies are defined and easily referenced in the ERIC Table (Figure 6)

ERIC Pyramid Table

Research has identified the strategies that are the most helpful for regulating emotion.

People who use the Often Strategies to get a handle on their feelings have lower levels of anxiety and depression and are more resilient to stress. People who use the Sometimes Strategies struggle to regulate emotions and have higher rates of anxiety, depression, eating and substance use issues.

STRATEGIES TO USE OFTEN	
Decision Making	Making good decisions involves problem solving skills and awareness of our values and life goals. Keeping our values in mind helps make decisions that 'feel right' and are consistent with our life goals.
Flexible Thinking	Flexible thinking skills help us look at a situation in a number of different ways. Being able to change how we think about a situation changes how we feel about it. Flexible thinking can help us put ourselves in someone else's shoes and accept other people's point of view.
Micro Mindfulness	Mindfulness involves paying attention to each moment rather than operating on 'automatic pilot'. It helps us control our attention so we can focus on the present, instead of on past memories or future worries that trigger unpleasant emotions.
Allowing	Allowing involves being accepting of yourself, others and life. It is a mindset where we allow our emotions to be as they are, without trying to change them. Emotion regulation happens when we let go of emotions instead of struggling against them.
Non-Avoidance	Non-avoidance involves moving in the direction of our goals and values IN SPITE of how we feel. It encourages us to choose how we respond to emotions.
Self-Compassion	Treating ourselves with kindness is essential for emotion regulation. If we can't show self-compassion, it can be hard to comfort ourselves or calm down if we feel distressed.
Self-Comfort	When we comfort ourselves we feel content, safe, protected and cared for. Learning how to calm ourselves down when we feel distressed is essential to regulating emotion.

STRATEGIES TO USE SOMETIMES	
Suppression	Trying to block out thoughts, memories, or images.
Emotional Avoidance	Repeatedly avoiding uncomfortable feelings, emotions, urges, and sensations. Using unhelpful or harmful strategies to avoid these experiences (e.g. using substances, harming ourselves, binge eating or purging, putting ourselves in risky situations, or behaving impulsively).
Behavioural Avoidance	Avoiding important situations or activities because they make us feel uncomfortable.
Rumination	Responding to distress by repetitively focusing on the causes and consequences of problems, rather than moving to active problem solving or acceptance of things that can't be changed.

Figure 6. ERIC Pyramid Table

References

1. Mitchell P, Kutin JJ, Daley L, Best D, Bruun AJ. Gender differences in psychosocial complexty for a cohort of adolescents attending youth-specific substance abuse services. *Children and Youth Services Review.* 2016;68(2016):34-43.
2. Couwenbergh C, van den Brink W, Zwart K, Vreugdenhil C, van Wijngaarden-Cremers P, van der Gaag RJ. Comorbid psychopathology in adolescents and young adults treated for substance use disorders: a review. *Eur Child Adolesc Psychiatry.* 2006;15(6):319-328.
3. Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychological Review.* 2010;30(2):217-237.
4. Kring AM, Sloan DS. *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment.* New York: Guilford Press; 2009.
5. Hogue A, Dauber S. Diagnostic Profiles among Urban Adolescents with Unmet Treatment Needs: Comorbidity and Perceived Need for Treatment. *Journal of emotional and behavioral disorders.* 2013;21(1):18-32.
6. Mills K, Marel C. International Data on the Prevalence and Correlates of Comorbid Substance Use and Psychiatric Disorders. In: Miller P, ed. *Principles of Addition: Comprehensive Addictive Behaviours and Disorders.* Vol 1. Sydney: Academic Press; 2013:481-488.