Using Adventure-based Therapy to Improve Emotional Awareness of Adolescents

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Abstract

Children placed in child- and youth-care centres (CYCCs) have frequently been exposed to maltreatment and trauma. This often leads to negative, challenging and uncontrollable behaviour. In addition, the children usually lack the emotional skills necessary to function effectively. The aim of this quantitative research project, conducted in South Africa, was to investigate whether adventure-based therapy can improve the emotional awareness of adolescents residing in CYCCs. To achieve this, the experimental group was exposed to a 12-week adventure-based therapy programme. The adolescent levels of emotional awareness scale (ALEAS) was used to measure the emotional awareness of respondents using an experimental design (pretest-post-test control group design). The target population was adolescents between the ages of 14 and 18, living in CYCCs. Sixteen female respondents participated in this study. The research results indicated that the experimental group demonstrated a significant improvement ($p < .02$) in their use of more emotive words, their expanded emotional vocabulary and generally higher levels of emotional awareness after the therapy. It is recommended that CYCCs use adventure-based therapy to increase the emotional awareness of adolescents in order to decrease behavioural problems and to improve the children's adaptation to CYCCs.

Keywords: adventure-based therapy; ALEAS; adolescence; child- and youth-care centres; emotional intelligence; emotional awareness

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Introduction

The family should be the source of stability in the lives of children and adolescents because it is the primary source of their identity as well as of their physical, emotional, and social well-being. There are many instances where families, for various reasons, are unable to care for their children and to fulfil their needs. These children may then be removed from their parental care and placed in residential care facilities until the family's circumstances have improved or until the children reach 18 years of age (South Africa 2005).

Adolescents are often admitted to child- and youth-care centres (CYCCs) because they have been abused, and have suffered traumatic experiences and severe neglect; in addition, they experience trauma when they are separated from their parents or caregivers. Such harrowing experiences interfere with the normal development of children and adolescents and may result in behavioural responses such as aggression, avoidance, or dissociation (Music 2011). Placing a traumatised child in a residential setting intensifies the impact on the child who may be re-traumatised because the displacement is often sudden. The situation is exacerbated because the child is obliged to live in an unfamiliar setting with unfamiliar people (Lovelle 2005). Thus it becomes clear why children and adolescents in residential care often present with negative, challenging and uncontrollable behaviour and also lack the necessary emotional skills to deal with their circumstances. CYCCs therefore need to provide support services and specialised programmes to attend to the children who have been damaged socially, psychologically, environmentally and educationally (Rose 2001). Legislation also requires that residential facilities provide therapeutic, educational and other programmes that are appropriate for the developmental needs of children (South Africa 2005).

It is thus clear that children placed in CYCCs need to develop skills which will enhance their socio-emotional functioning (De Waal 2016). In other words, children who have been exposed to maltreatment and trauma need assistance to develop their emotional capacities (Ciccheti and Ng 2014; Music 2011), and it is thus critical to establish programmes to develop these skills.

Petrides, Frederickson and Furnham (2004, 289) state that it is critically important to establish methods to identify adolescents who are at risk of developing problem behaviours and to find strategies to improve such children's behaviour because the problems and trauma of childhood may spill over into adulthood with negative consequences.

Increasing children's emotional intelligence (EI) might help to diminish problem behaviour in adolescents. This is so because children's EI is a strong predictor of their ultimate success – children with a high level of EI are able to understand and regulate their emotions better, engage in empathic relationships with others, make better

decisions, are resilient and adaptive, manage stress more successfully, and handle their circumstances more effectively (Kanoy 2013). Consequently it is important to develop the emotional capacities of the adolescents residing in CYCCs.

Although outdoor adventure education in the form of adventure-based therapy (ABT) can possibly facilitate EI in the short term (Brookes 2003, 50) or longer term (Barwick 2004), it still has to be established whether this can effectively enhance the emotional awareness (EA) (a skill which is fundamental to EI (Lantieri and Goleman 2008)) in children living in CYCCs. No previous studies could be found where ABT was used to improve EA in adolescents in general or adolescents residing in CYCCs specifically.

The purpose of the study was thus to analyse the ability of ABT to improve the EA of adolescents residing in CYCCs.

Literature Study

ABT is defined as the prescriptive use of adventure experiences provided by mental health professionals. It is often conducted in natural settings, and it kinaesthetically engages participants on affective, behavioural and cognitive levels (Gass, Gillis and Russell 2012).

During ABT, the participants are exposed to a variety of physically and/or psychologically demanding outdoor or indoor activities, sometimes in a remote or unfamiliar setting that will stimulate learning in individuals and groups, often with the goal of improving society or communities (Opper et al. 2014). The participants undertake problem-solving activities with tangible outcomes, interact in a natural environment, experience the immediacy of the therapeutic relationship, have the opportunity to disprove negative self-evaluations, taste the success associated with increases in self-efficacy, and feel the power of modelling (Newes 2001). Gass, Gillis and Russel (2012, 59) mention that ABT focuses on engaging participants in activities that challenge dysfunctional behaviour and reward positive behaviour or change.

Because the participants take part in activities in a group and do not have a neutral position during the therapy, their experience of the whole therapeutic process is different from what it would have been if they had been on their own. Each participant is wholeheartedly part of what is happening physically, cognitively and emotionally (Reyneke 2014).

The model of Project Adventure was used during this intervention. By using finely selected activities (Schoel and Maizell 2002), Project Adventure (2002) builds the Adventure Based Counseling Program (ABC) on four basic concepts: challenge by choice; the full value contract; an experiential learning process; and goal setting. Holistically, these concepts form a work procedure to help clients develop and grow.

The concept of challenge by choice gives the group member a sense of physical and emotional discomfort which promotes learning and growth. It provides the opportunity for the participants to step back – when the pressure increases or when their self-confidence is lacking – knowing that there will be future opportunities for growth in this regard. Group members must understand that self-challenge is more important than the end result. The final important characteristic is that there should be mutual respect for ideas and choices among group members (Project Adventure 2002).

The full value contract is perhaps the most important element of an ABT intervention. The contract not only forms a particular part of the unique spirit of adventure-based work, but it is also regarded as a vital element in group work (Zastrow 2009). According to Project Adventure (2002, 6), a good contract will focus on the following aspects:

- Group members are individually responsible for creating safe behaviour, respectful norms and values within which the group can function.
- All group members should commit themselves to these norms and behaviour.
- Group members must accept joint responsibility for maintaining the group norms during the ABT process.

Experiential learning is viewed as the process of learning from experience or learning by doing when there is active engagement between the inner world of the participant and the outer world of the environment. Learning only occurs when participants reflect on the experience; when there is no reflection, the experience will merge with the background and be lost (Beard and Wilson 2013). During this programme the five-step experiential model of Jamison (2007) was used, which includes:

- doing the activity;
- sharing the experiences and observations;
- processing and analysing the experience;
- generalising the learning through connecting the experience with real-world examples; and
- applying what was learned to similar or different situations in practice.

The goals of ABT include, among others: developing psychosocial skills, reducing behavioural problems such as scholastic issues, delinquent behaviour, and substance abuse; assisting individuals with psychosocial problems (internalising and externalising), and enhancing psychological resilience (Bowen and Neill 2013). For the purposes of this study the goal of the ABT group was to enhance the EA of adolescents in CYCCs by cultivating their socio-emotional skills, improving their levels of self-

confidence, developing their emotional self-awareness and enabling them to improve and promote their holistic functioning. With these broader goals in mind, individual goal setting is also important in the group-work process. The facilitator devises goals for the group as a whole and for individual members. During the planning stage the facilitator has to discuss with members what they would like to gain from attending the group sessions (Toseland and Rivas 2005).

EI is described as a social-emotional competency consisting of a set of skills that enables individuals to become aware of, interpret and respond to emotional events experienced by the self and others in such a manner that it facilitates effective outcomes (Wranik, Barett, and Salovey 2007). EI can also be defined as a set of skills that helps individuals identify, appropriately express, and manage their emotions, develop effective relationships, cope with stress, adapt to change, and make more positive decisions (Kanoy 2013). Mayer, Caruso and Salovey (2000, 267) further conceptualise EI as a set of abilities concerned with the regulation, management, control and use of emotions in decision-making, particularly in relation to the promotion of healthy and adaptive mental functioning. EI also involves understanding and managing emotions effectively in order to become more successful as individuals and in interpersonal human relationships.

EI includes the following interacting set of skills (De Waal 2016; Wranik, Barett, and Salovey 2007):

- an awareness of emotions in the self and in others;
- the ability to analyse emotional experiences of the self and/or the other person, which involves prioritising relevant aspects of an event or within the processes in the self, which can then guide behaviour;
- an understanding of emotions and evidence of an emotional knowledge base (This skill entails acquiring an emotional vocabulary and developing cognitive processes involving a hypothetical analysis of emotions to create awareness of general emotional triggers and responses and the effects of emotions. It is affected by the cognitive understanding of emotions which is subject to developmental progress in terms of age and exposure); and
- emotional regulation, including the ability to perceive emotional situations and respond in a favourable manner. (Even though this skill has the most observable and final outcome, the effective management of emotions is unattainable without applying the first three sets of skills.)

The first two skills focus on an awareness of emotions and the subsequent skills involve demonstrating basic knowledge about emotions. The central role of EA in developing EI is evident (De Waal 2016).

A study on the impact of children's exposure to domestic violence on their emotional capacity shows that they lack EA. This is evident because they had difficulty in distinguishing between different emotions, were unable to verbally describe their physical and sensory responses to an emotional experience, and were incapable of recognising their own emotional triggers (Katz, Hessler, and Annest 2007). This study thus confirms that exposure to traumatic experiences inhibits a child's capacity for EA.

EA concerns the extent to which one is in contact with one's own emotions and can distinguish between one's own different emotions and those of others (Knoetze 2013). Bajgar et al. (2005) indicate that EA can be regarded as a combination of self-awareness and social awareness; this sentience plays a central part in the development of emotional competencies.

The awareness of emotions is experienced as a progression through different levels, beginning with physical sensations, a predisposition to certain actions, single emotions, the experience of various emotions and then feeling mixed emotions simultaneously (Bajgar et al. 2005). An enhanced awareness of their emotions enables children to understand a specific feeling, and equips them with the skills they need for introspection so that they can consider their own emotional states (De Waal 2016). Moreover, children become aware that emotional experiences are subject to their own mental representation of events and that representations can be reconstructed in their cognition that will allow them to express and act on emotions more appropriately (Stegge and Terwogt 2007).

Methodology

Research Approach and Design

The research question that directed this exploratory study was to determine whether ABT can be utilised to improve EA in adolescents residing in CYCCs. In order to answer this, a quantitative research approach (Rubin and Babbie 2011) was followed as the research methodology and a quasi-experimental research design were utilised owing to the impracticality of a randomised selection of participants (Rubin and Babbie 2011).

Randomisation was unfeasible as the sample was selected according to specific sampling criteria and not all adolescents in the CYCCs qualified for selection for this programme. The quasi-experimental design consisted of two groups: the control group and the experimental group. Both groups completed the pretest and post-test at the same time (Grinnell, Garbor, and Unrau 2012). After both groups had completed the pretest, only the experimental group was exposed to the ABT programme, after which both groups completed the post-test (Grinnell, Garbor, and Unrau 2012; Rubin and Babbie 2011). The researcher was present during the completion of the questionnaires for the time of the pretest and the post-test.

The Intervention

An ABT programme was specifically developed with the focus on enhancing the EA of adolescents residing in CYCCs. The ABT programme was divided into 11 modules and was presented over a period of 12 weeks in 60–90 minute group-work sessions. Each module consisted of a number of precisely selected ABT activities to support the aim of each specific module. The 11 modules focused on the following aspects: establishing a relationship with the adolescents, teamwork, problem-solving, leadership, communication, decision-making, self-discovery and self-esteem, emotional self-awareness, anger management, stress management and coping skills, and summarising and termination.

Population and Sampling

The population consisted of adolescents residing in CYCCs in the Free State province, South Africa. The participating CYCCs were selected through the application of convenience or availability sampling as other sampling methods were not feasible for the particular type of study and population (Rubin and Babbie 2011). The two CYCCs selected were the most accessible and had a sufficient number of available respondents to meet the requirements of the study.

A non-probability sampling method was utilised to select 16 individuals, i.e. purposive or judgemental sampling, because the respondents were selected by the researcher based on whether they met the criteria required for purposes of the study (Rubin and Babbie 2011). The following criteria were used:

- language: the respondents were Afrikaans or English speaking;
- developmental phase: adolescence (14–18 years of age);
- education: Grade 8 to 12 learners in a mainstream Afrikaans- or English-medium school; and
- programme: the respondents were not involved in any programmes that had similar objectives as the ABT programme during the time of the research.

From this sample, respondents were assigned to the experimental or the comparison group (eight each) by means of systematic sampling (Rubin and Babbie 2011). Individual's names were listed alphabetically and numbers were assigned to each respondent. Every second number on the numerical list was selected and assigned to the experimental or comparison group.

Instrumentation

The data were obtained through a standardised measuring instrument: the Adolescent Levels of Emotional Awareness Scale (ALEAS) (16 items). The ALEAS is intended to

be used for respondents between the ages of 12 and 18 years and was originally developed in English. The Afrikaans translation of the instrument was used (Knoetze 2013).

The participants are asked to read 16 emotional vignettes of two to four sentences each and to then use words to describe their own anticipated feelings as well as those of another person. The 32 self-reported responses are then analysed in terms of the emotional vocabulary used and scored according to the instructions in the manual and the glossary of words (Bajgar and Lane 2003; Bajgar et al. 2005; Lane 1991).

At first the scorer will read through all the responses and score each emotional response out of a possible score of 3. This score is determined by the glossary of words. Non-emotional words obtain a score of 0. Physical reactions obtain a score of 1. Non-specific emotions obtain a score of 2 and specific emotions obtain a score of 3.

Next, the scorer will divide these emotional responses into two groups, namely a self-awareness response and another-awareness response for each of the 16 items. Scoring is based on specific structural criteria that aim to determine the degree of differentiation in the use of emotive words and the differentiation of the self from others. In this task, a score out of a possible four points is awarded for feelings described for "self" and another score out of a possible four points is awarded for feelings described for "other" (Bajgar and Lane n.d.).

The levels of emotional word responses for each participant is then determined. This is also done according to the standardised glossary of emotional words, and words are rated as representing five levels of increasing complexity:

- Level 0 consists of non-emotional responses where the word "feel" is used to describe a thought rather than a feeling and a zero score is recorded.

- Level 1 responses reflect an awareness of physiological cues (for example, "I'd feel tired") and a score of 1 is recorded.

- Level 2 responses consist of words that are typically used in other contexts but are frequently used to convey relatively undifferentiated emotions (for example, "I'd feel bad" or use of the word "feel" to convey an action tendency such as "I'd feel like punching the wall") and a score of 2 is recorded.

- Level 3 responses involve the use of one word conveying typical, differentiated emotions (for example, "happy", "sad", and "angry") and a score of 3 is recorded.

- Level 4, represents the highest score for the "self" and "other" categories and reflects an awareness of two differentiated emotions (i.e. two or more level 3 words are used that convey greater emotional differentiation than either word alone) and a score of 4 is recorded.

- A level 5 response is observed when both "self" and "other" scores are rated as reflecting the highest level of EA (i.e. each being rated as a level 4 response giving two scores of four points), and an extra point is added to give a total score of five for that item. Using this rating scheme, coding of responses only relates to emotional terms used for self and other and does not take into account any reasoning provided for selection of emotional words or grammar used (Bajgar and Lane n.d.).

Scores are thus generated for the multiple constructs (16 items) as well as a single ALEAS score (level of EA of adolescents). Possible scores for each scene range from 0 to 5, consistent with the theory of five levels of EA operationalised by the LEAS. The range of possible scores for the 16 items of the ALEAS is out of 80.

Data Collection Method

Data were collected through a group-administered standardised questionnaire. According to Delport and Roestenberg (2011), the advantage of group-administered questionnaires is that participants complete the measurement instrument under the same circumstances therefore minimising their opportunities to manipulate their feedback. The respondents in the study were residing at two different CYCCs and the group-administered questionnaire was administered to both groups in the same manner. The pretest was completed by the comparison group and experimental group on the same day, and after the pretest the researcher presented the ABT programme to the experimental group. After the completion of the programme, both groups completed the questionnaires as a post-test.

Data Analysis

The change in ALEAS scores of each participant at the end of the study was calculated by subtracting the pre-intervention ALEAS score from the post-intervention ALEAS score for every individual in the experimental and comparison groups. Each participant acted as his/her own baseline and each participant's ALEAS score is assumed to be independent from the others.

A two-tailed independent-sample t-test was used to compare the average difference (post-test minus pretest) between the scores of each respondent. The difference-in-means-scores method, also called the gain or change in scores, was used. The two-sample F-statistic for sample variance of the difference (post-test minus pretest) between the comparison group and the control group was calculated to ensure that the appropriate t-test was used. The t-test is a parametric test that assumes that the sample is large enough to represent the population. It has been found that a sample size of about 30 will fulfil this assumption. Even though this assumption is violated in this study, the t-test is still robust enough to be valid (Salskin 2008).

Since the sample size included only 16 respondents, it was decided to also do a non-parametric alternative for the t-test namely the Mann-Whitney U test. This test compared medians of the independent samples on the change in ALEAS scores for each group. The Pearson's r correlation coefficient was calculated as an effect size. The null hypothesis of no difference between the experimental and comparison groups at a .05 significance level was tested.

The descriptive statistics of the differences between the post-test and pretest for the levels of emotion word responses (see Figures 1 to 6 and Tables 1 and 2) and the levels of EA of adolescents (see Figure 7) were collected.

The sample sizes and the possibility of a non-normal distribution for the gain scores were weighed with using the almost universally understood Student's t-test that makes provision for small sample sizes.

The null hypothesis tested was:

There is no difference in the mean ALEAS gains score between the experimental group and the comparison group other than that due to chance at a .05 significance level.

Internal Validity

When using an experiment, it is important to ensure internal and external validity. In this experiment the following threats to internal validity were considered: historical factors that present themselves between the first and second measurements, selection, pretesting, and the instrument (Maree and Pietersen 2016). No event that could have influenced the dependent variable between the two tests was identified. The population was selected purposefully but the participants taking part in the experiment were selected using systematic sampling to ensure a representative sample and that everyone had an equal opportunity to take part in the study (Rubin and Babbie 2011). It was considered that pretesting might influence the results. Lastly and most importantly, the instrument used in the research could influence the internal validity and reliability of the experiment.

According to Rubin and Babbie (2011), validity and reliability are crucial concepts in quantitative research to avoid measurement errors. Validity refers to the extent to which an empirical measure effectively measures the intended component and adequately reflects the meaningfulness of the concept under consideration (Rubin and Babbie 2011). The ALEAS is a standardised measuring instrument that is intended to measure the levels of EA of adolescents in terms of their ability to be aware of their own emotions, to distinguish between different emotions, and to be able to verbalise their emotions. Reliability can be defined as the extent to which the same results will be obtained from respondents under the same conditions (Rubin and Babbie 2011). Previous studies have proved the reliability and validity of the instrument, indicating acceptable internal consistency (coefficient alpha = .81) and good inter-rater reliability

(r = .84). This instrument had therefore been adequately tested by measuring the levels of EA of adolescents, confirming its validity (Levy et al. 1983; Pratt 2006). The utilisation of the translated version of the ALEAS in this study should not have a considerable effect on the validity and reliability of the measuring instrument as the developers confirmed the effective application of the ALEAS in other languages, such as Knoetze's (2013) successful utilisation of the ALEAS in Afrikaans.

Ethical Considerations

Ethical clearance was granted from the Ethics Committee of the University of the Free State to conduct the research with the following ethical clearance number for this study: UFS-HSD2015/0269. Some of the key ethical issues that were considered will be briefly discussed (Rubin and Babbie 2011).

The respondents were informed about their right to withdraw from the study at any time without any negative consequences. The involved CYCCs were also informed that their participation is voluntary and that the respondents maintained the right to withdraw. The right to withdraw was communicated to the respondents before the completion of the pretest and also stipulated in the informed consent and assent documents. The respondents were also verbally reminded that they had the right to withdraw before starting the post-test. The researcher was not employed at the specific CYCCs and therefore there was no conflict of interest. Since the respondents are minors, it was necessary to obtain informed consent for them to participate in the study from the concerned management boards of the CYCCs, who act in the position of the legal guardian of the respondents.

Research should never injure the respondents being studied (Rubin and Babbie 2011) and special precautions should be taken to avoid any harm to participants. Utmost precaution was exercised to minimise any emotional or physical discomfort of the adolescents and it was verbalised numerous times that the respondents could approach the facilitator at any time if they felt uncomfortable and that the researcher would take the necessary measures to lessen or decrease this discomfort.

Confidentiality was ensured in that the research data could not be linked to any research participant nor would any participant details be disclosed or published (Rubin and Babbie 2011). The researcher was aware of the identity of the respondents as she personally presented the ABT programme. Although anonymity was not ensured, the questionnaires were completed ensuring confidentiality of information. Questionnaires were numerically coded to correlate pretest and post-test data. The details of the involved CYCC's were also not published to ensure privacy and to further protect the respondents' identity.

According to Rubin and Babbie (2011), a critical ethical dilemma in social work research relates to the right of clients in need of services and whether the benefit of improving the welfare of clients on a long-term basis justifies delaying the delivery of

services to some clients in the short term. The control and experimental groups were involved in their normative therapeutic and developmental services as offered by the CYCC in accordance with their individual developmental plan. At the time of the research, neither the control nor the experimental group attended any programmes with similar aims as the ABT group work programme. The ABT programme was presented to the comparison group a few months after the completion of the research project. This was owing to the high caseloads of the researcher at the time.

Findings and Discussion

Biographical Information

The respondents participating in the study were adolescents living in CYCCs in the Free State province, South Africa. The respondents in the comparison and experimental groups were Afrikaans (50%) and English speaking (50%), enrolled in dual medium Afrikaans and English mainstream schools. Their mean age was 16 years (Table 1) and most of the adolescents in the comparison group were in Grade 8, while most of the adolescents in the experimental group were in Grade 9. All the respondents were female since they satisfied the selection criteria.

Table 1: Age of the respondents in years

	Count	*Mean*	*SD*	*Min.*	*Max.*
Experimental group	8	16.125	1.126	14	17
Comparison group	8	16	1.309	14	18
Total	**N = 16**				

SD = standard deviation

Frequency of Emotive Word Responses according to ALEAS Levels of Emotional Value

The following section indicates the number of responses (emotive words) used by the respondents, according to the different levels on the ALEAS glossary of words (Bajgar and Lane 2003; Lane 1991).

Level 0 responses entail words and phrases that do not have any emotional content. Words and phrases that receive a score of zero include: cognitive states, personality characteristics related to cognitive activities, statements of specific cognitive activities, and descriptions of thoughts or impressions that do not state any emotional content. If no response is given to an item, then the word score is also zero (Bajgar and Lane 2003).

During the post-test, the frequency of level 0 responses significantly decreased in the experimental group ($p < .0017$). Since Level 0 consists of the weakest emotive words, a decrease shows a significant improvement in score (Figure 1). If the use of weak emotive words decreases, it means that the participants started to use more words with emotional content, indicating an increase of EA.

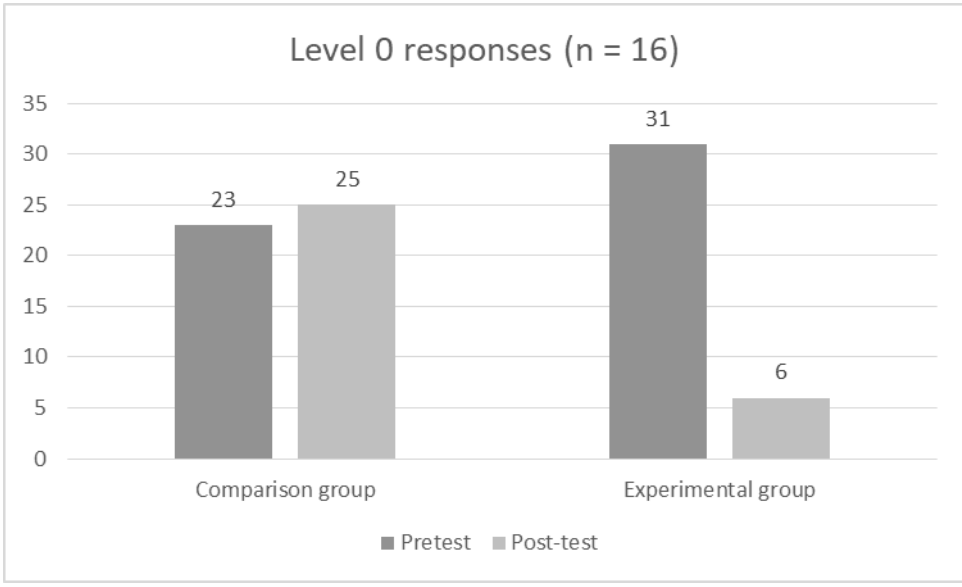

Figure 1: Level 0 responses

Level 1 responses include words or phrases used to describe either a physical or emotional reaction that is used to describe a physical sensation. Responses include words such as feeling pain, being relaxed, feeling sick or statements such as "I would feel nothing", and "I have no idea what I would feel" (Bajgar and Lane 2003, 14).

Level 1 responses in the post-test of the experimental group indicated that there was a slight decrease in the level 1 responses: from 23 in the pretest to 17 in the post-test (Figure 2). A decrease in the level 1 responses in the experimental group is noteworthy when considered within the context of the analysis of the higher level responses, although changes between the mean of the difference (post-test-pretest) scores of the experimental group are not statistically significant ($p = .21$) when compared with those of the comparison group.

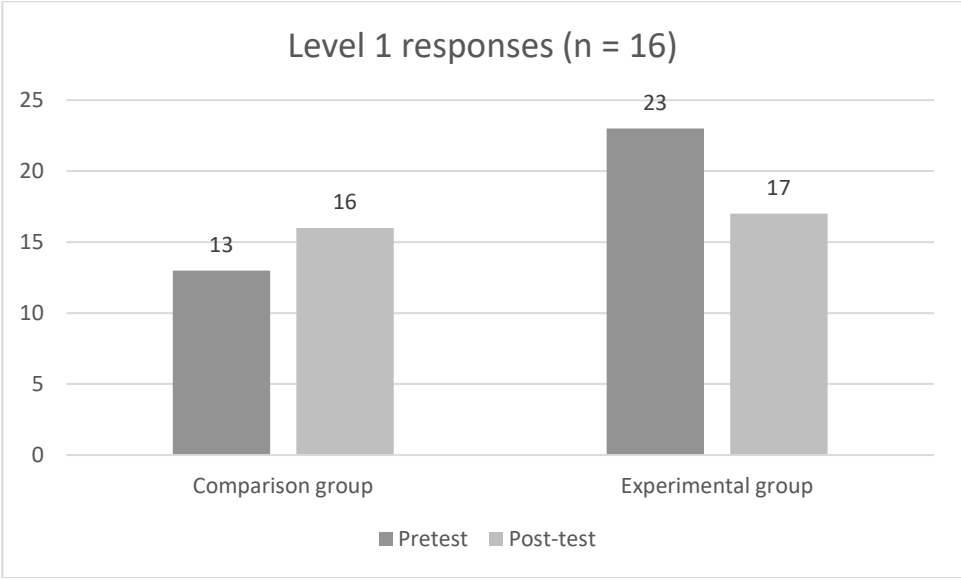

Figure 2: Level 1 responses

Level 2 responses refer to words and phrases describing a non-specific emotional reaction. Words and phrases receiving a score of 2 include: general emotions, non-specific emotions, words with distinct, positive or negative connotations, and words or phrases associated with emotions but which do not convey the specific emotions directly (Bajgar and Lane 2003).

As indicated in Figure 3, the frequency of level 2 responses in the comparison group decreased from 70 in the pretest to 57 in the post-test, while the level 2 responses of the experimental group increased from 73 to 83. The slight decrease in the level 2 responses of the control group could be related to the fact that the level 0 and level 1 responses of the comparison group increased in the post-test. The minor increase in level 2 responses of the experimental group could suggest that their use of higher level emotive words and needs should be interpreted only as a part of the total analysis of the frequencies of responses. The glossary of words regards level 2 responses as more emotional feedback than level 0 and level 1 responses, but still not as excessive as level 3 responses. In order to determine if there is an increase in the participants' EA, an increase in the level 2 responses should be seen. The results indicate that the changes between the mean of the difference scores of the experimental group compared with the comparison group are not statistically significant ($p < .09$) when it comes to level 2 responses.

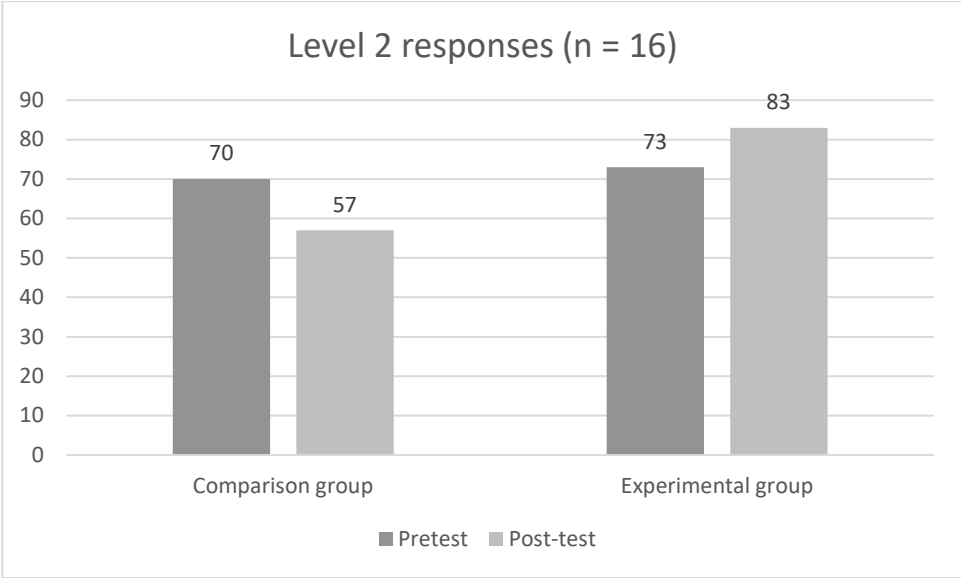

Figure 3: Level 2 responses

Level 3 responses entail words and phrases that describe an emotion precisely by including words that denote a specific emotion, synonyms of specific emotions, words that convey an exchange of emotions between people, complex emotions, and single words that refer to multiple emotions (Bajgar and Lane 2003).

In the pretest, level 3 responses occurred 167 times for the comparison group and 155 times for the experimental group. The comparison group's level 3 responses increased from 167 to 180, demonstrating an increase of 13 responses. The post-test of the experimental group measured 189 level 3 responses, calculating an increase of 34 responses (Figure 4). The greater increase in level 3 responses in the experimental group demonstrates the use of more advanced words and phrases in their emotional vocabulary but the changes between the mean of the difference (post-test-pretest) scores of the experimental group compared with the comparison group are not statistically significant ($p < .09$).

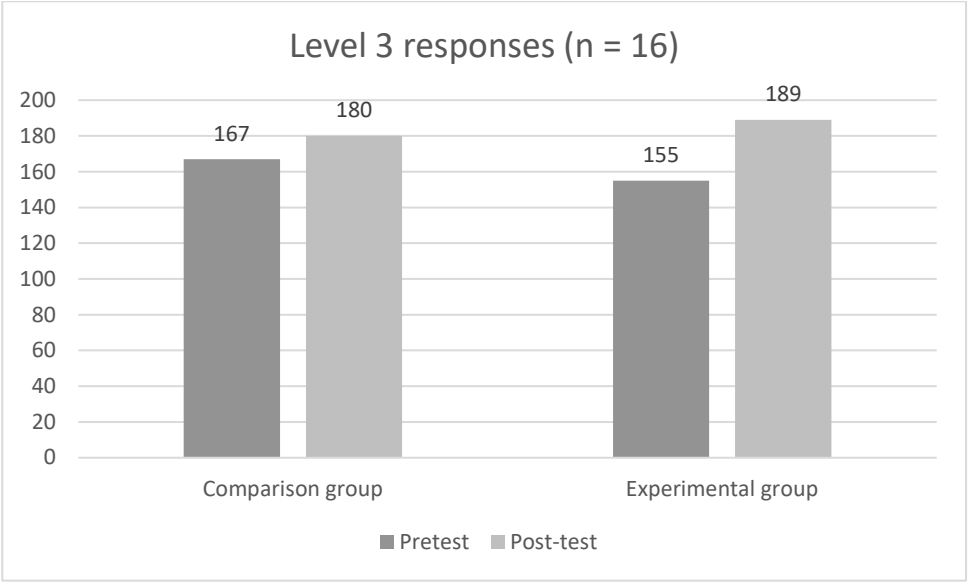

Figure 4: Level 3 responses

A level 4 score is assigned when two or more level 3 words are used in a way that conveys greater emotional differentiation than either word alone. Level 4 responses are not included in the LEAS glossary of words but are regarded as level 3 responses that suggest an understanding of emotional intricacy and EA (Bajgar and Lane 2003).

As indicated in Figure 5, there was a significant improvement of level 4 responses ($p < .001$) in the experimental group. The increase from 18 to 23 responses in the comparison group was, however, fairly minor. The increase of the experimental group's responses from 11 to 44 level 4 responses from the pretest and post-test validates the development of a more complex emotional vocabulary in terms of the combination of a variation of level 3 words and phrases. The increase in the utilisation of level 3 words by the experimental group supported the increase in frequency of level 4 responses, which eventually scored according to the variety of level 3 words used in a specific response. There was a statistically significant increase ($p < .001$) in the mean of the difference (post-test-pretest) score of the experimental group compared with that of the comparison group. This indicates that there has been an improvement in this group's ability to reflect on and express emotional states with combinations of emotive words, therefore indicating enhanced levels of EA and emotional expression. However, it should be noted that the sample size is small and that this could play a role in this result.

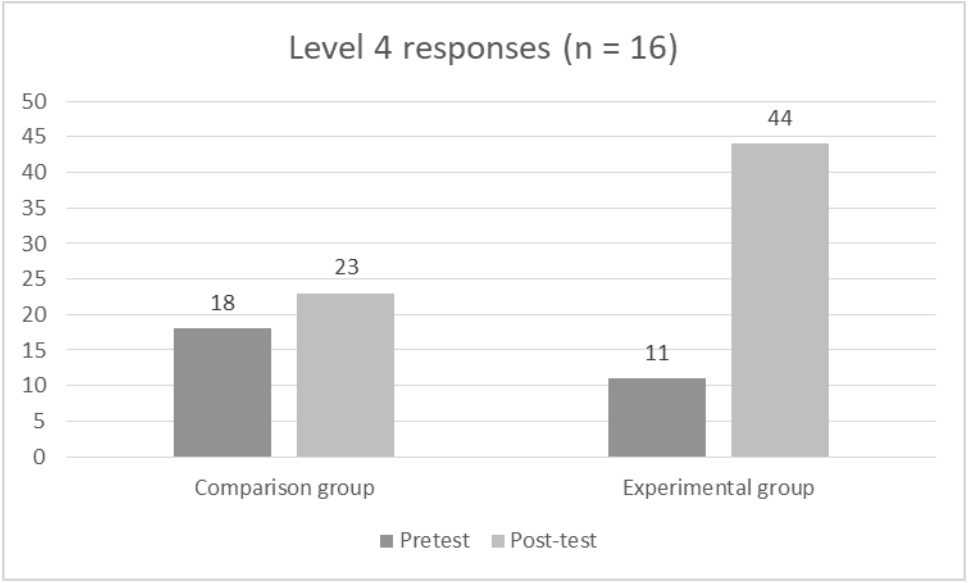

Figure 5: Level 4 responses

In order to understand the scoring system of level 5 responses, it is imperative to remember that each of the sixteen scenarios in the ALEAS questionnaire requires two responses, i.e. how the respondent would feel and how another person would feel. Each question obtains two scores, namely a score for the self (own feelings) and a score for the other (the other person's feelings). Level 5 responses are not scored against the glossary of words provided by the LEAS but are obtained when two level 4 responses are given to a particular scenario, one response to the self and one to another person. In addition, these two responses must be clearly different and distinguishable from each other (Bajgar and Lane 2003, 6).

It was noted that there were a limited number of level 5 responses during the pretest and post-test of both the comparison and the experimental group. The comparison group scored one and the experimental group scored two level 5 responses during the pretest. During the post-test there was a slight increase in level 5 responses, with the experimental group displaying a slight increase in three level 5 responses, compared with the increase of one level 5 response in the control group (Figure 6). A level 5 response includes an empathetic element in which a unique response to the other is required. Although there is only a minor increase in the level 5 responses in the experimental group, it may be assumed that the ABT programme assisted respondents to equip themselves with some empathic skills during the programme but that the gain in scores of the experimental group (compared with the comparison group) is not statistically significant ($p = .41$).

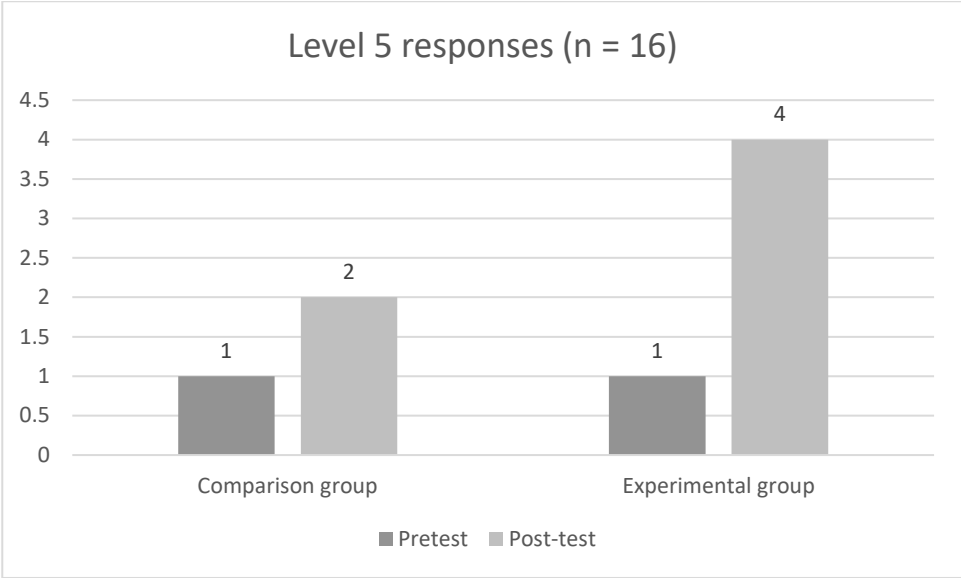

Figure 6: Level 5 responses

Weak and Strong Emotive Words

Ordinary emotive words such as better, good, bad, and glad are defined as weak emotive words as they have a simplified emotional description and form part of daily language. Strong emotive words such as agony, worried, amazed, distressed, and disappointed are more emotionally descriptive and specific, adding a suggestive meaning to a feeling or an emotional experience. The usage of strong emotive words provided an indication of heightened EA (Knoetze 2013).

Weak emotive words decreased from the pretest to the post-test in both groups with the biggest difference in the experimental group (Table 2).

Table 2: The occurrence of weak emotive words

	Comparison group		*Experimental group*	
	Pretest	*Post-test*	*Pretest*	*Post-test*
Frequency of words	111	100	116	99
Variety of words	6	6	6	6

Table 3: Occurrence of strong emotive words

	Comparison group		*Experimental group*	
	Pretest	*Post-test*	*Pretest*	*Post-test*
Frequency of words	97	115	98	154
Variety of words	19	19	21	30

During the pretest, the experimental group used 21 strong emotive words to express the different emotional states of the respondents; the comparison group used 19 such words. During the post-test, the occurrence of strong words increased to 30 for the experimental group and stayed the same for the comparison group. This increase can be attributed to the identification and utilisation of eight additional strong words. The results in the post-test of the experimental group indicated that the frequency of strong emotive words increased from 98 to 154 (an increase of 56 strong emotive words, see Table 3). The increase in strong emotive words and the decrease in weak emotive words used by the experimental group indicate a noticeable increase in the variety as well as the frequency of strong emotive words, providing evidence that the ABT programme contributed to the improvement of the emotional vocabulary and emotional expression skills of the adolescent respondents in the experimental group.

Levels of Overall Emotional Awareness

During the pretest, the control group obtained a higher score (366 out of a possible 640) than the experimental group (347 out of a possible 640), see Figure 7. Results indicate that the total levels of EA for the comparison group increased insignificantly from 366 in the pretest to 370 in the post-test. Additionally, there was a slight increase in the occurrence of strong emotive words (6%) between the pretest and the post-test. Furthermore, the comparison group's ability to apply more complex and combined emotional responses in terms of level 4 and 5 responses also increased slightly (see Figures 5 and 6). The initial high score and minimal increases could be attributed to factors influencing the emotional abilities of the respondents at home, at the CYCC, in their relationships with friends and family or in media content. The increased measure in the EA of the comparison group possibly indicates the emotional improvement that might occur under normal circumstances of development without added emotional learning or exposure.

The overall levels of EA of the respondents in the experimental group increased from 347 in the pretest to 403 in the post-test (see Figure 7). The levels of the EA of the experimental group increased by 56 points. This considerable increase – in comparison to the minimal increase of the control group (four points) – demonstrates the effect of the ABT programme on the increased levels of the EA of the respondents in the experimental group. Thus, there is a statistically significant increase in the mean of the difference (post-test-pretest) of the experimental group compared with that of the

comparison group ($p < .0198$), with equal variances assumed, and even if equal variances are not assumed ($p < .0220$). This is evident in the right shift of the distribution of the differences (post-test-pretest) of the ALEAS of the experimental group when compared with the distribution of the differences (post-test-pretest) of the comparison group.

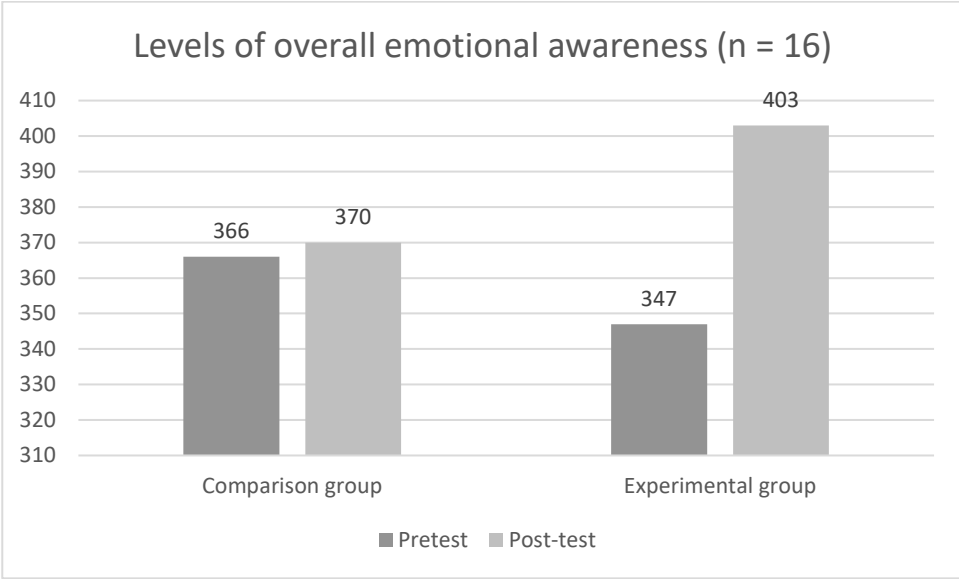

Figure 7: Levels of overall emotional awareness

The results of this independent sample, two-tailed t-test not assuming equal variances at a .05 significance level including Cohen's d effect size statistic indicate that the mean ALEAS gains score was significantly higher for the experimental group ($M = 7$, $SD = 3.93$) than for the comparison group ($M = 0.5$, $SD = 5.78$), $t(12.32) = -2.630$, $p = .0216$, $d = -1.315$. The Cohen's d reflects a large effect size, a 95 per cent CI ($-11.869, -1.131$). A Mann-Whitney U test indicated that the median change in ALEAS score was greater for the participants in the experimental group ($Mdn = 6.5$) than for the participants in the comparison group ($Mdn = .5$), $U = 8.5$, $p = .0154$, $r = .619$. The effect size is also large according to Cohen's 1988 guidelines (Pearson's $r > .50$) (Cohen 1988).

This evidence suggests that the ABT has improved the ALEAS scores, and hence the EI and EA, of the adolescents in the experimental group.

Recommendations

It is recommended that ABT be used in CYCCs, at schools, in foster-care groups, in juvenile offender groups, in adoptive parent groups, among social work staff for leadership and team building purposes, and for community development and empowerment purposes. ABT can also be used to provide preventive and early

interventional social work services (for example, life skills); it does not necessarily have to resolve already existing problematic issues.

Because this programme was only evaluated once within the setting of a CYCC with a small sample size, it would be beneficial to conduct a larger study within broader settings and with larger samples in order to make the generalisation of the research results more realistic. No measurement was conducted to determine whether the exposure to the ABT programme in any way decreased the negative behaviour of adolescents in CYCCs; therefore, it could be beneficial to conduct a study to determine whether the ABT programme improved the behaviour of adolescents by helping them to acquire EA skills.

A follow-up research study to establish whether the ABT programme effectively improved the EA of adolescents would be advantageous. It could determine whether the skills that were instilled and developed were permanent and thus whether the programme is sustainable.

Conclusion

The goal of the research was to analyse whether an ABT programme could improve the EA of adolescents residing in CYCCs.

The results indicate that ABT can facilitate EI and EA skills in the short and long term and there is evidence that an ABT programme, as an intervention, could enhance the emotional functioning and well-being of adolescents placed in CYCCs. The development and implementation of such an ABT programme for adolescents in CYCCs could expand the adolescents' socio-emotional skills and so enable them to improve and promote their holistic functioning, increase their levels of self-confidence and enhance their emotional self-awareness.

The empirical findings of the study confirmed that the experimental group's exposure to the ABT programme increased their total levels of EA. The participating adolescents displayed an increased ability to be more in contact with their own emotions, their emotional vocabulary expanded, and their ability to express their emotions improved.

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