

Applying Positive Psychology to Alcohol-Misusing Adolescents

A Pilot Intervention

Dissertation

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Table of Contents

Acknowledgements..... 3

Abstract.....4

Chapter 1 - Introduction & Literature Review.....6

Chapter 2 – Methods.....20

Chapter 3 - Results.....28

Chapter 4 - Discussion & Conclusion.....64

References.....76

Appendices – Separate Volume

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Abstract

Adolescent alcohol misuse is associated with many adverse consequences for well-being (Viner & Taylor, 2007). Positive psychology, the science of well-being, has pledged to improve the mental health of adolescents, so what can the field contribute to the treatment of alcohol-misusing young people? This mixed methods study evaluates a pilot application of positive psychology to alcohol-misusing adolescents in the form of a group intervention, examining its effects on adolescent well-being and alcohol habits. The intervention consisted of eight sessions based on positive psychology models including happiness, strengths, optimism and gratitude. The participants were adolescents attending an alcohol and drug treatment service for young people. The experimental group ($n = 10$) participated in weekly workshops while a control group ($n = 10$) received no treatment. In the qualitative study semi-structured interviews were conducted on completion of the intervention and the data analysed by thematic analysis. In the quantitative study assessment was carried out using four self-rating scales: The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), the Life Orientation Test-Revised (Scheier, Carver, & Bridges, 1994), the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988) and the Short Alcohol Dependence Data (Raistrick, Dunbar, & Davidson, 1983). The results suggested that the intervention led to an increase in adolescent well-being and decrease in alcohol consumption. In the quantitative study the results indicated significant increases in happiness, optimism and positive emotions and a significant decline in alcohol dependence. In the qualitative study the main themes were a rise in

happiness and other positive emotions; the development of a future goal orientation; a decline in alcohol and drug use and an escalation of change amounting to transformation. The investigation concludes that a positive psychology intervention can make an effective contribution to the treatment of alcohol-misusing adolescents with a recommendation to take the current pilot forward to a full study.

Chapter 1

Introduction

Positive psychology, the science of well-being, is entering its second decade. In its infancy the focus was on developing models such as the classification of character strengths and virtues (Peterson & Seligman, 2004) to counterbalance the weight of research into negative aspects of the psyche. As the science reaches maturity, the focus is shifting increasingly towards applying positive psychology, taking the theory into practice in “real world contexts” (Linley & Joseph, 2004, p. xv).

The purpose of this paper is to explore an application of positive psychology to a population experiencing many negative consequences to their well-being - alcohol-misusing adolescents. Britain’s teenagers are amongst the heaviest drinkers in Europe with mental, social and physical problems caused by their drinking (Hibell et al., 2009). A study of adolescent ‘binge drinking’¹ in a cohort born in 1970, showed that alcohol misuse is associated with significant later adversity including mental health problems, alcohol dependency, lack of qualifications, criminal convictions, homelessness and social exclusion (Viner & Taylor, 2007). The current outlook for adolescent well-being is far from promising. Young people born in the 1990s are the first generation whose health is predicted to be worse than their parents, reversing the long-term trend of ever-rising good health. According to Patton & Viner (2007) every marker of well-

¹ Binge drinking is defined as heavy consumption of alcohol (5+ units) on a single occasion.

being, ranging from mental health to obesity, is either negative or static for adolescents today.

So what can the science of well-being contribute to promote the well-being of alcohol-misusing adolescents? A literature search of PsycARTICLES, PsycINFO and other academic databases reveals that positive psychology has yet to be applied specifically to this population. Consequently there is scope for the development of an intervention to address adolescent alcohol misuse and fulfil one of the wider intentions of the positive psychology movement to promote adolescent mental health.

With a view to developing and piloting such an intervention, this study will review the research literature to consider the issue of adolescent alcohol misuse and its consequences for well-being, discuss current approaches to prevention and treatment and consider how positive psychology has thus far contributed to adolescent well-being.

Alcohol and Adolescent Well-Being

Adolescence is a time in life that harbours many risks and dangers for well-being (Kleinert, 2007). Alcohol is a particular hazard for adolescents, which contributes to 18.5% of death and disease amongst young people in developed nations (Toumbourou et al., 2007). According to an integrative review, the desire to drink is driven by four major motivational processes; conforming to norms,

individuating identity, escaping distress and self-management and regulation (Toumbourou, 2005). Of these, conforming to norms is the most prevalent motivation, with young people conforming to the patterns of substance use² amongst their peers.

A systematic review of the impact of alcohol misuse outlines many adverse consequences for adolescent well-being. These include mental health disorders, depressive symptoms and behavioural change such as a tendency to aggression and anti-social behaviour. Adolescence is a sensitive period in brain development and alcohol exposure can lead to subtle brain damage and cognitive deficits. Both educational performance and relationships are compromised by alcohol misuse. It also makes adolescents more vulnerable to risky sexual behaviour, violence, crime and accidents (Newbury Birch et al., 2009).

Approaches to Adolescent Alcohol Misuse

Current interventions range from the psychosocial to the educational, medical and legal. Prevention strategies to reduce demand for alcohol make up the bulk of approaches worldwide. According to a systematic review of interventions, these are categorised at three levels. Primary prevention aims to reduce risk and prevent new cases, secondary prevention seeks to limit harm in the early stages of a disorder and tertiary prevention treats the consequences of disorders (Toumbourou et al., 2007).

² 'Substance' refers to both alcohol and drugs in this paper.

In the UK interventions are diverse and delivered in a variety of forms from Personal, Social and Health Education (PSHE) as part of the National Curriculum to substance misuse treatment services for young people. The latter offers interventions that fall into one of five main categories; psychosocial, pharmacological, family, specialist harm reduction and residential treatment for substance misuse. Services for young people are commissioned separately from adults though the evidence suggests that the same kinds of treatment are effective for both (Tevyaw & Monti, 2004). A National Treatment Agency review of alcohol treatment recognises young people with drinking problems as falling into one of two groups: those whose problems are largely related to intoxication and those whose drinking is better interpreted as a symptom of psychosocial disturbance (Raistrick, Heather, & Godfrey, 2006). Further discussion of adolescent motivation to drink is beyond the scope of this paper.

The provision of treatment services for young people in the UK appears to be fragmented with short-term contracts inhibiting the conditions necessary to produce empirically-proven practice. One brief intervention that does have evidence for efficacy combines screening of misuse behaviour with motivational interviewing to encourage behavioural change (Toumbourou et al., 2007). Motivational interviewing (Millner & Rollnick, 2002) is the patient-centred interviewing style with the goal of resolving conflicts regarding the pros and cons of change and enhancing motivation to change. A meta-analysis of 30 clinical trials showed that motivational interviewing is more effective than treatment or

placebo controls for alcohol problems (Burke, Arkowitz & Menchola, 2003). The Stages of Change model (Prochaska & DiClemente, 1984) is often used to guide interventions in the addictions field, with adolescents typically located in the 'ignorance is bliss' stage of 'pre-contemplation' because of their lack of awareness of the harm done to them by alcohol misuse. Although an influential model in the addictions arena, evaluations have not supported its use for improving treatment outcomes (West, 2005).

Psychosocial interventions aim to develop psychological and social skills in young people so they are less likely to misuse alcohol and are frequently paired with educational interventions, which raise awareness of the dangers of alcohol misuse. The empirical basis for both is limited, to the extent that a Cochrane systematic review of over 200 studies recommended that an international register be established and criteria agreed for rating interventions in terms of safety, efficacy and effectiveness (Foxcroft, Ireland, Lister-Sharp, & Breen, 2003). Of the 56 studies in the final analysis, only three of the interventions were deemed effective over the long term (4+ years) and only one of these, the Strengthening Families Programme (SFP; Kumpfer, DeMarsh, & Child, 1989) "showed promise" as an effective intervention for the primary prevention of alcohol misuse. As the SFP is currently being piloted in the UK, it is evaluated briefly with regard to its suitability for British adolescents aged 15+, over 50% of whom admit to 'binge drinking' in the previous month (Hibell et al., 2009).

The SFP is an American family skills programme, based on building resiliency in youth and promoting parent-child bonding. The target age range is 10-14. It has been found to significantly reduce alcohol and drug abuse, problem behaviours, delinquency and to improve social competencies and school performance (Spoth, Redmond, & Shin, 2001). The Number Needed to Treat (NNT) for one child to benefit for three alcohol initiation behaviours (alcohol use, alcohol use without permission and first drunkenness) is nine children. Children who received the intervention between the ages of 10 and 14 are much less likely to have started drinking or to have ever drunk four years later than those in control conditions.

The programme is targeted at young adolescents in order to facilitate abstinence in later adolescence, which corresponds to its aim of primary prevention.

However this means that older adolescents with established patterns of misuse are excluded. It also assumes co-operation of parents, which can be difficult for older adolescents, who are often in a fractured relationship with their families.

The NNT is nine, which brings cost implications to the fore if the treatment is only deemed effective in around 10% of cases.

Considering that the SFP is the sole recommended intervention to emerge from the most recent Cochrane review and its limitations for older adolescents, there is clearly a gap for an empirically-based intervention to address this older population, who tend to established patterns of misuse. Qualitative research has

identified individually-based reasons for adolescents to drink which include to be happy, to change mood and deal with stress (Honest, Seymour, & Webster, 2000). The science of well-being could, at the very least, help these adolescents to alternative routes to happiness, positive emotions and resilience. With the absence of positive psychology interventions for this population, this paper now considers the contribution that positive psychology has made to adolescent well-being so far with a view to building on existing research.

Positive Psychology & Adolescent Well-Being

Adolescence is a period of significant change physically, socially, emotionally and intellectually (Freud, 1958). Adolescents experience extreme and rapid shifts in mood and can have difficulty sustaining positive affect (Myers, 1992). In the post-war years a sea change occurred in mental health, which has seen depression become a disorder of the early teenage years rather than one that starts in middle age (Seligman, 1999). A challenge was issued to researchers: “How can psychologists prevent problems like depression or substance abuse or schizophrenia in young people who are genetically vulnerable or who live in worlds that nurture these problems?” (Seligman & Csikszentmihalyi, 2000, p7). Seligman’s answer lies in ‘positive prevention’, suggesting that building strengths such as optimism, future-mindedness and perseverance, acts as a buffer against mental illness and is more successful in the prevention of serious problems than disease model approaches. These, he maintains, have rendered science ill-equipped to effectively prevent illness (Seligman, 2005).

Positive psychology's contribution to adolescent well-being has been both general and specific. In general terms paediatric psychology has experienced a movement away from an exclusive focus on children's deficits or pathology to a more affirming and strength-building approach, which exemplifies a positive psychology orientation whether this is acknowledged or not (Roberts, Brown, Johnson, & Reinke, 2005). According to Cox (2006) the adoption of a strengths approach in youth mental health practice in California amounts to a paradigm shift away from an emphasis on diagnosing disorders to harnessing a young person's capacities to achieve treatment goals. Coaching, the tool of the health model, is making inroads into therapeutic practice as well as educational and parenting literature.

Positive psychology's specific contribution to adolescent well-being has been in the development of interventions, designed to facilitate an aspect of well-being in young people such as happiness or optimism. Positive psychology interventions (PPIs) are defined as treatment methods or intentional activities aimed at cultivating positive feelings, behaviours or cognitions (Sin & Lyubomirsky, 2009).

The Penn Resilience Programme (PRP; Gillham, Jaycox, Reivich, Seligman, & Silver, 1990) is the best known of interventions for children and adolescents, whose primary purpose is to prevent depression. The programme originates from the heart of positive psychology at the University of Pennsylvania. At its core is an adaptation of Ellis' ABC model (Ellis, 1962), which encourages children to

dispute negative beliefs associated with adverse events and generate alternative, more optimistic explanations.

The PRP has been widely evaluated with over 2000 children in randomised controlled trials in the USA and elsewhere. The existing studies have mixed findings. Of the 13 studies included in a 2007 review (Gillham, Brunwasser, & Freres, 2007) five reported improvement and prevention of depression symptoms with a further five reporting mixed results. The largest study, which consisted of 700 participants with a 36-month follow-up (Gillham et al., 2007), found no intervention effect on average levels of depressive symptoms across the full sample. However in two of the three schools that participated, the PRP significantly reduced depressive symptoms. It is notable that the researchers had to contend with substantial attrition with fewer than 50% of the sample completing the follow-up.

The PRP has been applied to 'problem adolescents' with high levels of conduct issues. Such subjects are at increased risk of developing depression as disruptive behaviour tends to interfere with key domains in functioning such as school performance and relationships with repeated failures and negative experiences associated with later depression symptoms and conduct problems. In a study that tested the PRP on such a sample, longitudinal analyses found that the PRP was especially efficacious in preventing depression symptoms in young adolescents with elevated levels of behavioural problems (Cutuli, Chaplin,

Gillham, Reivich, & Seligman, 2006). Although the PRP was conceived as prevention rather than therapy (J.Gillham, personal communication, June 29, 2009) it does suggest a potential for the programme to be tested as therapy for groups of 'at-risk' adolescents such as those with alcohol problems.

The PRP was developed by some of the key figures in positive psychology and yet it was excluded from a recent meta-analysis of PPIs (Sin & Lyubomirsky, 2009) as it did not fit the criteria of having a positive component (N.Sin, personal communication, May 27, 2009). This is because its origins lie in cognitive-behavioural theory (CBT), pre-dating much of positive psychology research. In common with other prevention programmes, the PRP is pathology-focused, aiming to prevent and change maladaptive thoughts and uses depression measures like the Child Depression Inventory (Kovacs, 1992). Future versions of the PRP may benefit from including positive interventions and using measures of well-being such as the Brief Multidimensional Students' Life Satisfaction Scale, which assesses the domains of life satisfaction most pertinent to adolescents (Seligson, Huebner, & Valois, 2003). This would give it a dual focus in promoting positive qualities as well as reducing risk factors and therefore create an intervention which both promotes well-being and prevents depression. Having a broader range of outcomes would also enable researchers to discover the true benefits of their interventions and document their cost-effectiveness (Shinn & Toohey, 2001).

Sin & Lyubomirsky's meta-analysis examined 51 PPI studies, which included interventions focused on well-being, gratitude, goals, optimism, character strengths and meditation. The analysis found that positive interventions do significantly enhance well-being (mean $r = .29$) and decrease depressive symptoms (mean $r = .31$). Two of the studies were targeted at groups of children/adolescents³. Froh, Sefick and Emmons' 2008 study tested the effects of a single intervention, gratitude, on early adolescents in school. Classes were asked to list up to five things they were grateful for daily over two weeks and were then followed up three weeks later. The study found that gratitude induction was related to enhanced well-being, gratitude and reduced negative affect and noted a significant change in optimism and life satisfaction at the follow-up. Although the study would have benefited from following up the participants at a later date and assessing longer-term effects, counting one's blessings was found to be an effective intervention in inducing gratitude in adolescents and increasing life satisfaction (Froh et al., 2008).

In Italy researchers developed 'well-being therapy' (WBT; Fava, Rafanelli, Cazzaro, Conti, & Grandi, 1998), based on the multidimensional model of psychological well-being proposed by Ryff and Singer (1998), which comprises personal growth, self-acceptance, autonomy, purpose in life, positive relationships and environmental mastery. A pilot study applied WBT to early adolescents in school with an aim of helping pupils recognise, experience and share positive emotions and compared it to a parallel CBT intervention.

³ Up to age 17.

Both interventions produced significant and comparable improvements in terms of increase in psychological well-being and symptom reduction (Ruini, Belaise, Brombin, Caffo, & Fava, 2006). This study, in common with Froh et al. (2008), demonstrates the feasibility of programmes based on positive emotions for promoting optimal functioning in adolescents, drawing on Barbara Fredrickson's broaden-and-build theory of positive emotions (Fredrickson, 1998).

Worldwide there are a number of positive youth programmes, which while they may not be the direct creation of positive psychology research, may have been influenced by its constructs, the notion of 'positive prevention' and building competencies in young people. These include the Australian Resourceful Adolescent Programme (Shochet, Whitefield, & Holland, 1997), which has much in common with the PRP sharing origins in CBT and an aim of preventing depressive symptoms. Both are currently being piloted in the UK.

In the USA 'positive youth development' (PYD) has evolved with a purpose of building strengths and other positive qualities to prevent a broad range of negative outcomes such as substance abuse, teenage pregnancy and academic failure (Gillham, Reivich, & Shatté, 2002). These programmes usually differ from other types of prevention intervention by focusing on child development in a social rather than an individual context. They often take the form of community and family programmes and are delivered both universally and to children at risk. A systematic review by Catalano, Berglund, Ryan, Lonczak, & Hawkins (2002)

attempted to provide a definition for the diverse range of programmes under the heading of PYD. They identified such programmes as drawing on 15 constructs, which include some that are now included in the positive psychology family such as resilience, self-determination, self-efficacy and optimism. The review indicated that 24 of the programmes were effective, demonstrating significant improvements in problem behaviours and four programmes were highlighted for their impact on practices related to substance use; Across Ages, Midwestern Prevention, Project Northland and Woodrock. These would bear further scrutiny to examine their suitability for British teenagers. Examining the characteristics of effective PYD is instructive. The most successful programmes targeted at least eight constructs with three constructs appearing in all of the interventions - self-efficacy, competence and pro-social norms. Variety is clearly an important ingredient in the effectiveness of youth programmes.

To summarize, there is much evidence of the harm alcohol misuse causes to adolescent well-being. Current interventions prioritize prevention strategies though they have a limited efficacy base in the literature. There is a growth in 'positive prevention' programmes, which target substance use amongst other problem behaviours. These often mirror the intentions of positive psychology although they generally do not originate in its theories. Positive psychology programmes have developed an evidence base for prevention of child depression (the PRP) and are building one for the promotion of child well-being (eg. Froh et al., 2008; Ruini et al., 2006).

So far there has not been a positive psychology application targeting the well-being of alcohol-misusing adolescents although this population has a clear need for improved well-being. In recognition of this gap, the present study sought to advance knowledge by developing and piloting a group intervention in order to evaluate whether such a programme could promote well-being and decrease alcohol consumption in this population.

Chapter 2

Methods

The present study is a quasi-experiment located firmly within the pragmatic paradigm, defined as problem-centered, pluralistic, interested in what's useful, the consequences of research and oriented towards "real world" practice (Creswell & Plano Clark, 2007). Pragmatism is practical, dealing in "what works", which makes it the most suitable paradigm for a population of alcohol-misusing adolescents who are typically low on co-operation and concentration. This also serves the needs of practitioners, who are interested in what constitutes best practice with this population. A mixed methods design is often used within the pragmatic paradigm, the central premise of which is that the use of quantitative and qualitative approaches in combination "provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2007, p5). As the proposed investigation was a pilot study with a small available sample, the collection of both types of data afforded the researcher a more complete picture of the sample.

A mixed methods design was selected with concurrent collection of quantitative and qualitative data. Triangulation was incorporated into the design through interviews conducted with social workers, who observed the intervention, in addition to participant interviews and a reflexive diary kept by the researcher. One of the strengths of triangulation is that it is helpful for validating data –

especially useful in a small sample - enabling the investigator to compare and contrast findings from multiple perspectives. Ethical approval for the study was sought and gained from the University of East London (Appendix A) with an information sheet made available to potential participants and permission to take part obtained through consent forms.

Intervention

To develop a positive intervention programme targeting the well-being of alcohol-misusing adolescents, the researcher consulted with practitioners of positive psychology, health professionals in the addictions field and staff working at the location of the study, a youth alcohol and drug treatment service. Following the examples of effective PYD, the programme incorporated a broad range of constructs. The intervention was organised into eight sessions labelled as zones, each drawing on themes from positive psychology and well-being research (Table 1). The researcher collaborated with a key-worker at the location of the study to turn the theories into activities suitable to engage this population, which included discussion, group work, role-play, individual coaching and homework.

Table 1 - The Happiness Zones

Session	Zones	Principal Themes
Week 1	Feel Good Zone	Positive Emotions, Savouring
Week 2	Future Zone	Gratitude, Optimism,
Week 3	Me Zone	Strengths
Week 4	Chill Zone	Relaxation, Meditation
Week 5	Change Zone	Change, Goal-setting
Week 6	Me to You Zone	Relationships
Week 7	Body Zone	Nutrition, Physical Activity
Week 8	Bounce back Zone	Resilience, Growth Mindset

The pilot programme (Appendix B) consisted of eight weekly two-hour sessions with a 10-minute break. Each session began with 'circle time' with participants naming one thing they were currently grateful for in their lives. This was followed by activities related to that week's themes. For example in the case of the Me Zone, the first half consisted of filling in a questionnaire to identify individual strengths. In the second half there were activities based on sharing experiences of using one's strengths and an art activity which involved drawing a 'shield of strengths' and creating a personal motto based on those strengths.

The programme did not focus on the pathology of the sample in contrast to 'treatment as usual'. The exception came in the Change Zone, which did address alcohol misuse in the context of being a starting point for change. This zone used coaching methods to set goals to work towards in the second half of the programme, so from week five onwards each participant had a coaching one-to-one at the end of each session in order to report back on goal progress and identify next steps.

Participants

The participants were a convenient sample, drawn from an alcohol and drug treatment service for young people in Bath. All the participants had issues with substance misuse and came from 'at risk' categories. This includes being in care, homeless or in unstable accommodation; being excluded from or non-attending education; early experience of mistreatment; family problems such as addiction and having a record of youth offending. Many of the participants fitted the government classification of NEET – 'not currently engaged in employment, education or training'. The age range in the experimental group ($n = 10$) was 14 to 20 ($M = 17.5$) with 7 girls and 3 boys (Appendix C). The upper age limit of 20 allowed for the perception of some of the participants as being emotionally and mentally under-developed for their age, due to their vulnerability and possible cognitive deficits resulting from substance misuse. It also enabled an examination of the intervention across a broad range of adolescence. Nine of the experimental group were self-selected; one was a referral from a Youth Offending Team. A control group ($n = 10$) was also recruited from the same treatment service and received no intervention. The sessions took place in the fourth quarter of 2008. As part of the pragmatic approach, the experimental group were given small incentives to attend in the form of lunch and shopping vouchers.

Data Collection

This mixed methods investigation contained both between- and within-participant elements across four time periods. The between-participants component involved both groups in quantitative data collection pre- and post-intervention, respectively T1 and T2. The within-participants element consisted of qualitative and quantitative data collection in the experimental group on completion of the intervention at T2 and then subsequently at T3, six weeks post-intervention. T4 was added after commencement of the study to track longer-term effects 12 weeks post-intervention.

In the qualitative study, semi-structured interviews (Appendix D), exploring the experience of the programme, well-being and substance habits were recorded at T2, T3 and T4. In the quantitative study four scales were chosen for their reliability, validity, brevity and ease of application to measure aspects of well-being and alcohol habits (Appendix E). These were the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999), a measure of dispositional optimism, the Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994), the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) and the Short Alcohol Dependence Data (SADD; Raistrick, Dunbar, & Davidson, 1983). All these measures have been widely validated in the research literature.

Data analysis

In the qualitative study tape-recorded interviews with the experimental group and staff observers were transcribed verbatim and then analysed using thematic analysis, a method for identifying, analyzing and reporting repeated patterns of meaning (themes) within data (Braun & Clarke, 2006). Thematic analysis can be used to report experiences, meanings and the reality of participants and is not wedded to any pre-existing theoretical framework, which fits with the pragmatic epistemological position of this study. The transcripts (Appendix F) were read and themes identified at the semantic level primarily by inductive analysis, using a 'bottom up' approach where the themes are strongly linked to the data itself (Patton, 1990). The aim of this was to prioritize the lived experience of the participants. However the researcher's use of an interview schedule with areas of theoretical interest together with immature participants, who often required prompting in order to introspect, meant that the analysis also contained elements of a 'top down' deductive approach.

The phases of thematic analysis (Appendix G) were used as a guide. Initial coding of the transcripts was by hand and yielded 53 codes which fell into one of five broad clusters (Appendix H). The most prevalent codes, in terms of frequency or importance to the research question, were then input into NVivo2 software to collate data relevant to these potential themes. These were then defined and further refined to form 13 sub-themes which grouped together into four distinct, overarching themes, the main outcomes of the study.

In the quantitative study, data from the four measures, the SHS, LOT-R, PANAS and SADD were input into SPSS software and a series of tests were carried out.

- Repeated measures between-participants ANOVAs were carried out across T1 & T2 with happiness, optimism, positive emotions and negative emotions as the dependent variable and time and group as independent variables.
- MANOVA tests were used for a simple effects analysis.
- One-way within-participants ANOVAs were carried out across T1, T2, T3 and T4 with follow-up paired t-tests to determine significance.
- In the case of the SADD, which did not fulfil the assumptions necessary for parametric tests, Wilcoxon and Mann Whitney U tests were carried out.

Role of the Researcher

The researcher had concerns about undertaking this pilot study. Firstly was it ethical to apply positive psychology to a group with such negative circumstances? Would it end up as superficial 'happyology' with little relevance for the participants' lives? This concern was discussed with the service manager, whose opinion was that the usual disease model approaches were limited in their efficacy and she was therefore keen to test a new, positive approach.

Secondly the researcher was concerned about the nature of this population - volatile and antagonistic towards anything resembling education. One of the managers characterised them as the "the hardest group to reach."

The researcher was aware from her previous work as an interviewer and social historian that adolescents are difficult to engage and even trickier to interview. They are not generally given to introspection and often lack confidence in expressing a point of view. There was a challenge to build rapport and gain acceptance with the group. The researcher used self-disclosure and her character strength of emotional and social intelligence in the service of these goals.

Finally the researcher was aware of overlapping roles as facilitator of the intervention, coach and impartial investigator and the potential conflicts of interest. Rather than view this as a limitation, the researcher decided to use the strengths of the situation, by drawing on the rapport that was built during the intervention, to encourage the participants to open up during the interview stage. It would have broken rapport to cease all forms of affirmation towards the participants. Nonetheless any encouragement at this stage was given with the pure intention of giving the participants the confidence to articulate their experiences. Issues of power and social desirability were unlikely with this group, whose tendency was towards hostility rather than pleasing people in authority.

Chapter 3

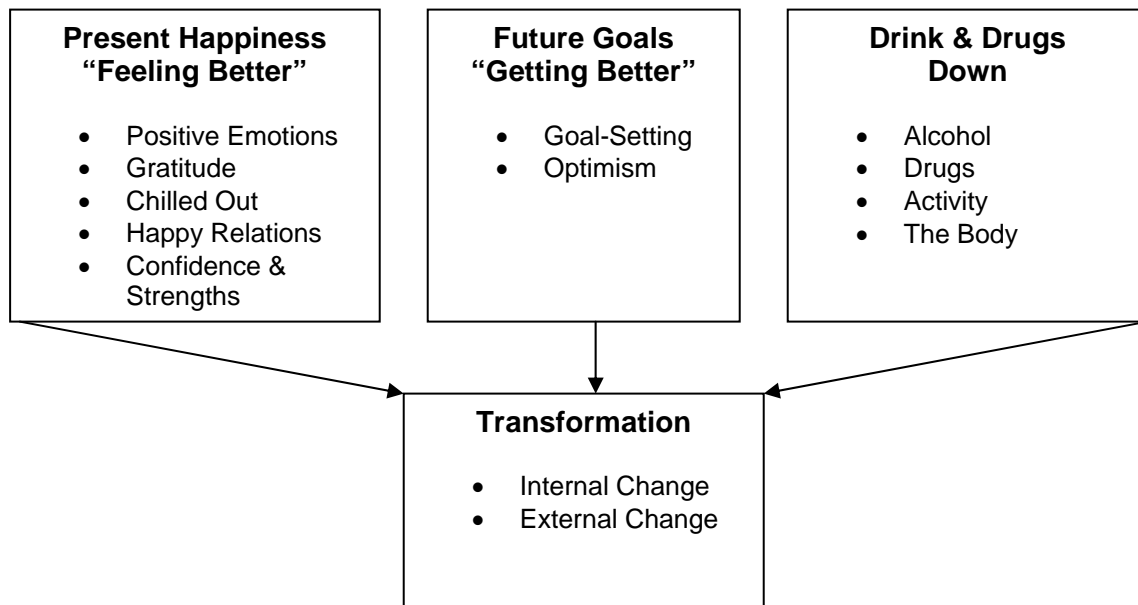
Results

The qualitative results are presented first, followed by the quantitative results.

These findings are then converged and discussed jointly in Chapter 4.

Qualitative Findings

Thematic analysis of the data yielded four distinct overarching themes as the main outcomes of the intervention with 13 sub-themes (Figure 1). The criteria for the themes were according to their prevalence within the data and their importance to the evaluation of how the intervention impacted on adolescent well-being and alcohol habits. There was a time dimension to two of the overarching themes, *Present Happiness* – an increase in positive emotions in the present and *Future Goals* – the development of future goal orientation. A third theme *Drink & Drugs Down* relates to a decline in alcohol and drug consumption and its consequences on the body and the final theme *Transformation* refers to an escalation of change - both internal and external – in the participants' lives.

Figure 1: Thematic map of qualitative findings**1 - PRESENT HAPPINESS 'Feeling better'**

The vast majority of participants (eight out of 10) reported feeling happier at T2 and experiencing more positive emotions. At T3 and T4 happiness was increasingly linked to things going well - achievements, improving circumstances and confidence about their prospects. This rise in happiness occurred in spite of the context of high levels of drama that characterised the participants' lives. For example in the week of the T2 interviews, one girl had news of a relative's terminal illness, a boy was evicted from his hostel and a couple experienced a relationship break-up. Nonetheless the service manager noticed an overall improvement in mood.

“They’re sort of lighter, they seem to be shouldering the world a bit easier... It’s just from my experience of seeing them and knowing them, some of them I’ve known for years, em, they seem more jolly, lighter, just a bit happier really. ”

(134/11)⁴

There were five sub-themes prevalent in the rise in happiness; an increase in positive emotions with a concurrent decrease in negative emotions, the effects of the gratitude and ‘chill’ interventions, an improvement in relationships and an increase in confidence. Each of these is considered in turn.

Positive Emotions Up, Negative Emotions Down

The positive emotions that were most frequently mentioned were feeling grateful, calm, positive, hopeful, optimistic, enthusiastic, confident and proud. Participants also reported being less stressed, depressed, angry, anxious and paranoid. A third of the group noted that they felt more in control of their emotions. Fliss, 19, admitted to being prone to attacking her boyfriend but this had now ceased.

“Like my mood... the slightest little thing would just throw me almost into a rage... and then for me to end up turning around and doing that to my boyfriend who I really, really love, it’s unbelievable but that is what kind of state I was in... And for it to just, d’you know what I mean, be stopped is a massive change-

⁴ Reference numbers – 134/11 refers to transcription page 134, line 11. All names have been changed.

around... I feel happier, I don't feel guilty or anything like that, I'm just proud. Mood's good." (256/9)

Gratitude

Gratitude was arguably the most successful intervention, mentioned by nine out of the 10 at T2. It was especially popular with the girls, whereas the boys also favoured optimism. Its success manifested in one of three forms; as the intervention that made the biggest impact on happiness, as the most widely used technique post-intervention and as one of the most frequently experienced positive emotions. The concept of appreciation for the good things in life was previously alien to the group, whose mindset was primarily one of deprivation.

"Like me I've always lived my life thinking I ain't got this, I ain't got that. But since I've been to the Happiness Zone, I've actually looked at what I've got. I've got a roof over my head. It might not be with my family where I want to be, but it's one step, innit? I've got a boyfriend that really cares about me and I need to be grateful for it before I lose it. And that's made me realise that you got to be grateful whilst you got it." Ashlee, (10/31)

Gratitude continued to be used post-intervention as a way to improve mood without being dependent on others or resorting to stimulants.

"...when I'm going to sleep and sometimes when I wake up. I still think of things that I've got to be grateful for. It's great for when you're feeling down because it's just, it's a pick up, isn't it, definitely." Holly, (283/32)

"Coz if you like think about stuff like, that we've learnt, you don't need to smoke weed. Coz if you sit there and think of like... think of three things you're grateful for, that makes you happy anyway." Danni, (41/24)

'Chilled out'

The most popular session was the Chill Zone, which focused on relaxation and featured a guided meditation. Its popularity was a reflection of the stress the group experience, which makes them reach for a bottle or 'spliff' to relax.

"I found that meditating actually does work and it can be beneficial because I saw how a lot of people calmed down after that one... And usually I'm on edge and stuff but after that I was, I was just chilled out for once." Jamie (97/40)

"It's just really relaxing, like at the end of it I felt like really relaxed, like I felt, you know, didn't feel any need to sort of smoke any weed or like drink." Ben (16/36)

It dawned on members of the group that this was an alternative to drink and drugs as a means to relax. Many of the staff highlighted this session as the most effective, where they observed a marked contrast between the usually volatile

participants before the workshop and a visible calm afterwards. The session also fulfilled the service objective of showing the group a natural, non-chemical route to happiness. As the key-worker, who co-facilitated the intervention, observed.

"...it's amazing how one of them said, that this was an amazing experience and that is how she feels when she has a spliff... So she actually realised that you can feel like that, as relaxed and such a peace of mind without any drugs, without any alcohol, you can still feel happy." (117/26)

It was noticeable that some of the participants said they felt calmer in the weeks post-intervention, mentioning a fresh appreciation for quiet moments. Three of the girls described themselves as having a new calming mechanism that helped them deal with their moods.

"Like when I used to get mad, I used to get really mad... Couldn't control it at all. But now I'm like when I get mad... it's just something like inside me that thinks like calm down a little bit. Like I think the relaxation things... has helped a lot."

Ashlee (210/33)

Happy Relations

Relationships were named as one of the key sources of happiness for the group and many participants noted an improvement in relationships with friends and family. Participants felt better able to talk to their partners, some mentioned having fewer arguments with family and there were fewer reports of violence.

The majority came to value their relationships more highly. This was initiated in the first session when the group were very resistant to accepting the information that money only plays a limited role in happiness. However when asked to savour their happiest memories, they realised that none of those memories came with a price tag attached. Instead they named experiences involving loved ones, such as the births of younger siblings or falling in love. This made a big impression and directed the group's attention to the role relationships play in their happiness, as the service manager observed.

“What I saw as having quite a big impact was this idea that er it wasn't things and it wasn't money and it wasn't career goals and it wasn't all of those things that motivated them too much. It was about love. I remember looking at them as they realized the value of their human relationships... and I remember feeling like their energy started to change. They started to almost er feel quite happy.”

(132/22)

The sessions that contributed most to the improvement in relations were the gratitude and relationships interventions. Gratitude acted as a social lubricant. As the participants became aware of the support they receive and expressed thanks for it, their friends and family responded positively, creating a spiral of appreciation that benefited relationships. The group also experienced how performing an act of kindness for someone can generate happiness for themselves.

“But it makes me feel ten times happier, you know, that I’m doing something for someone else. It makes me feel good as well.” Fliss, (263/9)

In the relationships session, an exercise where participants queried whether their friends might actually be ‘frenemies’ - friends who behave like enemies encouraging them to do risky things, made a big impact. It led to the participants querying the nature of their friendships and whether they too acted as ‘frenemies’.

There was one couple within the group who broke up shortly after the relationships session. Ben acknowledged that hearing a list of behaviours that are considered destructive for relationships made him realise that as a couple they were guilty of most of them, though this hastened the break-up rather than causing it.

It was evident that the experience of a group intervention also contributed to the increase in happiness. Friendships formed. Some admitted to socialising with people they normally stay away from. The group were mutually supportive, for example swapping advice on how to deal with support workers and welcoming back a girl who had been disruptive and threatened with expulsion. There was also evidence of participants becoming more sociable generally and this may be explained by the rise in happiness, as depression tends to cause people to become insular whereas happiness achieves the opposite.

Confidence & Strengths

A rise in confidence was the most notable development at the T4 interviews. Some reported a return of confidence as a result of feeling better about themselves, others expressed new confidence about their capabilities. For Ashlee, 19, whose learning difficulties made it hard for her to socialise, it was her success in managing a group situation that boosted her confidence, which led in turn to better social skills and new employment.

“I got, got my job now... and I think this course gave me more confidence in myself... I was quite worried about doing things like that and now I’m just like not at all and I feel a lot more confident... because I’ve learnt the skill to like get on with people.... I feel the more you do well, the more confident you get... I’ve made a lot more friends now I’ve got more confidence in myself.” (209/12)

The intervention that may have played the greatest role in the rise of confidence was the session on strengths. Most of the participants had little sense of having natural talents and had dropped out of education. For Danni, 16, discovering she had 'people skills' such as emotional intelligence increased her confidence in her ability to achieve her ambition of becoming a youth worker. It also strengthened her determination to avoid her older brothers' fate of prison. For Holly, 20, confidence returned as she realised that she still has capabilities despite her alcohol misuse. This led to her resurrecting abandoned ambitions and re-engaging with education.

"The whole strengths thing and me getting back into education, feels like a sort of a bit of a ticket out for me, I can get out of the horrible places that I've been in, and know that I'll never going to be back there again, which is really great and that makes me feel good... Like I know that, it's not big-headed to know that you've got a brain on your shoulders and that you can go on in life and not just be working crappy jobs. Definitely, it's made me a lot more confident." (284/5)

Identifying strengths helped the young people to a more positive view of themselves and to have the confidence that they could be themselves rather than put on a front. Holly's self-esteem increased as a result and she felt strongly that having strengths was a way of showing the world that there was more to the group than the tabloid label of 'feral youths'.

“...some of us have got alcohol problems and drugs problems and whatever, that’s not just us, we also have strengths and things that we’re good at.” (77/42)

The rise in confidence developed gradually and stood out at the final assessment. It is possible that the role played by strengths in this growth was due more to using them than the act of identifying them. Participants were initially hesitant in recognising their strengths. Danni, 16, took the strengths test at home and turned to her mother for the assurance that “that’s definitely you” but it was months later that it became evident that it had sparked a drive towards achieving her dream of becoming a youth worker. Discovering their strengths generated confidence about their future, the subject of the second overarching theme.

2 – FUTURE GOALS ‘Getting Better’

“...six months ago, all I was interested in was drinking and smoking weed. But now I’m interested in making a life for my kids.” Ashlee, (210/14)

One of the main results of the study was the development of a future goal orientation. Participants were previously in one of two categories – those who had stopped thinking about the future and those who were yet to start. The former preferred not to think about the future because they anticipated something bad, probably in reaction to previous difficulty. The latter had not yet contemplated their future due to their immaturity and hedonism. Geri, 14, was an example of the latter, who developed an awareness of her future.

“It’s my future, that’s the bit that I’m aiming for... Coz I never used to think about the future and then when I came here I just started thinking... Well everyone’s here wanting to...move on so I’m thinking it’s about time I moved on as well.”

(64/1)

There were two sub-themes that acted as drivers within the development of a future orientation; goal-setting and optimism.

Goal-Setting

The goal-setting intervention was rated as one of the most useful sessions by many of the participants. The group were introduced to the coaching technique of ‘life-planning’ where they identified goals in areas of life such as health and then break them down into smaller steps so that they can clarify the sequence of actions needed to achieve that goal. Although the participants are on the margins of society, they shared universal aspirations for work and relationships. Goal-setting proved to be a catalyst for 19-year old, Ben, who was the most disaffected participant.

“...the main thing really was the whole goal thing, like setting out your goals and working through it in little stages. I found that really helpful, it’s actually like got me sorting out my stuff for the online house bidding.” (16/1)

Ben's goal was to get his own flat and he was taken through a process of adding a 'towards' and 'away from' motivation, imagining his perfect flat decorated to his tastes and then contemplating what life would be like if he never got his own place. This is what 'flicked the switch' in Ben, which led to him registering for accommodation and then going on to sort out his finances, put together a CV and apply for further education.

There were two factors that contributed to the success of the goals intervention. Firstly the goals were self-generated rather than being imposed in the form of a "must do". Having authentic personal goals gave them a stronger motivation to work towards those goals. Secondly the goals were broken down into small steps which brought them down to a 'manageable size' to tackle. It worked for 14-year old Geri, a persistent truant, who triumphed in her small goal of attending school everyday, knowing that this was a step towards her bigger goal of training as a dancer.

"... people try and take big steps to the future but here we took tiny little steps. And the more tiny you take them, the more you achieve them. That's what I like."
(73/41)

Goal-setting was associated with a rise in motivation to 'sort' their lives out and an increase in optimism about their chances of success. There was frequent mention of having a 'plan'.

"I've actually got a plan for what I want to do in the future now, so like yeah I feel optimistic about it, it's not just completely uncertain now... so I'm a lot more focused 'n' that now." Ben, (216/27)

"I always said, I'm not planning, I can't plan ahead but that's also what ended up changing me, coz when I did think, oh actually I'll just look a little way ahead, when I did. Well since then I've been thinking... thinking of my future 'n' that." Fliss, (52/13)

From T2 to T4, the developments reported in the young people's lives were mostly related to the goals they had set. Over half achieved the goals they set during the intervention, which ranged from attending school to keeping up with assignments, bidding for accommodation to improving relationships as one staff member observed.

"More than half of them are all getting there, are getting to their goals they want to get to as adults, the adults they want to become and it's amazing to see that... It is amazing to see that development." (122/28)

Fliss, 19, was initially resistant to the idea of life planning but it turned out to be a catalyst which gave her a focus in life. At T4 she had achieved virtually all the goals on her list.

When you ain't got a goal, you've got nothing to do. I didn't have nothing to work towards, whereas now I've got something to work towards again, so I'm on the up and everything." (61/2)

The participants showed signs of taking responsibility for their own lives. As Holly put it, life is "what you make it basically." This sign of maturity was accompanied by an equal awareness of the dangers of apathy and pessimism.

"The only way you can sort things out is just go for it... If you sit around, waiting for something to happen, bad things are going to come along and hit you in the face, because you're not doing anything to better yourself." Fliss (255/20)

"... it's better to be optimistic about stuff than just tell yourself that you're not going to do anything and be a bum, innit really." Danni (40/30)

Most of the group recognised benefits in setting goals and acknowledged that it contributed to happiness.

"Like now I know it's good to set goals. Coz then when you reach it you feel like good about it." Ashlee (2/15)

Optimism

Goal-setting as a sub-theme facilitated the other sub-theme within the development of a future goal orientation, the shift from pessimism to optimism.

“I know I’m going to have a good future now whereas before I was about 50:50... I just noticed basically that I’ve got to get my act in gear on that and keep going to college, and doing what I’m doing now in order to make a better life for my future and hopefully for when I have kids.” Ashlee (164/45)

Optimism was particularly popular amongst the boys such as 17-year-old Jamie.

“I think optimism has had the biggest impact because I did always think negatively of things. Now if I start feeling negative, I think what’s the point, you might as well think of the more positive side and try and make the best out of everything.” (98/22)

Jamie quickly became competent at ‘reframing’, looking for the positive in a negative. He was threatened with eviction from the hostel he was living in but still managed to see positives in no longer having to endure a hostel he didn’t like and that being in a B&B would mean free breakfasts. Having reframed a difficult situation, Jamie had vanished by T3. Staff later found out that he was living with his mother so he had ended up with a positive outcome to his negative housing situation.

3 - DRINK & DRUGS DOWN

This theme describes the decline in alcohol and drug consumption and the consequences on emotions, on activity and on the body. All of the group had issues of alcohol and drug misuse at T1. According to the treatment service, eight of the 10 were considered high risk for daily alcohol and two had drugs as the priority issue. Most of the group were heavy users of both alcohol and drugs. One participant had stopped drinking on discovering she was pregnant but was intending to resume after giving birth.

Alcohol

Some of the reasons given for their alcohol habits at T1 were drinking to block out depression, shy away from chores and to escape the 'mess' of their lives. At T2 eight out of the 10 reported that they had cut down substantially on their alcohol consumption with three stating that they no longer drank. Further interrogation revealed the interpretation of "I stopped drinking" to mean that all three had ceased to be regular binge drinkers but would still allow themselves a drink on a "special occasion".

"Yeah, I stopped drinking... I've learnt the skill to sort of have a drink but not fifteen...but like now I'm thinking one drink, that's better than fifteen. Whereas before I'd think fifteen is better than one." Ashlee (9/21)

Ashlee described lingering over a single drink, suggesting that she was applying the technique she had learnt of savouring to moderate her drinking. For most of the group drinking went from being a full-time activity to mainly in the evening or at weekends. By T4 only one of the participants was still drinking heavily while the rest of the group had cut down to occasional drinking only.

“I’ve cut down drinking. Do it only on weekends now unless it’s like a birthday or something... I quit weed and I’ve, I don’t really take drugs anymore.” Irvin (287/4)

Drugs

‘Weed’ (cannabis) was the most common drug and the main reason given for its use was to relax. Like alcohol drugs went from being a full-time to a part-time activity. By T4 four of the group had stopped smoking cannabis altogether and all bar one of the group had cut down substantially on drug consumption.

“Well, I used to do like drugs like MDMA and pills on the weekend and I stopped it now. Stopped it completely, don’t do it... And weed’s just like the same really, I don’t really smoke that much.” Danni (180/14)

Two participants considered it a personal test to see how long they could go without cannabis. Both were successful, one gave up altogether while the other managed to confine her smoking to evenings only, choosing to spend her money on other things.

Approximately half the group reported that their substance use declined as they began to feel better. The perception of alcohol and drugs and their relationship with happiness shifted for many, who went from thinking that they facilitated happiness to considering that they might act as an obstacle.

“I’ve noticed that I’m a lot more happier when I’m not drinking and I’m not smoking weed. And usually you think that you’re happy coz you’re doing it, but now I feel happy coz I’m not. So I don’t feel depressed anymore.” Ashlee (167/ 7)

Emma, 17, switched from believing that ‘black’ (cannabis resin) was calming to realising that the lack of it provoked anger.

“Like I used to think black calms you down, it stops you from getting angry but it actually gets you more angry coz then when you haven’t got it, that’s all you’re thinking about.” (187/2)

As drug use declined, the participants also noticed a reduction in paranoia and anxiety, with several mentioning that they had become less suspicious and more social. One girl stated that cutting out cannabis had stopped her mood swings.

The participants became aware of alcohol and drugs acting as obstacles on the path to their goals. Danni, 16, cut down on cannabis when she realised it left her depressed, which got in the way of taking steps towards becoming a youth

worker. Emma, 17, stopped misusing when she achieved her dream of a job in children's theatre and realised that she couldn't afford to be hung-over when working with youngsters. Both had a sense of responsibility about being role models for younger children. Geri, 14, a heavy user, realised that she wouldn't achieve her goal of training as a dancer if she continued with alcohol and drug misuse, which led to her stopping.

Activity

A rise in activity was a consequence of the decline in consumption. One of the boys, who usually attended in a 'wasted' state, began to make changes in his life such as applying to college and expressed a desire to have more from life.

"I just got sick of it all... you know I just wanted to do something with my life like... Could not be fucked to just sit on my arse drinking and taking drugs for the rest of my life, there's no point. It's a waste of a life." Ben, (172/ 41)

Increased activity was in turn related to greater happiness. Fliss, 19, cut down on cannabis and helped her alcoholic mother through a 'detox'. As a distraction activity they set about decorating their homes, which had beneficial effects for their happiness.

"I've been painting my flat recently. Ten times better feeling than any feeling smoking weed... When you sit down, you have a smoke, and you're like uhhhh,

you sit there and you don't do anything. When you get on and you accomplish things, you actually do things with your day... It's the best feeling in the world."

(257/26)

The Body

As drinking and drug-taking declined, it became visible in the participants' physicality. At T3 there were signs of clearer skin, higher energy levels and greater physical fitness in several cases. This reflected the presence of fewer toxins in the body. The intervention had an impact on health as Irvin, 17, noticed.

"...it helped me lower my drug and alcohol use, which in the long run made me happier and more healthy." (207/38)

The service manager noted that it was now possible to 'close the book' on many of the group members since their substance misuse was no longer a cause for concern. She reported that there wasn't the usual trail of crisis and chaos that accompanies heavy alcohol consumption.

"What I'm not getting is that, em so-and-so was arrested, so-and-so has got to see the nurse because she needs the morning-after pill, because she went with some bloke. The chaos isn't coming through so much with this group... yes, less destruction as a result of their drinking." (138/5)

There were two exceptions to the marked decline in alcohol and drug consumption, both of whom according to their key-worker were in 'a state of denial' about the scale of their alcohol dependency. Although their consumption remained high, nevertheless the key-worker observed changes on a "personal and emotional level" with each. One of these was 20-year-old Holly, the oldest participant. At T2 she had just split from her partner, which led to an increase in substance use. By T4 she was still a heavy user of drugs, but her alcohol use had reduced, partly as a consequence of feeling better.

"I just feel happier, it's not really much to block out at the moment, I feel happier in myself, so I don't really need the alcohol as much." (203/5)

In Holly's case the greater impact of the intervention was on her emotional well-being and life choices rather than on her alcohol and drug misuse.

4. TRANSFORMATION

The rise in happiness, the development of a future goal orientation and decline of alcohol and drug consumption led to the final overarching theme, that of transformation. One of the most remarkable outcomes of the study was the scale of change in the participants, both internally in their mindset and externally in their circumstances.

"I've changed a lot for the better... I feel like a completely different person to be honest." Ashlee (164/22)

"it's been really a life-changing experience." Fliss (264, 28)

The service manager summed up the intervention as "transformational", her co-manager noted "significant changes on each participant" with "far better engagement. There's a warmth, there's an openness that they didn't have before." A student social worker observed the development in the group and a new belief in the potential for change.

"...they kind of blossomed throughout the course You could see how they grew, how they developed themselves, their way of thinking, their way of interacting with other people, the way they, you know, their perception of things they thought was a fact they couldn't change throughout their life." (109/27)

There was an evident change from a negative towards a positive mindset as the key-worker noted.

"I think they challenged their negative thinking more... And I've seen a level of positive, positive way of thinking... so that's something different." (145/22)

Jamie, 17, confirmed that one of the main benefits of the intervention had been the adoption of a more positive mindset.

“Just thinking more positively mainly... that is definitely the main change I’ve seen in myself.” (100/34)

Many of the internal changes have already been documented, what was also noticeable were the external changes that occurred. Eight out of the 10 re-engaged with education, four moved into superior accommodation and four gained new jobs. Emma, 17, was one of those who flourished. She had been one of the most disaffected and defensive. However at T3 the researcher encountered a changed individual – an approachable, open-minded girl. Life had gone from strength to strength - she had gained paid work, passed an exam and had an audition to go to drama school. What’s more she had achieved her goal of having her own place to live. It was her new attitude which won over her support worker and won her a flat.

“I had to go in for my support meeting... it seemed like I wasn’t really doing much but I must have been coz she said yeah, everyone’s realised that your attitude has changed and that you like coming to your support meetings and when you do, you engage more.” (184/17)

The transformation observed in other participants is outlined in Appendix I. The biggest change, inevitably, was for pregnant Cassie. This was a girl, whom her key-worker described as incredibly negative, “almost afraid to think of what good can happen... for fear of what bad might happen.” Cassie held to her resolution to stay sober during her pregnancy and changed her mind about returning to alcohol, having witnessed the effects of alcohol abuse. This was a sign of caring more about her future.

“I think the future’s good for me whereas before I thought oh no, nothing’s going to turn out alright but I changed.” (223/31)

Two months after the study Cassie, the participant who had lacked faith in her future, gave birth to a baby girl and named her... Faith.

Quantitative Findings

Questionnaires were administered in the experimental and control groups at T1 (pre-intervention), T2 (on completion of the intervention) and in the case of the experimental group at T3 and T4, 6 and 12 weeks, respectively, post-intervention. The raw scores from the Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999), the Life Orientation Test-Revised (LOT-R; Scheier, Carver, & Bridges, 1994), the Positive and Negative Affect Schedule (PANAS; Watson, Clark & Tellegen, 1988) and the Short Alcohol Dependence Data (SADD; Raistrick, Dunbar, & Davidson, 1983) comprised the data upon which the statistical analyses reported below were performed.

Although the samples were small ($n = 10$ in each group), which limits the potential to generalize to the wider population, three of the four data sets did comply with the assumptions of parametric testing. The fourth – the SADD - had a number of extreme scores and so non-parametric tests were used. There was one dropout in the experimental group at T3 and missing data from a control group member at T2. Rather than risk contamination of the data, a decision was taken not to replace missing values, for example, with the series mean. Consequently results are variously calculated between nine and ten members.

The data between the experimental and control groups were analysed with 2x2 split-plot ANOVAs and MANOVAs for a simple effects analysis. A further set of tests were performed on the experimental group at T1, T2, T3 and T4 using a

one-way ANOVA and pairwise comparisons carried out in related t-tests to establish difference.

Subjective Happiness

The happiness data (Appendix J) averaged across participants are presented in Table 2 with standard deviations.

Table 2. Mean subjective happiness responses in the experimental and control conditions as a function of time

	Experimental		Control	
	Mean	SD	Mean	SD
T1	3.80 (n=10)	.81	3.88 (n=10)	.64
T2	4.52 (n=10)	.70	3.55 (n=9)	.62
T3	4.63 (n=9)	.60		
T4	4.31 (n=9)	.62		

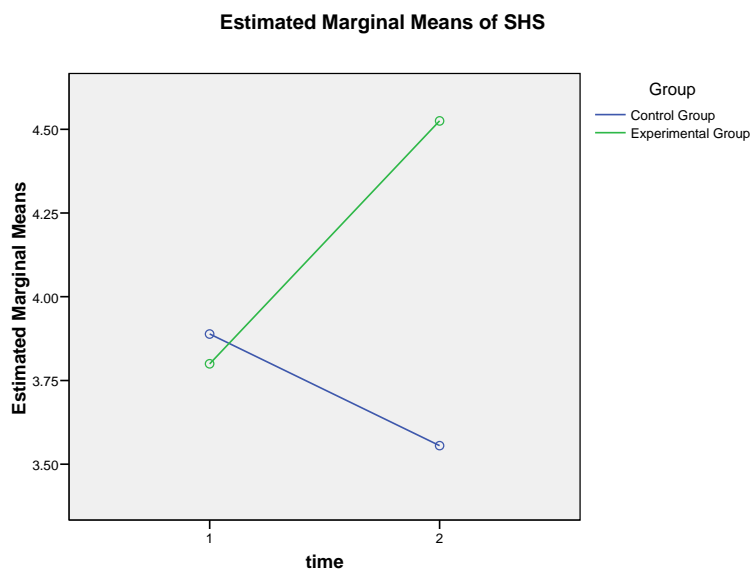
Initially a descriptive statistics analysis was carried out in order to establish if the assumptions of the following analyses were met. This indicated that the distribution of the data in each condition was approximately normal, the standard deviations of each condition were approximately equivalent and there were no extreme scores. The data were then analysed with a 2x2 split-plot ANOVA with condition (experimental v control) and Time (Time1 v Time 2) as factors. (Mauchly's test did not achieve significance so sphericity is assumed in the following reported tests).

The main effect for time was $F(1,17) = 1.28$, $p = .274$. The main effect for group was $F(1,17) = 2.63$, $p = .123$. Neither of these main effects was significant.

There was however a significant interaction of group varying as a function of time ($F(1,17) = 9.38$, $p = .007$) therefore it is possible to reject the null hypothesis that this could have arisen due to sampling error.

A simple effects analysis was carried out on the interaction data, with the criterion value for significance set to .0125 in order to control the familywise error rate. This revealed a significant difference between groups at T2 ($F(1,17) = 9.26$, $p = .007$) and within the experimental group from T1 to T2 ($F(1, 17) = 10.05$, $p = .006$). No other comparisons achieved significance.

Figure 2. Graphical illustration of the significant interaction between condition and time.



A one-way ANOVA was used to compare the experimental group at T1, T2, T3 and T4. This showed a significant difference in the means ($F(3, 24) = 4.409, p = .013$). Paired t-tests were carried out in order to establish difference. The criterion value for significance was set to .008 to control the familywise error rate. There was a significant difference between T1 ($M = 3.80$) and T2 ($M = 4.52$), $t(9) = 3.7, p = .005$ two-tailed. No other comparisons achieved significance. The results would appear to indicate that whilst happiness increased across time in the experimental group, no such beneficial effect was observed in the control group, whose happiness declined slightly.

Optimism

The data for dispositional optimism (Appendix K) averaged across participants are presented in Table 3 with standard deviations.

Table 3. Mean optimism responses in the experimental and control conditions as a function of time

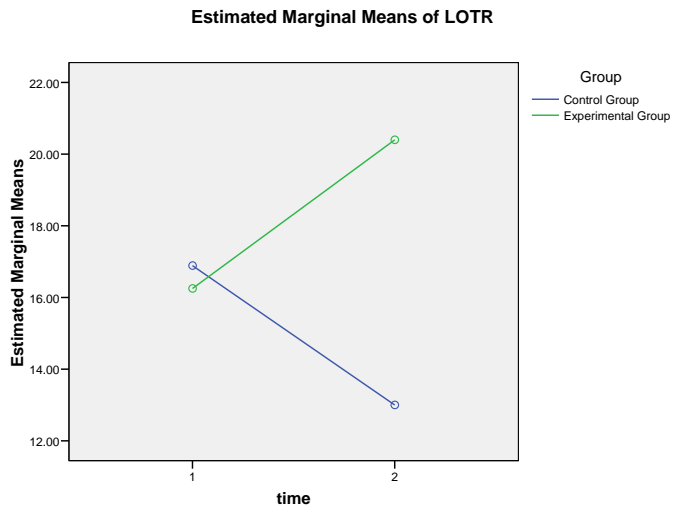
	Experimental		Control	
	Mean	SD	Mean	SD
T1	16.25 (n=10)	4.09	16.88(n=10)	4.01
T2	20.40 (n=10)	4.88	13.00 (n=9)	4.82
T3	22.11 (n= 9)	3.91		
T4	20.61 (n= 9)	4.16		

Initially a descriptive statistics analysis was carried out in order to establish if the assumptions of the following analyses were met. This indicated that the distribution of the data in each condition was approximately normal, the standard deviations of each condition were approximately equivalent and there were no extreme scores. The data were then analysed with a 2x2 split-plot ANOVA with condition (experimental v control) and Time (Time1 v Time 2) as factors. (Mauchly's test did not achieve significance so sphericity is assumed in the following reported tests).

The main effect for time did not achieve significance ($F(1,17) = .022, p = .883$), neither did the main effect for group ($F(1,17) = 3.308, p = .087$). However a significant interaction was found for group varying as a function of time ($F(1, 17) = 21.076, p = <.01$).

A simple effects analysis was carried out on the interaction data, with the criterion value for significance set to .0125 in order to control the familywise error rate. There was a significant difference in optimism between T1 and T2 in both the experimental group ($F(1,17) = 11.86, p = .003$) and in the control group ($F(1,17) = 9.37, p = .007$). There was also a significant effect within the experimental group from T1 to T2 ($F(1,17) = 11.01, p = .004$).

Figure 3. Graphical illustration of the significant interaction between condition and time for LOT-R.



A one-way ANOVA was used to compare the experimental group means at T1, T2, T3 and T4. This showed a significant difference in the means ($F(3,24) = 6.416, p = .002$). Paired t-tests were carried out in order to establish difference. The criterion value for significance was set to .008 to control the familywise error rate. There was a significant difference between T1 ($M = 16.25, SD = 4.09$) and T2 ($M = 20.40, SD = 4.88$), $t(9) = 5.56, p < .001$ two-tailed and also between T1 ($M = 16.61, SD = 4.17$) and T3 ($M = 22.11, SD = 3.92$), $t(8) = 4.225, p = .003$ two-tailed. No other comparisons achieved significance.

The results would appear to indicate that whilst optimism increased across time in the experimental group, no such beneficial effect was observed in the control group, whose optimism declined.

Positive and Negative Emotions

The affect data (Appendix L) averaged across participants are presented in Table 4 in two categories – positive and negative emotions - with standard deviations.

Table 4. Mean positive & negative emotion responses in the experimental and control conditions as a function of time

POSITIVE EMOTIONS	Experimental		Control	
	Mean	SD	Mean	SD
T1	22.10 (n=10)	6.92	28.78(n=10)	9.93
T2	29.80 (n=10)	7.97	23.44 (n=9)	9.70
T3	29.44 (n= 9)	5.98		
T4	31.44 (n= 9)	5.79		
NEGATIVE EMOTIONS	Experimental		Control	
	Mean	SD	Mean	SD
T1	23.80 (n=10)	7.41	24.55(n=10)	9.84
T2	18.40 (n=10)	8.63	23.55 (n=9)	11.72
T3	17.44 (n= 9)	2.88		
T4	17.56 (n= 9)	5.58		

Mean positive emotions rose in the experimental group across the study while mean negative emotions declined. In the control group there was a decline in positive emotions from T1 to T2 while negative emotions remained steady.

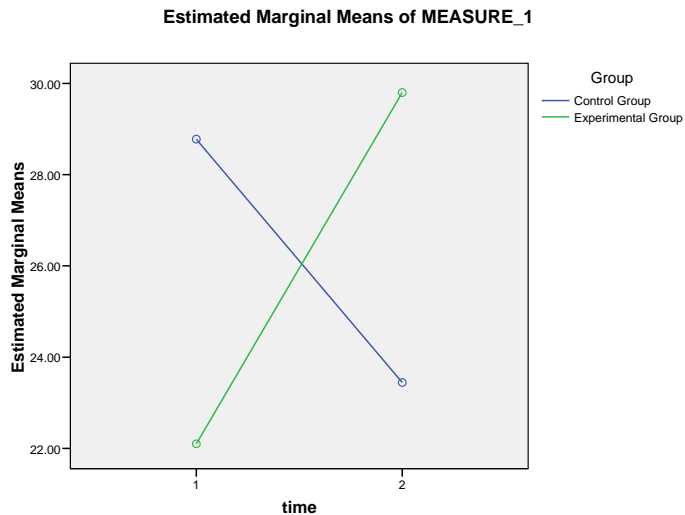
A descriptive statistics analysis indicated that the distribution of the data in each condition was approximately normal and the standard deviations of each condition were approximately equivalent. There were two extreme scores in the scores for negative emotions (at T2 in the control group and T4 in the experimental group) and these were trimmed to the next highest value in order to run the parametric analysis. Positive emotions were considered independently from negative emotions in two separate analyses.

The data were analysed with a 2x2 split-plot ANOVA with condition (experimental v control) and Time (Time1 v Time 2) as factors. (Mauchly's test did not achieve significance so sphericity is assumed in the following reported tests).

Positive Emotions

The main effect for time did not achieve significance ($F(1,17) = .325, p = .576$), neither did the main effect for group ($F(1,17) = .002, p = .963$). However a significant interaction was found for group varying as a function of time ($F(1,17) = 9.854, p = .006$) and therefore it is possible to reject the null hypothesis that this could have arisen due to sampling error.

Figure 4. Graphical illustration of the significant interaction between condition and time for positive emotions



A simple effects analysis was carried out on the interaction data, with the criterion value for significance set to .0125 in order to control the familywise error rate. The two groups differed significantly at T2 with a marginally significant effect ($F(1,17) = 7.26, p = .015$). No other comparisons achieved significance.

A one-way ANOVA was used to compare the experimental group at T1, T2, T3 and T4. This showed a significant difference in the means ($F(3, 24) = 4.363, p = .014$). Paired t-tests were carried out in order to establish difference. The criterion value for significance was set to .008 to control the familywise error rate. There was a marginal significant difference between T1 ($M = 22.33$) and T3 ($M =$

29.44), $t(8) = 3.159$, $p = .013$ two-tailed. No other comparisons achieved significance.

Negative Emotions

Neither of the main effects nor the interaction were significant. The effect for time was $F(1,17) = 1.47$, $p = .242$. The effect for group was $F(1, 17) = .835$, $p = .374$. The interaction of time and group was $F(1,17) = .282$, $p = .602$. A related t-test showed that mean negative emotions declined in the experimental group across time from 23.44 (SD = 7.76) at T1 to 16.33 (SD = 2.74) at T4 but this was not a significant result.

Alcohol Dependence

Due to the presence of extreme scores, which ranged from heavy drinkers to teetotallers, the SADD data did not fit the normal assumptions for parametric tests. For example there were 4 extreme scores out of 10 in the experimental group at T2. Therefore non-parametric tests were carried out (Appendix M). Descriptive statistics are presented in Table 5.

Table 5 - Mean alcohol responses in the experimental and control conditions as a function of time

	Experimental Group				Control Group			
	Mean	SD	Median	Range	Mean	SD	Median	Range
T1	20.78(n=10)	9.52	24.00	37.00	22.67(n=10)	13.28	25.00	47.00
T2	12.78(n=10)	10.27	13.00	42.00	19.67(n=9)	11.29	17.00	33.00
T3	12.56 (n=9)	9.98	15.00	31.00				

T4	10.89 (n= 9)	10.93	7.00	36.00				
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Alcohol dependence shrank to a half of its T1 level in the experimental group at T2, from a median of 24.00 (range = 37.00) to a median of 13.00 (range = 42.00) and by T4 it had fallen to a third of its original level at a median of 7.00 (range = 36.00). In the control group the median was 25.00 at T1 (range = 47.00) and at T2 with one dropout this declined marginally to a median of 17.00 (range = 33.00)

Non-parametric tests

Wilcoxon matched-pairs, signed ranks test were carried out across the experimental group from T1 to T4 with the criterion value for significance set to .008 to control the familywise error rate. This showed that the experimental group's SADD scores had more than halved by T4 (M = 10.90, SD = 10.94) compared to T1 (M = 23.00, SD = 11.40) and that this was a statistically significant result (Z = -2.55, exact p = .004 one-tailed). There was one other marginally significant result from T1 (M = 23.00, SD = 11.40) to T3 (M = 12.56, SD = 9.99), Z = -2.371, exact p = .008 one-tailed. No other comparison achieved significance.

A Mann-Whitney U test was used to compare the experimental and control group at T1 and T2. This showed that U = 31.5; exact p = .284 two-tailed and therefore

it is not possible to reject the null hypothesis that the difference in conditions could have occurred by chance.

Chapter 4

Discussion

The purpose of this mixed methods investigation was to evaluate a trial application of positive psychology to alcohol-misusing adolescents in a group intervention. Taken together, both qualitative and quantitative findings suggest that the intervention was related to a significant increase in well-being and significant decline in alcohol consumption. These are discussed here together with implications for future research and practice.

Well-being

The rise in happiness and other positive emotions seen in the qualitative themes was supported by the quantitative findings. There was a significant increase in happiness at T2 in the experimental group ($F(1,17) = 10.05, p = .006$) and a significant effect between groups ($F(1,17) = 9.26, p = .007$). There was also a significant increase in optimism in the experimental group at T2 ($t(9) = 5.56, p = <.001$) and a significant effect between groups ($F(1,17) = 21.076, p = <.01$). This implies that the development of future goal orientation was supported by a strong optimistic belief that things will work out.

Mean positive emotions in the experimental group rose by approximately a third during the study (from $M = 22.100$ at T1 to $M = 31.444$ at T4) whereas negative emotions shrank by a quarter (from $M = 23.800$ at T1 to $M = 17.555$ at T4), indicating that the ratio of positive to negative emotions doubled from approximately 1:1 to 2:1. The broaden-and-build theory of positive emotions suggests that people go into upwards spirals of development when their ratio of positive to negative emotions bypasses the tipping point of 2.9 to 1, which divides flourishing from languishing (Fredrickson & Losada, 2005). It is possible that this theory was fuelling the theme of transformation, which spawned multiple successes ranging from gaining new jobs and accommodation, to passing exams and completing educational assignments. This outcome also concurs with meta-analysis findings that happiness is both the cause and consequence of success (Lyubomirsky, King, & Diener, 2005). This suggests a potential for using positive emotions as a vehicle to facilitate optimal functioning in adolescents and builds on the findings of Ruini et al. (2006) and Froh et al. (2008). Further research is necessary to establish the relationship between positive emotions and optimal functioning in this population.

It was evident from the qualitative interviews that gratitude had the strongest effect of all the interventions, confirming its reputation as a “meta-strategy for achieving happiness” (Lyubomirsky, 2007, p88). This study supports other findings that counting blessings is associated with enhanced optimism, life satisfaction and decreased negative affect (eg. Froh et al., 2008). Gratitude was

especially popular with the female participants, concurring with other findings that women seem more likely to express gratitude than men and derive more benefit from it (Kashdan, Mishra, Breen, & Froh, in press).

Females may show a preference for emotionally-based interventions whereas the males in this study highlighted cognitive-based optimism as a favourite. Such gender preferences should be considered when developing PPI programmes.

The popularity of gratitude was such that this study recommends that it should be a cornerstone of future PPI programmes aimed at disaffected youth, who tend towards a mindset of deprivation.

The nature of the happiness experienced by the group varied. Initially it was based more on feeling good, evidenced by the rise in positive emotions, which corresponds to the notion of hedonic well-being, characterized by frequent positive affect and low levels of negative affect (Waterman, 1993). In the latter stages, there were also signs of a different form of happiness, based more on things going well and expressed through the rise of confidence. This is related more to eudaimonic well-being or realising one's potential (Ryan & Deci, 2001).

The shift from hedonic to eudaimonic forms of well-being paralleled another transition, that of time perspective. The dominant time perspective shifted from present-hedonistic, characteristic of children but with a risk of unfortunate consequences such as addictions and academic failure (Bonniwell & Zimbardo, 2004) to a future time perspective (Zimbardo & Boyd, 1999). This was most

evident in the case of Ashlee, whose horizons shifted from the next drink to wanting to build a future for her future children. People with a future time perspective tend to be more successful in life and have an eye on the probable outcomes of present actions (Boniwell & Zimbardo, 2004). Seligman (1999) describes future-mindedness as a strength and argues that a teenager who is future-minded is not at risk of substance abuse. A future time perspective would seem therefore to be a capacity worth cultivating in adolescents, especially those at risk of becoming disaffected and may have a secondary benefit in developing awareness of the impact of present drinking habits on future achievement.

Identifying their strengths had a positive influence on the participants, most of whom had been excluded from mainstream education. Failure to thrive in the classroom raises the risk of disaffection, learned helplessness (Seligman, 1975) and substance abuse. Discovering their natural talents boosted self-efficacy (Bandura, 1977), helped clarify the participants' choice of future direction and stimulated taking steps towards that future. Eight out of the 10 re-engaged with education in the wake of the intervention. This shows how individual strengths can be harnessed to serve a purpose and concurs with Cox (2006)'s work with youths with behavioural problems, in which she identified benefits from using the strengths of adolescents in the service of treatment goals. Oman et al. (2004) report on a branch of social work which uses a model of assets that includes the internal resources of strengths but also external sources such as positive family communication. Their work with adolescents linked with alcohol and drug abuse

showed that young people who were able to draw upon assets and aspirations for the future were linked to a lower prevalence of youth alcohol and drug abuse.

According to Rath (2007) when people have an opportunity to focus on strengths daily, they are six times more likely to be engaged in their jobs. A strengths approach could be the means of helping excluded young people to engage with the workplace. Several of the group, for example, had strengths such as emotional intelligence and expressed a desire to become youth or social workers. Policy makers addressing the growing number of 'NEETs' should consider the strengths approach as a means of helping excluded young people to identify work which they can excel in. Further research is required to quantify the benefits of using the strengths approach with disaffected adolescents.

Alcohol Misuse

The intervention adhered to its positive focus of building well-being rather than reducing drinking, operating on the basis of 'what you focus on is what you get' with alcohol issues only addressed in passing. This indirect approach worked well as alcohol dependence halved from T1 to T2 and by T4 it was down to a third of its original level (from a median of 24 at T1 to 13 at T2 and 7 at T4 respectively). An inferential test - the Wilcoxon matched pairs test - confirmed that alcohol dependence had more than halved by T4 ($M = 10.898$, $SD = 10.936$) compared to T1 ($M = 23.00$, $SD = 11.40$) and this was a significant result ($Z = -2.55$, exact $p = .004$ one-tailed). The large standard deviations reflect the

diversity within this small group which ranged from teetotallers to a heavy drinker. As drinking declined, there was a noticeable improvement in physical well-being, which was visible in the young people's appearance but also manifested in the rise of activity.

This finding begs the question of how an intervention, that largely passed by the drinking problems of its participants, still managed to achieve a substantial decline in alcohol dependence? The researcher observed two key factors. Firstly as the young people began to feel happier, they expressed less need to drink in order to escape difficulty. Secondly, as they developed a future goal orientation, they began to see that their alcohol habits were a hindrance to the realisation of their ambitions. This suggests the potential for using a positive focus to reduce negative behaviours such as substance misuse and concurs with findings on the efficacy of PYD programmes (Catalano et al., 2002). It also confirms the potential for using positive psychology in the secondary prevention of adolescent alcohol misuse for young people with established patterns of misuse. Additionally this raises the possibility of taking positive psychology from the prevention arena into a treatment capacity. As this was a preliminary study further research is required to test the precedents observed here.

The Intervention

This trial application of positive psychology revealed strengths and weaknesses in the intervention itself. Operating as a group enabled the possibility of peer

support, an important factor when considering how much drinking is due to peer pressure. It also facilitated an improvement in social well-being with one participant acknowledging that it was taking part in a group intervention that gave her the confidence to be in other social situations such as working in a shop. A group intervention has advantages in terms of cost compared to more expensive one-to-one interventions.

For the participants it was a case of learning through doing – the activities worked well but they were resistant to any form of teaching, possibly because it reminded them of the unfavoured classroom scenario. Varying the themes each week maintained interest in the sessions but at two hours in duration, the participants began to lose concentration as the desire for a nicotine fix rose. Future roll-out of the intervention would benefit from having a longer run, say of 12 and keeping the sessions to an hour apiece. The most popular sessions with the participants were the Chill, Change and Relationships Zones, this is possibly connected to their position in the middle of the programme, by which time the group was functioning well. The least popular was the Body Zone as the participants were hostile to the idea of eating a healthy lunch rather than their usual fast food and there was also a misjudgment of pace when attempting to bridge from a high energy dance activity to a quiet meditative exercise. It was a bridge too far.

The researcher, as co-facilitator of the intervention, was fortunate in managing to engage the “hardest group to reach” but acknowledges that the positive results could have an element of ‘teacher effects’. While this is not necessarily a disadvantage, consideration should be paid to the likelihood of future facilitators being therapists who may have only worked in the disease model and for whom a positive intervention such as this could represent a paradigm shift in practice.

Operating within the health model (Appendix N) was an effective practice, even allowing for the scale of alcohol problems, which positioned the participants firmly within the disease model spectrum of treatment services. Coaching, the form of mentoring which serves as the tool of the health model, worked well with adolescents. The basic coaching question of “what do you want?” pointed the participants towards articulating ambitions for their lives, in contrast to the therapy question of “what is the problem?” which maintains the individual within the disease model. Coaching helped the participants to develop the future goal orientation, described in the qualitative findings. Many of the goals set during the intervention were achieved and the fact that they were self-generated rather than imposed goals, may have given the young people an intrinsic motivation (Ryan & Deci, 2000) to achieve them. Youth coaching is still in its infancy in the UK, but having established that coaching was an effective process for this age group, the study strongly recommends that coaching become part of the repertoire of techniques that key-workers use with young people.

Limitations

Due to the preliminary nature of this study and convenient sample involved, there are a number of limitations to consider. The sample's small size and gender imbalance restricts the external validity of the results. Future studies should be true experiments involving balanced, randomly-assigned groups. It could be argued that as the experimental group were self-selected, that they were more open to increasing well-being. This is possible but in the "real world" context of disaffected youth, the nature of the group was such that they needed encouragement to attend and well-being was not perceived as a priority. Equally social desirability was not a factor as disaffection does not extend to a desire to please in this population, who habitually rebel against authority.

It was noticeable that well-being fell slightly amongst the control group and there was a statistically significant decline in their optimism between T1 and T2 ($F(1,17) = 9.37, p = .007$). The small size of the group may have led to an undue influence of one or two members however another explanation may be resentment felt by the control group, who received no intervention and who twice filled in questionnaires without reward although they were assured that they would be eligible for a later intervention. Future studies should address the likelihood of dissatisfaction in control group members, for example by balancing rewards such as free meals between the experimental and control groups. It would have been useful to follow-up with the control group at T3 and T4, however it was not possible to secure further co-operation and filling in the same

questionnaires yet again might have deepened resentment further exacerbating the threat to internal validity. Such a threat could also apply to the experimental group who filled in the same questionnaires four times and may have become habituated to giving answers without much consideration.

As a general observation much of positive psychology research relies on self-report measures. Disaffected adolescents lead chaotic lives which may influence their reliability as study participants using such measures. They also tend to dislike questionnaires as they have to fill in numerous forms in order to access services and benefits. There were a few comprehension problems to contend with, such as with the PANAS and future studies would benefit from using a child version such as the PANAS-C (Laurent et al., 1999). It may be necessary to supplement self-report measures when studying this population. Triangulation was useful in this respect to assess change from multiple perspectives. Other objective measures could include blood and breathalyzer tests to assess alcohol levels and maybe external measures such as school reports and attendance records. Neither is likely to be popular but they would mitigate against the reliance on self-report measures.

It is possible that some of the changes observed in the participants could have been the result of maturation effects, as adolescence is a period of rapid change. However the scale of change, which some rated as transformational, implies that the intervention had a greater effect than normal maturation processes.

Equally there is the question of the 'Hawthorne effect' (Landsberger, 1955) whereby the participants improve because they are the centre of attention (and certainly the control group may have experienced the opposite). T4 was a late addition to the study in order to assess longer-term effects and this showed that the effects of the intervention were still in evidence, five months after baseline.

As with any intervention, the question arises of how to sustain the effects over the long term. This is especially important in a population who return to the influence of their environments. In this respect the friendships that developed amongst the group may help through peer support. It is also possible that having entered an upwards spiral and re-engaged with education and life generally, the group will have more of a chance of transcending their circumstances. The programme would benefit from having a post-intervention course of coaching sessions or group reunions to maintain the effects long-term.

Conclusion

This mixed methods study was a preliminary investigation into applying positive psychology to alcohol-misusing adolescents in a “real world context”. Both qualitative and quantitative results indicated that the intervention was associated with a significant increase in adolescent well-being and a significant decrease in alcohol consumption. The effects were still in evidence three months after completion of the intervention. As well as demonstrating the value of applying positive psychology to alcohol-misusing adolescents, the study extends the reach of positive psychology programmes beyond primary prevention into secondary prevention for people who already have symptoms of a disorder. It shows the potential of positive psychology as treatment for populations who have moved beyond risk into the reality of health, social and educational problems.

Traditionally prevention research has been pathology-oriented, focusing on the reduction of risk factors within the individual. The present study demonstrates the value of working within the health model for established clients of the disease model. Given the benefits observed to hedonic, eudaimonic, social and physical well-being, the final recommendation of this investigation is to take the current pilot forward to a full study.

15082 word count

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