

A computer based selfhelp programme facilitating anger management using positive activity interventions

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Summary

A computer-based self-help programme facilitating anger management using positive activity interventions

Key Words: online, self-help, positive psychology, anger management, psychological well-being

Adolescence is a period marked by multiple developmental transitions, both at a biological and interpersonal level, which may contribute to difficulties with regulating emotions such as anger, also in South Africa. Cognitively, aggressive youths tend to perceive interpersonal cues unrealistically. This fact highlighted the necessity to explore the different perceptions that adolescents, psychologists and teachers hold with regard to anger triggers, management styles and the needs with regard to anger management within a group of South African adolescents. Focus groups were held involving 21 learners and five teachers from a school in Klerksdorp in the North West province, as well as with five psychologists working with adolescents in the same area. Anger triggers identified in this study were related to the appraisal of frustration and goal obstacles, unfairness, control or a threat to self-esteem. Participants in this study identified a need for communication skills, assertiveness training and more knowledge about anger and the different anger management techniques available. A self-help online anger management programme was developed, aimed at facilitating anger management using positive activity interventions. Positive activity interventions are defined as “relatively brief, self-administered, and nonstigmatizing exercises that promote positive feelings, thoughts, and/or behaviours, rather than directly aiming to fix negative feelings, thoughts, and behaviours. The Guided Self Help framework was chosen, since adolescents are prolific users of the internet and it is their preferred medium of communication. The programme is divided into six sessions of one hour each, addressing what anger is, understanding the roots of anger, how to relax, learning to let go and how to be assertive.

A two-group (experimental and control) pre-test and post-test design was used and the sample group consisted of 40 adolescents from two schools in the North West province of South Africa. Both the experimental group (n=20) and control group (n=20) underwent pre-testing and post-testing immediately after the intervention and one month after on three different questionnaires, namely The Affectometer 2 (Kammann & Flett, 1983), The Coping Self-Efficacy Scale (CSE) (Chesney, Folkman & Chambers, 1996) and the State Trait Anger Expression Inventory – 2nd Edition (STAXI-2) (Spielberger, 1999). The self-help online anger management programme using positive activity interventions was presented to the experimental group (six one-hour sessions over a two-week period) only. The experimental group showed significant improvements on the presence of positive emotions and feelings of well-being one month after the intervention and significant increases in their ability to seek support from family and friends, as well as in their overall sense of coping immediately after the intervention and even more so one month after the intervention. The experimental group initially scored lower results in the intensity of their angry immediately after the intervention, but also reported more individual differences in their disposition to express anger and was more likely to hold their anger in. However, one month after the intervention, there was no practical or statistical differences in the experimental group's experience or management of their anger. It can therefore be concluded that, although the self-help online management programme using positive activity interventions had no significant impact on anger management, it is effective in facilitating positive feelings and well-being, enhancing the ability to seek social support from family and friends and facilitating an overall sense of coping on a group of South African adolescents.

A limitation of this study is that the results obtained from the sample population cannot be generalized beyond the sample population and that self-report measures left open the possibility of biased responses. Since this study is limited by its small sample size and the short-term nature of the intervention, further study is recommended to examine the effect over a longer intervention period in a larger sample, focusing specifically on the enhancement of self-esteem with more intense homework assignments. The self-help online anger management programme can be recommended

by teachers, parents and therapists as a source of information or as an alternative to face-to-face counselling, or maybe as an add-on to existing anger management programmes or therapy. Since computer use in South Africa has several challenges, including availability, affordability and difficulty of use, it is recommended that the programme should be adapted for mobile applications in order to reach rural and remote areas.

Opsomming

‘n Rekenaargebaseerde self-helpprogram vir die fasilitering van woedebeheer deur die gebruik van positiewe aktiwiteitsintervensies

Sleutelwoorde: aanlyn, self-help, positiewe sielkunde, woedebeheer, psigologiese welsyn

Adolesensie is ‘n periode wat gekenmerk word deur verskeie ontwikkelingsveranderinge op ‘n biologiese en interpersoonlike vlak wat kan bydrae tot probleme met die regulering van emosies soos woede, ook in Suid-Afrika. Aggressiewe jeug is geneig om interpersoonlike tekens kognitief onrealisties te interpreteer. Hierdie feit benadruk die noodsaak daarvan om die verskillende persepsies wat adolessente, sielkundiges en onderwysers het van woedesnellers en woedebeheer tegnieke te ondersoek saam met die behoeftes met betrekking tot woedebeheer binne ‘n groep Suid-Afrikaanse adolessente. Fokusgroepe is gehou met 21 leerders en vyf onderwysers van ‘n skool in Klerksdorp in die Noordwesprovinsie, sowel as met vyf sielkundiges wat in dieselfde area met adolessente werk. Woedesnellers wat in hierdie studie geïdentifiseer is hou verband met persepsies van frustrasie en doelwitobstruksie, sowel as onregverdigheid, beheer en ‘n bedreiging vir die selfbeeld. Deelnemers in hierdie studie het ‘n behoefte uitgedruk aan kommunikasievaardighede, assertiwiteitsopleiding en meer kennis oor woede en die verskillende woedebeheertegnieke wat beskikbaar is. ‘n Aanlyn, self-help woedebeheerprogram is ontwikkel, gefokus op die fasilitering van woedebeheer deur middel van positiewe aktiwiteitsintervensies. Positiewe aktiwiteitsintervensies word gedefinieer as redelike kort, nie-stigmatiserende tegnieke wat self toegepas word en wat daarop gemik is om positiewe gevoelens, gedagtes en/of gedrag te promoveer, eerder as om negatiewe gevoelens, gedagtes en gedrag te probeer herstel. ‘n Begeleide Self-help (Guided Self-help) raamwerk is gekies aangesien adolessente produktiewe gebruikers van die internet is en dit ook hulle verkose medium van kommunikasie is. Die program is verdeel in ses sessies van een uur elk, en fokus op wat woede is, ‘n begrip

van die wortels van woede, hoe om te ontspan, hoe om te laat gaan asook hoe om assertief te wees.

'n Twee-groep (eksperimentele en kontrole) voor- en natoetsontwerp is gebruik en die toetsgroep het bestaan uit 40 adolessente van twee skole in die Noordwesprovinsie in Suid-Afrika. Beide die eksperimentele groep (n=20) en die kontrolegroep (n=20) is onderwerp aan 'n voortoetsing en natoetsing direk na die intervensie sowel as een maand daarna met drie verskillende vraelyste naamlik die "Affektometer 2" (Kammann & Flett, 1983), die "Coping Self-Efficacy Scale" (CSE) (Chesney, Folkman & Chambers, 1996) en die "State Trait Anger Expression Inventory – 2nd Edition (STAXI-2) (Spielberger, 1999). Die rekenaargebaseerde woedebeheerprogram deur middel van positiewe aktiwiteitsintervensies is slegs vir die eksperimentele groep aangebied (ses een-uur sessies oor 'n tydperk van twee weke). Die eksperimentele groep het betekenisvolle verbeterings getoon in die teenwoordigheid van positiewe emosies en gevoelens van welsyn een maand na die intervensie, sowel as betekenisvolle verbeterings in hulle vermoë om ondersteuning te soek by familie en vriende, sowel as in hulle algemene gevoel van coping, onmiddellik na die intervensie en selfs meer as 'n maand daarna. Die eksperimentele groep het aanvanklik minder intense woede gevoelens gerapporteer na die intervensie, maar was ook meer geneig om hulle woede uit te druk of binne te hou. Daar was egter nie enige praktiese of statistiese betekenisvolle veranderinge met betrekking tot die eksperimentele groep se woedebeheer een maand na afloop van die intervensie nie. Daar kan dus aanvaar word dat, alhoewel die aanlyn self-help woedebeheerprogram gefokus op positiewe aktiwiteitsintervensies, nie enige betekenisvolle effek op woedebeheer gehad het nie, dit wel effektief was vir die fasilitering van positiewe gevoelens en welsyn, dit die deelnemer se vermoë om sosiale ondersteuning van familie en vriende te soek verbeter het en het dit ook 'n algemene gevoel van coping verbeter het in 'n groep Suid-Afrikaanse adolessente.

'n Beperking van die studie is dat die resultate nie veralgemeen kan word na ander populasies nie en dat die self-rapporterende aard van die vrae ruimte laat vir vooroordele. Aangesien hierdie studie beperk is deur 'n klein ondersoekgroep en deur die kort-termyn

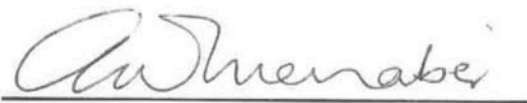
aard van die intervensie, word aangeveel dat toekomstige navorsing die effek van die program oor 'n langer tydperk en met 'n groter onderzoekgroep ondersoek, veral met 'n fokus op die bevordering van selfagting en met meer intense huiswerkopdragte. Die self-help aanlyn woedebeheerprogram kan aanbeveel word vir onderwysers, ouers en terapeute as 'n bron van inligting, maar ook as 'n alternatief vir aangesig-tot-aangesig terapie, of selfs as 'n aanvulling vir bestaande woedebeheerprogramme en -terapie. Aangesien rekenaargebruik in Suid-Afrika verskeie uitdagings het soos beskikbaarheid en bekostigbaarheid, word dit aanbeveel dat die program aangepas word vir selfone om ook die landelike en verafgeleë gebiede te bereik.

Preface

- This thesis is presented in article format in terms of the North-West University's rule A.14.4.2 and A.13.7.3, A.12.7.4 and A.17.7.5.
- An abstract of Article one has been submitted for possible publication in the Journal of Psychology in Africa.
- The referencing and editorial style were implemented as prescribed by the *Publication Manual (5th edition)* of the American Psychological Association (APA).
- In order to present the thesis as a unit, the page numbering is consecutive, starting from the introduction and proceeding to the references. However, for submission purposes, the pages of each of the articles were individually numbered.
- The study supervisor and co-author of these articles, Dr A.W. Nienaber, had submitted a letter consenting that the articles may be submitted for examination purposes of this PhD.
- The thesis was send to Turn-it-in and the report was within the norms of acceptability.

Declaration

The co-author of the three articles, which form part of this thesis, Dr. A.W. Nienaber (promoter), hereby give permission to the candidate, Mrs. Elizma van der Smit to include the three articles as part of a Doctorate thesis. The contribution (advisory and supportive) of the promoter were kept within reasonable limits, thereby enabling the candidate to submit this thesis for examination purposes. This thesis, therefor, serves as fulfillment of the requirements for the Ph.D. degree in Psychology within the School of Psycho-Social Behavioural Sciences-Psychology in the Faculty of Health Sciences at the North-West University (Potchefstroom Campus).

A handwritten signature in black ink, appearing to read 'A.W. Nienaber', is written over a horizontal line.

Dr. A.W. Nienaber

Promoter

CHAPTER 1

Introduction

Anger is often experienced in interpersonal relationships when an individual's plans, needs and desires are affected and the situation is perceived as being unfair or a threat (Averill, 1983; Jain, Mehta & Saxen, 2008). Research links anger with a range of social, physical and mental problems. Chronic and intense anger is found to be linked with common physical illnesses like colds and flu, cancer, strokes, heart disease, as well as substance abuse, increased risk taking and poor decision making (Hagiliassis, Gulbenkoglou, DiMarco, Young & Hudson; 2005). According to the Mental Health Foundation (MHF) (2008) and Lench (2004), people are getting angrier and more people are receiving treatment for anger problems.

Teen anger especially can be “a frightening emotion and negative expressions can include physical and verbal violence, prejudice, malicious gossip, antisocial behaviour, sarcasm, addictions, withdrawal and psychosomatic disorders that can devastate lives and destroy relationships” (Grohol, 2004, p.1). Alexander and Currie (2004) state that intense anger in early adolescence often leads to low achievement, violence, crime, and mental and physical illness in later adolescence, particularly among boys. Beyond the age of 15, intervention becomes more difficult as adolescents have by then become more firmly rooted in a offending and punishment culture.

South Africa as a society is suffering greatly from anger. According to President Zuma “our society is very angry. When people quarrel today, they kill one another. Taking the life of a human being today has become very easy” (SAnews, 2012:2). Gumede (2012) agrees that South Africans are indeed angry. The country has one of the highest murder rates in the world outside of a combat area. Statistics from the South African Police Service (2013) show that 15,609 murders happened during 2011–12. Smit (2008) concurs that violence has become a major part of South African's culture and appears to be a customarily method of problem solving. Many children enter residential care (a group

living arrangement for children outside the child's family environment) suffering from poverty, homelessness, insufficient pre-natal and health care, exposure to drugs and alcohol, physical abuse, learning problems in school, sexual abuse, and neglect. These influences have a paramount effect on how these children relate to their world and often results in anger (Kendrick, 2008; Taylor & Novaco, 2005). This has an even greater effect on the South African child because so many children do not live within a family environment. According to Crick and Dodge (1994) and Trembly and Belchevski (2004), external unpleasant events spark cognitive and physiological arousal and the subjective experience of anger, which result in elevated autonomic nervous system activity and leads to cognitive labelling based on the individual's pre-existent cognitive blueprints. Cognitively, aggressive adolescents tend to unrealistically perceive interpersonal cues, often misperceiving a benevolent act as aggressive or hostile. Given this fact, it might be very helpful to identify what external aversive events would trigger anger within a group of South African adolescents and how they choose to manage their anger. Understanding adolescent anger is crucial since adolescence is amiably one of the most challenging phases in any person's development (Masten, 1994). If this developmental process is not handled carefully and adjustment is affected negatively, it could result in psychopathology (Mash & Barkley 1996).

Anger in itself is not a problem, it is a vital and powerful tool to address difficulties. It is a necessary tool of survival to individuals and societies. Most people do not experience problematic anger (Hagiliassis et al., 2005; Jain et al., 2008), but awareness of more positive ways of dealing with and expressing anger is needed for the population in general. If people could learn healthier ways of dealing with anger, it will help them to take better care of their mental and physical health, solve problems, achieve goals, and develop social relationships in a more positive way (MHF, 2008). According to Moulds (2003) and Hiebert and Houston (1992), it is important to support the adolescent by designing educational programmes that reduce this overall risk of problematic anger in whole populations. Unfortunately, there are very few programmes designed for this purpose (Cunningham, Brandon & Frydenberg, 2002; Kazdin & Weisz, 1998). Smit (2008) agrees that the youth in South Africa need life skills to better handle an angry and violent

nation and to better it. While schools, NGOs and churches offer some programmes to support adolescents, the fact that despite these efforts, bullying and suicide is not decreasing, clearly shows that we have to increase our attempts to reach young people with more knowledge on anger and anger management.

According to the MHF (2008) we need more information and education with regards to anger in schools, the media, workplaces and wider communities. This should not only be aimed at individuals who have problematic anger, but information and education must be directed to all people to improve their knowledge and management of anger. Fanshawe and Burnett (1991) suggest that schools could teach relaxation, anger control and anger reduction techniques and encourage all students to face their problems more effectively. Cunningham et al. (2002) also recommend implementing low-cost non-intrusive programmes in school settings that aim to enhance the emotional health of young people. Although school-based stress reduction programmes have been found effective, more research is yet to be done on the facets of anger management programmes that is unique to the school environment. Good initial support is provided so far by promising results in a clinical context (Feindler, Engel & Emily, 2011). However, programmes like these for the most part remain inaccessible to the general adolescent population (Saul, 2005). Emotional wellness programmes in South Africa are limited but include for example Lifeline Ekurheleni (Smit, 2008), whose programmes include topics such as personal growth and anger management. These are not accessible to most adolescents in South Africa, especially those residing in rural areas. Undoubtedly, a need for alternative modes of education exist that will increase the chance that adolescents and their parents will seek help and to be willing to learn more about anger (Spence et al., 2011).

The internet or self-help computer-based programmes may be an appropriate medium to address the abovementioned lack of knowledge. People with non-clinical problems (like anger) may never be presented to the conventional mental health system due to cost, the social stigma, and difficulty of seeking guidance and knowledge. The internet or computer-based self-help programmes might offer such persons with a private

and suitable way to seek information associated with their problem (Childress, 1998). Computer-based education may be particularly fitting for adolescents. It can be retrieved at any time and offers a sense of confidentiality and discretion that is highly valued by teenagers (James, 2007). According to Borzekowski and Rickert (2001), it appears that traditional sources of health information do not meet the adolescent's needs and respondents agreed that they are increasingly utilizing the Internet to search for health resources. Other researchers agree that adolescents appear to be increasingly using the internet as a resource to find answers to health-related questions (Bay-Cheng, 2001; Gross, Juvoven & Gable, 2002). This increased internet usage is not surprising given the fact that adolescents are early adopters of new technologies (Saul, 2005).

Self-help or self-improvement refers to the action or process of enhancing oneself or overcoming one's difficulties without the assistance of others or to managing one's personal or emotional troubles without professional help (Mirriam-Webster, 2012). According to Lucock, Barber, Jones and Lovell (2007) and Richards (2004), self-help or self-management methods have become progressively popular in mental health in current times with an abundance of CD Roms, books, self-help groups and other internet-based resources. Service users can make use of a range of such methods and aids to achieve enablement and the approaches possibly provide more accessible and cost-effective mediations. Ellis (1993) agrees that a self-help approach has a number of clear benefits, including the fact numerous people are literature-oriented and absorb more by reading than by interacting with a counsellor or group. It may be simpler for a busy or isolated individual to make time and it is more cost-effective. Self-help is completely private and could therefore be a valuable starting point for individuals who do not (yet) feel able to discuss their problems with anyone. Numerous studies have showed that writing about upsetting events, thoughts and feelings can be therapeutic, lessening negative emotions such as loneliness and growing positive emotions (Pector, 2012). However, ensuing research adds that writing about emotionally positive themes can offer health benefits as well. For example, writing about one's best imaginable future self was found to cause bodily health benefits comparable to those found for writing about distressing events (King, 2001). Furthermore, writing about our most intense positive experiences (IPEs)

has also been indicated to cause health benefits in comparison to writing about a control issue (Burton & King, 2004). Cunningham et al. (2002) and McGrath et al. (1992) agree that home study and self-help programmes are increasingly being validated as empirically supported programmes. This was confirmed in an analysis by McGrath et al. (1992) who concluded that high-cost, high-intensity relaxation training appears to be no more effective than a home study course.

Despite these advantages, information privacy, described as the capacity of the individual to regulate how, when, and to what extent his or her individual information is communicated to other people (Westin, 1967), is one of the most critical legal, ethical, social, and political concerns of the information age and poses a great risk in the development of computerised self-help programmes (Hong & Thong, 2013). Other risks of self-help programmes include that people may misunderstand the nature and intensity of their problem (for example existing mental health problems that might be aggravated), and a lack of self-discipline and motivation in completing the programmes (Dombeck & Wells-Moran, 2006).

Despite the progress and popularity of self-help tactics for different difficulties, there is a lack of full-bodied exploration in this area, and the necessity for more research has been emphasized (Preusser, Bartels & Nordstrom, 2011; Wright & Wright, 1997). Organizations are rapidly increasing the implementation of computer-based training and according to Preusser, Bartels and Nordstrom (2011), many benefits of this method have been suggested (e.g., uniform content, self-paced teaching, and cost-efficiency) along with numerous potential drawbacks (e.g., computer accessibility, noncompletion rates, confidentiality concerns, current mental health problems). Dombeck and Wells-Moran (2006) state that individuals with psychiatric disorders are not suitable for self-help. They are by definition incapable to be objective about their circumstances and may cause themselves severe damage or even unintentionally kill themselves if they attempt to treat themselves. Severe mental health problems really demand professional medical and psychotherapy management; they cannot be successfully tackled with self-help methods alone. Self-help has a part to play with regard to grave mental illness, but that part is a

secondary one at best. Ellis (1993) agrees that disturbed persons most probably have inadequate capability to diagnose themselves and therefore can simply treat themselves for the wrong problems, except if they have a well-trained expert to direct them on which self-help resources to use.

With this in mind, an interesting perspective on problems (e.g. anger) is that of positive psychology. Positive psychology officially began when numerous psychologists united with Martin Seligman and Mihalyi Csikszentmihalyi (2000:5) in initiating a “science of positive subjective experience, positive individual traits, and positive institutions”, which seeks to enhance the quality of life for several rather than accentuating pathology. This perspective emerged in reaction to a perceived tendency for helping professionals to focus on what is wrong with clients rather than recognizing their strengths and resources (Weick, Rapp, Sullivan & Kisthardt, 1989). In the anger management field, groups have overlooked the development of prosocial capabilities and highlighted negative behaviours (Serin, Gobeil, & Peterson, 2009). The aim of positive psychology theory is to teach people effective pathways to improved functioning and well-being (Seligman, 2011). According to the broaden-and-build model of Fredrickson (1998), the practice and purpose of positive and negative feelings are distinct and complementary. Destructive emotions (e.g., fear, sadness, and anger) narrow a person's momentary thought-action range towards specific activities that served the inherited function of promoting survival. By contrast, positive feelings (e.g., contentment, interest, and joy) expand an individual's momentary thought-action range, which can build that person's enduring individual resources, resources that also served the ancestral purpose of promoting survival. One consequence of the broaden–and–build model is that positive feelings have an undoing effect on negative feelings (Fredrickson, 2000). It can then be argued that interventions developed by positive psychologists aimed at increasing individuals' happiness and life satisfaction (Magyar-Moe, 2009; Seligman, Steen, Park, & Peterson, 2005), will also undo negative emotions such as anger and improve its management. Efficacy studies of positive treatment (Irving et al. 2004) and positive psychology-based education show them to be very effective with maintainable impact (Seligman, Steen, Park, & Peterson, 2005).

Many studies demonstrate the efficacy of positive psychology interventions such as practicing kindness, counting your blessings, setting personal targets, conveying gratitude and using personal strengths to improve well-being, and, in some cases, to improve negative feelings and depressive signs. Activation of positive emotions, such as affection and humour, is also a functional form of regulation used to control negative feelings like anger (Kennedy-Moore & Watson, 1999). According to Fredrickson (1998), intervention approaches that cultivate positive feelings are particularly suitable for preventing and remedying problems rooted in negative feelings, such as depression, aggression, anxiety, and stress-related health difficulties. Many of these interventions are delivered in a self-help format (Bolier et al. 2013) and could therefore be applicable for this study.

Problem statement

The above overview of current trends in psychology begs the following question as the problem statement of this study: How can a computerised self-help programme aid in increasing an individual's positive emotions and well-being rather in order to undo negative emotions such as anger and increase the management thereof?

In answer to the context provided above and the problem statement, this study focuses on positive interventions. A positive intervention is described as “an intervention, therapy, or activity primarily aimed at increasing positive feelings, positive behaviours, or positive cognitions, as opposed to ameliorating pathology or fixing negative thoughts or maladaptive behaviour patterns” (Sin & Lyubomirsky, 2009:469). A subgroup of interventions has been recognized as those that can be self-administered without professional participation. Referred to as “positive activity interventions,” or PAIs, these are described as “relatively brief, self-administered, and nonstigmatizing exercises that promote positive feelings, positive thoughts, and/or positive behaviours, rather than directly aiming to fix negative or pathological feelings, thoughts, and behaviours” (Krentzman, 2013; Layous, Chancellor, Lyubomirsky, Wang, & Doraiswamy, 2011).

This study incorporates Finn and Willert's (2006) recommended modifications to improve anger management groups: (a) Groups should include environmental considerations (e.g., teachers, peers, and family members), (b) Anger management groups should avoid an inflexible focus on affective strategies and approaches to control behaviour, (c) Anger management programmes must include prosocial skill-building actions. The authors conclude that anger management groups should concentrate on building a range of prosocial skills, rather than training how to control undesired actions. In order to incorporate environmental considerations, information will be obtained directly from peers, teachers and psychologists working with adolescents with regard to the current anger triggers and management styles experienced by a group of South African adolescents. This knowledge will form the foundation to which positive interventions will be applied to enhance adolescents' prosocial skills and ultimately aim to enhance their anger management. Developing an anger management self-help computerised programme using positive psychology interventions can improve adolescents' quality of life and coping rather than to focus on what is wrong in their lives.

According to Saul (2005), adolescents are at the forefront of our 21st century technology-driven communication revolution. Understanding anger in adolescence is especially significant given that adolescence is questionably one of the most challenging phases in a person's development (Masten, 1994). It therefore might be very helpful to identify what external aversive events would trigger anger within a group of South African adolescents as well as how they choose to manage their anger. In order to address their mentioned need for alternative modes of education about anger management, a computer based self-help anger management programme might be a good idea to enhance anger management within a group of South African adolescents and could address problems with regards to cost effectiveness and accessibility. Self-help workbooks can be used in cases where adolescents do not have access to computers. The programme could also be made available on the internet to reach more adolescents and their parents who wish to understand and cope with their anger better. As stated before, if people could learn healthier ways of dealing with anger it will help them to

enhance their mental and physical health, solve problems, achieve goals, and nurture social affiliations in a more positive way (MHF, 2008). Given the fact that anger management groups have neglected the improvement of prosocial abilities and highlighted negative behaviours (Serin, Gobeil, & Peterson, 2009), positive interventions aimed at increasing individuals' happiness and life satisfaction (Magyar-Moe, 2009; Seligman, Steen, Park, & Peterson, 2005) might undo negative emotions such as anger and improve the management thereof. An anger management programme focusing on building these prosocial abilities, rather than teaching how to regulate undesired behaviours (Finn & Willert's, 2006) is therefore the focus of this study.

Research questions

Based on the abovementioned information, the following specific research questions result from the problem statement:

- What are the different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents?
- What positive activity interventions can be implemented in the development of a computer-based self-help anger management programme for a group of South African adolescents?
- What would the effect be of such a computer-based self-help anger management programme on a group of South African adolescents?

Aims

In an effort to answer the above research questions, the aims of the study are:

- to explore the different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents;

- to develop a computer-based self-help programme facilitating anger management using positive activity interventions, aimed at a group of South African adolescents; and
- to evaluate the effectiveness of the developed computer-based self-help programme in facilitating anger management using positive activity interventions in a group of South African adolescents.

Hypotheses

The hypotheses in answer to the research questions of this study are as follows:

- Due to the explorative and descriptive nature of the first and second research question and aim, no hypothesis is formulated.
- The developed computer-based self-help anger management programme, using positive activity interventions, will facilitate anger management in a group of South African adolescent.

The structure of the research

- Chapter 1 – Introduction and Problem Statement
- Chapter 2 – Article 1: The different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents in the North West Province.
- Chapter 3 – Article 2: A computer-based self-help programme to facilitate anger management using positive activity interventions, aimed at a group of South African adolescents in the North West Province.
- Chapter 4 – Article 3: An evaluation of the effectiveness of a computer-based self-help programme to facilitate anger management using positive activity interventions in a group of South African adolescents in the North West Province.
- Chapter 5 – Conclusions, Implications and Recommendations

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CHAPTER 2

Article 1

Different perceptions with regard to anger, anger triggers and anger management styles in a group of South African adolescents

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Book Gore, A. (2006). *An inconvenient truth: The planetary emergency of global warming and what we can do about it*. Emmaus, PA: Rodale. *Edited book*

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Cook, D. A., & Wiley, C. Y. (2000). Psychotherapy with members of the African American churches and spiritual traditions. In P. S. Richards & A. E. Bergin (Ed.), *Handbook of psychotherapy and religiosity diversity* (pp 369–396). Washington, DC: American Psychological Association.

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Begley, S., & Murr, A. (2007, July 2). Which of these is not causing global warming? A. Sport utility vehicles; B. Rice fields; C. Increased solar output. *Newsweek*, 150 (2), 48–50.

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the nutritional status of their children in two communities in Ghana

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Abstract

The aim of this study was to explore the different perceptions that adolescents, psychologists and teachers have with regard to anger triggers and anger management styles, as well as the needs of a group of South African adolescents related to anger management. Focus groups were held involving 21 learners and 5 teachers from a school in Klerksdorp in the North West province and with 5 psychologists working with adolescents in the same area. Anger triggers identified in this study were related to the appraisal of frustration and goal obstacles, unfairness, control and a threat to self-esteem. Participants in this study identified a need for communication skills and assertiveness training and for more knowledge about anger and the different anger management techniques available. It is recommended that a programme be developed that provides knowledge about the emotion of anger, identifying anger triggers, and the management of anger by means of different anger management techniques, including assertiveness training.

Keywords: adolescent, anger, triggers, anger management, coping

Introduction

Anger can be described as a negative emotion that is caused by social circumstances involving threat or frustration. It is related to negative appraisal, physiological fluctuations and with a propensity to take action (Maxwell, Sukhodolsky, Chow, & Wong, 2005). The emotion of anger may manifest itself in varying intensity from a slight irritation to an outburst of wrath and rage (Berkovitz, 1990; Kassino & Eckhard, 1995). Anger has been related to detrimental outcomes for youths (Kerr & Schneider, 2008) and has been selected as an important study area by the National Institute of Mental Health (2001). Adolescence is a phase marked by multiple developmental changes, both at a biological and interpersonal level, which may add to difficulties regulating feelings such as anger (Arnett, 1999; Dahl, 2004). Adolescent anger has become a significant concern in recent years, given the frequency of school violence (Flannery, Wester, & Singer, 2004). Burt, Lewis and Patel (2010) agree that hostility has increased in schools over the last ten years, resulting in an appeal for mental health counsellors to find ways to decrease anger and aggressive school behaviour. Poorly managed anger is linked to increases in verbal and physical aggression (Peled & Moretti, 2007), substance abuse, depression, hostility, suicidal tendencies, violence and misconduct (Puskar, Ren, Bernardo, Haley & Stark, 2008), as well as general health problems (Kerr & Schneider, 2008). According to Quinn, Rollock and Vrana (2013), it is fundamental to study anger in youth due to the critical and rapid development of social relationships, identity, and rules regarding emotion displayed during this stage. Although much is documented about the negative consequences of anger and aggression, we understand very little about the variables that trigger anger and aggression in teen-agers (Fives, Kong, Fuller & DiGiuseppe, 2011).

Recent findings have confirmed the general opinion that culture is a influential factor in how we express and understand our feelings (like anger) and to determine what emotional gestures are socially acceptable (Altrov, 2013). Socio-cultural beliefs, norms, and anticipations influence what we perceive as a social expression and therefore affect the youth's emotion socialization (Cole & Tan, 2007). For example, children in Western societies are more likely to be encouraged to express a broad range of feelings, including

anger, compared to Asian societies (Chen et al., 1998; Lin & Fu, 1990). The prevalence of crime and violence, especially amongst teenagers, is a universal problem and the same is applicable in South Africa (Leoschut & Burton, 2006) and according to Willemse, Smith and van Wyk (2011) analysts often refer to South Africa as a “country of violence.” Given the hasty social, political, and cultural changes in South Africa, minors are particularly susceptible as they try to react to these challenges in addition to their natural developmental crises (Netshiombo & Mashamba, 2012). According to Wood and Wassenaar (1989), there is increasing evidence that the traditional culture of South Africa is changing and is largely influenced by westernisation. The latter will have an effect on how adolescents in South Africa interpret and express anger.

According to the Oxford Dictionary (2014), a trigger is an incident that is the cause of a specific process, action, or situation. According to the cognitive-behavioural theory, an aversive provocation triggers physiological arousal and misleads cognitive responses, which ends in the emotional experience of anger and the precipitation of violent behaviour (Feindler & Starr, 2005). This implies that adolescent anger is triggered when the teenager perceives interpersonal signals unrealistically or misperceives a nonthreatening act as hostile or antagonistic (Crick & Dodge, 1994; Trembly & Belchevski, 2004). Yazgan-Inanç, Bilgin and Atıcı (2007) agree that adolescents’ anger is triggered when their physical or social undertakings are prevented or their positions, personalities, or status in society is under threat. An adolescent may show anger when he or she feels embarrassed, criticized, ignored, underestimated, or and perceive such circumstances as threats to his/her already particularly sensitive personality. According to Eisenberg and Delaney (1998), anger is a consequence of an individual's personal appreciations and frustrations. They identify three sources of anger, namely frustrating circumstances, situations in which a person’s efficiency and safety are under threat and when the person's actions do not match their expectations. Although the actions of angry youths, like school shootings, classroom and sexual violence, have been mentioned in the media in current years, few studies have been described that examine adolescent anger (Puskar, Ren, Bernardo, Haley & Stark, 2008). Since it is surprising that so little attention is given to teachers’ perceptions of threats, anger or violent schools (Reddy, Newman,

DeThomas & Chun, 2009), this study focuses partly on the teachers' perceptions of the anger triggers and management styles of the adolescents they teach.

According to the Collins Dictionary (2014), anger management can be defined as techniques or exercises used to control or decrease feelings and the manifestation of anger. This relates to the definition of coping, which states that coping consists of activities that aim to master, tolerate, reduce or minimise demands that are perceived to be threatening, harmful or represent a potential loss (Lazarus & Folkman, 1984; Strümpfer, 2003). Individuals cope with or manage their anger by expressing the emotion verbally or physically toward individuals or things within their milieu (anger expressed externally) (Spielberger, 1988). Alternatively, persons may cope with their anger by suppressing or withholding it (anger communicated inwardly) (Spielberger, Krasner, & Soloman, 1988). This relates to Moos (1993), who identifies two proposed coping methods for anger, namely approach and avoidance. The ability to fittingly manage different negative feelings may depend on different capabilities and self-efficacy beliefs. It is therefore important to understand the distinctive efficacy beliefs that allow adolescents to cope effectively with specific negative emotions such as anger (Caprara, Di Giunta, Pastorelli & Eisenberg, 2013). Since the attitudes and beliefs established during the period of adolescence is likely to become customary behaviour patterns, adolescence becomes a major opportunity to promote health (Ablorh-Odjidja & Joseph, 2007; Dickey & Deatricks, 2000), specifically with regard to anger management. According to Edmondson and Conger (1996), it is unexpected that such a limited body of research on anger exists, since anger is the most common precipitator of violence, also in adolescents.

Although anger is a frequently-occurring emotion all humans have that they experience from moderate to intense forms (Averill, 1983), the inclination to angry reactions, the intensity thereof and the duration and personal style of its expression are highly individual (Spielberger, Ritterband et al., 1995; Tremblay & LeMarquand, 2001). Many people are not aware of or do not see their anger as problematic, or if they do, they are hesitant to seek treatment for it since they feel embarrassed. This theory is based on

the Mental Health Foundation's (2008) survey scores, which found that many more individuals identify problematic anger in close acquaintances and family than they do in themselves. This could also be ascribed to the fact that people have many false assumptions about their anger, for example that it's more important to win than to be right, or that their anger cannot be helped, or even that respect means that people should have the freedom to do whatever they do in their way (Hartwell-Walker, 2012). Novick (2013) agrees that angry people start with the premise that they just can't help it and expect that others will understand that they don't really mean it. A huge demand is placed on therapists to treat angry people, yet therapists do not yet have research-based recommendations for recognizing, diagnosing, remedying, or preventing future anger problems and aggression (Lench, 2004). Based on the latter, his study focuses partly on what psychologists' perceptions are about what would trigger an adolescent's anger and how they are coping with it.

According to the MHF (2008), not only those with anger problems, but all people need more information and education related to anger to improve our anger management and wellbeing. Based on the abovementioned literature, there is a clear need for a study that explores perceptions on the anger triggers and the anger management styles of adolescents. Since Singh and Bussey (2010) reason that the social observations of adolescents are determined not only by previous occurrences, but also by their self-appreciation and viewpoints about their own coping abilities and efficacy (Singh & Bussey, 2010), this study focused mainly on the adolescent's own perceptions of anger and the perceptions of teachers and psychologists. The aim of this study was to explore the different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents.

Method

Design

A qualitative exploratory research design was used. Qualitative researchers are concerned about understanding the meaning that individuals ascribe to things or how they

make sense of their world and their experiences (Merriam, 2009). **Qualitative research** is by definition investigative, and is used when we are not sure what to expect, or to define the problem or to develop an methodology to the problem. It's also used to go deeper into matters of interest and to explore distinctions related to the problem at hand (Mora, 2010), for example to explore the perceptions of anger triggers and management styles within a group of South African adolescents. One of the common data collection approaches used in qualitative research is focus group interviews, which was used in this study.

According to Babbie, Mouton, Voster and Prozesky (2001), a qualitative interview is an interaction between a questioner and a respondent where the questioner has a general plan of investigation. The respondents contribute to the direction of the interview and most of the talking is done by the respondent because he or she provides information.

A focus group is a general phrase given to a research interview conducted in groups. It is characteristically a group of people who share a comparable type of experience (Kelly, 2006). The relaxed atmosphere of the focus group interview is intended to urge subjects to speak freely about actions, attitudes and the opinions they possess (Berg, 1995). A semi-structured design was followed in this study to gain insight into the 1) anger triggers, 2) and management styles of adolescents and to determine 3) what they would like to know about anger and anger management.

In addition to the focus group interviews, a biographical questionnaire was developed for this study. Items such as age, gender and language was part of the adolescents' questionnaire. A separate questionnaire for teachers and psychologists included their age, gender and years of experience as a teacher or psychologist.

Participants

The focus group interview participants consisted of an availability sample of adolescents from the age group 16-18 years (Gr. 10-Gr. 12) from a school in the North-West province. Participants were randomly selected from a name list of pupils (age group

16-18 years from grade 10-12) and they took part in three focus groups of seven learners each (Indian=1, Coloured=3, White=5 and Black=12). The focus group consisted of 9 boys and 11 girls. This group was assumed to be normal healthy adolescents with no known serious anger- and other mental problems according to teachers working with them.

Another focus group consisted of five available psychologists working with adolescents (age 16-18) in the North West province.

A similar focus group was conducted with five available teachers from a school in the North-West province.

Procedure

The Department of Education and school principle were approached for informed consent and the objective of the research was explained to them. A name list of the available learners in the age group 16-18 years (grade 10-12) from a school in the North-West province was compiled. In consultation with the headmaster and teachers, learners with known mental or anger problems were excluded from the list. Letters were sent to the parents of the identified learners to get permission from them to conduct this research. Three different focus groups consisting of seven learners each were conducted. Two more focus groups, one with five available teachers and one with five psychologists, were also conducted. In all groups, participation was voluntarily and the aim of the research and matter of confidentiality was explained. The qualitative information obtained by means of the focus groups was transcribed verbatim and read again to identify themes. A thematic analysis was therefore used.

Trustworthiness of data

The trustworthiness of the qualitative data was ensured as prescribed by Leedy (1997) by comparing the data resources and data collected from theoretical and literary

sources. Open-ended questions were used as recommended by Hoyle, Harris and Judd (2002). The data collected were made available to all interested parties to evaluate trustworthiness and to create a chain of evidence (Leedy, 1997).

Ethical considerations

Ethical approval was acquired from the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-00125-11-S1). Written permission was obtained from the Department of Education.

All the different parties (psychologists, teachers and parents of identified participants) involved in this research signed informed consent forms, giving permission for research to be conducted and to confirm that the aim of the research was explained to them and that participation is voluntary. Even if the parent gave informed consent, the student's participation was still voluntary.

The participants were informed that only the researcher will collect the data and confidentiality will be ensured by assigning a number to each participant and only the number would be noted on documents. It was explained that personal identities will be kept separate from the gathered data and only the researcher will have access to the personal information. Data will be stored at the Psychology Department at the North-West University and only the researchers will have access to the data. Participants were informed that anonymity could be compromised in focus groups and they were therefore asked to maintain confidentiality of each other's opinions outside of the focus group interview.

Results

The results of the focus interviews were examined according to correlating themes. Direct quotes were provided to verify the identified themes. The thematic results of the

focus group interviews with the 1) teachers, 2) psychologists and 3) adolescents are as follows:

1. Teachers

Possible anger triggers:

- **Unfairness**

Teachers in the focus group identified unfairness as a common anger trigger in the adolescent. One respondent for instance said: *“As soon as they think they have been treated unfairly, then they are immediately angry”*. Teachers seemed to be very frustrated when learners feel that they have been treated unfairly when they are not given an immediate response. This implies impatience and a low tolerance for frustration, as is apparent from a respondent who explained, *“they are very impatient when you don’t respond to their questions immediately”*.

- **Accountability**

According to the teachers in the focus group interview, adolescents get angry when they need to be accountable for their actions if they had a “good reason” for breaking a rule. One teacher described the following reaction: *“what is your problem? Why are you holding me accountable for this? I have explained to you why I did this so why are you still confronting me with the situation?”*

- **Favouritism**

Based on the information provided by the teachers, it seems like favouritism and inconsistency quickly triggers an anger response in the adolescent, for example *“that person did this and this and now you are punishing me but you did not punish them”*. One teacher agreed on this by stating *“when you hand back tests to them, they check each other’s marks to see if you have been consistent in your way of marking and if you in any way left a little loophole, then you are in trouble”*. All teachers agree that learners are not

able to differentiate between situations and different degrees of error, which leads them to feel unfairly treated.

Anger management styles:

- **Suppressing**

Two teachers agreed that some children try to cope with their anger by suppressing it *“I have this one child that is enormously aggressive, but he will keep it inside”* and *“you can clearly see that they are worked up but won’t speak out or say anything”*.

- **Expressing anger by verbalising**

According to the teachers in this focus group, most adolescents will verbalise their anger and *“there is only a few that will be reprimanded and not say anything”*. It seems like they would often question certain actions and decisions. One teacher stated that *“they like to argue”* and another agreed that *“some of them will argue, some of them will not care, and they will say what they like a way they want to say it”*. Verbalising their anger often helps them to calm down *“sometimes if they can give their input it often calms them down or it gives them a feeling of value”*.

- **Emotional outbursts**

All teachers agree that some adolescents will have emotional outbursts when being confronted. One respondent mentioned an example of an adolescent’s reaction: *“she would start shouting at me ‘you give me a headache, why are you always picking on me?’”*.

- **Taking a time-out or a cooling down period**

It seems like some adolescents try to manage their anger by taking a time-out or a cooling down period. One teacher reported: *“sometimes some of them, if they are upset and you let them go outside, they ask to go outside, and you let them cool down”*.

- **Talking to friends**

According to the teachers, it seems that adolescents take comfort in discussing things with their friends and it calms them down. One teacher disclosed that friends make adolescents feel better *“when they can just consult them and talk to them”*. According to this focus group, friends and peers will also reprimand their friends and help them to stay in line. One teacher said: *“sometimes I find that even the peers will tell them listen here, the way you reacted now was wrong, why did you do this and why did you act like that? The situation did not call for your actions. And then they will listen”*.

Needs with regard to anger management:

- **Consequences**

According to one teacher, adolescents need to learn about the consequences of their anger and their actions: *“When they get into a situation, they just jump in, they don’t think about the consequences first, they just do and afterwards when something bad has happened, then they wonder why this has happened.”* Another teacher agreed wholeheartedly by stating that *“it (consequences) is not even a possibility, they just go ahead and do whatever they feel they must do”*.

- **Listening skills**

The teachers in the focus group agrees that adolescents’ anger management will be enhanced if they can learn proper listening skills. One teacher reported that *“their listening skills are very bad”*. This was confirmed by another teacher who imparted the following: *“I think the first thing they have to learn is to listen to the other person’s opinion before they jump to their own conclusions”*.

- **Communication skills and assertiveness training**

According to the teachers in this group, proper communication and assertiveness training will improve the adolescent’s anger management skills. One teacher conveyed

that *“communication skills are very important, wait till the other person is finished talking before you interrupt them and that is something they find very difficult even if they are taught that”*. Another teacher agreed by mentioning that *“they don’t think what comes out of their mouths, you say something and they react immediately and they do that with their friend, they do that with adults, they do that with everyone around them”*. It seems that adolescents are also unable to distinguish when they should act and when not to, as one teacher stated: *“they don’t understand the whole thing of turning the other cheek. To them it means that then I am not strong, then I am weak, I have to attack”*. Two more teachers agreed on this by pointing out that their learners often feel that *“if somebody do something to me, I need to do something back”*.

- **Knowledge about anger and anger management techniques**

Based on the teachers that participated in the focus group, the adolescent needs information and knowledge about anger in general. One teacher expressed the following opinion: *“I think they should realise that sometimes it is ok to be angry, but there are different levels of anger”*. Another teacher confirmed this by pointing out that they need to *“see where the anger is coming from, what makes me angry and how do I react when I am angry”*. One teacher felt that there is a need to explain the physiology behind anger since they, as teachers, do not have the time or knowledge to explain it well: *“For me the problem is that I don’t always have the time to sit and explain the exact physiology behind the whole thing”*. Another teacher felt that it is important to teach the adolescent different anger management techniques in a structured and simple way: *“I think if you can give them steps like if you really get anger, step one, do this, breathe three times deeply, or something like that”*.

- **Problem solving techniques**

All teachers seem to be in an agreement that adolescents need to learn better problem solving techniques, which they believe will enhance their anger management skills. As one teacher confided: *“I think they must learn to confront their problems, rather than to try and find an escape route or a loop hole, or shift the blame”*. Another teacher

agreed by mentioning that *“I think that they should also realise that they should accept life don’t work that way, that everything is not going to be as I want them to be. Sometimes I am going to make mistakes and there are ways to rectify those mistakes”*.

2. Psychologists

Possible anger triggers:

- **Unfairness**

Psychologists in the focus group felt that adolescents become angry when they perceive something to be unfair, especially with regard to parents and school, as one psychologist described: *“parents who discipline them, parents who take their cell phones away and parent who don’t allow them to go out with friends. Parents who give structure”*. This was confirmed by two more psychologists who stated that adolescents are angered by *“unfairness in school, especially from the teachers and unfairness in the classroom”* and *“if a child didn’t do something and the teacher said that he did, that makes them very angry”*.

- **Lack of trust and disrespect**

According to one psychologist adolescents *“get very angry when you treat them like a child”*. Another psychologist confirmed that teenagers are angered *“when they are not treated as people. The whole thing of I am not a child anymore, but I am not an adult”*. If the adolescent feels disparaged, he feels angry. One psychologist formulated this by saying that adolescents become angry *“when they feel not heard in all the things they have said”*. Another psychologist agreed that *“they get frustrated when they don’t get the chance to tell their side of things”*. Adolescents often feel angry when they are not trusted by a parent or adult, as one psychologist noted: *“they say parents don’t trust them”*.

- **Lack of freedom**

One psychologist in this focus group felt that adolescents are angered by a lack of freedom and mentioned that *“teenagers get angry when you don’t allow them to do what*

they want to do". This was acknowledged by another psychologist stating that teenagers get angry "*when you don't allow them to indulge in their own irresponsibility, in doing what they want to do*".

- **Gossiping**

It seems that adolescents get angry when someone gossips about them, as one psychologist revealed: "*they are doing it through Facebook and stuff like that. And then they get very nasty and ugly because they don't tell it to your face*". Another psychologist agreed and mentioned that "*girls are worse, they can ruin a girl's reputation just like that on BBM and Facebook and they don't get a chance to defend themselves*".

- **Inconsistency**

Adolescents seemed to be triggered by inconsistency on the part of adults and peers. One psychologist communicated that teenagers get angry "*when they see you preach one thing to them and then you do something else*" or as another psychologist confirmed: "*don't preach to me and then you go out and do this yourself*".

Anger management styles:

- **Withdrawal**

One psychologist in this group noticed that withdrawal is a common coping method for anger: "*What I find is that they just tend to withdraw*". Another psychologist confirmed this by saying that what she hears most of the time is "*I just shut them out, I just went to my own little world in my room that is where I feel safe, and there they can't get to me*".

- **Passive aggressiveness**

All psychologists agreed that adolescents can try to manage their anger by being passively aggressive. One psychologist mentioned that she often hears "*if my parents don't trust me, I will give them reason not to trust me, they don't trust me anyway, so what*".

do I have to loose, I will do what I like anyway". Two other psychologists confirmed this by stating that adolescents often revert to manipulation to get what they want, for instance *"if you let me do this, I will do this, of you don't let me do this, I will do this"*.

- **Taking recreational drugs, prescription medicine and alcohol**

According to the experience of psychologists in this group, many adolescents take recreational drugs as a means to cope with anger. One mentioned that *"a lot of them take drugs and what they call it is innocent drugs. There is an enormous amount of teenagers taking these drugs and alcohol"*. According to another psychologist, parents are often part of the problem: *"the parents agree to the use of 'innocent' drugs or they just ignore it and don't make a fuss about it, they can smell it and see it but don't make a fuss of it, and its okay, as long as it is not hard drugs"*. Some adolescents will also revert to taking their parent's prescription medicine as a means to cope with their problems. One psychologist shared *"I find so often that they will take the parent's prescription medication"*.

- **Taking part in enjoyable activities/sport**

Psychologists in this focus group felt that some adolescents cope constructively with their anger by taking part in enjoyable activities that they are passionate about. One psychologist formulated this as follows: *"you get a lot of kids doing activities just for the fun of it and what I have seen is, first of all, when they are passionate about things, when they have something they feel passionate about, then they are more resilient and it makes them more able to cope with life's stress that is causing the frustration"*. Another psychologist agreed by stating *"it's like they can resolve it (anger) internally easier when they feel passionate about something. Passion becomes a coping mechanism, because now if I am angry I get on my horse and ride or play an instrument"*. Another psychologist agreed that adolescents participate in activities in order to cope with their anger, *"when I am angry I just go to my dance class or my rugby practise"*

- **Taking a time-out**

Some adolescents actively take a time-out to try alleviate angry feelings by focusing on other activities. One psychologist described that *“they like to go listen to music or writing in a journal or play some computer games”*.

Needs with regard to anger management:

- **Communications skills and assertiveness training**

Psychologists that took part in this focus group were of the opinion that adolescents lack proper communication skills and that this has a negative impact on their anger management. One psychologist said *“they don’t know how to resolve conflict in a healthy way, they lash out, even against teachers and authority figures, they tend to lash out and worsen the situation”*. One psychologist sees this lack of conflict resolution skills especially with the girls *“it’s kind of like they have few conflict resolution skills, almost like a Mafia generation, so if you hurt me in any way, I will get you”*. One psychologist agreed and conveyed the opinion that *“everyone needs to understand that you feel angry, but it is important how you express it, you handle it and you resolve it because that is where the problem lies”*.

- **Knowledge about anger and anger management techniques**

All psychologists in this focus group agreed that adolescents need to know more about anger itself and the management thereof. One psychologist revealed that adolescents *“like it when you explain to them how it works in the brain and the whole combination of I am not just bursting out with anger, there is actually things happening”*. Another psychologist agreed that *“they need to take more control of what is happening inside and not just focus on the external anger”*. This was confirmed by another psychologist who said *“they need to learn how to respond to emotions, excepting them and understand them”*. Psychologists are also all in agreement that teenagers should know more about the consequences of their anger, as one psychologist mentioned *“they should know about the destructive consequences of anger”*. All psychologists confirmed

that adolescents need information “*to alleviate physical symptoms*” by teaching them different anger management techniques.

3. Adolescents

Possible anger triggers:

- **Favouritism**

Most adolescents in the focus groups agreed that favouritism makes them angry. This seems to also be applicable to the family environment where siblings are not treated equally. One participant explained that “*favouritism also comes in when there are four to five children, there is always that one that gets blamed for doing something wrong*”.

- **Disrespectful people**

One focus group agreed that disrespectful people is an anger trigger, for example “*the things they say about a girl and stuff and then they think it’s normal to call girls names*” or funny little remarks toward teachers like “*I wish the teacher can die right here*”. “*Being shouted at*”, “*sarcasm*” or “*when they ignore me*” is also considered disrespectful behaviours that makes them angry.

- **Lack of understanding**

Most adolescents agreed that it makes them angry when someone is not understanding: “*when they listen but they say a joke about something and it’s very serious, that makes me angry*”. Another participant agreed that it irritates him “*when people are not understanding*”. This was confirmed by another focus group who felt that “*everyone must look at it from their point of view but they don’t put themselves in other people’s positions*”. It seems like adolescent feel that a lack of understanding from parents is a sure anger trigger: “*I feel like sometimes our parents don’t understand us at this age. They always say ‘we’ve been through the same things as you’, but it is still so different sometimes*”. Another agrees on this by saying that all sentences starting with “*when I was*

a child...” is very annoying. Another member felt that parents makes him angry “*when they don’t understand we have a lot of homework and studying and they want particular things done at that time*”.

- **Unfairness**

Almost all participants agreed that unfairness makes them angry. One participant admitted to get angry “*when I get blamed for stuff I didn’t do*”. More participants agreed on this using classroom examples such as “*when you go to a teacher and they snap at you and say ‘no go sit’ but then another child will come round and they need help and they’ll go and be all nice to them and explain like everything that they need help with then it’s like you say ‘but now you didn’t do it to me’*”. This also seem to be applicable when it comes to parents: “*when they accuse you of doing something, it ticks me off*”.

- **Control without proper explanation**

One adolescent confided that he is aggravated when “*they don’t let you do something. When you ask them why, you understand, but why? And then they don’t tell you*”. More agreed that it makes them angry “*when they are being told what to do without giving the reason*”.

- **Lack of trust**

Most participants in the focus groups felt anger when they are not trusted, for example “*If you give them reason not to trust you then you can understand*”. Others agreed on this by stating: “*yes, they already think you are going to do it*”. Another agreed with “*like with your cell phone, I know I have nothing to hide, but they constantly think that there is something wrong and then they take your phone and go through it and it’s kind of an invasion of your privacy*”. Others agreed by “*and then they go through your Facebook and Twitter account, everything*”.

- **Betrayal**

It seems that adolescents is angered when they are betrayed in some way or another. One example provided was *“when you tell your parents something in confidence and then they go and tell everyone”*. Gossiping is also considered a betrayal that can make adolescents very angry, as one adolescent explained: *“when someone gossips behind your back”*.

- **Inconsistency**

Adolescents are angered by inconsistency, especially on the part of the parents. One participant discloses the following: *“like if something happens today, they will say ‘agh, it is okay’ and then you catch them on that one day and you do the exact same thing and then they blow up entirely”*. Another participant agreed by stating: *“if you do something wrong, they let it go, but the next time you do something again, they bring up something from the past”*.

Anger management styles:

- **Withdrawal**

Some adolescents revert to withdrawal to cope with their anger triggers. One adolescent admitted: *“I keep it all inside”*. Two other participants agreed that *“there is nothing you can do about it, so you keep it inside and the anger just builds up”* and *“I withdraw completely, like my room’s door is always closed and I just don’t bother going out again”*.

- **The silent treatment**

A few participants in this focus group mentioned that they use the silent treatment as coping method to anger. One adolescent explained: *“you kind of march around and put things down heavily and then they are like ‘what’s wrong?’”*, or as another mentioned: *“if I am angry at you I will talk to everyone, but ignore you”*. Another participant agreed by

saying “*we don’t even make eye contact; you just skip the person completely. It is like that person isn’t even there*”. The silent treatment is also used on parents, as one girl admitted: “*I just pretend that I am not interested in what she has to say*” or “*I just ignore her*”.

- **Aggressiveness**

Some participants mentioned that they react to anger triggers with aggression, for example: “*With me and my brother, like every time we fight, it’s never just fighting, I always have to like, throw something at him*”. Two more participants agreed with this, stating: “*If a friend would hurt me I would take anything and throw him with it*” and “*you have to kick something or just do something just to take it out. Kick something or throw something just to get the anger out*”. It seems that even on the sports field, aggressiveness is a common response to anger: “*you use the game to physically harm him, like if he is in your way, you just smack the ball straight at him*”. Another participant admits that he becomes aggressive by using his voice “*I start to talk very loud, I’ve got this thing to overpower the person with my voice so they can hear what I am saying*”. Another participant agreed that he uses “*swearing, verbal aggression and punching walls*” to get his point across.

- **Sarcasm**

In one focus group, some participants mentioned that they respond to anger triggers with sarcasm: “*My dad’s exactly the same as me that’s why we’re like sarcastic to each other*”. Another participant agreed with this: “*I would say something just to provoke something and then he’ll say the same thing*”.

- **Crying**

It seems that some adolescents react to anger by crying, as one girl described: “*you just start crying*”. Another explained further by stating: “*people think you are weak and crying, but the thing is, you are so angry and you don’t know how to express yourself*”.

- **Praying**

According to one focus group, praying is a common method to deal with anger: “*praying helps a lot*”. One participant elaborated as follows: “*praying is very calming, like it takes you out of the situation*”.

- **Listening to music**

Participants in one focus group think that listening to music helps them to calm down when angry: “*for me it is listening to music, if I listen to music then I can let go*”. Another participant agreed that “*listening to music with friends*” calms him down.

- **Playing sport or exercising**

One participant mentioned that “*if I am angry, I will exercise*” and others in the group agreed by stating that “*exercise helps a lot*” to take your focus off and helping you deal with anger. In another focus group, one participant advised that: “*when I exercise it always lifts my mood*”. Participants agreed that “*sports are the most underused anti-depressants*”.

- **Spending time with animals**

Adolescents participating the focus groups seem to often revert to their animals to help them deal with angry feelings. One adolescent explained: “*My dogs, animals, a little puppy helps me cope*”. Another participant agreed on this by stating: “*I think, like, if you play with your dog it's like your dog just brightens up your day because like, the dog sees no fault in you*”.

- **Spending time with friends**

It seems that spending time with friends helps the adolescents cope with anger, as one participant mentioned “*I surround myself with friends*”. Another agreed that “*my friends are chilled; they will be like ‘we missed you’*”. Other participants agreed that “*talking it out with friends*” tend to help a lot to cope with angry feelings.

- **Confrontation**

It seems that some participants tend to confront people when they are angry, but with a lack of success. One adolescent reported: *“you confront them and it’s like ‘oh no wait I have to go’ and then they will go on you on BBM or something like that”* or *“when you confront somebody directly they will say ‘hi buddy, how are you?’”*. Another participant agreed strongly by stating: *“if I confront you about something and I know you did it wrong and you tell me ‘no it wasn’t me’, then I lose it”*.

Needs with regard to anger management:

- **Communications skills and assertiveness training**

Based on information gathered from the focus group, adolescents seem to need training in communication skills and assertiveness to help them deal better with anger. One participant disclosed that he needs more information on *“confronting people, like when you’re angry, how to approach them”*. Another participant agreed on this by saying: *“how do you, like, go to them?”* instead of *“being sarcastic or giving them the silent treatment”*.

- **Knowledge about anger and anger management techniques**

Most adolescents who participated in the focus groups identified a need for more information on anger and anger management. As one participant requested: *“if I could understand it, it would be much easier”*. Another participant agreed by saying *“In our world we are taught about anger management but not why you get angry and things like that. They teach you things that you never use”*. This was confirmed by another member stating: *“yes, if they could just explain it, why you have to do this and that”* and *“explain why you should use a certain method and to know what is best for what situation”*. It seems that they would like more information on the biology of anger, as two participants stated that they would like to know *“what causes it in the mind”* and *“if it is a thinking process, where does that thinking start?”*

Discussion

The aim of this study was to explore the different perceptions with regard to anger triggers and anger management styles and the needs with regard to anger management within a group of South African adolescents. The perceptions of the adolescents themselves were explored, as well as those of a group of teachers and psychologists working with adolescents.

Anger triggers

Anger is defined as a severe emotional reaction that depends on the appraisal of happenings and the allocation of meaning to them (Arnold, 1960). According to appraisal theories of emotions, a situation may stimulate in a person a set of appraisals, and distinctive patterns of such appraisals are associated with the experience of specific feelings, such as anger (Frijda, Kuipers, & ter Schure, 1989; Smith & Lazarus, 1993). Appraisals, including the associated bodily changes and behaviour tendencies, are what differentiate our emotions. If an appraisal changes, the emotional experience fluctuates accordingly (Ellsworth & Smith, 1988; Lazarus, 1991). For instance, if someone appraises a condition as goal-blocking and they hold someone else responsible for it, this individual may experience anger (Kuppens, Van Mechelen, Smits, De Boeck & Ceulemans, 2007).

Previous research on anger was studied and four appraisals related to anger were selected as possible anger triggers. These include goal obstacle and unfairness, control, and threat to self-esteem.

- **Frustration and goal blocking**

Some authors consider frustration as the most crucial appraisal associated with the experience of anger (Averil, 1983; Frijda, 1993). Frustration can be described as an interference with the existence of an instigated goal-response at its appropriate time in the behavioural order (Dollard, Doob, Miller, Mowrer, & Sears, 1939) or the blocking of a goal-directed behaviour sequence (Scherer, 2001). According to Kuppens and Van Mechelen (2007), the level of frustration experienced may be associated with the level of

importance that a person attaches to a particular goal. This relates to the *lack of freedom* anger trigger identified by psychologists in this study, namely that “*teenagers get angry when you don’t allow them to do what they want to do*”. Teachers in this study agreed and mentioned that adolescents get angry when they are being held *accountable* for their actions. Research confirms that a person's freedom is positively linked with responsibility (Frangou, Wilkerson & McGahan, 2008; Massey, 2006; Ormrod, 1999).

- **Unfairness**

Adolescents, teachers and psychologists in this study all agreed that the perception of *unfairness* is a cause of anger. Unfair handling reflects a cognitive state where persons view their current situation to be conflicting with past circumstances, anticipated conditions, or others’ conditions (Vienno, Gini, Santinello & Lenzi, 2011). The relationship between anger and unfairness has been acknowledged in a variety of research projects (Ellsworth & Smith, 1988; Kuppens, Van Mechelen, Smits & De Boeck, 2003; Mikula, Scherer & Athenstaedt, 1998). Adolescents in this study were angered by unfairness in the classroom and research demonstrates that perceptions of unfair treatment obstruct achievement, weaken interest and enthusiasm to study, suppress scholar morale and foster negative emotions (such as anger) and attitudes in the schoolroom (Chory-Assad, 2002; Wendorf & Alexander, 2005). Shapiro (1990) confirms that adolescents are particularly sensitive to perceived unfairness. The latter is also applicable to unfairness within the family. From a family perspective, Jurkovic (1997) interprets unfairness as the perceived degree to which a youth’s own physical and emotional needs are not met by parents and the larger family, resulting in angry feelings.

- **Control**

Power over what is happening, or the appraisal of control, has been considered as a cause of anger by numerous appraisal theorists (Ellsworth & Smith, 1988; Scherer, 1993; Smith & Lazarus, 1993). Both the psychologists and adolescents in this study identified a *lack of trust* as an anger trigger. According to Erikson (1968) and Steinberg and Silk (2002), adolescents have an increased need for autonomy and should be given

more room to explore, develop and grow. On the other hand, since they are not fully mature, they still need guidance and monitoring and the role of control becomes less clear (Harris-McKoy & Cui, 2013), causing frustration and anger (Averil, 1983; Frijda, 1993). Shek (2008) agrees that if an adolescent feels distrusted by the parents, parental control would be seen negatively. Adolescents in this study confirmed that they are angered by being *controlled without proper explanation* and with *a lack of understanding*. This refers to both psychological control and behaviour control. Psychological control signifies to the adult who endeavours to control the child's actions in ways that negatively upset their psychological world and that damage their psychological development such as the constraint of verbal expression, personal assaults, invalidating emotions, love withdrawal, guilt induction and unpredictable emotional behaviour (Shek, 2006; Smetana & Daddis, 2002). Furthermore, behaviour control refers to those rules, regulations and limitations placed on youngsters (Pettit, Laird, Dodge, Bates & Criss., 2001; Smetana & Daddis, 2002) that are perceived negatively by the adolescent. Both psychologists and adolescents in this focus group identified the *inconsistency* with which adults apply the mentioned psychological and behaviour control as an anger trigger. Research confirms that inconsistent parenting is associated with negative feelings (such as anger), psychological disorders and low connectedness between adolescents and their parents (Dadds, 1995; Dwairy, Achoui, Abouserie & Farah, 2006; Patterson, 1982).

- **Threat to self-esteem**

According to Baumeister, Smart and Boden (1996) Kernis, Grannemann, and Barclay, (1989) and Lazarus (1991), appraising one's surroundings as threatening to one's self-regard is seen as an important forerunner of anger and violence and the expression of anger is expected to serve as an attempt to preserve or reinstate one's self-regard or public image (Kuppens & Van Mechelen, 2007). However, the contrary has also been suggested, specifically that an exaggerated but unstable self-esteem leads to anger and hostility when disputed by others (Baumeister et al., 1996). Self-esteem instability makes a person more sensitive to evaluative comments and increases concern over one's self-esteem (Waschull & Kernis, 1996). Since self-esteem is dynamic during adolescence (Baldwin & Hoffman, 2002), changes in responsibilities, social roles and

personal identity may contribute to the instability of self-esteem in adolescence (Kort-Butler, 2012).

In this study, both teachers and adolescents identified favouritism as an anger trigger. Harris and Howard (1985) confirm that when parental favouritism is perceived, the non-favoured child's self-esteem is under threat and he may feel inferior, angry, depressed, unattractive and incompetent (Zervas & Sherman, 1993). Other researchers also confirm that favouritism is related to anger and aggression (Gilbert & Gerlsma, 1999; Scholte, Engels, de Kemp, Harakeh & Overbeek, 2007).

Adolescents and psychologists in this study also identified *disrespect* as an anger trigger. According to the participants in this study, disrespect included things like "*being shouted at*", "*sarcasm*" or "*when they ignore me*" or "*treat me like a child*". Being seen and valued as a human being is essential to all people, including adolescents (Nordenfelt, 2004). Blincoe and Harris (2011) agrees that a person's self-image is severely affected by social evaluations. One such basis of evaluation is respect. Anger has been strongly linked with disrespect (Miller, 2001) and adolescents' angry and violent reactions to disrespect has been confirmed in different studies (Anderson, 1994; Stewart, Schreck & Simons, 2006).

Psychologists in this study is of the opinion that adolescents are often angered by *gossiping*. Gossip is defined as one person divulging to others intimate, highly personal facts concerning another individual (Radlow & Berger, 1959). Goldstein and Tisak (2010) believe that during early youth, loyalty, intimacy, and self-disclosure become progressively central to formations of attachments and it might be that gossip is seen as a danger to this developing formation of friendship and it can cause irreparable damage to friendships. Crick (1995) agrees that interpersonal aggression is a form of aggression that happens when intentional harm is conveyed through the manipulation of social relations, such as is the case in insulting gossip, social rejection, or giving somebody the "silent treatment", all of which has a negative impact on the adolescent's self-esteem. Adolescents that participated in this study agreed that *betrayal* through gossiping is a

definite anger trigger for them. The perception that another individual is to blame for the bad situation is fundamental to appraisal accounts of anger, in that it is exclusive to anger (Ellsworth & Tong, 2006). First, attributing unfriendly intentions to the conduct of others has been identified as an important predecessor of anger (Dodge, 1993; Kuppens & Van Mechelen, 2007). Second, the opinion that one is treated unfairly or discourteously is recognised as a common cause of anger (Miller, 2001).

In general, the results showed that anger can be triggered with various distinctive patterns of appraisals, significantly varying across individuals and situations. Though the experience of anger was constantly accompanied by an appraisal of frustration, there are individual differentiations in whether or not the pattern of appraisals that coincided with anger included unfairness, control or threat to self-esteem.

Anger management styles

According to Lazarus (1991), theoreticians have long affirmed that anger is associated with a distinctive, biologically-based action propensity to attack the source held accountable. Coping with anger can thus serve at least three main functions: efforts to escape, evade, or distract oneself from the situation, efforts to resolve the situation that triggered stress, or efforts to deal with one's feelings (Bolgar, Janelle and Giacobbi, 2008). Research suggests that several anger expression styles exist (Linden et al., 2003). Spielberger, Johnson, Russel and Crane (1985) differentiate between "anger-in" versus "anger-out" response styles.

Anger-in is associated with self-deception, passivity, and suppression of anger. Teachers, psychologists and adolescents in this study confirmed *suppressing* and *withdrawal* as an anger management style often used by adolescents. Hampel and Petermann (2006) confirm that avoidance coping in adolescents lead to the emergence of behaviours such as anger and aggression. According to Barnow, Lucht and Freyberger (2005), adolescents often revert to interpersonal aggression, which involves spreading rumours, gossiping, and withholding or preventing friendship in order to cope with their

anger. Both psychologists and adolescents saw *passive aggressive* acts such as giving the *silent treatment* as an anger management style often used by adolescents. According to research, some people indirectly signal their discontent by using the silent treatment (Buss, Gomes, Higgins & Lauterbach, 1987) and this most often includes reduced eye contact and being unresponsive to another's remarks or actions (Williams, 2001). Both passive aggression and the silent treatment sidesteps direct confrontation and does not openly indicate the cause for dissatisfaction. It is often perceived as a social punishment (Williams, Shore & Grahe, 1998). The silent treatment seems to be a dysfunctional method to deal with relational difficulties (Williams, 2001).

Psychologists in this study also noted that adolescents sometimes revert to the *use of alcohol or recreational drugs* in order to deal with their anger. Empirical research confirms that anger has been associated with substance abuse in adolescents (Field, 2002; Ryan, Miller-Loessi & Nieri, 2007). Adolescents in this study confirmed that sometimes they just *cry* when angry. It has been confirmed in research that the incapability to express anger when emotionally provoked results in frustration that is shown through tears (Crawford, Kippax, Onyx, Gault & Benton, 1992; Eatough, Smith & Shaw, 2008).

Anger-out behaviour is characterized as verbal or physical aggression (Martin & Watson, 1997; Spielberger et al, 1985) such as hitting, hurting objects, swearing, affronting or criticizing (Arslan, 2010). Such aggression is deliberate behaviour aimed at producing emotional or physical pain (Berkowitz 1993). Teachers in this study confirmed that adolescents often revert to *expressing their anger verbally* and displaying *emotional outbursts* as a means of managing their anger. Adolescents that participated in this study agreed that they often react *aggressively* (criticizing, sarcasm/swearing/hitting) as a result of their anger. Research confirms that blatant aggression includes both verbal and physical aggression and includes the intent to hurt other people with actions such as hitting, poking, pushing and verbal actions such as yelling, screaming and threatening remarks (Crick & Grotpeter 1995). According to Weber, Wiedig, Freyer and Gralher (2004), expressing anger and reacting violently can be considered a very ineffectual

strategy for anger regulation. Empirical research has confirmed that expressing anger often fails to decrease anger (Baumeister, Heatherton & Tice, 1994; Tavis, 1984).

Anger expression has been further categorised as anger-in, anger-out and anger-control (Deffenbacher, Oetting, Lynch & Morris, 1996), where **anger control** suggests to efforts to relax and reduce one's experience of anger (Katcher & Wright, 2013) such as having a general tendency to behave patiently, calmly, and in a tolerant and understanding manner (Arslan, 2010). Efforts to control the outward expression of anger is shown to correlate negatively with aggression and violence (Swaim, Deffenbacher & Wayman, 2004). Both teachers and psychologists in this study confirmed that adolescents often use a *time-out* as an effort to control their anger. According to Quang-Dang and Vahabzadeh (2013), taking a time-out is an important anger management approach that helps you think instead of thoughtlessly responding in the heat of the moment.

Both teachers and adolescents in this study agreed that "*talking to and spending time with friends*" calms them down and helps them control their anger. Many studies have shown that personal relationships, especially close relationships, such as friendships and romantic relationships, play an important role in adolescents' coping during stressful situations such as anger (Cortina, 2004; Feng & Hyun, 2012; Uchino, 2009).

Taking part in sport, exercise and enjoyable activities (such as *music* or *spending time with animals*) were identified by both psychologists and adolescents as a way of calming down and reducing anger. Yin, Davis, Moore and Treiber (2005) confirms that adolescence physical activity decreases the effects of stress (as generated by anger). Participation in leisure and its benefits to the mental health of adolescents have received much attention in research (Lee, Wu & Lin, 2012) and these studies indicate that leisure brings enjoyment and happy feelings that lead to free self-actualization, the enhancement of mental and physical health (Henderson & Bialeschki, 2005) and increases coping with stress (such as anger) and life satisfaction (Iwasaki, 2007; Lloyd & Auld, 2002).

Adolescents in this study also confirmed the role of *praying and spirituality* as a means of managing their anger. Seybold and Hill (2001) agree that teenagers might turn to religious beliefs and practices as one source for coping with stress or uncomfortable feelings such as anger. Research confirms that spiritual practices and spirituality may resolve anger experiences by providing psychological resources, social support and a chance for the healthy expression of feelings such as anger (Ellison, 1998).

Confronting people and situations that are causing anger were identified by adolescents as an anger management style aimed at controlling and resolving anger. Research confirms that non-aggressive open interaction that aims at rectifying wrongdoing and stressing the social standards of behaviour is considered the most appropriate response to irritation (Averill, 1982; Weber & Titzmann, 2003; Whitesell, Robinson & Harter, 1993).

In conclusion, the results of this study demonstrate that although adolescents are trying to cope with anger in a variety of ways, in general they seem to find it difficult to deal with intense emotions such as anger. This might be because the particular brain areas related to attaining the cognitive skills required for emotion regulation are still developing during puberty (Casey, Jones & Hare, 2008; Steinberg, 2005). Plaisier and Konijn (2013) confirm that teenagers lack the skills to effectually regulate emotions such as anger.

Needs with regard to anger management

In this study, the adolescents, teachers and psychologists identified a need for *communication skills* and *assertiveness training*. Research highlights the beneficial roles of anger, such as remedying wrongdoing and reaffirming widely accepted standards of behaviour (Averill, 1982; Novaco, 1976). Whether anger produces positive or negative consequences mainly relies on the way irritations and frustrations are controlled and dealt with (Weber, Wiedig, Freyer & Gralher, 2004). If the adolescent possesses effective social skills such as efficient communication and assertiveness, it can lead to a more positive

self-esteem and better relationships (Riggio, Throckmorton & DePaola, 1990), since assertiveness is based on direct and applicable communication of a person's opinions, needs and wants without punishing or putting down other people (Arrindell & van der Ende, 1985). For adolescents, the anger stimulus is social (Yazgan-Inanc, Bilgin & Atıcı, 2007) and research confirms that assertiveness training is vital for adolescents in order to enhance their social skills to help them cope effectively with their social environment (Harrel & Strauss, 1986; McBroom, 1997).

According to Beck and Fernández (1998), teaching suitable anger coping skills may be of substantial benefit to every person and to society. Teachers in this study identified proper *listening skills* and *problem-solving techniques* as important coping skills that have to be enhanced to help the adolescent deal with anger effectively. Proper listening skills imply that the adolescent should be taught how to generate and process messages that will enable them to accomplish their social goal more efficiently and effectively (Delia, O'Keefe, & O'Keefe, 1982). Problem solving in social circumstances is the cognitive-affective-behavioural process through which the teenager attempts to resolve real-life difficulties in a social environment, and it is of significant importance in the management of feelings (such as anger) and well-being (Siu & Shek, 2010). Training in solving of social problems is a critical element in programmes for fostering the quality of social relations (Shure, 1997) and the controlling of anger and aggressive behaviour (Frey et al. 2000) in teenagers.

Adolescents in this study identified the need to know more about *anger* itself as well as of different *anger management techniques*. Teachers and teachers participating in this study confirmed that adolescents need more knowledge about anger and anger management. Some studies lend support to the significance of understanding exactly how behaviour, the environment and personal factors interact, allowing adolescents to have control of their lives and their anger, rather than relying on highly affective behavioural control (Bandura, 2008, Burt, Patel, Butler & Gonzalez, 2013). Effectual interventions should include not only thinking, but physiology and behaviour as well. While it is not clear which application of methods might be more efficient, a wide spectrum of interventions

can provide skills and knowledge, and will affect emotions, thinking, and conduct, all of which are linked to effective anger management (Normantaite & Perminas, 2013).

Limitation of the study

A limitation of the current study lies in the reliability of self-reported responses instead of real or ongoing occurrences. However, this methodology allowed the researcher to assess different perceptions within different groups. Although the researcher found participants to be eager and motivated to participate, the honesty of the responses obtained cannot be assured. The responses were thought of as honest due to the voluntary nature of the participation and the extensive explanation of the ethical issues. Another limitation includes the fact that the findings of this study are only generalizable to this specific population and cannot be attributed to other populations.

Recommendations

A practical recommendation for future research is to develop a programme that facilitates the enhancement of anger management for adolescents with specific reference to the areas identified in the findings of this study.

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CHAPTER 3

Article 2

The development of an online self-help anger management programme for South African adolescents using positive activity interventions

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Abstract

Since the period of adolescence is marked by an increase in intense emotions, including anger, it becomes a sensitive period for maladjustment. A study was conducted to explore the different perceptions that adolescents, psychologists and teachers hold with regard to anger triggers and anger management styles, as well as the needs with regard to anger management within a group of South African adolescents. Anger triggers identified in this study were related to the appraisal of frustration and goal obstacles, unfairness, control and a threat to self-esteem. Participants in this study identified a need for communication skills and assertiveness training, as well as for more knowledge about anger and the different anger management techniques available. The aim of the study is, therefore, to develop a self-help online anger management programme that will enhance the teenager's ability to cope and deal with his/her anger with reference to the identified themes using positive activity interventions. Guided self-help (GSH) is the conceptual framework that underlies this programme. Bernecker (2014:11) describes GSH as “any treatment that uses a self-help resource (e.g., computer programs) in conjunction with reduced contact with a professional”. The GSH framework was chosen since adolescents are prolific users of the internet and it also appears to be their preferred medium of communication. The programme is divided into six sessions of one hour each, addressing what anger is, understanding the roots of anger, how to relax, learning to let go and how to be assertive as well as an overview session.

Keywords: anger management, adolescent, self-help, programme development, positive psychology

Introduction

One of the most serious concerns that parents and educators share are problems emanating from adolescents' anger and aggression (Konishi & Hymel, 2014; McGee, Silva, & Williams, 1983). Since the period of adolescence is marked by an increase in intense emotions, including anger, it becomes a sensitive period for maladjustment (Zimmermann, Mohr & Spangler, 2009). Research confirms that anger and aggression are among the most common reasons why adolescents are hospitalized for psychiatric reasons (Rice, Woolston, Stewart, Kerker, & Horwitz, 2002; Sukhodolsky, Cardona & Martin, 2005).

According to Smit (2008), violence has become a major part of South-Africa's culture and appears to be a regularly used technique of problem solving among adolescents. In South Africa many adolescents are exposed and susceptible to ongoing violence as a result of family dysfunction and poverty (Van der Westhuizen & Maree, 2009; Willemse, Smith & van Wyk, 2011). Given these conditions, it is likely that conflict resolution abilities play a fundamental role in helping teenagers deal with pressures and strains and may be critical to shaping the teenagers' developmental opportunities (Lai et al., 2013).

As a result, more researchers are focusing on the needs of adolescents by means of anger management programmes and the results have been positive and encouraging (Deffenbacher, Lynch, Oetting & Kemper, 1996; Goldstein, 1988; Nugent, Champlin & Wiinimaki, 1997). Unfortunately, there are very few programmes designed for this purpose in South Africa (Smit, 2008) and most of the available programmes remain inaccessible to the general adolescent population, especially those in rural areas (Saul, 2005). Alternative modes of education have to be considered to increase the availability of anger management programmes to the adolescent (Spence et al., 2011).

Research demonstrates that online self-help groups are beneficial in helping people cope with different challenging life circumstances through the disembodied, mutual exchange of emotional support, experiences and knowledge (Bar-Lev, 2008;

Hinton, Kurinczuk, & Ziebland, 2010; Trondson & Tjora, 2014). Since adolescents are the most enthusiastic internet operators (Andreassen et al., 2007), online health programmes are especially useful in providing help to young people on various topics (Suzuki & Calzo, 2004), including anger management. Internet-based interventions may increase autonomy, decrease stigma, provide low cost access, save travelling time, decrease waiting-lists, eliminate the need to schedule appointments with a therapist, and reduce problems like a lack of willingness to talk to a stranger about personal difficulties (Hoek, Schuurmans, Koot & Cuijpers, 2012).

It seems that there is a perceived tendency among helping professionals to focus on what is wrong with clients rather than recognizing their strengths and resources (Weick, Rapp, Sullivan & Kisthardt, 1989). Also, in the anger management field groups have overlooked the development of prosocial capabilities and have highlighted negative behaviours (Serin, Gobeil & Peterson, 2009). Based on the latter, more focus is needed on positive interventions in anger management. A positive intervention is described as “an intervention, therapy, or activity primarily aimed at increasing positive feelings, positive behaviours, or positive cognitions, as opposed to ameliorating pathology or fixing negative thoughts or maladaptive behaviour patterns” (Sin & Lyubomirsky, 2009:469). A subgroup of interventions has been recognized as those that can be self-administered without specialised involvement. Referred to as “positive activity interventions,” or PAIs, these are described as “relatively brief, self-administered, and nonstigmatizing exercises that promote positive feelings, positive thoughts, and/or positive behaviours, rather than directly aiming to fix negative or pathological feelings, thoughts, and behaviours” (Krentzman, 2013; Layous, Chancellor, Lyubomirsky, Wang, & Doraiswamy, 2011).

In order to develop such a programme, a study was first conducted to explore the different perceptions that adolescents, psychologists and teachers hold with regard to anger triggers and anger management styles, as well as the needs with regard to anger management within a group of South African adolescents. Focus groups were held involving 21 learners and 5 teachers from a school in the North West area of Klerksdorp, as well as with 5 psychologists working with adolescents in the same area. Anger triggers

identified in this study were related to the appraisal of frustration and goal obstacles, unfairness, control and a threat to self-esteem.

Participants in this study identified a need for communication skills and assertiveness training, as well as for more knowledge about anger and the different anger management techniques available. It was recommended that a self-help online programme be developed that includes the provision of knowledge about the emotion of anger, identifying anger triggers and the management of anger by means of different anger management techniques, including assertiveness training.

The aim of the study is therefore to develop a self-help online anger management programme using positive activity interventions that will enhance the teenager's ability to cope and deal with his/her anger with reference to the identified themes.

The next section discusses the theoretical framework, procedure and the content of each session of the programme in depth.

The conceptual framework underlying the development of the programme

Guided self-help (GSH) is the conceptual framework that underlies this programme. According to Bernecker (2014:11) GSH describes “any treatment that uses a self-help resource (e.g., self-help books, computer delivered cognitive-behavioural programmes, support groups, etc.) in conjunction with reduced contact with a professional”. According to various researchers, GSH is a valuable addition to the mental health care system by reducing barriers to help-seeking, including cost and desire for self-sufficiency, as well as by optimizing providers' time (Mains & Scogin, 2003; Newman, Szkodny, Llera, & Przeworski, 2011). According to Greenberg (1998), guided self-help by means of online or distance education is a deliberate teaching/learning experience that uses a wide range of technologies to reach students at a distance and is intended to encourage student interaction and certification of learning. An online course is one that is

primarily internet-based, where the teacher and student are independent in space and possibly in time (Kelly & Papadopoulos, 2009).

Researchers agree that internet-based guided self-help approaches have several advantages over face-to-face methods. These include: (1) anonymity is guaranteed, helping to escape stigmatization; (2) interventions being more easily available at any time and in any place; (3) participants can work at their own pace and revisit the material provided as often as they want; (4) the highlighting on the participants' active responsibility in (guided) self-help interventions gives way to a greater potential for the incorporation of acquired skills in daily living; (5) it may attract individuals who do not want to utilize traditional mental health services; (6) travel time and costs for both participants and therapists are reduced; and (7), internet-based interventions can reach more people (Berger & Andersson, 2009; Cuijpers, Van Straten, Warmerdam and Van Rooy, 2010; Rochlen, Zack, & Speyer, 2004).

The GSH framework was chosen since adolescents are prolific users of the internet and they use it for educational activities, games and social networking. Not only is the internet an integral part of their lives, but it also appears to be their preferred medium of communication (Carey, O'Brian, Lowe & Onslow, 2014; Holtz & Appel, 2011). This is also applicable to the South-African adolescent, and guided self-help could address the lack of access that teenagers have to proper information and health services (Peu, Van Wyk & Botha, 2008).

The programme is also based on positive psychology. The aim of positive psychology theory is to teach people effective pathways to improved functioning and well-being (Seligman, 2011). The focus is therefore more on recognizing a person's strengths and resources, rather than focussing on what is wrong with them (Weick, Rapp, Sullivan & Kisthardt, 1989). According to the broaden-and-build model of Fredrickson (2000), positive feelings have a reversal effect on negative feelings. It can then therefore be argued that positive activity interventions aimed at increasing individuals' happiness and life satisfaction (Magyar-Moe, 2009; Seligman, Steen, Park, & Peterson, 2005), will also

undo negative emotions such as anger and will improve the management thereof. A positive intervention is described as “an intervention, therapy, or activity primarily aimed at increasing positive feelings, positive behaviours, or positive cognitions, as opposed to ameliorating pathology or fixing negative thoughts or maladaptive behaviour patterns” (Sin & Lyubomirsky, 2009:469). This programme will therefore focus on positive activity interventions to enhance the learners’ coping with and management of their anger.

The programme consists of various activities that include instructional videos and the filling of worksheets and exercises in order to help learners acquire new skills and personal insights. Some of these skills and activities will be discussed in an online group setting. According to Jacobs, Masson and Harvill (2002), group work could offer a unique learning advantage where group members learn from each other’s experiences, as well as offer each other a wider range of resources. Gaudet, Ramer, Nakonechny, Cragg and Ramer (2010) agree that working in groups assists the socialisation of learners and allows for the expression, clarification and exchange of viewpoints and knowledge. An online group discussion has several benefits over a classroom discussion. Busy educators and learners can add to a discussion at their own expediency, print out discussion posts and responses, reflect on them for a while, and then add a thoughtful, well-formulated response. It also enhances participation and promotes a better sense of community because learners feel more at ease. Lastly, teachers have added time with their learners because they get more time to interact and participate after class hours (Dixon, 2014).

Method

Programme development and description

Every participant in the programme is invited to the course by means of their email address. They all receive a direct link to the course registration form (<https://ruzuku.com/courses/6641/enroll>) where they would be requested to register for the course by adding their name and email address. Once registered, the participant is directed to the following window:

The Anger Management Toolbox for Teens

About The Course



Only for Teens: Discover the RIGHT tools to help you deal with anger - tools that really works!! Follow the simple step by step guide to get to the root of your anger and to change your life forever!

Your Guide



Elizma

Questions? Comments? [Email me!](#)

People

More People »



Lessons

[All Lessons »](#)

1. Let me introduce myself and this course!
○○○
2. What is anger?
○○○○○○○○○
3. Understanding the roots of your anger?
○○○○○○○
4. How to relax
○○○○
5. Learn how to let go
○○○○
6. How to be assertive
○○○○
7. Summary and quizz
○○○○○○○○○○○○○

This window displays the name of the course, a very short description of the course and a picture of the guide who can be contacted at any time with questions or comments. All the registered participants on the course will be displayed under “people” and they complete the programme as a group. On the right hand side of the page, seven lessons are displayed. Each lesson has bullets underneath that will be filled with colour as soon as the activity has been completed. This way a participant can see his/her progress on completed tasks and it enables the participant to go back and forth between different activities as many times as they like.

The programme is divided into six sessions of one hour each. It is administered to adolescents of both sexes. The programme starts with an introduction of the course that includes answers to the following questions: Why should I do this course? How is this course going to work? It covers the programme developer’s personal story about why this course was developed. The discourse then follows and is made up of various activities, including video, worksheets and discussion prompts to expand on the subject. The course comes to a conclusion with an overview of all the material covered. The participants then

have to complete a quiz and if passed, will have a certificate of completion mailed to them. Participants are also invited to share feedback and recommendations for the improvement of the course.

Session 1: What is anger?

The general purpose of this session is for each partaker to develop a better understanding of what the concept “anger” refers to. The learning objective of this session is for participants to understand what anger really is and for them to be able to identify their anger triggers and symptoms. Participants will learn about the effects of anger and how to know if they have a problem with anger. They will be guided in identifying their unique anger personality and they will learn the first anger management technique, namely “proper breathing”.

Anger is one of the most commonly experienced feelings, but at the same time it is one of the most poorly handled emotions, mostly due to our poor understanding of anger and its dynamics (Cosgrave, 2007). Anger is an emotional state characteristically accompanied by biological and psychological changes that can vary from slight annoyance to rage (American Psychological Association [APA], 2007). Some physical signs of anger include headaches, dizziness and trembling and emotional signs might include feeling irritated or anxious (Mills, 2014). According to Averill (1982), anger is a form of arousal that is caused by social circumstances involving frustration or threat and environmental obstacles (Golden, 2003). Facts about anger, including anger triggers and symptoms are given to participants by means of a video and fact sheets. They are also invited to identify their own symptoms and triggers by means of worksheets and are invited to discuss them in the group.

Uncontrolled anger can be a significant difficulty for teenagers and can result in violence and crime, substance abuse, depression, suicidal tendencies, rage and hostility, (Pushkar, Ren, Haley & Stark, 2008) as well as longstanding health risks such as cardiovascular disease and hypertension (Harburg, Julius, Kaciroti, Gleiberman &

Schork, 2003). According to Friedman et al. (2004), anger also has positive effects and can be functional to one's self-interest. Baumeister, Stillwell and Wotman (1990) agree that anger can be beneficial in our relationships and help us to develop self-insight and to find solutions to problems. In this session the participants are educated about the different effects of anger by means of a fact sheet, story and video as well as a group discussion about what anger has done to them.

It is imperative that adolescents understand when their anger becomes a problem. According to Tafrate and Kassino (2009) anger becomes a problem when it is too frequent, too intense and lasts too long. Personality-processing perspectives also have considerable value in helping the adolescent to understand their individual differences in anger and anger reactions (Robinson & Wilkowski, 2010). During this session different anger personalities are identified and participants are requested to identify and discuss their unique anger personality. This session focuses on the provision of information that stimulates the positive character strength of learning. According to Dean (2004), learners feel good when they are motivated to develop new knowledge or skills or to improve existing skills or knowledge.

Anger management interventions normally include relaxation exercises for stress and the reduction of anxiety, and these exercises frequently focus on breathing (Fraser, 1996). Kellner (1999) and Gaines and Barry (2008) agree that it is important for adolescents to learn more concerning the physiology of anger and how to use methods that enhance relaxation and self-regulation. In this session the teenagers are invited to participate in an instructional video on a relaxation technique that focuses specifically on proper breathing. Several studies indicate that breathing has a positive and immediate effect on psychological well-being, as well as on the physiological indicators of well-being, such as heart rate and blood pressure (Seppälä, 2013).

Session 2: Understanding the roots of your anger

The overall purpose of this session is for each participant to understand the link between their thoughts and their anger. The learning objective of this session is for participants to understand the different cognitive distortions that can lead to their anger, how to challenge them and then how to replace “hot” thoughts with “cold” thoughts. Participants will be introduced to humour as a valid anger management technique.

According to cognitive theorists such as Beck (1999), Bandura (1986), Ellis (1977) and Crick and Dodge (1994), thoughts play a significant role in the origination of anger and aggression. The connection between anger and irrational beliefs in the child and teenage population was also confirmed by Lowery (1990). Cognitive literature identifies five types of cognitive processes resulting in anger problems (Beck, 1999; Ellis, 1977; Martin & Vieaux, 2013): (1) overgeneralizing, (2) catastrophic evaluation, (3) demandingness, (4) inflammatory labelling and (5) misattributing causality.

Treatments intended to reduce irrational beliefs and strengthening rational beliefs could be especially effective for child and teenage anger and aggression (Fives, Kong, Fuller & DiGuseppe, 2011). In an effort to inhibit an aggressive response to a triggered stimulus, it is necessary for teenagers to learn to match the intensity of the reaction to a realistic understanding of the stimulus that can result in a more prosocial reaction (Feindler & Engel, 2011). In this lesson, different cognitive distortions (or “hot” thoughts) is explained and participants are invited to identify their individual distortions. After they have identified their “hot” thoughts, they are invited to challenge these thoughts and to replace them with “cold” thoughts or more appropriate and rational thoughts by means of a written exercise.

In session two, humour is introduced as an anger management technique by means of a discussion and humorous video. According to Prerost and Ruma (1987), the enjoyment of humour is shown to promote relaxation. Humour is seen as viewing circumstances with irony, amusement and wit, and with an appreciation of the untimely,

surprising and unexpected aspects of circumstances (Gilgun & Sharma, 2012; Morreall, 2010; Scott, 2007). Research confirms that angry moods are found to be reduced and replaced by a positive euphoric mood after individuals had been exposed to humour (Baron, 1978; Prerost. 1995). Humour is confirmed as a coping strategy for anger by Martin (2002) and is also associated with greater physical well-being, better immune functioning and pain tolerance.

Session 3: How to relax

The overall purpose of this session is for each participant to understand the link between their stress and their anger. The learning objective of this session is for participants to be able to explore different relaxation techniques that have proven to be helpful in managing anger. Techniques covered in this session include progressive relaxation, gratitude and journaling.

Stress can be described as feeling overwhelmed and/or incapable to cope effectively with individuals or occurrences in one's life (Carlozzi et al., 2010). The experience of stress is generally linked to the biological 'fight or flight' reaction pattern that has the potential to produce anger. According to research, long-lasting exposure to stress may increase a person's tendency to experience anger (Dollard & Winefield, 1998; Hoggan & Dollard, 2007). Research by Deffenbacher et al. (1996) confirms that when teenagers were instructed in relaxation coping aids, they were able to relax, reduced their anger, and were able to better interpret and to proactively cope with their angry emotions.

Initially developed by Edmund Jacobson (1938), progressive muscle relaxation (PMR) is a systematic method used to attain a deep state of relaxation and has been indicated to lessen anxiety and improve health-related quality of life in an array of circumstances, including anger (Barrows & Jacobs, 2002; Pan, Zhang & Li, 2006). Research by Scheufele (2000) and Swann (3003) confirms that PMR is effective in the treatment of adolescent anger. During this lesson, PMR is introduced my means of a video and discussion.

Several positive psychology interventions focus on the education of specific values such as kindness and gratitude. A positive association between gratitude and well-being in teenagers have been found in empirical studies (Adler & Fagley, 2005; Norrish & Vella-Brodrick, 2009). Gratitude is described as a person's tendency to react to the kindness and thoughtfulness of others with grateful or thankful feelings (McCullough, Emmons, & Tsang, 2002). According to Brown (2013), one cannot be angry and grateful at the same time, confirming gratitude as a means of controlling anger. In lesson three, gratitude is introduced to the participant by means of a discussion and a written exercise.

According to Pennebaker (2004), expressive writing or journaling has great potential as a healing tool in different clinical settings or as a way of self-help. According to research, therapeutic writing is mostly seen as expressive and introspective writing, which improves self-monitoring, enhances awareness, and enhances the emotional processing of demanding life experiences (Baikie & Wilhelm, 2005; Cummings, Hayes, Saint & Park, 2014). Improved self-monitoring and self-awareness helps the adolescent to manage their anger better (Purcell, 2014). Participants are introduced to journaling by means of discussion and a written exercise in the form of a journal page. Links to online journals are also provided.

Session 4: Learn how to let go

The general purpose of this session is for each participant to develop a better understanding of what the concept “forgiveness” and “letting go” refers to. The learning objective of this session is for participants to identify the importance and misconceptions about forgiveness, and for them to be able to let go by means of five specific steps. Participants will also learn about the effect of mindfulness on anger and how to implement it as an anger management technique.

Forgiveness is described as a motivational and unique way of coping that does not require reconciliation, compensation or revenge (Hirsch, Webb & Jeglic, 2012) and it is a constant process of motivational change (Fincham, Hall & Beach, 2006). Research

confirms that forgiveness reduces anger and has a positive effect on both physical and mental wellbeing (Toussaint & Webb, 2005; Wilkowski, Robinson & Troop-Gordon, 2010; Witvliet, Ludwig & Laan, 2001). Baskin and Enright (2004) and Flanagan, Van den Hoek, Ranter and Reich (2012) agree that forgiveness has been linked with decreases in anger, anxiety and depression, as well as increases in empathy and self-regard, and is associated with repairing interpersonal relations and enhancing social ability.

Forgiveness is identified as a protective factor that helps adolescents develop healthy emotion regulation and guards them from internalizing symptomology (Van Dyke & Elias, 2007; Walters & Kim-Spoon, 2014). Enright and Fitzgibbons (2000) agree that forgiveness education for adolescents is a promising intervention approach that can constrain the experience of negative feelings like anger (Thompson et al. 2005) and that can allow the experience of more positive feelings like happiness (Krause and Ellison 2003). This lesson is based on an introduction to why forgiveness is important, as well as an explanation of the general misconceptions about forgiveness. Steps for forgiveness is introduced and followed by a written exercise in forgiveness called the REDS-L (Remember, Empathy, Decide, Safety and Let go) forgiveness exercise to help participants to apply to learned material to their own lives.

In lesson four, mindfulness is also introduced as another anger management technique. Mindfulness is a assortment of meditation practices and abilities aimed at improving an individual's ability to remain absorbed non-judgmentally in the current moment (Bear, 2003; Bishop et al. 2004). According to Bear (2003) mindfulness may help to decrease anger-provoking provocations via a process of continued, non-judgemental observation of anger-related feelings, without attempts to act on, escape, or evade them. Mindfulness may empower the partaker to see and respond sensibly to potential anger relevant signals and overcome some of the difficulties posed by anger (Wright, Day & Howells, 2009). Initial empirical evidence indicates that those who exhibit high mindfulness skills report drastically greater self-regulated emotion and behaviour (Brown & Ryan, 2003). This enhances the adolescent's coping with anger and their emotional

well-being (Bluth & Blanton, 2014; Borders, Earleywine & Jajodia, 2010). In this lesson, the mindfulness technique is introduced by means of a video and a discussion.

Session 5: How to be assertive

The overall purpose of this session is for each participant to develop a better understanding of what the concept “assertiveness” refers to. The learning objective of this session is for participants to be able to identify the importance and misconceptions about assertiveness, and for them to be able to develop this skill by means of four specific steps. Participants will also learn about visualization as an anger management technique.

According to Weber, Wiedig, Freyer and Gralher (2004), an ineffective way of controlling anger is by means of submission, in other words not asserting one’s position, giving in, and taking blame rather than initiating an open discussion. Empirical studies confirm that open communication or assertive behaviour is effective in controlling anger (Whitesell, Robinson, & Harter, 1993). Assertive behaviour can be described as the expression of emotions, preferences, or beliefs in ways that respect the rights and views of other people (Hollandsworth, 1977). Assertiveness is crucial during adolescence to help them cope with the increase in social demands from both adults and peers (Engels, Dekovic & Meeus, 2002; Tarrant, MacKenzie & Hewitt, 2006). Assertiveness training for adolescents typically focusses on the expression of positive and negative emotions, rejecting unreasonable requests, apologizing, taking initiative, dealing with personal mistakes, and standing up for individual rights (Vagos & Pereira, 2010).

In lesson five, participants are introduced to assertiveness as a concept by explaining the term and clarifying misconceptions about being assertive, for example that assertiveness is selfish behaviour. This is followed by an online discussion. Participants to the course learn a simple method of assertiveness that includes planning, appearance and attitude, rehearsal and taking action (PART), as well as other assertiveness tips and tricks that can be applied in their lives.

At the end of the session, participants are exposed to visualization (or guided imagery) as an anger management technique by means of a discussion and an instructional video. Guided imagery includes the use of verbal directions to create a flow of thoughts that concentrates on the person's attention on imagined auditory, visual, olfactory, or tactile sensations (Kim, Newton, Sachs, Glutting & Glanz, 2012). The use of imagery as a psychological instrument seems effective in enhancing self-efficacy (Beauchamp, Bray, & Albinson, 2002), stress reduction and self-confidence. Mental imagery may therefore be used to alter the physiologic process, mental state, or behaviour (Eller, 1999; Menzies & Taylor, 2004) that is associated with emotions such as anger. Guided imagery has been shown to reduce stress and affect other health outcomes favourably in the adolescent population (Cheung, 2006).

Session 6: Summary and quiz

The overall purpose of this session is to give each participant a written overview of the material covered in the first five sessions. The learning objective of this session is for participants to be able to, by means of the rehearsal strategy, identify important knowledge and to retain the information better. Arsal (2010) and Pintrich (1999) state that the rehearsal approach means repeating and rehearsing learning materials that help students identify vital knowledge and to remember the knowledge in short-term.

The overview of important material is followed by an online quiz where participants can evaluate their current knowledge. Research confirms that a quiz or test is beneficial in the e-Learning environment to encourage people, to assist them to remember the information they just covered, and to help evaluate what they have learned (Cushard, 2013). The quiz in this programme consists of 20 multiple choice questions. Should a participant get a mark of 85% and higher, a certificate of completion would be mailed to them. If a participant fail, he can take the test as many times as he/she would like.

Should any participant need more information or help, they are directed to people (such as parents, teachers or other adults that they trust), phone numbers (for example

Lifeline) and self-help websites that can assist them (for example <http://www.moodjuice.scot.nhs.uk>).

The programme closes with a feedback and recommendation section. Participants can provide feedback and recommendations about the course anonymously. Their feedback is mailed automatically to the developer, who will use this information to enhance the learning experience for participants.

Conclusion

Since the period of adolescence is marked by an increase in intense emotions, including anger, it becomes a sensitive period for maladjustment (Zimmermann, Mohr & Spangler, 2009). Unfortunately, there are very few anger management programmes in South Africa and most remain inaccessible (Saul, 2005). The aim of the study was to develop a self-help online anger management programme that will enhance the adolescent's ability to cope and deal with his/her anger using positive activity interventions. A positive intervention is described as "an intervention, therapy, or activity primarily aimed at increasing positive feelings, positive behaviours, or positive cognitions, as opposed to ameliorating pathology or fixing negative thoughts or maladaptive behaviour patterns" (Sin & Lyubomirsky, 2009:469). According to Fredrickson (2000), positive feelings have an undoing effect on negative feelings. It can then therefore be argued that positive activity interventions aimed at increasing individuals' happiness and life satisfaction (Magyar-Moe, 2009; Seligman, Steen, Park, & Peterson, 2005) will also undo negative emotions such as anger and improve the management thereof. Guided self-help (GSH) is the conceptual framework that underlies this programme. Bernecker (2014) describes GSH as any treatment that make use of a self-help source (e.g., computer platforms) in combination with reduced contact with a qualified person. The GSH framework was chosen since adolescents are prolific users of the internet and it also appears to be their preferred medium of communication. The programme is divided into six sessions of one hour each, addressing what anger is, understanding the roots of anger, how to relax, learning to let go and how to be assertive and concludes with an

overview and evaluation. The programme consists of various activities that include instructional videos, online discussions and the filling of worksheets and exercises to help them learn new skills and gain personal insights. It is recommended that this programme be evaluated to determine its effectiveness for facilitating anger management skills on adolescents in South Africa.

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CHAPTER 4

Article 3

The effectiveness of an online self-help anger management programme for South African adolescents using positive activity interventions

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Abstract

The article presents and evaluates an online self-help anger management programme for South African adolescents based on information gathered during focus-group interviews with adolescents, psychologists and teachers. The aim of this study was to evaluate the effect of the developed programme on the enhancement of anger management abilities of South African adolescents.

A two-group (experimental and control) pre-test and post-test design was used and the sample group consisted of 40 adolescents from two schools in the North West province of South Africa. Both the experimental group (n=20) and control group (n=20) underwent pre-testing, post-testing and post-post-testing on three different questionnaires. The programme was presented to the experimental group (six one hour sessions over a two-week period) only. The experimental group showed significant improvements on presence of positive emotions and feelings of well-being, in their ability to seek support from friends and family, as well as in their overall sense of coping. The experimental group initially scored lower results in the intensity of their angry feelings, more individual differences in the disposition to express anger and was more likely to hold their anger in. However, one month after the intervention, there was no practical or statistical differences in the experimental groups' experience or management of anger. It can therefore be included that, although the self-help online management programme using positive activity interventions had no significant impact on anger management, it is effective in facilitating positive feelings and well-being, enhancing the ability to seek social support from friends and family and facilitating an overall sense of coping on a group of South African Adolescents.

Keywords: anger management, adolescent, self-help, programme development, positive psychology

Introduction

Anger regulation is the ability to manage one's anger in a way that deals with the interpersonal conflict according to one's personal goals (Novin, Banerjee & Rieffe, 2012). According to research, adolescents find it difficult to regulate intense emotions such as anger (Garnefski, Kraaij, & Spinhoven, 2001; Plaisier & Konijn, 2013). This can be attributed to the fact that the particular brain areas related to obtaining the cognitive abilities that are needed for emotional regulation, are still developing during the period of adolescence (Casey, Jones, & Hare, 2008; Steinberg, 2005). While difficulty managing emotions (such as anger) is critical in the development of various adjustment problems (Cui, Morris, Harrist, Lazalere & Criss, 2015; Steinberg & Avenevoli, 2000), the ability to regulate emotions has been associated with positive adaptation despite adverse circumstances (Cicchetti, 2010). Empirically, anger has been associated with a host of maladaptive outcomes such as bullying, gang involvement, substance abuse, low academic performance, dating violence and peer rejection (Bosworth, Espelage, & Simon, 1999; Field, 2002; Konishi & Hymel, 2014). Learning how to regulate anger becomes imperative in light of the potential for prevention and intervention of such problematic consequences (Park & Kim, 2012).

The process of anger management could be affected by influences such as culture, family processes and gender. According to Matsumoto (2006), emotional processes (such as anger management) is influenced by culture by means of culture-specific norms, values, and rules about the self and relationships. The adolescent's ability to regulate his anger is also influenced by family processes (Park & Kim, 2012), including dynamics such as a lack of family structure, high levels of family disagreement and a lack of parental affection and support (Repetti, Taylor & Seeman, 2002). Gender differences may also have an influence on the regulation of anger since the expression of hostility and anger is seen as acceptable for men but not for ladies, and the communication of happiness and negative feelings is more acceptable for women than for men (Cancian & Gordon, 1988; Sloan, 2012). However, the ability to regulate emotions has been associated with positive adaptation despite various adverse circumstances (Buckner,

Mezzacappa, & Beardslee, 2003), including factors such as culture, family processes and gender. The adolescent could therefore benefit from enhancing his or her ability to regulate emotions, in particular anger.

The mainstream anger management treatment programme focuses on the three aspects of the anger experience (cognitive, physiological and behavioural) and is intended to help adolescents develop self-control abilities in each of these aspects (Feindler & Engel, 2011). Although a number of school-based anger management groups exist, some are not effectively decreasing anger (Shek & Wai, 2008). In South Africa, the life skills and anger management approach is part of a obligatory school subject named Life Orientation, which prepares adolescents to live meaningfully and effectively in a fast changing society (Department of Basic Education, 2011). However, according to Lai et al. (2013), more research is necessary to investigate the roles of life skills (such as anger management) in high risk settings such as South Africa. Since Singh and Bussey (2010) claim that the social perceptions of adolescents are determined not only by earlier experiences, but also by their beliefs and self-appreciation about their own coping skills and effectiveness, it was deemed necessary to explore the different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents.

Adolescents that participated in this study identified a need for communication skills and assertiveness training and for more knowledge about anger and the different anger management techniques available. Spence et al. (2011) identify a need for different modes of education that improve the chances that adolescents and their parents will seek assistance and participate more in learning about anger. The internet or self-help computer-based programmes was thought to be an appropriate medium for answering to the abovementioned lack of knowledge. James (2007) agreed that computer-based education may be especially appropriate for adolescents since it offers a sense of privacy, it can be accessed at any time and offers privacy that is highly valued by teenagers. Therefore, a self-help online programme was developed to improve the adolescent's ability to cope and deal with his or her anger with reference to the identified themes.

Guided self-help (GSH) is the conceptual framework that underlies this programme. According to Bernecker (2014), GSH describes any treatment that make use of a self-help source (e.g., computer-delivered cognitive-behavioural programs, support groups, self-help books, etc.) in combination with reduced contact with a trained professional.

The programme focuses on positive interventions. A positive intervention is described as “an intervention, therapy, or activity primarily aimed at increasing positive feelings, positive behaviours, or positive cognitions, as opposed to ameliorating pathology or fixing negative thoughts or maladaptive behaviour patterns” (Sin & Lyubomirsky, 2009:469). A subgroup of interventions has been recognized as those that can be self-administered without the involvement of a professional. Referred to as “positive activity interventions,” or PAIs, these are described as “relatively brief, self-administered, and nonstigmatizing exercises that promote positive feelings, positive thoughts, and/or positive behaviours, rather than directly aiming to fix negative or pathological feelings, thoughts, and behaviours” (Layous, Chancellor, Lyubomirsky, Wang, & Doraiswamy, 2011:677). Kennedy, Moore and Watson (1999) agree that the activation of positive emotions such as affection and humour is also functional in controlling and regulating negative feelings such as anger.

The programme includes instructional videos and worksheets and exercises to help participants to learn new skills and personal insights. Some of these skills and activities were discussed in an online group setting. According to Jacobs, Masson and Harvill (2002), group work could offer a unique learning advantage where group members learn from each other’s experiences and offers a wider range of resources. The self-help online programme consists of six sessions of one hour duration each, covering the following themes: What is anger? Understanding the roots of your anger; How to relax; Learn how to let go; How to be assertive; and an overview session including a quiz.

Based on the abovementioned information, the research question was the following: “What would the effect be of such a computer-based self-help anger

management programme using positive activity interventions on a group of South African adolescents?”

The aim of this study was to determine if the developed self-help online anger management programme using positive activity interventions is effective in facilitating coping with anger and enhancing the well-being of a group of South-African adolescents.

Method

Design

A two group (experimental and control) pre-test, post-test and post-post-test design was used as described by Johnson and Onwuegbuzie (2004).

Participants

The sample group consisted of 40 adolescents from two schools in the North West province of South Africa. The experimental group consisted of 20 participants who expressed an interest in the training and were available based on their academic and sport schedules (availability sample). The remaining 20 participants formed part of the control group. Both the experimental and control groups underwent pre-testing, post-testing and post-post-testing. Only the experimental group underwent the online self-help anger management programme. The biographical information of the sample group is included in Table 1.

Table 1: Biographical information of the sample group (N=40)

		Minimum age	Maximum age	Mean	Standard deviation
Age	Total group (n=40)	11	19	16.55	1.62
	Control Group (n=20)	11	18	16.35	1.87
	Experimental Group (n=20)	15	19	16.75	1.33

Gender		Total group(n=40)	Control group (n=20)	Experimental group (n=20)
	Male	4	4	0
	Female	35	15	20
	Not answered	1	1	0

Procedure

Two schools in the North West province of South Africa were approached to form part of the study. Permission was gained from parents, learners, teachers and principals and the times and dates were arranged for testing and for the participants to complete the self-help anger management programme. All participants completed a battery of tests during pre-testing. The experimental group (n=20) participated in the programme in their school's computer room. One session was completed per day, lasting approximately one hour. Since it is a self-help programme, participants directed their own pace while the researcher was present to answer any questions and to provide technical help if it was required. The programme was presented over six days, spanning over two consecutive weeks. After the last session of the self-help programme, both the control (n=20) and experimental (n=20) groups completed the same battery of tests for post-testing. The post-testing was repeated one month (30 days) after the last session of the programme had been presented. The pre-test and post-test results were analysed by the Statistical Consultation Services of the North-West University. Certain conclusions were drawn based on the results of the analysis.

The online self-help anger management programme

The development of the programme

The development of the online self-help anger management programme was discussed in detail in a previous article by the same authors (Van der Smit & Nienaber, 2015). A study was conducted to explore the different perceptions that adolescents, psychologists and teachers hold with regard to anger triggers and anger management styles and the needs with regard to anger management within a group of South African adolescents. Focus groups were held involving 21 learners and 5 teachers from a school in Klerksdorp in the North West Province of South Africa as well as with 5 psychologists working with adolescents in the same area. Anger triggers identified in this study were related to the appraisal of frustration and goal obstacle, unfairness, control and a threat to self-esteem. Participants in this study identified a need for communication skills and assertiveness training, as well as for more knowledge about anger and the different anger management techniques available.

The abovementioned themes were correlated with literature to develop the self-help online anger management programme, based on a Guided self-help (GSH) theoretical framework. GSH describes any treatment that uses a self-help resource, including computer-delivered cognitive-behavioural programs in conjunction with reduced contact with a professional (Bernecker, 2014). Although adolescents are generally hesitant to seek specialised health care for mental health difficulties, they are increasingly turning to the internet as a viable alternative (Rickwood, Mazzer & Telford, 2015). Teenagers are particularly comfortable relating within the computer environment and the benefits of internet-based treatments include (1) a high level of privacy, (2) easy use at any time and place at a pace that is self-determined, (3) availability, and (4) low cost of delivery to many people. Common challenges of internet-based interventions could include issues with confidentiality and the unprofessionalism of unregulated sources (Berger & Andersson, 2009; Rochlen, Zack, & Speyer, 2004).

The programme consists of various activities and includes instructional videos and worksheets and exercises aimed at helping course-goers to learn new skills and personal insights. Some of these skills and activities were discussed in an online group setting that could offer a unique learning advantage where group members learn from each other's experiences and offers a wider range of resources (Jacobs, Masson & Harvill, 2002). According to research, self-help groups provide beneficial arenas where adolescents can learn to cope with numerous challenging life situations through the faceless, mutual exchange of information, experiences, and emotional care (Bar-Lev, 2008; Hinton, Kurinczuk, & Ziebland, 2010).

The content of the self-help online anger management programme

The programme is made up of six sessions of one hour duration each, conducted over two consecutive weeks. The overall purpose of the first session was for participants to develop a better understanding of what the concept "anger" refers to. The learning objective is to enable participants to understand what anger is and how to identify their anger triggers and symptoms. Participants learned about the effects of anger and how to determine if they have anger problems. They were guided in identifying their own unique anger personality and they learn the first anger management technique of "proper breathing". The purpose of the second session is for each participant to understand the link between his or her thoughts and his or her anger. Different cognitive distortions were discussed as well as how to change "hot" thoughts into "cool" thoughts. Participants were introduced to humour as a valid anger management technique. The main objective of the third session was for participants to understand the link between their stress and anger. Different relaxation- and proven anger management techniques were explored, including progressive relaxation, gratitude and journaling. The overall purpose of session four was for participants to develop a better understanding of the concepts "forgiveness" and "letting go". The learning objective was for participants to identify the misconceptions about forgiveness and to teach them a five step process of letting go. The anger management technique of mindfulness was also introduced. The main learning objective of session five was for participants to be able to identify the importance and

misconceptions about assertiveness and to develop the skill of assertiveness in four different steps. Participants were also introduced to visualisation as an anger management technique. The overall purpose of session six was to provide each participant with a written overview of the material covered in the first five sessions. The learning objective was, by means of the rehearsal strategy, identify important knowledge and to retain the information better. This was followed by an online quiz through which participants could evaluate their knowledge of the presented material.

Ethical considerations

Ethical approval was obtained from the Ethics Committee of the North-West University (Potchefstroom Campus: NWU-00125-11-S1). Permission for the programme was obtained from the Department of Education by writing to the local representative.

The parents of identified participants and the participants themselves involved in this research sample were requested to sign informed consent forms in which they gave permission for research to be conducted and to confirm that the aim of the research was explained to them and the fact that participation is voluntary. Even if the parent gave informed consent, the student's participation was still voluntary.

Participants were informed that only the researcher will collect the data. Collected data will be handled in a manner that would protect participants' identities and confidentiality will be ensured by assigning a number to each participant from which only the number would be noted on documents. Personal identities will be kept separate from the collected data and only the researcher and promoter will have access to the personal information. Data will be stored at the Psychology Department at the North West University and only the researchers will have access to the data. Anonymity can be compromised in the groups, but the situation was explained to all participants, and participation still was voluntary and they had the freedom to leave at any time if they wished to.

Every learner in the experimental group received a unique password for logging into this programme that was only available to them for the duration of the programme. Nobody else had access to this programme. The researcher was present during all the sessions to answer possible questions and to ensure confidentiality. Debriefing was conducted after the completed programme and feedback is available to all participants should they request it. Individual appointments were made to give the requested feedback to those who did request it. The control group was informed that, after the research is completed, they can also participate in the programme should they wish to.

Research Instruments

The following questionnaires made up the battery of tests for the pre- and post-testing:

The Affectometer 2 (AFM) (Kammann & Flett, 1983)

The AFM (Kammann & Flett, 1983) consists of 10 positive mood items (satisfied, optimistic, useful, confident, understood, loving, free-and-easy, enthusiastic, good-natured, clear-headed) as well as 10 negative mood items (discontented, hopeless, insignificant, helpless, lonely, withdrawn, tense, depressed, impatient, confused). According to Wissing and van Eeden (2002), these scales measure a sense of well-being or general happiness. This scale is reported to correlate with other measures of well-being and has adequate test-retest reliability (Kammann & Flett, 1983; Rook, 2001). Cronbach alphas in South African samples, implementing the English version, vary from 0.81 to 0.92 (Wissing & Van Eeden, 2002), proving it to be a reliable measuring instrument in this context. The Cronbach alpha in the current study was between 0.65 and 0.85 for the different subscales.

Coping Self-Efficacy Scale (CSE) (Chesney, Folkman & Chambers, 1996)

The CSE (Chesney et al., 1996) consists of 26 items aimed at measuring an individual's self-efficacy to cope with life stressors. It includes three sub-scales (problem-focused coping, stopping unpleasant emotions and thoughts, support from family and friends). A 11-point Likert-type scale is used to indicate if participants believe that they are capable of performing actions linked to adaptive coping, with scores ranging from 0 (cannot do at all) to 10 (certainly can do). A coping self-efficacy score can be created by summing the item ratings; higher scores indicate higher self-efficacy. (Chesney et al., 1996; Chesney, Neilands, Chambers, Taylor & Folkman, 2006; Wei, 2009). In a South African study by Wissing, Wissing, Du Toit and Temane (2008) reliability indices of 0.86 and 0.87 for the 26-item version were reported. The Cronbach alpha in the current study was between 0.71 and 0.81 for the different subscales.

State Trait Anger Expression Inventory – 2nd Edition (STAXI-2) (Spielberger, 1999)

The STAXI-2 from Spielberger (1999) contains 57 items in 3 sections (state anger, trait anger, and anger expression/control). State anger (S-Anger) is a 10-item scale that measures the intensity of angry feelings at a particular time and Trait anger (T-Anger) is a 10-item scale that measures individual differences in the disposition to experience. The T-Anger scale has two subscales, including Angry Temperament (T-Ang/T), which is a 4-item subscale that measures a general propensity to experience and express anger without specific provocation. The other subscale is Angry Reaction (T-Ang/R), which is a 4-item subscale that measures individual differences in the disposition to express anger when criticised or treated unfairly by other individuals. The anger expression/control scales each have eight items; Anger expression-out (AX/Out) assesses how often anger is expressed in physical or verbal aggression, and Anger expression-in (AX/In) assesses how often angry feelings are experienced but suppressed, Anger control-out (AX/Con) measures how frequently a person attempts to control the outward expression of angry feelings. The Anger Expression (AX/EX) is based on the responses to the 24 items of the AX/In, AX/out and AX/Con scales and provides a general index of the frequency with

which anger is expressed, regardless of the direction of expression. Responses are made on a 1 (almost never) to 4 (almost always) Likert-type scale and are converted to percentiles using gender and age-specific norms. The STAXI-2 has been validated in an Australian forensic sample (McEwan, Davis, MacKenzie & Mullen, 2009). In a South African study by Dubihlela and Surujlal (2012) internal reliabilities for this instrument were between 0.70 and 0.85. The Cronbach alpha in the current study was between 0.55 and 0.91 for the different subscales.

Data Analysis

The reliability of all the instruments used were determined by means of Cronbach alpha coefficients (Urbina, 2004). Descriptive statistics were computed, including means and standard deviations of instruments (see Table 2). Parametric statistical tests were used to analyse the significance of differences within and between the experimental and control groups (Johnson & Onwuegbuzie, 2004). Group differences were determined by independent t-tests before the intervention (online self-help anger management programme) to determine if the groups were comparable. Differences between the control and experimental groups after the intervention were controlled for by pre-test scores using the Analysis of Covariance (ANCOVA) (Field, 2005). The effect of the intervention was determined with dependant t-tests on the experimental group and the control group to examine differences within the group (Pallant, 2007). Due to the non-randomness of the sample and the relative small size of the groups, effect sizes (Cohen's *d*) were used to determine if the differences were of a practical significance (Cohen, 1997). According to Cohen (1988), correlations of about 0.20 may be regarded as small, correlations of about 0.50 as moderate and correlations of 0.80 and higher as large. The interpretation of Cohen's *d* effect sizes should be made within the context of the particular construct that is being measured (Mausbach, Harvey, Goldman, Jeste & Patterson, 2007). Although p-values are reported, the sample was not random and therefore more emphasis is given to the interpretation of the effect sizes.

Results

The reliability of the psychometric tests

According to Trochim (2006) the reliability of the psychometric tests can be determined by calculating the Cronbach's Alpha. The Cronbach's Alpha for each psychometric test used can be seen in Table 2.

Table 2: Descriptives and reliability of psychometric tests

Psychometric test	Mean	Standard deviation	Cronbach's Alpha
AFM – Positive Mood Items	33.93	6.80	0.75
AFM – Negative Mood Items	30.08	7.19	0.65
AFM - Positive/Negative Balance	3.85	11.63	0.85
CSE – Problem-focused Coping	64.33	21.03	0.81
CSE – Stop unpleasant emotions and thoughts	84.69	16.06	0.78
CSE – Get support from friends and family	26.38	11.73	0.75
CSE -Tot	139.41	39.81	0.71
S-Ang – State Anger	21.88	8.80	0.91
T-Ang – Trait Anger	26.68	7.28	0.85
T-Ang/T – Trait Anger: Angry Temperament	10.02	3.12	0.70
T-Ang/R – Trait Anger: Angry Reaction	11.88	2.93	0.65
AX/In – Anger In	21.15	4.36	0.56
AX/Out – Anger Out	18.48	5.42	0.81
AX/Con – Anger Control	21.43	5.38	0.80
AX/EX – Anger Expression	34.20	11.04	0.55

As can be seen in Table 2, all the psychometric tests used had Cronbach's alpha values of above 0.55 and six of the scales had Cronbach's alpha scores of above 0.7. Based on these results, it would appear that all the tests were reliable for this particular group of subjects. Acceptable values normally range from 0.7 to 0.95 (Tavakol & Dennick, 2011). Although the Cronbach's alpha of the AX/In and AX/EX subscales is not as high as the other subscales (0.56 and 0.55 respectively).

Comparison of pre-test results

Effect sizes were calculated for the comparison of the pre-test results in order to determine if there were differences between the control and experimental groups before the intervention was conducted.

Table 3: Differences between the experimental group and control group before the intervention as determined by independent t-tests and effect sizes

Variable	Results				P-Values	Effect size (Cohen's d)
	Control group		Experimental group			
	Mean	Standard deviation	Mean	Standard deviation		
AFM – Positive Mood Items	35.63	5.01	32.23	7.98	0.116	0.43**
AFM – Negative Mood Items	27.53	7.25	32.64	6.31	0.023	0.71***
AFM – Positive/Negative Balance	8.11	10.80	-.41	11.09	0.019	0.77***
CSE – Problem-focused Coping	69.91	20.53	53.75	20.51	0.094	0.54**
CSE – Stop unpleasant emotions and thoughts	55.19	13.34	42.19	16.21	0.009	0.80***
CSE – Get support from friends and family	28.75	10.82	24.00	12.40	0.205	0.38**
CSE -Tot	153.92	36.26	121.90	38.67	0.019	0.75***
S-Ang – State Anger	17.10	6.95	26.67	7.90	0.000	1.21***
T-Ang – Trait Anger	23.56	6.53	29.79	6.76	0.005	0.92***
T-Ang/T – Trait Anger: Angry Temperament	8.50	2.52	11.53	2.96	0.001	1.02***
T-Ang/R – Trait Anger: Angry Reaction	10.95	3.00	12.80	2.60	0.044	0.62**
AX/In – Anger In	19.77	3.67	22.53	4.64	0.045	0.59**
AX/Out – Anger Out	17.30	5.14	19.65	5.76	0.174	0.42**
AX/Con – Anger Control	21.52	5.56	21.34	5.33	0.915	0.03
AX/EX - Anger Expression	31.55	11.25	36.84	10.43	0.131	0.47**

*d=0.2 small effect **d=0.5 medium effect ***d=0.8 large effect

According to Table 3, the control group reported higher results in the AFM-positive scale and the total AFM-Positive/negative Balance scale. The experimental scored higher in the AFM-Negative mood scale.

The control group also had higher results in all the subscales of the CSE, including CSE-Problem-focused Coping; CSE-Stop unpleasant emotions and thoughts; CSE-Get support from family and friends as well as the CSE total scale.

With regard to the STAXI-2, the control group scored slightly higher results in the AX/Con – Anger control scale. The experimental group did, however, have higher results than the control group in the following scales: AFM-Negative mood items, as well as the STAXI-2's sub-scales of S-Ang (State anger), T-Ang (Trait anger), T-Ang/T (trait anger and temperament), T-Ang/R (trait anger and anger reaction), AX/In (Anger In), AX/Out (Anger Out) and the AX/EX (Anger Expression) scale.

The experimental group was selected based on participants who were interested in the programme and were able to commit to six sessions spread over two weeks. This might imply a difference in the control and experimental group's level of awareness of their anger, the level of their commitment to change as well as their stress and perceptions of their environment, resulting in the bias as indicated by the variation in the effect sizes. These differences were controlled for by the Analysis of Covariance (ANCOVA) when comparing the post-test's results for the control and experimental groups (Field, 2005).

Comparison of the within-group results during the intervention

In Table 4 the means, standard deviation, P-values and effect sizes were calculated to determine whether the experimental group benefitted from the intervention with repeated measures ANOVA.

Table 4: Differences within the experimental group during the intervention period as determined with repeated measures ANOVA

Variable	T 1	T 2	T 3	MSE	P – Value	Effect size		
						T1 & T2	T1 & T3	T2 & T3
AFM – Positive Mood Items	32.23	35.48	36.80	98.14	0.041	0.33*	0.46**	0.13
AFM – Negative Mood Items	32.64	32.80	31.92	100.20	0.851	0.02	-0.07	-0.09
AFM - Positive/Negative Balance	-.414	2.68	4.88	226.00	0.200	0.21*	0.35*	0.15
CSE – Problem Focused Coping	58.75	68.60	68.20	763.91	0.157	0.36**	0.34*	-0.01
CSE – Stop unpleasant emotions and thoughts	42.18	51.40	54.80	569.59	0.001	0.39**	0.53**	0.14
CSE – Get support from friends and family	24.00	28.60	27.40	325.75	0.119	0.25*	0.19	-0.07
CSE -Tot	124.90	148.60	150.40	3682.20	0.016	0.38**	0.41**	0.03
S-Ang – State Anger	26.67	22.66	23.26	209.30	0.111	-0.28	-0.24	0.04
T-Ang – Trait Anger	29.79	28.66	27.03	92.22	0.256	-0.12	-0.29	-0.17
T-Ang/T – Trait Anger: Angry Temperament	11.53	11.05	10.73	18.73	0.690	-0.11	-0.18	-0.07
T-Ang/R – Trait Anger: Angry Reaction	12.80	12.75	11.60	14.19	0.122	-0.01	-0.32	-0.31
AX/In – Anger In	22.53	22.91	21.86	49.54	0.535	0.05	-0.09	-0.15
AX/Out – Anger Out	19.65	20.06	19.26	56.98	0.707	0.05	-0.05	-0.11
AX/Con – Anger Control	21.33	22.87	21.83	44.00	0.366	0.23*	0.07	-0.16
AX/EX - Anger Expression	36.84	36.10	35.30	191.84	0.812	-0.05	-0.11	-0.06

*d=0.2 small effect **d=0.5 medium effect ***d=0.8 large effect

***T1 – prior to intervention T2 – directly after the intervention T3 – one month after the intervention

According to Table 4, positive results appeared after the intervention was conducted. The AFM-Positive subscale measures the presence of positive emotions and feelings of well-being experienced by a particular person (Wissing & van Eeden, 2002). The results indicate that the experimental group experienced an increase in positive emotions and general well-being immediately after the intervention (T2) and this had even increased more one month after the intervention (T3). Although not statistically or practically significant, the AFM-Negative sub-scale showed an increase in the experimental group's experience of negative emotions immediately after the intervention (T2), but a decrease in negative emotions was measured one month after the intervention (T3). The AFM-Positive/negative Balance scale indicates the balance between positive and negative affect. A greater sense of overall well-being is experienced when positive feelings dominate the negative feelings (Kammann & Flett, 1983). Although not statistically or practically significant, the experimental group reported a greater sense of

overall well-being immediately after the intervention (T2) and these feelings increased over the next month (T3).

According to the results, the experimental group experienced an improvement in the CSE-Problem-focused Coping subscale immediately after the intervention (T2). The CSE-Stop Unpleasant Emotions and Thoughts sub-scale showed an increase in the participant's ability to stop negative thoughts and emotions immediately after the intervention (T2) and these feelings increased over the next month (T3). Though not statistically or practically significant, The CSE-Get support from Family and Friends sub-scale increased slightly immediately after the intervention (T2). With regard to the CSE-Total overall sense of coping sub-scale, results reported an increase immediately after the intervention (T2) and stayed the same one month after the intervention (T3). This might imply that participants in the experimental group are making use of better coping strategies to face life's problems and their ability to stop unpleasant thoughts and emotions had increased. This improved their overall sense of positive coping.

The results of the STAXI-2 indicated that no statistical or practical significant increase were reported for the experimental group's ability to manage their anger better with regard to the rest of the different subscales. However, the experimental group reported an increase in their ability to control their anger (AX/Con subscale). The group means of the S-Ang (State anger), T-Ang (Trait anger), T-Ang/T (trait anger and temperament), T-Ang/R (trait anger and anger reaction), and the AX/EX total anger management sub-scale all reported a decrease in anger feelings immediately after the intervention (T2) and these feelings decreased slightly more over the next month (T3).

In Table 5 the means, standard deviation, P-values and effect sizes were presented to determine whether the control group experienced similar changes with repeated measures ANOVA.

Table 5: Differences within the control group during the intervention period as determined with repeated measures ANOVA

Variable	T 1	T 2	T 3	MSE	P – Value	Effect size		
						T1 & T2	T1 & T3	T2 & T3
AFM – Positive Mood Items	35.63	35.63	35.63	78.20	1.00	0.00	0.00	0.00
AFM – Negative Mood Items	27.53	27.18	28.06	151.89	0.85	-0.03	0.04	0.07
AFM - Positive/Negative Balance	8.11	8.46	7.57	353.45	0.95	0.02	-0.03	-0.05
CSE – Problem-focused Coping	69.91	66.10	66.20	734.82	0.71	-0.14	-0.14	0.00
CSE – Stop unpleasant emotions and thoughts	55.19	54.05	56.25	376.28	0.69	-0.06	0.05	0.11
CSE – Get support from friends and family	28.75	26.85	25.80		0.27	-0.11	-0.16	-0.06
CSE Tot	153.92	147.00	148.25	2924.38	0.68	-0.13	-0.10	0.02
S-Ang – State Anger	17.21	18.69	17.05	93.87	0.52	0.15	-0.02	-0.17
T-Ang – Trait Anger	23.56	23.19	22.71	147.01	0.79	-0.03	-0.07	-0.04
T-Ang/T – Trait Anger: Angry Temperament	8.50	8.68	8.90	21.56	0.76	0.04	0.09	0.05
T-Ang/R – Trait Anger: Angry Reaction	19.95	10.55	9.50	30.35	0.12	-0.07	-0.26	-0.19
AX/In – Anger In	19.77	19.35	19.84	43.92	0.84	-0.06	0.01	0.07
AX/Out – Anger Out	17.30	17.05	17.08	56.60	0.88	-0.03	-0.03	0.00
AX/Con – Anger Control	21.52	21.88	21.09	46.95	0.69	0.05	-0.06	-0.12
AX/EX - Anger Expression	31.55	30.52	31.83	320.11	0.80	-0.06	0.02	0.07

*d=0.2 small effect **d=0.5 medium effect ***d=0.8 large effect

***T1 – prior to intervention T2 – directly after the intervention T3 – one month after the intervention

Table 5 shows that there were no significant differences between the pre-testing and post-testing of the control group. It can therefore be concluded that the differences that the experimental group reported was in fact due to the self-help online anger management programme and that it proved to be effective in facilitating coping and well-being.

In Table 6, the comparison of post-test results between groups immediately after the intervention (Test 2), were determined by comparing the adjusted means by means of an ANCOVA controlling for the pre-test scores.

Table 6: Differences between the experimental group and control group directly after the Intervention – Test 2 as determined with repeated measures ANOVA

Variable	Adjusted means on T2				Effect size
	Control group	Experimental group	Mean square of error ANOCOVA	Statistical significance (p-Values)	
AFM – Positive Mood Items	34.60	36.52	26.80	0.264	0.37*
AFM – Negative Mood Items	29.02	30.97	44.74	0.394	0.29*
AFM- Positive/Negative Balance	5.29	5.84	76.03	0.853	0.06
CSE – Problem-focused Coping	63.37	71.33	343.08	0.198	0.43**
CSE – Stop unpleasant emotions and thoughts	50.51	54.94	222.96	0.399	0.30*
CSE – Get support from friends and family	24.87	30.58	63.34	0.032	0.72***
CSE-Tot	137.49	158.11	1243.75	0.094	0.58**
S-Ang – State Anger	22.37	19.15	49.25	0.237	0.46**
T-Ang – Trait Anger	25.13	26.71	39.31	0.478	0.25*
T-Ang/T – Trait Anger: Angry Temperament	9.59	10.14	7.79	0.589	0.20*
T-Ang/R – Trait Anger: Angry Reaction	11.08	12.22	8.29	0.242	0.40**
AX/In – Anger In	20.13	22.14	20.03	0.187	0.45**
AX/Out – Anger Out	17.76	19.34	16.20	0.234	0.39*
AX/Con – Anger Control	21.84	22.91	17.09	0.415	0.26*
AX/EX - Anger Expression	32.29	34.33	73.98	0.470	0.24*

*d=0.2 small effect **d=0.5 medium effect ***d=0.8 large effect

***T1 – prior to intervention T2 – directly after the intervention T3 – one month after the intervention

In practice the experimental group scored higher adjusted means in comparison with the control group with regard to the CSE-Problem-focused Coping subscale, The CSE-Get support from Family and Friends sub-scale and on the CSE-Total overall sense of coping sub-scale. These results imply that, when compared with the control group, participants in the experimental group have more motivation to find solutions to life's problems, are more inclined to get support from family and friends and report a more general sense of coping and wellbeing immediately after the intervention was completed.

With regard to the STAXI-2, compared to the control group, the experimental group scored lower results in the S-Ang (state anger) subscale. This implies that, at the time of testing (immediately after the intervention), the experimental group's intensity of angry feelings was lower than those of the control group. The T-Ang/R (trait anger and anger reaction) subscale reported higher scores for the experimental group. This implies that,

in comparison with the control group, the experimental group had more individual differences in the disposition to express anger when criticised or treated unfairly by other individuals. The experimental group also scored higher than the control group with regard to the subscales of AX/In (Anger In), implying that the experimental group is more inclined to hold or suppress their angry feelings. Although not statistically or practically significant, the experimental group in comparison with the control group seemed to be less inclined to experience anger (T-Ang subscale), or to express anger without specific provocation (T-Ang/T), they will attempt more to control the expression of their anger (AX/Con) and will less frequently express their anger, regardless of the direction of the expression (AX/EX).

In Table 7, the differences between the control and experimental groups one month after the intervention (Test 3) were determined by comparing the adjusted means by means of an ANCOVA controlling for the pre-test scores.

Table 7: Differences between the experimental group and control group one month after the Intervention – Test 3 as determined with repeated measures ANOVA

Variable	Adjusted means on T3				Effect size
	Control group	Experimental group	Mean square of error ANOCOVA	Statistical significance (p-Values)	
AFM – Positive Mood Items	34.89	37.53	33.86	0.174	0.45**
AFM – Negative Mood Items	29.78	30.20	38.86	0.843	0.07
AFM- Positive/Negative Balance	5.28	7.17	103.16	0.586	0.19
CSE – Problem-focused Coping	65.07	69.33	351.78	0.494	0.23*
CSE – Stop unpleasant emotions and thoughts	53.20	57.85	139.96	0.265	0.39*
CSE – Get support from friends and family	24.53	28.67	76.39	0.151	0.47**
CSE-Tot	141.50	157.15	1181.03	0.189	0.46**
S-Ang – State Anger	19.91	20.20	48.81	0.915	0.00
T-Ang – Trait Anger	24.59	25.16	46.25	0.812	0.08
T-Ang-T – Trait Anger: Angry Temperament	9.68	9.96	9.30	0.799	0.09
T-Ang-R – Trait Anger: Angry Reaction	10.08	11.02	9.84	0.374	0.30*
AX/In – Anger In	20.52	21.18	22.13	0.676	0.14
AX/Out – Anger Out	17.73	18.61	12.15	0.436	0.26*
AX/Con – Anger Control	21.07	21.85	17.33	0.554	0.19
AX/EX - Anger Expression	33.21	33.92	70.63	0.798	0.08

*d=0.2 small effect **d=0.5 medium effect ***d=0.8 large effect

***T1 – prior to intervention T2 – directly after the intervention T3 – one month after the intervention

According to Table 7, the experimental group reported higher adjusted mean than the control group on the AFM-Positive subscale. The results indicate that – one month after the intervention - the experimental group experienced more positive emotions than the control group.

In practice the experimental group scored higher adjusted means in comparison with the control group with regard to the CSE- Stop Unpleasant Emotions and Thoughts sub-scale, The CSE-Get support from Family and Friends sub-scale as well as on the CSE-Total overall sense of coping sub-scale one month after the intervention. These results imply that, when compared with the control group, participants in the experimental group still had a better ability to stop unpleasant thoughts and emotions and they are

more inclined to get support from family and friends and report a more general sense of coping and wellbeing one month after the intervention was completed.

No statistically or practically significant scores were reported on all the subscales of the STAXI-2, one month after the intervention.

Discussion

Based on the statistical results it seems that participants in the control group experienced more positive feelings, had better coping skills and experienced less anger than participants in the experimental group, before the intervention was conducted. This might be ascribed to the fact that participants in the experimental group indicated that they were interested in participating in an anger management programme and was willing and able to commit themselves to the two-week programme. This might imply that participants in the experimental group was therefore more aware of their angry feelings, stress and other negative emotions and perceptions. Since this variation in effect sizes was controlled for by the Analysis of Covariance (ANCOVA) (Field, 2005), practical and statistical results was still obtained and would be discussed hereafter.

According to the statistical results, it was clear that positive results appeared after the intervention had been conducted. The AFM-Positive subscale measures the presence of positive emotions and feelings of well-being experienced by a particular person (Wissing & van Eeden, 2002). The results indicate that, although the experimental group experienced an increase in positive emotions and general well-being that was not practically or statistically significant immediately after the intervention, they reported a significant increase in positive emotions and general well-being one month after the intervention. Positive feelings have been found to increase the quality of social interactions and relationships with others (Waugh & Fredrickson, 2006). Positive emotions can also enhance creative thinking to handle stress and difficulty (Lyubomirsky, Boehm, Kasri, & Zehm, 2011) and also have a restorative effect that may undo the physiological consequences of negative feelings (Fredrickson, Mancuso, Branigan, &

Tugade, 2000; Lin, 2015). Since anger is one of the most regularly experienced negative feelings (Averill, 1983), it can be said that the activation of positive emotions by means of positive activity interventions repaired the physiological effects of the negative emotion of anger and enhanced the coping and emotional well-being within the experimental group. Positive interventions can be described as interventions designed to promote well-being, rather than to decrease problematic behaviours and emotions through the promotion of positive feelings, thoughts and actions (Quoidbach, Mikolajczak, & Gross, 2015; Schueller, Kashdan, & Parks, 2014). In the first session of the programme namely “What is anger?”, the experimental group were educated about anger and its different effects by means of slide shows, fact sheets, story and video and online group discussions. The latter stimulates the positive character strength of learning. According to Dean (2004), learners feel good when they are motivated to obtain new abilities or knowledge or to build on existing knowledge or abilities. The provision of knowledge through an internet medium tracking their progress can therefore be seen as one positive activity intervention that might have enhanced the experimental group’s positive emotions and feelings of well-being as well as providing them with a sense that their goals are attainable, as confirmed by Schunk and Schwartz (1993). This could be applicable to session two “Understanding the roots of your anger” where the participants learned about cognitive restructuring by means of written exercises. Reducing the subjective experience of anger through choice of circumstances or controlling the appraisal of the situation is likely to increase physical and mental well-being (Phillips, Henry, Hosie & Milne 2006).

The improved results in AFM-Positives subscale may also be attributed to the different relaxation techniques that form part of the self-help online anger management programme. According to Diong and Bishop (1999), stress has a direct correlation with physical well-being and also has both direct and indirect associations with psychological well-being. All the sessions included relaxation techniques such as breathing, visualisation, humour, mindfulness meditation and progressive muscle relaxation. Kellner (1999) and Gaines and Barry (2008) agree that it is important for adolescents to learn about the functioning of anger and how to use methods that promote relaxation and self-control. All these are considered positive activity interventions since they promote positive

emotions and behaviours and enhances psychological wellbeing (Barrows & Jacobs, 2002; Beauchamp, Bray, & Albinson, 2002; Bluth & Blanton, 2014; Borders, Earleywine & Jajodia, 2010; Prerost, 1995; Seppälä, 2013).

The increase in positive emotions and general well-being reported by the experimental group after the intervention (AFM-Positive scale) may also be attributed to the incorporation of the concepts of *gratitude* and *forgiveness* that formed part of the programme. Empirical findings have established a positive relationship between gratitude and well-being in adolescents (Adler & Fagley, 2005; Norrish & Vella-Brodrick, 2009). In a study done by Proyer, Gander, Welleson and Ruch (2014) gratitude exercises were done in an online setting and participants reported an increase in positive emotions immediately and one month after the intervention. Forgiveness is conceptualised as a motivationally and unique method of coping (Hirsch, Webb & Jeglic, 2012) and research confirms that forgiveness reduces anger, increases positive emotions like happiness (Krause & Ellison, 2003) and has a positive effect on both physical and mental wellbeing (Toussaint & Webb, 2005; Wilkowski, Robinson & Troop-Gordon, 2010; Witvliet, Ludwig & Laan, 2001;).

According to the statistical results, the experimental group showed an increase in the CSE-Get support from Family and Friends sub-scale and on the CSE-Total overall sense of coping sub-scale immediately after the intervention and one month after the intervention. These results imply that participants in the experimental group are more inclined to get support from family and friends and report a more general sense of coping and well-being one month after the intervention had been completed. Lazarus and Folkman (1984:141) describe coping as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person.” Emotion-focused coping intends to control one’s emotions by means of activities like humour, positive reinterpretation, looking for emotional and social support and activities like relaxation and meditation (Bolgar, Janelle & Giacobbi, 2008; Holt & Dunn, 2004). The self-help online anger management programme clearly helped the experimental group to cope with stressors, especially with regard to emotion-focused coping. This was done by means of positive activity

interventions such as humour, cognitive restructuring methods, as well as the different relaxation techniques included in the sessions. According to Pakenham, Chiu, Burnall and Cannon (2007), seeking social support is correlated with well-being and acts as a protective factor against psychological disturbances (such as anger). The session on assertiveness in the self-help online anger management programme might have helped the participants in the experimental group to seek social support. Elliott and Gramling (1990) confirm that personal assertiveness is vital for seeking and getting effective social support since it helps people to communicate their personal thoughts and feelings in a way that is respectful to the thoughts and feelings of others (Wolpe & Lazarus, 1966). Active coping (such as assertively looking for social support) is seen to be frequently used by teenagers, and it has been before linked to improved levels of well-being (Herman-Stahl & Peterson 1999; Seiffge-Krenke, Aunola & Nrumi, 2009). Similar findings emerged from this study, as suggested by the increased results of the AFM-Positive subscale and may have attributed to more effective coping within the experimental group.

The increase in the AFM-Positive subscale, the CSE-Get support from Family and Friends sub-scale and the CSE-Total overall sense of coping sub-scale may also be ascribed to the fact that the self-help online format of the programme appealed to the adolescent participant. Research by Rickwood, Mazzer and Telford (2015) confirm that adolescents self-initiated the use of online services and that the internet is now the leading source for information and access to health and mental health information. Online support also substantially increases access to mental health interventions by overcoming difficulties such as availability and cost (Andersson & Titov, 2014). A meta-analysis of recent literature found that internet-based CBT (Cognitive Behavioral Therapy) had similar positive effects to face-to-face CBT in clinical populations (Andersson, Cuijpers, Carlbring, Riper & Hedman, 2014). Trondsen and Tjora (2014) confirm that internet self-help groups provide useful information for coping with various challenging life circumstances, of which adolescent anger form part.

Based on the statistical results of the SATXI-2, the experimental group scored lower results in the intensity of their angry feelings (S-Ang) immediately after the intervention, but also reported more individual differences in the disposition to express

anger (T-Ang/R), and was more likely to hold their anger in (Ax/In). However, one month after the intervention, there was no practical or statistical differences in the experimental groups' experience or management of anger. This could have been due to the short intervention period and small sample size, as found in a similar study by Lee (2015). Shechtman and Ifargan (2009) stated that aggression in a small group had only decreased after interventions and counselling was administered for four months (12 sessions). Another possibility might be that the intervention did not focus directly on the enhancement of self-esteem since recurrent episodes of anger expression may be linked with a poorer self-esteem. Earlier research has found that people that score high in hostility or anger have lower self-worth and higher levels of uncertainty (Houston & Vavak, 1991; Kernis, Grannemann, & Barclay, 1989). A study by Arslan (2009) indicated that if a teenager's self-esteem increases, the level of characteristic anger decreases and anger control and management increases. The results might also be ascribed to homework that was maybe not completed or assignments that were not intense enough. It was found in recent studies that more intense homework assignments are more effective than those with less intensity (Siemer, Fogel & van Vorhees, 2011; Stice, Shaw, Bohon, Marti & Rohde, 2009).

Conclusions and recommendations

The present study aimed to evaluate the effectiveness of the developed self-help online anger management programme using positive activity interventions in facilitating anger management to enhance the well-being of the South-African adolescent. The overall results conclude that, although there had been no practical or statistical changes in the experience and management of anger, the programme was effective in facilitating positive affect, coping and well-being in a group of South African adolescents.

Limitation

A limitation of this study is that a convenience sample was used and therefore the results acquired in the sample population cannot be generalised beyond the sample population. Also, the measures used were in the form of self-report, opening the

possibility that the results may have been affected response bias. Another limitation to the study is that the researcher had been present throughout the intervention to answer all questions even though it was a self-help programme. Some adolescents found it difficult to use the computer and there had been some technical questions that the researcher had to answer. An implication of this might be that the results might differ if the adolescents had to rely completely on email communication with the programme developer to answer technical questions. Nevertheless, despite these limitations the statistics reported here provide a valuable contribution to the existing body of knowledge by addressing significant issues with regards to the nature of anger and the management thereof by means of positive activity interventions in a self-help online environment.

Recommendations for further research and practice

This study is limited by the the short-term nature of the intervention and the small sample size. Further study is required to inspect the effect of this group intervention in a larger sample over a longer period of time. This research has provided outcomes that may allow a new direction for developing methods for the prevention and treatment of angry adolescents by means of positive activity interventions. By increasing the present knowledge of anger in healthy adolescents, it may cause insight into what keeps teenagers from becoming angry (Pullen, Modrcin, McGuire, Lane, Kearney & Engle, 2015). It is confirmed by empirical studies that anger control interventions could focus on the cognitive evaluations of anger-provoking circumstances and the use of relaxation methods such as mental imagery, positive self-talk, or progressive muscle relaxation (Brunelle, Janelle, & Tennant, 1999) and perhaps specifically on the enhancement of self-esteem (Arslan. 2009) with more intense homework assignments (Siemer, Fogel & van Vorhees, 2011). However, the most effective positive interventions tend to be varied, integrated, and personalised (Lyubomirsky & Layous, 2013; Sheldon & Lyubomirsky, 2012). Mental health care in an online setting is growing quickly and is a increasingly workable alternative to encourage adolescents to look for help (Rickwood, Mazzer & Telford, 2015). It is therefore imperative that future researchers ensure that internet searches for information about mental health is based on evidence and of high quality,

as confirmed by Rickwoord (2010). Foody, Samara and Carlbring (2015) confirm that urgent attention is needed to develop and assess more online interventions. The self-help online anger management programme can be recommended by teachers, parents and therapists as a source of information or as an alternative to face-to-face counselling, or maybe as an add-on to existing anger management programmes or therapy. Computer use in South Africa has several challenges, including availability, affordability and difficulty of use (Donner, Gitau & Marsden, 2011). However, it has the potential to reach rural and remote areas if it can be adapted for mobile applications.

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CHAPTER 5

Conclusion, limitations and recommendations

The aims of this study were (1) to explore the different perceptions with regard to anger triggers and anger management styles in a group of South African adolescents (Article 1), (ii) to develop a self-help online anger management programme using positive activity interventions that will improve the adolescent's ability to cope and deal with his/her anger (Article 2) and (iii) to determine if the developed self-help online anger management programme using positive activity interventions is effective in facilitating coping with anger and enhances the well-being of a group of South-African adolescents (Article 3).

The first article explored the different perceptions that adolescents, psychologists and teachers have with regard to anger triggers and anger management styles and the needs with regard to anger management within a group of South African adolescents. Focus groups were held involving 21 learners and five teachers from a school in Klerksdorp in the North West province, as well as with five psychologists working with adolescents in the same area. The anger triggers identified in this study were related to the appraisal of frustration and goal obstacles, unfairness, control and a threat to self-esteem. Participants in this study identified a need for communication skills and assertiveness training and for more knowledge about anger and the different anger management techniques available. It was recommended that a programme be developed that includes the provision of knowledge about anger as an emotion, identifying anger triggers, the management of anger by means of different anger management techniques including assertiveness training.

The aim of Article 2 was to develop a self-help online anger management programme that will enhance the adolescent's ability to cope and deal with their anger with reference to the identified themes using positive activity interventions. Positive activity interventions are described as relatively short, self-administered, and exercises that promote positive thoughts, emotions, and behaviours, rather than specifically trying to fix negative thoughts, emotions, and behaviours (Krentzman, 2013 & Layous, Chancellor,

Lyubomirsky, Wang, & Doraiswamy, 2011:677) Guided self-help (GSH) is the conceptual framework that underlied this programme. Bernecker (2014) describes GSH as any specific treatment that make use a self-help source (e.g., computer programs) in combination with reduced contact with a trained professional. The GSH framework was chosen since adolescents are prolific users of the internet and it also appears to be their preferred medium of communication. The programme was divided into six sessions of one hour each, addressing what anger is, understanding the roots of anger, how to relax, learning to let go and how to be assertive. It was recommended that this programme be evaluated to determine its effectiveness on facilitating anger management skills within a group of adolescents in South Africa.

The third article evaluated the effectiveness of the intervention programme developed in Article 2. A two-group (experimental and control) pre-test and post-test design was used and the sample group consisted of 40 adolescents from two schools in the North West province of South Africa. Both the experimental group (n=20) and control group (n=20) underwent pre-testing and post-testing immediately after the intervention as well as one month after on three different questionnaires, namely The Affectometer 2 (Kammann & Flett, 1983), The Coping Self-Efficacy Scale (CSE) (Chesney, Folkman & Chambers, 1996) and the State Trait Anger Expression Inventory – 2nd Edition (STAXI-2) (Spielberger, 1999). The self-help online anger management programme using positive activity interventions was presented to the experimental group (six one-hour sessions over a two-week period) only. The experimental group showed significant improvements in the presence of positive emotions and feelings of well-being one month after the intervention and significant increases in their ability to seek support from family and friends, as well as in their overall sense of coping immediately after the intervention and even more so one month after the intervention. The experimental group initially scored lower results in the intensity of their anger immediately after the intervention, but also reported more individual differences in the disposition to express anger and was more likely to hold their anger in. However, one month after the intervention, there were no practical or statistical differences in the experimental groups' experience or management of anger. It can therefore be concluded that although the self-help online management

programme using positive activity interventions had no significant impact on anger management, it is effective in facilitating positive feelings and well-being, enhancing the ability to seek social support from family and friends and facilitating an overall sense of coping in a group of South African Adolescents.

A limitation of this study is it made use of a convenience sample and thus the results acquired in the sample population cannot be generalized to the general population. Also, self-report measures were used, resulting the possibility that the results may have been affected by response bias. Another limitation to the study is that the researcher had been present throughout the intervention to answer all questions even though it was a self-help programme. Some adolescents found it difficult to use the computer and as a result there had been some technical questions that the researcher had to answer. An implication of this might be that the results might differ if the adolescents had to rely completely on email communication with the programme developer to answer technical questions. Nevertheless, notwithstanding these limitations the data reported here provide valuable information for addressing critical issues relating to anger and the management thereof by means of positive activity interventions.

Since this study is limited by its small sample size and the short-term nature of the intervention, further studies are recommended to study the effect of this group intervention in a larger sample over a longer period of time. Anger control interventions and actions could continue to focus on positive activity interventions such as the use of relaxation methods such as progressive muscle relaxation, positive self-talk, mental imagery, or and cognitive appraisals of anger-provoking circumstances. It can perhaps focus specifically on the enhancement of self-esteem with more intense homework assignments. However, the most effective positive interventions tend to be varied, integrated, and personalised. Future researchers have to ensure that information searches online regarding mental health is based on evidence and of a high and therefor researchers have to develop and assess more online interventions. The self-help online anger management programme can be recommended to teachers, parents and therapists as a source of information or as an alternative to face-to-face counselling, or maybe as

an add-on to existing anger management programmes or therapy. Since computer use in South Africa has several challenges, including availability, affordability and difficulty of use, it is recommended that the programme should be adapted for mobile applications in order to reach remote and rural areas.

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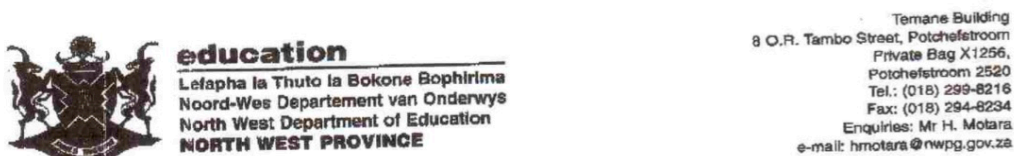
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Appendix A



DR KENNETH KAUNDA DISTRICT
SENIOR PROFESSIONAL SUPPORT MANAGER

30 August 2013

Ms E van der Smit
 Student Number: 10710922
 North West University – Potchefstroom Campus

**PERMISSION TO CONDUCT RESEARCH ON "A COMPUTER BASED SELFHELP
 PROGRAMME FACILITATING ANGER MANAGEMENT USING POSITIVE ACTIVITY
 INTERVENTIONS" AT SECONDARY SCHOOLS IN MATLOSANA AREA OFFICE - DR
 KENNETH KAUNDA DISTRICT**

The above matter refers.

Permission is hereby granted to you to conduct your research at secondary schools in Matlosana Area Office - Dr Kenneth Kaunda District under the following provisions:

- the activity you undertake at the school should not tamper with the normal process of learning and teaching;
- you inform the principals of your identified schools of your impending visit and activity;
- you provide my office with a report in respect of your findings from the research; and
- you obtain prior permission from this office before availing your findings for public or media consumption.

Wishing you well in your endeavour.

Thanking you


MR H MOTARA
DISTRICT DIRECTOR
DR KENNETH KAUNDA DISTRICT

cc Mr S S N'otjotsi – Area Manager: Matlosana