

An exploration of the use of positive psychology movies to enhance well-being

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PREFACE

- This dissertation is a partial fulfilment of the requirements for the Magister Artium degree in Clinical Psychology and is presented in article format in terms of the North-West University rule A.13.7.
- The article comprising this dissertation is intended for submission to the International Journal of Well-being.
- The referencing style and editorial approach for this dissertation is in line with the prescription of the *Publication Manual* (6th edition) of the American Psychological Association (APA), except in the instances where the journal guidelines indicate otherwise.
- For examination purposes, the page numbering is consecutive from the title page.
- The study supervisor of this article, Dr. Alida W. Nienaber, has submitted a letter consenting that the article may be submitted for examination purposes for this degree Magister Artium in Clinical Psychology.

LETTER OF PERMISSION

PERMISSION TO SUBMIT THE ARTICLE FOR EXAMINATION PURPOSES

I, the supervisor, hereby declare that the input and effort of L Grobler, in writing this manuscript, reflects research done by her on this topic: An exploration of the use of positive psychology movies to enhance well-being. I hereby grant permission that she may submit this Manuscript for examination purposes in partial fulfilment of the requirements for the degree Magister Artium in Clinical Psychology. Signed on this

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GUIDELINES FOR AUTHORS: INTERNATIONAL JOURNAL OF WELLBEING

All articles will preferably be up to 8,000 words, but longer articles will be considered. The text should be double-spaced; use an easy-reading 12-point font (such as Times New Roman); sparingly employ *italics*, rather than underlining for emphasis (except with URL addresses); and all illustrations, figures, and tables should be placed within the text at the appropriate points, rather than at the end.

All articles should use internally **consistent spelling, grammar, and language** (American and British English will both be accepted). Please also restrict the use of Latin phrases, long sentences, and overly technical writing as much as possible.

Referencing should follow any one of the major referencing formats (APA, Chicago author-date or footnote, etc.) in any of the major referencing formats. Please see existing articles for examples. If using APA, please refer to the Publication Manual of the American Psychological Association, 6th Edition.

SUMMARY

An exploration of the use of positive psychology movies to enhance well-being

Keywords: cinematherapy, movies, positive psychology, character strengths, well-being

This study firstly explored whether individuals can identify character strengths (Peterson & Seligman, 2004) depicted by characters in positive psychology movies. Furthermore, the study investigated whether their existing character strengths and well-being are augmented or developed through viewing these films. A mixed method design exploratory qualitative approach with a phenomenological design was followed where quantitative data were obtained with a two-group pre- and post-testing design with a retention test. Participants were assigned to an experimental (n=15, mean_{age} = 28.67, SD_{age} = 8.79) and control group (n=15, mean_{age} = 25.67, SD_{age} = 9.28). A self-developed strength questionnaire and five standardized scales, namely Mental Health Continuum – Short Form (MHC-SF) (Keyes, 2006); the General Psychological Well-being Scale (GPWS) (Khumalo, Temane, & Wissing, 2010); the Subjective Happiness Scale (Lyubomirsky, 2008); Coping Self-Efficacy Scale (CSE) (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006) and the Patient Health Questionnaire (PHQ-9) (Kroenke & Spitzer, 2002), were administered to measure psychological well-being. Qualitative data were obtained through focus groups and questionnaires that were completed after the viewing of each film. Qualitative results suggest that participants were able to identify 22 of the 24 character strengths (Peterson & Seligman, 2004) as depicted by characters in the movies. Furthermore, participants were able to relate to the characters and report how they use the depicted strengths in their own lives.

ANCOVA's revealed a medium increase (Cohen's d- value = 0.47 - 0.74) in the strengths: *open-mindedness, zest, kindness, leadership* and *modesty* immediately after the intervention

and a large increase (Cohen's d -value = 0.9) in humour immediately and a month after the intervention. A medium to large (Cohen's d = 0.45 - 0.87) decrease was found on the strengths perspective and forgiveness immediately after the intervention, and in authenticity, love; appreciation of beauty and excellence, gratitude and hope a month after the intervention. Social intelligence showed a decrease (Cohen's d -value = 0.46; 0.51) immediately and a month after the intervention.

A medium increase (Cohen's d -value = 0.53 - 0.56) in general well-being and emotional well-being was found a month after intervention, while general coping efficacy and coping via support from friends and family showed this increase (Cohen's d -value = 0.53; 0.56) immediately after the intervention in the experimental group. A contradictory finding was, that social well-being showed a medium (Cohen's d -value = 0.72) decrease immediately after the intervention. Suggestions for further research include establishing preferable movies before intervention, the use of a standardized strength scale and another experimental group, with the absence of focus groups, so as to determine a more accurate effect of films.

OPSOMMING

'n Verkenning van die gebruik van positiewesielkunde-films om welstand te bevorder

Sleutelwoorde: filmterapie, films, positiewe sielkunde, karaktersterktes, welstand

Hierdie studie het eerstens ondersoek of individue karaktersterktes (Peterson & Seligman, 2004) wat deur die karakters in positiewesielkunde-films uitgebeeld word, kan identifiseer. Tweedens het die studie ondersoek of hul bestaande karaktersterktes en welstand aangevul of ontwikkel kan word deur die besigtiging van hierdie films. 'n Gemengdemetode-ontwerp verkennende kwalitatiewe benadering is gevolg met 'n fenomenologiese ontwerp. Die kwantitatiewe data is verkry met 'n twee-groep pre- en post-toetsontwerp met 'n retensietoets. Deelnemers was toegewys aan 'n eksperimentele ($n=15$, gemiddeld_{ouderdom} = 28.67, $SA_{ouderdom}$ = 8.79) en kontrolegroep ($n=15$, gemiddeld_{ouderdom} = 25.67, $SA_{ouderdom}$ = 9.28). 'n Selfontwikkelde sterktevraelys en vyf gestandaardiseerde skale, naamlik die "Mental Health Continuum – Short Form" (MHC-SF) (Keyes, 2006); die "General Psychological Well-being Scale" (GPWS) (Khumalo, Temane, & Wissing, 2010); die "Subjective Happiness Scale" (Lyubomirsky, 2008); die "Coping Self-Efficacy Scale" (CSE) (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006) en die "Patient Health Questionnaire" (PHQ-9) (Kroenke, & Spitzer, 2002), is toegepas om psigologiese welstand te meet. Kwalitatiewe data is verkry via fokusgroepe en vraelyste wat na die vertoning van elke film ingevul is. Kwalitatiewe resultate dui daarop dat die deelnemers in staat was om 22 van die 24 karaktersterktes (Peterson & Seligman, 2004), soos deur die karakters in die films uitgebeeld, te identifiseer. Verder was deelnemers daartoe in staat om met die karakters te identifiseer en het ook aangedui hoe hulle die uitgebeelde sterkpunte in hul eie lewens aanwend. ANCOVA's het 'n medium toename (Cohen se d -waarde = 0.47 – 0.74) aangedui in die sterkpunte *ontvanklikheid*, *lewenslus*, *welwillendheid*, *leierskap* en *beskeidenheid* onmiddellik

na die intervensie en 'n groot toename (Cohen se d-waarde = 0.9) in humor onmiddellik en 'n maand na die intervensie. 'n Medium tot groot (Cohen se d-waarde = 0.45 - 0.87) afname is in die sterktes *perspektief* en *vergifnis* onmiddellik na afloop van die intervensie gevind. In *opregtheid, liefde; waardering van skoonheid en uitnemendheid, dankbaarheid en hoop* is die afname 'n maand na die intervensie gevind. Sosiale intelligensie het onmiddellik 'n afname (Cohen se d-waarde = 0.46; 0.51) getoon asook 'n maand na die intervensie.

'n Medium toename (Cohen se d-waarde = 0.53 -0.56) in algemene welstand en emosionele welstand is 'n maand na die intervensie gevind, terwyl algemene coping en coping deur middel van ondersteuning van vriende en familie onmiddellik na die intervensie in die eksperimentele groep verhoog het (Cohen se d-waarde = 0.53; 0.56). 'n Teenstrydige bevinding is dat sosiale welstand 'n medium (Cohen se d-waarde = 0.72) afname getoon het onmiddellik na die intervensie. Voorstelle vir verdere navorsing sluit in die bepaling van verkose films voor die intervensie, die gebruik van 'n gestandaardiseerde sterkteskaal en nog 'n eksperimentele groep, met die afwesigheid van fokusgroepe, om sodoende 'n meer akkurate uitwerking van films te bepaal.

LITERATURE REVIEW

In the contemporary world, movie, film, motion pictures, cinema, the big screen, the silver screen or any other synonym is a well-known concept across the globe. In 1896, the French brothers Auguste and Louise Lumière showed the very first projection of moving pictures to an audience. The brothers originally thought their work would be engaged towards scientific research rather for entertainment purposes (Turner, 2006). Today, however, film is a medium mainly used for entertainment, evoking laughter, tears or suspense in its audiences. Access to films has dramatically improved over the last two decades and the moving pictures are no longer only available to the privileged moviegoer (Niemic & Wedding, 2008). Films can be viewed at Cinema's, on DVD's and even using the Internet. Robinson (2009) argues that film is the most popular art medium and possibly the most powerful.

However, the question is: Can we embrace the power and popularity of films in the enrichment and enhancement of people's lives? The literature will answer this question with a resounding yes. In current literature one will find the term "Cinematherapy" which can briefly be described as the use of films in a therapeutic manner. This article will, however, also view the use of film from a positive psychology perspective investigating whether one can reap the benefits of the moving pictures without formal psychotherapy.

Going back to the roots: Bibliotherapy

Cinematherapy can be seen as an extension of Bibliotherapy with parallel aims, advantages and limitations (Hesley & Hesley, 2001). Thus in order to better understand the connection between Cinematherapy and Bibliotherapy, a brief review of Bibliotherapy roots is warranted. The notion that literature can hold therapeutic value is certainly not an alien phenomenon. Using literature for therapeutic purposes can be traced back to 300 BC.

Library epigraphs provide a historic example of the early recognition of how books were believed to help meet human needs (Jack & Ronan, 2008). Epigraphs were found in Alexandria that read: "Medicine (or remedy) for the Mind" while in Greece, at Thebes, the inscription read "Healing of the soul" (Berg-Cross, Jennings, & Baruch, 1990). The term "Bibliotherapy" was coined in 1916 by Rev Samuel McChord Crothers (Jack & Ronan, 2008). Crothers wrote an influential article in the *Atlantic monthly* describing a 'bibliotherapeutic process' which can aid therapeutically for a variety of ailments. Crothers described this process as prescribing books to patients who need help to understand their problems (Myracle, 1995; Jack & Ronan, 2008). Research has shown that the practice of Bibliotherapy originated in medical and mental hospitals and became especially formalized after World War I (Jack & Ronan, 2008). Today, however, it is used in a variety of therapeutic, educational and community settings (Jack & Ronan, 2008).

According to Berg-Cross et al. (1990), the most commonly mentioned benefits of Bibliotherapy include helping the client acquire new insights into their difficulties; enhance self-understanding; increases clients' motivation to change and lastly a cathartic experience that increases their range of emotional expressiveness. Morawski (as cited in Sharp, Smith & Cole, 2002) described three stages of self-development in the process of Bibliotherapy, namely identification, catharsis and insight. Identification occurs when the client perceives a connection with the fictional character and finds similarities between their own behaviour, cognitions and emotions and those of the character. The examination of these similarities can be utilized for self-exploration. Furthermore, a cathartic experience can be provoked when the client observes a character working through a problem and become aware of their own emotions and internal conflicts. When clients understand the behaviour of the character they develop a better awareness of issues they deal with in their own life, hence gaining insight into their own personal struggles. Dermer and Hutchings (2000) maintain that despite its

usefulness, Bibliotherapy may be losing some of its appeal in light of new technology and see the use of motion pictures as a useful alternative to Bibliotherapy. Sharp, et al. (2002) maintain that the principles of Bibliotherapy is not limited to reading materials only and can be applied to audiovisual materials, and that movies have the potential of making a stronger impact than reading assignments.

History and research trends of Cinematherapy

According to Hesley (2000) movies are simply the latest addition to Bibliotherapy but only more accessible and time-saving. Using film in a therapeutic way can be traced back to the early 20th Century (Powell & Newgent, 2010). It seems that audio-visual aids were especially utilized in military psychiatric hospitals in the 1940's. Katz (1945) reported on a Social Therapy Program for Neuropsychiatry, it was revealed that films were not only being used for entertainment, but also for educational, vocational and inspirational gains.

Whitmyre (1958) remarks that using motion pictures was also becoming acceptable as part of the overall program for hospitalized psychiatric patients. Data documenting this early use of Cinematherapy is, however, quite sparse. Furthermore, few authors wrote about utilizing cinema as an overarching concept. Instead, most authors have written about implementing specific movies as interventions (Dermer & Hutchings, 2000). Duncan, Beck, and Granum (1986) reported using the film '*Ordinary people*' (Schwary & Redford, 1980) with adolescents in a residential treatment for emotional disturbances to help prepare for re-entry into their homes and communities following group-home living. These authors found that the film aided clients in preparing for and anticipating challenges associated with re-entry and in becoming familiar with the setting. Furthermore, they found participants satisfaction and an increase in client involvement. Christie and McGrath (1987) reported using the film *The Never Ending Story* (Eichinger, Geissler, & Peterson, 1984) to aid an 11-year-old boy with grief, adjustment, and an eventual adoption following his mother's suicide. These authors

also documented using *The Karate Kid* (Weintraub, Louis, & Avildsen, 1984) to assist a juvenile with learning self-control and discipline (Christie & MacGrath, 1989). The landmark Berg-Cross, et al. report (1990) coined the term *Cinematherapy*. After this report it seems that the formal clinical practice of assigning popular movies to individuals experiencing general mental health disorders surged (Powell & Newgent, 2010). Berg-Cross et al. (1990) point out that this therapeutic technique requires the client to view a selection of films deemed to have a therapeutic effect on the client. Although the term "Cinematherapy" is commonly used, a number of synonyms for Cinematherapy can be found in the literature such as "reel therapy" (Solomon, 2001); "video work" (Hesley & Hesley, 2001); "videotherapy" (Jones, 2006; Ulus, 2003); "e-motion picture" (Wolz, 2005) and "Cinema alchemy" (Wolz, 2010). A variety of definitions for Cinematherapy are also found in the literature. Portadin (2006) reviewed these multiple definitions and found common ground to capture the essence of Cinematherapy. He maintained that "what is common across definitions is the practice of therapists instructing their clients to watch a film or films for the purpose of advancing therapeutic gain" (p. 4-5).

Contemporary use of films in Psychotherapy

When looking back at the history of Cinematherapy and these earlier reports mentioned above, it would seem that Cinematherapy holds therapeutic value and one may ask: Is it popular practice in the current field of Psychology?

At the 1998 Texas Association of Marriage and Family Therapy Annual Meeting a survey of the attendees revealed that the majority regularly used films in therapy (Hesley, 2000). In a survey done by Lampropoulos, Kazantzis, and Deane (2004) 827 licensed practising psychologists were included to determine whether professional psychologists use motion pictures in their clinical practice. The results revealed that 67% reported the use of motion

pictures to promote therapy gains and 88% considered the use of motion pictures as effective in promoting treatment outcome.

Although literature documenting a variety of Cinematherapy procedures and therapeutic properties is sparse, there has certainly been an increase in interest. In peer-reviewed journals several recent documented articles can be found where Cinematherapy was used for a variety of populations as well as a variety of problems (Powell & Newgent, 2010). Dermer and Hutchings (2000) maintain that Cinematherapy can be used with diverse client populations, reporting that Cinematherapy is not limited to individual therapy but may be utilized in addition to family therapy and couple therapy. Furthermore, with the aid of 33 participants, Dermer and Hutchings (2000) compiled a list of a variety of movies for a wide range of presenting problems.

Several articles document the effectiveness of Cinematherapy with youth. In Hébert and Speirs Neumeister's (2001) opinion, movies are powerful in contemporary society and play an important part in teenage culture. These authors reported on using films in therapeutic sessions to aid students in gaining helpful insights to deal with their problems. Bierman, Krieger, and Leifer (2003) found Group Cinematherapy as a supplemental mode of psychotherapy to be useful with adolescent girls in a residential treatment centre. These authors found that the movies served as metaphors that facilitated the girls to access therapeutic material with less difficulty. Marsick (2010) reported on using Cinematherapy with preadolescents experiencing parental divorce. In this collective case study the author found that through watching films the participants were able to express feelings on a deeper level, experience catharsis of negative emotions, and develop new coping skills in dealing with divorce and finally feeling less alone in dealing with divorce. Peake and Steap (2004) documented the use of Cinematherapy for counselling older couples and consider films an avenue to explore these couples' rich life stories.

Furthermore according to Byrd, Florisha, and Ramsdell (2006), Cinematherapy is not limited to being used with adolescents and adults but can also be applied to children. These authors maintain that by incorporating the use of films can prove to be beneficial in creating a therapeutic and psycho-educational context for actively and critically responding to media. Also by using film characters and vignettes, children can reveal their own internal process while keeping an emotional distance from stressful or frightening topics.

Apart from these articles, several textbooks are also dedicated to Cinematherapy. Peake (2004) compiled a comprehensive book, using popular movies to help understand the normal life stages as depicted by Erickson (1982) and provides examples of films that can be used in a specific life stage. In their book *Rent Two Films and Let's Talk in the Morning*, Hesley and Hesley (2001) propose ways for therapists to select films, draw up assignments, and process homework. Drawing on material from their own practices, they show how clients have benefited from what they call 'videowork'. A great portion of the book consists of a listing of popular movies categorized into separate groupings. Wolz's (2005) *E-motion Picture Magic: A Movie Lover's Guide to Healing and Transformation* is a comprehensive book that can be used as a self-help book or used by therapists as an addition to therapy. Wolz (2005) maintains that films can be used in three different ways, namely prescriptively, which depicts using films to model desired qualities of behaviour; evocatively, when films are used for self-discovery; and cathartically which involves using films for emotional release. This author also shares from personal case studies and suggest films to be used. Gary Solomon wrote two books on Cinematherapy: His first book is titled "*Watch This movie and call me in the morning*" (Solomon, 1995) and a follow-up titled "*Reel Therapy: How movies inspire you to overcome life's problems*" (Solomon, 2001). Solomon (1995, 2001) described how to use movies in order to help clients deal with emotional issues and gain self-understanding. Solomon (1995, 2001) thus uses movies as a therapeutic tool and assigns

movies as homework assignments. These books also provide a lengthy list of suggested movies. Ulus's (2003) book *Movie Therapy, Moving Therapy!* is part theoretical-transactional analysis as it provides a foundation on which to apply movie therapy. It is also part workbook as visualization exercises are given and lastly part practical application, since practical issues, such as the types of patients referred for movie therapy, workings of group therapy, movie group and therapy dynamics are furthermore provided (Wilson, 2004).

Cinematherapy is still regarded as a subject in which minimal empirical research has been done. The effectiveness of Cinematherapy is questioned, since the supporting literature of Cinematherapy is to a larger extent anecdotal and qualitative in nature and lacks empirical and systematic research (Powell & Newgent, 2010; Waitkus, 2008; Wedding & Niemiec, 2003). In the literature, however, four articles were found that had quantitatively investigated the therapeutic effect of Cinematherapy within the past few decades. Adams and McGuire (1986) measured how the pain and affect of elderly residents living in a long-term care facility are affected by viewing humorous movies (n=7). Results indicated that all residents reported feeling less pain following the viewings. Furthermore, the participants required less non-scheduled medications, confirmed by medical charts. Jurich and Collins' (1996) program (n=40) "4-H Night at the Movies," measured the effect the viewing of popular teenage movies would have on the level of total self-concept of adolescents. These authors used the Tennessee Self-concept scale and found that the adolescents statistically improved on Total Self-Concept, Self-Satisfaction Family Self, and Social Self. Powell, Newgent, and Lee (2006) reported how Cinematherapy can enhance adolescent self-esteem when films are used as metaphors. These authors used Cinematherapy as a therapeutic intervention to enhance self-esteem in adolescence with a serious emotional disturbance. Their tentative findings revealed that although there were no significant findings over time between groups in relation to self-esteem, the additional intervention of Cinematherapy seemed to have a

positive impact on self-esteem. In addition, these authors reported that statistical differences on particular items of the self-esteem instrument used suggest that the Cinematherapy intervention had a significant impact on specific areas of self-esteem rather than overall self-esteem. In a more recent attempt to improve the empirical credibility of Cinematherapy Powell and Newgent (2010) measured the effect of Cinematherapy on the level of hopelessness experienced by an adult diagnosed with major depression. Results suggested that a structured, nondirective group Cinematherapy intervention is statistically and clinically effective at decreasing hopelessness. The above-mentioned studies undisputedly aids in supporting the empirical credibility of Cinematherapy as an experimentally tested counselling technique.

Therapeutic aspects of Cinematherapy

It is important to note that Cinematherapy is commonly used as an addition to psychotherapy. It is not intended to substitute, but rather to reframe, educate and create metaphors or provide a fresh perspective of a the problem situations (Dermer & Hutchings, 2000; Wedding & Niemiec, 2003). Berg-Cross et al. (1990) maintain that the most potent therapeutic aspects of Bibliotherapy which are storyline and character are also characteristic of Cinematherapy. One of the distinct advantages Cinematherapy has over Bibliotherapy is that of compliance (Berg-Cross et al., 1990). Hesley and Hesley (2001) maintain that the reasons for this higher compliance can be assigned to the fact that films are fun to watch, takes less time than reading a whole book and is often already part of the client's routine. According to Calisch (2001), some clients do not like to read but are often eager to watch films regularly and experience excellent recall of plots and characters. Hesley and Hesley (2001) also described additional advantages of film. These include accessibility, availability, curiosity, familiarity and report. *Accessibility* refers to the fact that clients with a diminished ability to concentrate or those with limited language skills may find it easier to watch a film

than to concentrate through a book. *Availability* to the authors means that a film assignment can ripple through a family affecting family members who are not in therapy. *Curiosity* is triggered when the selected movie for an assignment is sufficiently removed from the problem in order to stimulate creative thought. Movies also bear a sense of *familiarity*: We are already accustomed to the practice of measuring ourselves and situations to similar situations in films. The final advantage *rapport* can also be seen as a therapeutic goal and entails that a deep therapeutic alliance is created when a film can be used as a common experience between client and therapist. In accordance to Berg-Cross et al. (1990) a video serves as a common bridge of understanding and claims that "When two people can look at an event and understand it through the same lens, their respect and feelings for each other are virtually always deepened" (p. 138). Apart from rapport, Cinematherapy has several therapeutic goals that can be reached by viewing films. Metaphors in films are often utilized in Cinematherapy. Berg-Cross et al. (1990) state that film provides the opportunity to create meaningful therapeutic metaphors that depict the client's experiential dilemma. Furthermore, Wedding and Niemiec (2003) maintain that metaphors can serve as catalysts to conversations that otherwise would be uncomfortable for the client. One can thus argue that emotionally laden aspects can be dealt with, with more emotional neutrality. Sharp et al. (2002) maintain that by using metaphors and stories via movies, one is able to communicate to a more receptive and less defensive part of the client. Calisch (2001) maintains that films are metaphors that address both the affective and cognitive realm and states that cognitive insights give guidance to clients, but affective insights give them the motivation to follow through.

Another therapeutic benefit is that the video in itself can serve a therapeutic function by creating optimism and hope through providing options and alternatives not considered before and also pays attention to the humorous aspects of the client's situation (Berg-Cross et

al., 1990). When a client looks at a character in a film, one can thus argue that emotionally laden aspects can be dealt with while experiencing more emotional neutrality. This neutrality or emotional distance often affords viewers the opportunity of viewing their situation from a different perspective. Wedding and Boyd (1997) maintain that films can induce a type of dissociative state in which ordinary existence is, for the time being, set aside, which can make identification possible.

Films can facilitate deeper insights into the clients' dilemma and also a deeper understanding of their personalities, their strengths and their weaknesses (Berg Cross et al. 1990). Calisch (2001) mentions that films are often assigned in therapy with the purpose of encouraging internal search and insight by the client and identifying corresponding resources or limitations in their own repertoires. One can thus apply Morawski's three stages of self-development in the process of Bibliotherapy, namely identification, catharsis and insight into the process of Cinematherapy. Finally Berg-Cross et al. (1990) postulate that Cinematherapy can provide a healing emotional experience by viewing a character's resolution of their conflict. This can often provide the same relief for the viewer. These authors thus suggest that the identification with a character in itself can be therapeutic: "Feelings of inadequacy, guilt and shame are diluted through universal feelings of the shared human drama" (Berg-Cross et al., 1990, p.140).

Hesley and Hesley (2001) beautifully summarized the functions of Cinematherapy as offering hope and encouragement, reframing problems, providing role models, potentiating emotions, improving communication, prioritizing values and identifying and reinforcing internal strengths. In this article, however, our focus will be on the latter function, identifying and reinforcing internal strengths, which can be linked to a more positive psychology perspective.

It will thus seem that Cinematherapy has definitely gained some merit in the fields of psychology, since the popularity and power of film are being used to help clients not only overcome problems but also realize strengths within themselves.

The emergence of positive psychology

A further important aspect to be taken into consideration is the selection of movies used in Cinematherapy. From the above-mentioned research it is evident that research on Cinematherapy mainly followed a traditional focus of psychology in the sense that Cinematherapy can help a client to overcome problems or gain insight into their problems. Also several authors aided in providing a framework of movies that can aid in addressing specific problems. These frameworks can be found in the books listed above. This article, however, will be focused on movies embedded within the movement of positive psychology. It is thus important to briefly describe what positive psychology entails. A little more than a decade ago Martin Seligman became a pioneer of the field of positive psychology. Seligman argued that traditional psychology focuses disproportionately on pathology and repair of human nature. He thus pleaded to alter this imbalance by also paying attention to healthy human functioning (Baumgardner & Crothers, 2010). The rationale of positive psychology can thus be described as also important to nurture what is best and not only fix what is broken (Seligman & Csikszentmihalyi, 2000). In the history of psychology, the notion of more positive ideology is embedded in the humanistic perspective pioneered by Alfred Adler, Abraham Maslow, Carl Rogers and other humanistic psychologists. The pure assumptions of positive psychology thus lie imbedded in the humanistic approach, but it is only recently that the positive side of human nature has captured the attention of empirical study. In the past decade psychologists started focusing on the concept *prevention* and researchers discovered human strengths such as courage, future mindedness, optimism, interpersonal skill, faith,

work, ethics, hope, honesty, perseverance and the capacity for flow and insight (Seligman & Csikszentmihlyi, 2000). The inference was made that these strengths function as buffers against mental illnesses and these concepts became central in the movement of positive psychology. Positive psychology, according to Sheldon and King (2001), is the scientific study of ordinary human strengths and virtues. This brings us to a major contribution of positive psychology, which is the classification of human virtues and strengths. Peterson and Seligman (2004) believed that good character can be cultivated, but to do so they deemed it necessary to develop conceptual and empirical tools in order to create and evaluate interventions.

The classification of character strengths and virtues was driven by the success of the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Classification of Diseases (ICD), in generating a collection of reliable assessment strategies. The rationale of the classification of character strengths and virtues can be seen as the formulation of a consensual vocabulary to allow communication among clinicians, researchers and the general public (Peterson & Seligman, 2004). In order to formulate this "language" a project named the Value in Action project (VIA) was launched. Coordinated by Peterson and Seligman (2004), a group of researchers sought out a common set of human qualities universally regarded as positive values (Baumgardner & Crothers, 2010). Subsequently these authors compiled a comprehensive system of virtues and strengths; they define six human virtues that can be found (nearly) universally in over 500 countries across the globe. Park and Peterson (2009) believe virtues can be seen as the core characteristics valued by moral philosophers and religious thinking, which includes: Wisdom and Knowledge; Courage Humanity; Justice; Temperance and Transcendence. These virtues are then subdivided into 24 core human strengths. Peterson and Seligman (2004, p.13) defines

Character Strengths as "the psychological ingredients - processes or mechanisms - that define the virtues".

The wedding of Cinematherapy and positive psychology

Waitkus (2003, p. 92) found that in the literature there is "no obvious overlap between the use of film in psychotherapy and the clinical objectives of positive psychology". This statement holds true as apparent literature on the combination of Cinematherapy and positive psychology is indeed very sparse. Hesley and Hesley (2001) recognized identifying and reinforcing internal strengths as a function of Cinematherapy and maintain that therapy can assist clients in recalling forgotten or discounted resources when they view characters who resolve difficulties with no more personal skills than the clients possess. Wolz (2005) stated that the viewing of films helps individuals evoke the wise part of oneself needed to triumph over problems and strengthen positive qualities. Although these authors did not make a direct connection to positive psychology, the basic assumptions that one should build on strengths, rather than to focus on weakness, was mentioned. In 2008, Niemiec and Wedding pioneered the notion to combine the power medium of films with positive psychology with their book "Positive Psychology at the movies: Using Films to Build Virtues and Character Strengths". Niemiec and Wedding (2008) are strong believers in the power of cinema and suggest that viewers, who observe a character who is applying his/her strengths and virtues, can be inspired, which can subsequently awaken these strengths and virtues in themselves. They thus recommend watching films to augment contentment and satisfaction with the past, happiness in the present and optimism for the future. These authors compiled a comprehensive study on films which portray the character strengths and virtues classified by Peterson and Seligman (2004). Although no empirical data was shown on the effectiveness of these films, it can be regarded as a critical starting point.

Niemiec and Wedding (2008) refer to the integration of positive psychology and film as a harmonious relationship. Combining the power of film with positive psychology concepts seems to be a perfect recipe to enhance the intrinsic strengths and virtues we possess. Movies that can build character strengths and virtues are known as "positive psychology movies". In order to make a clear distinction on what classifies as a positive psychology movie, Niemiec and Wedding (2008) formulated four basic criteria that need to be met for a film to be deemed a positive psychology movie. The criteria include: A balanced portrayal of a character displaying at least one of the 24 strengths categorized by Peterson and Seligman (2004); depiction of obstacles and/or the struggle or conflict the character faces in reaching or maximizing the strength; a character portrayal that illustrates how to overcome obstacles and/or build and maintain the strength; and lastly, a tone of mood in the film that is inspiring and uplifting. According to Niemiec and Wedding (2008), film is able to portray the nuances of the human mind, including the thoughts, emotions, instincts and motives that influence behaviour. The underlying assumption of building one's character strengths through film is that one identifies with the character and realizes these strengths within oneself. As a character thus depicts a specific strength, one can look into one's own life identifying where one has used that specific strength in a similar or completely different situation. In other words, awakening or recognition of discounted and forgotten strengths or the discovery of strength that one never knew one had.

Conclusion

The practice of Cinematherapy is commonly seen as an extension of Bibliotherapy. Although Cinematherapy's roots can be traced back to the 1940's, using it seems the formal clinical practice of assigning popular movies to individuals experiencing general mental health disorders, especially surged after the ground-breaking article of Berg-Cross et al.

(1990). Research on Cinematherapy mainly follows the same traditional focus of psychology in the sense that Cinematherapy can help a client to overcome problems or gain insight into his problems. Research on Cinematherapy is consequently, for the greater part, in a clinical setting. Similar to Seligman's plea for altering the imbalance in psychology, by also paying attention to healthy human functioning, the current study aim at contributing to the limited research done on combining the power of film and positive psychology. The research thus explores Cinematherapy through the lens of positive psychology and joins Niemiec and Wedding's vision that positive psychology films can awaken intrinsic strengths and virtues. The aim of this research study is to explore the therapeutic effects of watching films on the individual outside the therapy setting. The focus is not to remedy a specific problem but rather to enhance healthy characteristics. A specific aim is to determine whether participants are able to identify the strengths and virtues depicted by positive psychology movies and augment their own strengths and values. Furthermore, apart from identification, an additional goal is to determine whether the individuals' well-being increase by viewing these films.

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An exploration of the use of Positive Psychology movies to enhance Well-being

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Abstract

This study explored whether individuals can identify character strengths (Peterson & Seligman, 2004) depicted in positive psychology movies and whether character strengths and well-being could be developed by watching these movies. A mixed method design exploratory qualitative approach with a phenomenological design was used, where quantitative data were obtained through a self-developed strength scale and standardised well-being and ill-being scales in a two-group pre- and post-testing design with a retention test. Participants were assigned to an experimental (n=15) and control group (n=15). Qualitative results suggest that participants were able to identify 22 of the 24 character strengths. ANCOVA's revealed a medium increase (Cohen's d- value = 0.47 - 0.74) in the strengths Open-mindedness, Zest, Kindness, Leadership and Modesty immediately after intervention and a large increase (Cohen's d-value = 0.9) in Humour immediately and a month after the intervention. A medium to large (Cohen's d-value = 0.45 - 0.87) decrease was found on the strengths Perspective and Forgiveness immediately after the intervention, and in Authenticity, Love; Appreciation of beauty and excellence, Gratitude and Hope a month after the intervention. Social intelligence showed a medium decrease (Cohen's d-value = 0.46; 0.51) immediately and a month after the intervention. A medium increase (Cohen's d-value = 0.53 - 0.56) in general well-being and emotional well-being was found a month after intervention, while general coping efficacy and coping via support from friends and family showed a medium increase (Cohen's d-value = 0.53; 0.56) immediately after the intervention in the experimental group. A contradictory finding was that social well-being showed a medium (Cohen's d-value = 0.72) decrease immediately after the intervention.

Keywords: cinematherapy, movies, positive psychology, character strengths, well-being

An exploration of the use of Positive Psychology movies to enhance well-being

Lights, camera action! In the contemporary world, movie, film, motion pictures, cinema, the big screen, the silver screen or any other synonym is a well-known concept across the globe. In 1896, the French brothers Auguste and Louise Lumière showed the very first projection of moving pictures to an audience. The brothers originally thought their work would be engaged towards scientific research rather than for entertainment purposes (Turner, 2006). Today, however, film is a medium mainly used for entertainment; evoking laughter, tears or suspense in its audiences. Access to films has dramatically improved over the last two decades and the moving pictures are no longer only available to the privileged moviegoer (Niemiec & Wedding, 2008). Films can be viewed at Cinema's, on DVD's and even using the internet. Robinson (2009) argues that film is the most popular art medium and possibly the most powerful. However, the question is: Can we embrace the power and popularity of films in the enrichment and enhancement of people's well-being?

The literature will answer this question with a resounding yes. The notion that a form of literature can hold therapeutic value is certainly not an alien phenomenon. Cinematherapy can be seen as an extension of Bibliotherapy with parallel aims, advantages and limitations (Hesley & Hesley, 2001). Bibliotherapy roots can be traced back to 300 BC. Library epigraphs provide a historic example of the early recognition of how books were believed to help meet human needs (Jack & Ronan, 2008). Epigraphs were founded in Alexandria that read: "Medicine (or remedy) for the Mind" while in Greece at Thebes the inscription read "Healing of the soul" (Berg-Cross, Jennings, & Baruch, 1990). The practice of Bibliotherapy originated in medical and mental hospitals and became especially formalized after World War I. Today, however, it is used in a variety of therapeutic, educational and community settings (Jack & Ronan, 2008). According to Berg-Cross et al. (1990), the most commonly mentioned benefits of Bibliotherapy include helping the client acquire new insights into their

difficulties; enhance self-understanding; increases clients motivation to change; and lastly a cathartic experience that increases their range of emotional expressiveness.

Sharp, Smith, and Cole (2002) maintain that the principle of Bibliotherapy is not only limited to reading materials and can be applied to audiovisual materials and that movies have the potential of making a greater impact than reading assignments. Berg-Cross et al. (1990) coined the term *Cinematherapy* that can be described as the use of films in a therapeutic setting. This therapeutic technique requires the client to view a selection of films that are deemed to have a therapeutic effect on the client. A variety of definitions for Cinematherapy can be found in the literature. Portadin (2006) reviewed these multiple definitions and found common ground to capture the essence of Cinematherapy. He maintained that "what is common across definitions is the practice of therapists instructing their clients to watch a film or films for the purpose of advancing therapeutic gain" (p 4-5).

Berg-Cross et al. (1990) maintain that the most potent therapeutic aspects of Bibliotherapy, which is storyline and character, are also a characteristic to Cinematherapy. Hesley and Hesley (2001) beautifully summarized the functions of cinema therapy as offering hope and encouragement, reframing problems, providing role models, potentiating emotions, improving communication, prioritizing values and identifying and reinforcing internal strengths. In this article the focus will be on the latter function, identifying and reinforcing internal strengths, which can be linked to a more positive psychological perspective.

The use of Cinematherapy in professional practice is also not an alien phenomenon. In a survey done by Lampropoulos, Kazantzis, and Deane (2004), 827 licensed practising psychologists were included in the study to determine whether professional psychologists used motion pictures in their clinical practices. The results revealed that 67% reported the use of motion pictures to promote therapy gains and that 88% considered the use of motion pictures to be effective in promoting treatment outcomes. Although literature documenting

Cinematherapy indicates that various procedures and therapeutic properties are sparse, there has certainly been an increase in interest. In peer-reviewed journals several recent documented articles can be found where Cinematherapy was applied to a variety of populations as well as a variety of problems for example: Dermer and Hutchings (2000); Hébert and Speirs Neumeister (2001); Sharp, Smith, and Cole (2002); Bierman, Krieger, and Leifer (2003); Peake and Steap (2004); Byrd, Florisha and Ramsdell (2006); and Marsick (2010), to name but a few. It will thus seem that Cinematherapy definitely has gained some merit in the field of psychology, but is still a subject in which minimal empirical research has been done. The effectiveness of Cinematherapy is questioned, since the supporting literature of Cinematherapy is to a larger extent anecdotal and qualitative in nature and lacks empirical and systematic research (Powell & Newgent, 2010; Waitkus, 2008; Wedding & Niemiec, 2003). In the literature, four articles were found that had quantitatively investigated the therapeutic effect of Cinematherapy within the past few decades (Adams & McGuire, 1986; Jurich & Collins, 1996; Powell, Newgent, & Lee, 2006; Powell & Newgent, 2010).

A further important aspect to be taken into consideration is the selection of movies used in Cinematherapy. Several authors aided in providing a framework of movies that can aid in addressing specific problems, for example: Solomon (1995; 2001); Hesley and Hesley (2001); Peake (2004); Ulus (2003); and Wolz (2005; 2010). Research done on Cinematherapy has thus mainly been focused on the use of Cinematherapy in a formal therapeutic setting where clients overcome problems or gain insight into their problems. This research will follow a different approach, similar to Seligman's plea to alter the imbalance in psychology by also paying attention to healthy human functioning. Niemiec and Wedding (2008) refer to the integration of positive psychology and film as a harmonious relationship. Combining the power of film with positive psychology concepts seems like a perfect recipe to enhance the intrinsic strengths and virtues that we possess. Movies that can build character

strengths and virtues are known as "Positive Psychology Movies". In order to make a clear distinction on what classifies as a positive psychology movie, Niemiec and Wedding (2008) formulated four basic criteria that need to be met: A balanced portrayal of a character displaying at least one of the 24 strengths categorized by Peterson and Seligman (2004); depiction of obstacles and/or the struggle or conflict the character faces in reaching or maximizing the strength; a character portrayal that illustrates how to overcome obstacles and/or build and maintain the strength; and lastly a tone of mood in the film that is inspiring and uplifting. The above mentioned authors provide a comprehensive list of films that can be classified as a "Positive Psychology Movie". Niemiec and Wedding (2008) are strong believers in the power of cinema and suggest that viewers who observe a character who is using his/her strengths and virtues can be inspired and subsequently awaken these strengths and virtues in themselves. They thus recommend watching films to augment contentment and satisfaction with the past, happiness in the present and optimism for the future.

In this study the researcher will thus explore Cinematherapy through the lens of Positive Psychology. The research question can thus be formulated as: Can an individual identify strengths and virtues depicted in Positive psychology movies? Can one's existing character strengths and well-being be augmented or developed by viewing films that specifically portray the strengths? The aim of this research study can thus be seen as the exploration of the therapeutic effect of watching films on the individual outside the therapy setting. A specific aim is to determine whether participants are able to identify the strengths and virtues depicted by positive psychology movies and augment these strengths and furthermore increase well-being.

Methodology

Research design

A mixed method design was used. A qualitative approach enables the researcher to discover and do justice to the perception and complexity of the participants' interpretations (Richards & Morse, 2007). In the current study it was of great importance to capture the participants' interpretation of the Positive Psychology movies. Furthermore, in order to determine whether the participants' existing strengths and well-being have indeed been developed it was necessary to also make use of a quantitative design. Consequently an exploratory qualitative approach with a phenomenology design was used. This was combined with an experimental quantitative approach with a two-group pre- and post-testing design with a retention test.

Participants

Availability sampling was used in the current study. Participants were found via public advertisement boards in Potchefstroom and postgraduate student groups were addressed.

Participants were assigned to an experimental ($n=15$, $\text{mean}_{\text{age}}= 28.67$, $\text{SD}_{\text{age}} = 8.79$) and control group ($n=15$, $\text{mean}_{\text{age}}= 25.67$, $\text{SD}_{\text{age}} = 9.28$). Originally the groups were randomly assigned. Due to a poor turnout of experimental group assign participants, those originally assigned to the control group were moved to the experimental group. Individuals who originally declined participation due to time constraints were then contacted to form part of the control group. The experimental group comprised of 7 males and 8 females, whilst the control group contained 5 males and 10 females. The majority of the sample was from the student population. In the experimental group 8 of the participants were students and in the

control group 12, the rest of the groups were made up of adults with ages ranging from 26 to 51 years.

Procedure

Firstly, informed consent was obtained via an informed consent form. The participants were then requested to complete a test battery. These questionnaires were completed by the experimental and control group before and immediately after watching the films (post_1) and then again a month after the intervention (post_2). The experimental groups watched the following six movies that met the criteria of Niemiec and Weddings (2008) to be classified as a Positive Psychology Movie: *Life is beautiful* (Braschi, Davis, Ferri, Allen, & Benigni, 1997); *The pursuit of happiness* (Black et al., 2006); *The ultimate gift* (Eldridge, Van Eerden, Shepard, & Sajbel, 2006); *It's a wonderful life* (Capra, 1946); *Amélie* (Meerkamp van Embden, Deschamps, Ossard, & Jeunet, 2001) and *Charlie and the chocolate factory* (Grey, Zanuck, & Burton, 2005).

After each film, the participants answered five questions on their experience of the film. In order to create rich data, focus groups were held guided by the same questions on the questionnaire in order to triangulate the participants' experiences.

The control group only took part in the quantitative part of this study and did not participate in the focus group. This group was, however, given the opportunity to view the films and participate in focus groups after the delayed post-test testing due to ethical reasons.

Data Gathering

Qualitative measures

Qualitative data was gathered by means of focus groups and the completion of a questionnaire. The questionnaire consisted of 5 open-ended questions that aimed to capture

the participants' experiences in watching the film. The questionnaire was completed for all six films.

1. What strengths and virtues could you identify in the character?
2. Describe any of the strengths and virtues depicted in the character that made you aware of strengths and virtues in yourself?
3. Describe how you could have identified with the character drawing on examples of your own life?
4. Describe any inspiring moment(s) during the film?
5. What do you perceive as being the message of the film? In other words, what did you take away from the film?

The focus group was guided by the questions of the questionnaire, the hypothesis was that knowledge would be co-constructed as a group and participants would be able to build on each other's ideas. According to Nieuwenhuis (2007) the assumption of the focus group strategy is that group interaction will prompt a wide range of responses, aid in remembering forgotten details and lessen inhibition that discourages participants to disclose information. Furthermore, many researchers maintain that focus groups produce data that is rich in detail (Nieuwenhuis, 2007). The discussions during these focus groups were recorded using a digital voice recorder and transcribed verbatim.

Quantitative Measures

Quantitative data was collected by using the self-report questionnaires indicated below:

Self-Developed VIA – short form

This self-developed questionnaire was based on the 24 strengths indicated by Peterson and Seligman (2004). The questions were composed by making use of Peterson and

Seligman's (2004) description of the strengths and turning the statements into a question format. A Likert type scale ranging from 1 to 7 was used as answering format (1=strongly disagree; 7= strongly agree). Two questions for each of the 24 strengths were created; thus consisting of 48 items. The item pairs representing strength were analyzed for internal consistency reliability, using Cronbach's coefficient alpha. For pairs with a Cronbach's alpha value greater than 0.5, the items were summed to obtain an aggregated score for the particular strength. Items were analyzed separately or in pairs with a Cronbach's alpha value lower than 0.5.

Mental Health Continuum (MHC-SF) (Keys, 2006)

The MHC-SF consists of 14 items and includes three subscales. Firstly emotional well-being (EWB) (items 1-3) which can be defined in terms of positive affect and satisfaction with life. Secondly social well-being (SWB) (items 4-8) that includes one item on each of the facets of social acceptance, social actualization, social contribution, social coherence, and social integration. Finally psychological well-being (PWB) (items 9-14) which included one item on each of the six dimensions depicted in Ryff's Psychological well-being model (1989). The MHC-SF was initially developed and validated in an American sample. The MHC-SF has shown to be reliable and valid in an African context (Khumalo, Temane, & Wissing, 2010). Research by Van Rooy (2007) found a Cronbach's alpha reliability coefficient for the total MHC-SF of 0.75. In the current study, the Cronbach's alpha reliability index obtained for each of the subscales was 0.84 (EWB), 0.62 (SWB), and 0.79 (PWB).

General Psychological Well-being Scale (GPWS)(Khumalo, Temane, & Wissing, 2010)

The GPWS is a 20-item measuring scale based on the general well-being (GPW) construct as empirically identified by Wissing and Van Eeden (2002). General psychological well-being is deemed to contain several functioning subsystems of the person as a whole (i.e.

affective, cognitive, behavioural, etc.) (Wissing & van Eeden, 2002). The authors reported a Cronbach's alpha of 0.89 and evidence of construct validity in a South African sample. The GPWS has been validated and translated into Setswana (Khumalo et al., 2010). A Cronbach's alpha of 0.94 was obtained in the current study.

Subjective Happiness Scale (Lyubomirsky, 2008)

The 4-item Subjective Happiness Scale was developed by using a "subjectivist" approach to the assessment of happiness and measures global subjective happiness (Lyubomirsky & Lepper, 1999). The authors found internal consistency to vary between good to excellent in 14 different studies. The sample was made up of students, adolescents, adults and older adults. The Cronbach's alpha's ranged from 0.79 to 0.94 ($M = 0.86$). Research where the Subjective Happiness scale was used in the South African context could not be found. Lyubomirsky and Lepper (1999), however, maintain that preliminary evidence is that the Subjective Happiness Scale is suited for different age groups, occupations, language and cultural groups. In the current study a Cronbach's alpha of 0.82 was found.

Coping Self-efficacy Scale (CSE) (Chesney et al., 2006)

The CSE consists of 26 items which determine an individual's self-efficacy to cope with life stressors. It consists of three subscales, namely: problem-focused coping (PFC); stopping unpleasant emotions and thoughts (SUE); and getting support from friends and family (SFF). The authors reported a strong internal consistency and test-retest reliability on all three factors. The Cronbach's alpha values for each subscale were: 0.91, 0.91 and 0.8 respectively. With regard to research in the South African context, the scale showed good reliability and validity when the following studies are taken into account. Laureano (2008) reported Cronbach's alphas of 0.82, 0.84 and 0.74 in a sample of South-African university Rugby players. Bonthuys, Botha, Nienaber, Freeks, and Kruger (2011) reported Cronbach

alphas of 0.86, 0.86 and 0.66 in a community sample. Cronbach's alphas of 0.9, 0.79 and 0.67 were found in the current study.

Patient Health Questionnaire: Depressive symptoms (PHQ- 9) (Kroenke, Spitzer & Williams, 2001)

The PHQ-9 is a 9-item self-report depression scale and consists of the actual nine criteria on which the diagnosis of *DSM-IV* depressive disorders is based (Kroenke, Spitzer, & Williams, 2001). This feature distinguished the PHQ-9 from other measures as no additional questions are needed to establish a *DSM-IV* depressive diagnosis. The authors found the scales to be internally reliable with Cronbach Alpha's of 0.89 and 0.86 and found satisfactory criterion-related and construct validity. In the African Context the PHQ-9 has shown to be a valid and reliable tool. Adewuya, Ola, and Afolabi (2006) found a Cronbach's Alpha of 0.85 in their research among Nigerian students. A Cronbach's Alfa of 0.77 was found in the current study.

Data analysis

The data collected from the qualitative questionnaire and focus group discussion were analyzed by means of the method of thematic analysis. The process of thematic analysis can be defined as "a method for identifying, analysing and reporting patterns or themes within the data" (Braun & Clarke, 2006, p. 77). The phases of thematic analysis compiled by Braun and Clarke (2006) represent a systematic and thorough method of analysing data. The phases include Familiarizing oneself with the data; Generating initial codes; Searching for themes; Reviewing themes; Defining and naming themes and finally Producing the report.

Statistical analyses were conducted using the Statistica 10 and IBM SPSS Statistics 20 statistical programs. Spearman rank order correlations between age and pre-test scores on the self-developed strength scale, as well as the various well-being scales, were calculated to determine the relationship between these measures and age. Correlations of .30 and higher

were deemed practically significant. Due to significant correlations between age and scores on various measures, age was used as covariate in the remainder of the statistical analyses. Pre-test scores for the experimental and control groups were compared using ANCOVA, where age was used as covariate. Since significant differences between pre-test scores of the experimental and control groups occurred for various constructs, the pre-test scores were used as covariate for comparison between the experimental and control groups' post-test scores. ANCOVA's were conducted to compare post-test scores of the experimental and control groups, where age as well as corresponding pre-test scores were used as covariates (Pocock, 2002). This was done for both the immediate and the delayed post-tests.

The sample in this study was a convenience sample, and assignment to the experimental and control groups were not random due to practical difficulties discussed before. Because of the lack of randomness, statistical inference and *p*-values are not relevant and data should be considered as from small populations (Ellis & Steyn, 2003). *P*-values will be reported for completeness, but the focus will be on effect sizes (Cohen's *d*-values) for interpretation, which give an indication of whether findings were significant in practice (Ellis & Steyn, 2003). Cohen's *d*-value represents a standardized difference between mean scores and was calculated from the ANCOVA's adjusted means and mean squared error. Cohen (1988) provided guidelines for interpretation of the *d*-value, where he considered $|d|=.20$ as small, $|d|=.50$ as medium and $|d|=.80$ as large. In this study, Cohen's *d*-values of .45 and higher in absolute value were considered to be indicative of practically significant differences. The researcher made use of the Statistical Consultation Services of the NWU for data analyses.

Trustworthiness

A panel chose the movies selected for the study to minimize the researcher's own bias towards certain movies and to ensure that the findings are credible. The technique of

triangulation was applied by using different methods, since data was gathered from questionnaires as well as from the verbatim transcriptions of the focus groups. In order to improve the credibility of the data analysis the themes found by the researcher were verified by a data analysis expert. The reliability of the questionnaires was determined.

Ethical considerations

Ethical approval was obtained from the Ethics Committee of the North-West University, Potchefstroom Campus, and Nr. NWU 00125-11-51. Informed consent was obtained via an informed consent form that contained a brief description of the study's purpose and the rights of the participants. Participants were informed that their participation was voluntary, and that they may withdraw from the study at any given time. Furthermore, they were informed that the data would be treated with confidentiality.

Results

Qualitative Results

Out of the 24 strengths listed by Peterson and Seligman (2004), 22 of these strengths were identified by the participants in the above-mentioned movies. Strengths are reported here according to frequency of occurrence. Several themes also emerged from the data, which will be discussed. Quotations to support the data can be found in Table 3.

Kindness

Kindness generosity, nurturance, care, compassion, altruistic love can be seen as strongly related terms which indicate a "common orientation of the self toward the other" and includes doing favours for and good deeds to others (Peterson & Seligman, 2004, p. 323). Kindness-related responses were identified highest of all the strengths in all six movies. Peterson and Seligman (2004) maintain that altruism in its fullest expression may include

significant self-sacrifice. A general consensus in responses was that characters portrayed self-sacrifice by giving up personal interest, ideals or well-being for the sake of others; thus maintaining an unselfish or selfless stance.

Persistence

Peterson and Seligman (2004) define persistence as "voluntary continuation of a goal-directed action in spite of obstacles, difficulties or discouragement" (p. 229). This was the second most recognized strength and was identified in all six movies. The participants used several synonyms and variants of the word persistence which in context can be assumed to refer to the character strength outlined by Peterson and Seligman (2004). Words used included "persistence", "deursettingsvermoë (persistence)"; "vasberade (determined)" "determination"; and "selfdeterminasie (self-determination)". Industriousness by definition means hardworking. The relationship between hard work and persistence was highlighted by the participants and they recognized the importance of hard work to get ahead in life.

Love

Love can be described according to three prototypical forms (Peterson & Seligman, 2004). The first of these forms includes love for individuals who are our primary source of affection, protection and care. Participants could identify this typical love that a child has for his/her parents. The second form of love is love for individuals who depend on us for safety and feelings of being cared for. Participants were able to recognize this type of love a parent typically has for his/her children. This kind of love includes providing comfort, support and protection. The concept of providing support and standing strong for your loved ones featured heavily in the responses of the participants. This type of love also includes making sacrifices to the benefit of those you love, thus putting their needs ahead of one's own. Self-sacrifice for those one loves was yet again a highly featured response. The last form, romantic love, was not as commonly reported as the other two types. A prominent theme that

emerged that can be connected to the strength of love is the importance of family and friends. Participants showed a strong belief in the conviction that one's family and friends are a paramount component of one's happiness and meaning in life. This concept was also strongly related to their belief that money cannot buy happiness. It was evident that participants hold the conviction that your loved ones are in essence what makes you a "rich" person.

Citizenship

Peterson and Seligman (2004) point that individuals with this strength have a strong sense of duty, work for the good of the group rather than for personal gain and can be considered loyal. Entries that qualified for this strength mostly included the construct 'loyalty'. More specifically, 'loyalty towards family' was a popular response.

Hope

Hope, optimism, future-mindedness and future orientation depict a cognitive, emotional and motivational stance towards the future; thus expecting the best in the future and working to achieve it (Peterson & Seligman, 2004). Several participants used the term *optimistic* to label a character which had hope for the future. The construct "positivity" was often used. In context, however, it seems to reflect a hopeful disposition portrayed by the characters. Wording such as "hope" and "faith" was also used. Furthermore, the notion of having a dream and actively working towards achieving it often featured in responses. Believing that one can accomplish a dream seemed to have a hopeful element embedded in the construct. A theme which emerged that can be connected to the concept of Hope is participants' belief that one's perception of a situation is paramount and that one has the power to make the best of a situation.

Humour

Humour or playfulness could be conceptualized as being fond of laughing and teasing; bringing smiles to other people and being able to see the lighter side of a situation (Peterson & Seligman, 2004). Participants were able to identify humorous behaviour in the characters and also that the characters used humour to deal with a difficult situation. Furthermore, participants identified that the characters were able to see the lighter side of a situation and in general a theme emerged that life should not be taken too seriously.

Perspective

Perspective and wisdom can be seen as distinct from intelligence. It rather represents an advanced level of knowledge, judgement and the capability to provide wise counsel to others (Peterson & Seligman, 2004). The notion of a person giving advice or guidance to others was a popular take on perspective. A theme which emerged that can be linked to the concept *giving guidance* is that of the lessons and values parents teach their children. Perspective is not limited to giving advice to others, but also includes having self-knowledge and a wider perspective on life. Participants identified this personal wisdom in the characters and for the greater part labelled it as having a sense of awareness.

Bravery

Bravery or valour, according to Peterson and Seligman (2004), includes not shrinking from threat, challenge, difficulty or pain and acting on convictions even if it is unpopular. Participants used the following variants of the word bravery, "braaf (brave)", "dapper (brave)", "waagmoedig (daring)", "guts" and "courage". Peterson and Seligman (2004) maintain that a courageous person must have a disposition to take risks. This characteristic of bravery was also identified.

Creativity

Creativity involves two components: firstly, the production of ideas or behaviours that can be seen as original and secondly, ideas that can be seen as adaptive (Peterson & Seligman, 2004). This distinction was identified by the participants, since responses reflect creativity involving originality as well as everyday creativity to solve problems and adapt to a situation.

A closely related characteristic which was identified was imagination. Several entries indicate that the participants identified that the characters had the ability to use their imagination in order to better a situation.

Gratitude

This strength includes being aware of and thankful for the good things that happen and taking time to express this gratitude (Peterson & Seligman, 2004). This grateful disposition was identified and responses reveal the importance of being grateful and also being appreciative of what you have.

Social intelligence

Social intelligence, emotional intelligence and personal intelligence entail being aware of the motives and feelings of other people and oneself. Although clustered into one strength, participants were able to differentiate between these three types of intelligence.

Vitality

Vitality, zest, enthusiasm, vigour and energy entail approaching life with excitement and energy and feeling alive and activated (Peterson & Seligman, 2004). Variants of this construct were used which included “wilskrage (willpower)”, “willpower”, “lebenslust (vitality)”, “positive energy” and “passie (passion)”. Peterson and Seligman (2004) maintain that individuals who possess vigour often infectiously energize those with whom they come

into contact. This was identified by participants as they noted that the film character possessed a presence that affects those around them.

Humility / Modesty

Peterson and Seligman (2004) explain that humility and modesty can be seen as letting one's accomplishments speak for itself and not regarding oneself as more special than one is. This strength was especially identified in the character of Charlie in *Charlie and the chocolate factory* (Grey, Zanuck, & Burton, 2005).

Appreciation of beauty and excellence

Appreciation of beauty and excellence can be seen as the ability to find and take pleasure in the physical and social worlds associated with emotions including awe, wonder and elevation (Peterson & Seligman, 2004). The participants identified that the characters were able to enjoy the simple pleasures of life and be appreciative of the finer and smaller things in life. The associated feelings of awe and wonder were also identified by the participants.

Spirituality

Spirituality and religiousness refer to the conviction of a transcended dimension of life; thus having coherent beliefs about a higher purpose in and meaning of life. (Peterson & Seligman, 2004). Participants' responses mostly revealed the belief of having a purpose and a reason for your existence.

Table 3

Qualitative responses of focus groups

Strengths	Participants quotes
Kindness	...she enjoyed helping people.
Kindness (self-sacrifice)	Hy sit ander se behoeftes voor sy eie... hy het sy drome eers op sy gesit om sodoende sy gemeenskap eerder uit te help. (He placed others' needs ahead of his own... putting his dreams aside to help the community)
Persistence	...die deursettingsvermoë het vir my uitgekome in al drie films... (...persistence came through in all three films)

Persistence (hard work)	Hardewerk ten spyte van enige iets... pays off eventually. (Hard work pays off eventually)
Love (Type1)	...sy lojaliteit en liefde vir sy familie. (His loyalty and love for his family)
Love (Type2)	Moet sterk staan vir haar man... toe ek jonger was moet ek sterk staan en baie keer moes ek my ma ondersteun... (she must be strong for her husband, when I was younger I had to be strong and support my mother)
Love (type 2, self-sacrifice)	...he self-sacrificed his opportunity for his brother to go study
Love (friends and family)	...ware rykdom kom van jou familie af... plaas van wat ons sal sien as welstand, as geld... (true wealth comes from your family rather than money)
Citizenship	He was also very loyal towards his family.... he would always think of either helping them in a way or not be happy without them.
Hope	...hy was optimisties want hy het nogsteeds gehoop... (He was optimistic because he still hoped)
Hope (Dream)	...die droom gedeelte van om doelwitte vir jouself te stel... (The dream part setting goals for yourself)
Hope (perception)	... elke situasie is wat jy daarvan maak... (Every situation is what you make of it)
Humour	Hy is humoristies en hou van grappe maak. (He is humorous and likes making jokes)
Humour (Coping)	...has a very good sense of humour, he uses these abilities to go through very bad times.
Humour (lighter side)	The ability to focus on the positive aspects in each situation, to find humour in even the darkest of places.
Perspective	The ability to talk to people in a reasonable and persuasive way to influence a bad outcome
Perspective (child rearing)	Die ongelooflike verantwoordelikheid wat jy het as jy kinders het... hulle opvoeding (The incredible responsibility that you have when you have children... their upbringing)
Perspective (personal)	...hy was die hele tyd persies bewus van die situasie waarin hy is...(He was the whole time aware of the situation he was in)
Bravery	...dit vat baie courage vir 'n kind om teen 'n grootmens te kan opstaan. (It takes a lot of courage for a child to stand up to an adult)
Bravery (risks)	Do something, don't hesitate, take a risk and make a move.
Creativity (original)	...en kreatiewe dinge ontdek soos hy nuwe lekkergoed invent het. (Discovering creative things like he invented new candy)
Creativity (adaptive)	Jou manier van oorspronklik dink oor iets... oor enige situasie oor oplossing vir probleme... (Thinking originally about something... about any situation, about solutions for problems)

Creativity (imagination)	...gebruik jou verbeelding... jy weet, soos maak net die lewe bietjie interessant en dis wat sygedoen het... (Use your imagination to make life more interesting)
Gratitude	...never forget to be thankful for everything and everyone you have.
Social intel.	Hy is maklik sosiaal aanpasbaar... (He is socially adaptable)
Emotional intel.	...toe besef die pa... dit is a.g.v. wat hy gesê het... (The dad realized it is because of what he had said)
Personal intel.	...hy besef het wie hy was... ja selfinsig. (He realized who he was, self-insight)
Vitality/Zest	...lewenslus... hy gaan die wêreld en hy gaan college toe en hy gaan alles doen... baie lewenslustig. (Vitality, where he wanted to go to college, see the world and do everything)
Vitality (presence)	...liefde vir die lewe en joy en hy het nogal 'n manier om sonskyn te bring waar ook al hy gaan... (I found that love for life and joy has a way of bringing sunshine wherever you go)
Modesty	Die nederigheid van daai kind net om so te kan wees, die wêreld so te kan sien. (The modesty of that child to see the world in that way)
Appreciation	She appreciates the finer things in life...
Appreciation (Awe)	...wow, new day, new beginning...
Spirituality	Never underestimate your role and purpose in live.

Although self-regulation, integrity, prudence, curiosity, leadership and forgiveness were identified by some of the participants, these strengths were not as readily recognized as were some of the other strengths. Open-mindedness and fairness were the two character strengths no participant identified.

Quantitative Results

The Spearman rank order correlation coefficients between age and the pre-test scores on strengths from the self-developed strength scale and the well-being scales are depicted in Table 1. Significant correlations were found between age and the following measures: Creativity_b, Learning, Perspective_b, Kindness_b, Love, Social Intelligence_b, Leadership_a, Teamwork_b, Appreciation_a, Gratitude_a, Hope, Humour_a, Spirituality_a & b, MHCSF_SWB, MHCSF_PWB; MHCSF total, CSE_SFF and CSE total.

Pre-test scores for the experimental and control groups were compared using ANCOVA, where age was controlled for. These results are also summarised in Table 1. The experimental group had significantly larger pre-test scores on the following measures: Modesty_a, Humor_a and SHS total while the control group had significantly larger scores on the following measures: Open-mindedness, Persistence, Fairness, Leadership_b, MHCSF_PWB, CSE_PFC and CSE_Total.

(Insert table 1 approximately here)

Between groups analyses of covariance (ANCOVA's) were conducted to assess the effectiveness of positive psychology movies in enhancing character strengths and well-being. Results of ANCOVA's where post-test scores of the experimental and control groups were compared, with age and pre-test scores used as covariates, are depicted in Table 2.

ANCOVA's were conducted for both the immediate and delayed post-tests. For the following scales, practically significant differences ($d > .45$) between the experimental and control groups' post-test scores occurred with higher scores for the experimental group: Open-mindedness (post_1); Zest (post_1); Kindness_b (post_1), Leadership_b (post_1); Modesty_a & b (post_1); Humour_b (post_1 and _2); MHCSF_EWB (post_2); MHCSF_Tot (post_2); CSE_SFF (post_1); and CSE_Tot (Post_1).

For the following scales, practically significant differences between the experimental and control groups' post-test scores were depicted, but with lower scores for the experimental group: Perspective_b (post_1), Authenticity (post_2); Love (Post_2); Social intelligence_b (post_1 and _2); Forgiveness_a (post_1); Appreciation_a (post_2); Gratitude_a (post_2); Hope (post_2) and MHCSF_SWB (post_1).

(Inset table 2 approximately here)

Discussion

This study explored whether individuals are able to identify character strengths (Peterson & Seligman, 2004) depicted in positive psychology films and examined whether the viewing of these films could enhance character strengths and well-being. It is evident from the qualitative data that participants were able to easily identify character strengths. Participants not only identified the dominant strength(s) depicted in the films but also managed to recognize more subtle depictions of strength. Furthermore, participants were able to differentiate between different components and slight differences in the constructs. Apart from identification, participants could relate to the characters and report how they used the depicted strengths in their own lives. Participants also reported how they use their character strengths to overcome obstacles or simply deal with difficult situations. This finding can be linked to the advantage of Cinematherapy, *familiarity*, which includes that individuals are accustomed to measure their self and situations to similar situations in films (Hesley & Hesley, 2001).

Another advantage, as pointed out by Hesley and Hesley (2001) is that of rapport which entails that a deep therapeutic alliance is created when a film can be used as a common experience between client and therapist. In the focus group it was evident that this alliance what formed between the members and discussion became increasingly more interactive. Berg-Cross et al. (1990) similarly stated that a film can serve as a common bridge of understanding and maintained that when individuals can view an event and understand it through the same lenses, their respect and feelings for each other are virtually always deepened. It would thus seem that the discussion a therapist has with the client about the film might be a crucial element in successfully emphasizing positive aspects in films.

Wedding and Niemiec (2003) maintain that metaphors can serve as catalysts to conversations that otherwise would be uncomfortable for the client. While Sharp et al.

(2002) maintain that by using metaphors and stories via movies one is able to communicate to a more receptive and less defensive part of an individual. These assertions hold true during focus groups as participants shared deep and personal stories, from financial burdens, to the experience of losing a loved one. When taking the above-mentioned finding into account it appears that the rich interactive discussion on the films and the strengths might have contributed to the findings.

According to Niemiec (2012), character strengths can be developed through deliberate intervention and mindful care. This study revealed that the strengths humour, open-mindedness, zest, kindness, leadership and modesty were strengthened immediately after the viewing of positive psychology films, with humour also showing an increase one month after. Research has shown a connection between character strengths and happiness (Linley, Nielsen, Gillett, & Biswas-Diener, 2010; Littman-Ovadia & Davidovitch, 2010; Littman-Ovadia & Steger, 2010; Madden, Green, & Grant, 2011; Mitchell, Stanimirovic, Klein, & Vella-Brodrick, 2009; Mongrain & Anselmo, 2009; Peterson & Peterson, 2008; Rust, Diessner, & Reade, 2009; Seligman, Steen, Park, & Peterson, 2005). When qualitative and quantitative findings are considered, it seems that awareness of the character's strength might contribute to the enhancement of the strengths and well-being, as an increase in general well-being and emotional well-being were found. As these constructs include positive affect, interest in life and life satisfaction it can thus be assumed that participants have increased in the specific mentioned areas. These findings might thus suggest a positive correlation between character strengths and well-being. Park, Peterson, and Seligman (2004) had similar findings and suggest character strengths can be associated with life satisfaction.

Humour showed the largest increase and was the only strength that maintained this increase over time. This strength was one of the most highly identified strengths, and humour also frequently featured in the conversations. Several participants reported that they

use humour to overcome obstacles or alter their perspective about a situation. Humour was a dominant strength depicted in the film *Life is beautiful* (Capra, 1946). In the focus group it seemed that this strength was not only readily identified in the character but also admired by the participants. The link between humour and well-being suggested by the results is reinforced by a study done by Crawford and Caltabiano (2011). These authors found that humour increases indices of emotional well-being such as self-efficacy, positive affect, optimism and perceptions of control, while decreasing perceived stress, depression, anxiety and stress levels.

Park, Peterson, and Seligman (2004) are of the opinion that zest is the strongest predictor of life satisfaction among the character strengths. The increase in the strength of zest can thus be considered as a significant contributor in the enhancement found in emotional well-being. The increase in the strength of kindness was suspected as this was the most identified strength and also identified in all six movies. Kindness was specifically a prominent strength depicted in *Amélie* (Meerkamp van Embden, Deschamps, Ossard, & Jeunet, 2001). The majority of participants adored the character and also reported an admiration for this character.

The enhancement in the strengths leadership, modesty and open-mindedness was surprising as these strengths were not readily identified or discussed in the focus groups. A hypothesis, however, is that the format of the intervention in challenging the participants to look at a film from a different perspective might have contributed to the enhancement of open-mindedness. Modesty was prominently displayed by the character “Charlie” in *Charlie and the chocolate factory* (Grey, Zanuck, & Burton, 2005). This may suggest that although this strength was not as readily mentioned in the focus group it did, however, make an impression. Leadership was also a very poorly identified strength but several characters in all six films displayed good leadership qualities which might account for the increase.

Participants displayed a greater sense of awareness in terms of their strengths during focus groups, which may account for the medium to large practically significant decrease found on the following strengths: perspective, authenticity, love, social intelligence, leadership, forgiveness, appreciation of beauty and excellence, gratitude and hope. The hypothesis is thus that these strengths might have been overestimated by participants before viewing the films and that exposure to these strengths, as depicted in individuals in whom these strengths are highly developed, may have contributed to their awareness of a more accurate depiction of their own strength standing. According to Park et al. (2004), the strengths of hope, gratitude, love, and curiosity are substantially related to life satisfaction. When this finding is taken into account, the decrease in these strengths, as opposed to the increase found in general well-being, does not add up. This might thus support the hypothesis that these strengths did not necessarily weaken but rather that a more accurate depiction was established afterwards.

General coping efficacy and coping via support from friends and family also showed an increase; thus suggesting not only an improvement in their general coping abilities but also a specific increase tendency to seek support from family. The increase in this specific variable was not surprising, since the importance of support from and to friends and family was a concept that emerged several times during the focus group discussions. Participants repeatedly reported the importance of supporting your family and friends and also that they receive immense support from their family and friends. During the focus groups, participants also reported the belief that one's family and friends are a paramount component of one's happiness and meaning in life, instead of monetary possessions. In the light of the above-mentioned finding the decrease found on social well-being is both contradictory and puzzling.

The increases found in the experimental group's post-test immediately after intervention, diminished as time went by (with the exception of humour) as indicated by results on the delayed post-test. This may indicate that the positive impact the films may have had on participants was not sustainable. An assumption is thus for films to have a sustainable impact it might be necessary for individuals to incorporate the viewing of these films on a regular basis.

From the literature it is clear that Cinematherapy has mainly been used in a clinical setting. Since Cinematherapy is often used in addition to psychotherapy, studies mostly involve the remedy of emotional problems and other clinical problems. This study, however, showed that the benefits of Cinematherapy are not limited to a clinical setting but the therapeutic benefits stretches outside the therapy room. Films can thus be used to enhance healthy human functioning.

Limitations and Recommendations

Limitations to the study include the small size of the sample and that groups were not assigned randomly. The results of this study can thus not be generalized and are applicable to this group of participants only. Furthermore, several constructs on the self-developed strength questionnaire's pairs tested poorly in internal consistency reliability, and were analyzed separately. Due to practical limitations (time and internet access) the online completion of the VIA strength questionnaire could not be used, but is suggested for future studies. Although most of the participants enjoyed the films, some of the participants reported that they could not relate to some of the films. A pre-intervention gathering to determine likes and dislikes is thus recommended for future studies. Furthermore, a hypothesis is that the focus group discussion might have contributed to participants' perception of the films. An experimental group, where participants view but not discuss the films, might reveal a more clear effect of the viewed films.

Conclusion

Cinematherapy is increasingly being used in addition to psychotherapy and is becoming an interest in the field of research. Several success stories can be found in the literature, mostly in the clinical field. The current study showed that films can also have an impact outside therapy. In this study the participants were able to easily identify character strengths depicted by characters in positive psychology movies. Findings suggested that the viewing of positive psychology films augmented certain character strengths and improved well-being in this group. Identification, however, does not necessarily imply implementation and development. Although 22 strengths were identified, only six of these showed a practically significant increase. Furthermore, it seemed that the effect of viewing these films was mostly immediate, which suggests that these films need to be viewed on a regular basis in order to enhance the effects. Nonetheless, from the discussion it would seem that positive psychology films seemed to have had a positive impact on well-being and might have enhanced and enriched the lives of the experimental group.

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Table 1*Correlations between age and strength and well-being measures and ANCOVA comparisons of pre-test scores corrected for differences in age*

Construct	Spearman Correlation with age	Adj. mean E	Adj. mean C	MSE	F	p	d
Creativity a	0.16	6.00	5.93	0.40	0.78	0.78	0.10
Creativity b	-0.40	5.18	5.02	1.12	0.18	0.67	0.16
Curiosity a	-0.27	5.75	5.43	1.41	0.54	0.47	0.28
Curiosity b	0.09	4.37	4.83	1.81	0.88	0.36	-0.35
Open-mindedness	-0.18	10.03	11.10	2.99	2.79	0.11	-0.62
Learning	-0.29	12.20	12.40	1.74	0.17	0.68	-0.15
Perspective a	-0.17	6.02	6.18	0.44	0.39	0.54	-0.23
Perspective b	-0.34	5.70	6.03	0.63	1.25	0.27	-0.41
Authenticity	-0.06	12.17	12.09	2.81	0.02	0.90	0.05
Bravery	-0.10	11.69	12.04	2.14	0.42	0.52	-0.24
Persistence	-0.14	11.91	12.76	1.87	2.84	0.10	-0.62
Zest	-0.12	11.61	11.85	2.12	0.20	0.66	-0.16
Kindness a	-0.23	6.15	6.31	0.47	0.41	0.53	-0.24
Kindness b	-0.39	6.06	6.14	0.90	0.04	0.83	-0.08
Love	-0.59	13.17	12.70	2.10	0.77	0.39	0.33
Social Intelligence a	-0.29	6.09	6.04	0.71	0.03	0.87	0.06
Social Intelligence b	-0.33	5.78	5.89	0.65	0.12	0.73	-0.13
Fairness	-0.09	10.95	11.72	2.43	1.78	0.19	-0.49
Leadership a	-0.44	5.87	5.93	0.29	0.11	0.74	-0.12
Leadership b	0.12	5.31	5.89	0.69	3.41	0.08	-0.68
Teamwork a	-0.18	5.79	5.95	0.60	0.32	0.58	-0.21
Teamwork b	-0.33	6.29	6.44	0.30	0.54	0.47	-0.27
Forgiveness a	-0.22	5.74	5.26	1.23	1.38	0.25	0.44
Forgiveness b	0.01	6.19	6.21	0.47	0.00	0.96	-0.02
Modesty a	-0.16	6.17	5.63	0.66	3.15	0.09	0.66
Modesty b	-0.13	6.09	5.85	0.75	0.57	0.46	0.28

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Prudence	-0.25	10.51	10.56	2.95	0.01	0.93	-0.03
Self-regulation	-0.02	10.78	11.22	3.55	0.40	0.53	-0.23
Appreciation a	-0.40	6.05	6.29	0.48	0.52	0.36	-0.34
Appreciation b	-0.18	5.76	5.91	1.08	0.14	0.71	-0.14
Gratitude a	-0.36	6.43	6.37	0.31	0.09	0.77	0.11
Gratitude b	-0.07	6.21	5.85	1.11	0.86	0.36	0.34
Hope	-0.53	11.72	12.08	1.85	0.52	0.48	-0.27
Humour a	-0.55	6.66	6.21	0.40	3.78	0.06	0.72
Humour b	-0.10	5.95	6.18	0.49	0.84	0.37	-0.34
Spirituality a	-0.31	6.66	6.41	0.37	1.22	0.28	0.41
Spirituality b	-0.42	6.31	5.82	1.43	1.24	0.28	0.41
MHCSF_EWB	0.24	12.00	11.80	5.79	0.05	0.83	0.08
MHCSF_SWB	-0.43	12.74	13.93	14.52	0.72	0.40	-0.31
MHCSF_PWB	-0.36	23.10	25.04	10.94	2.50	0.13	-0.59
MHCSF_Tot	-0.39	47.83	50.77	62.61	1.00	0.33	-0.37
GPW_Tot	-0.23	5.32	5.55	0.77	0.50	0.48	-0.26
CSE_PFC	-0.22	83.41	89.26	129.94	1.92	0.18	-0.51
CSE_SUE	-0.22	61.72	64.48	85.65	0.65	0.43	-0.30
CSE_SFF	-0.36	35.05	37.02	36.93	0.76	0.39	-0.32
CSE_Tot	-0.29	180.18	190.75	354.70	2.30	0.14	-0.56
SHS_tot	-0.06	22.72	20.35	14.98	2.74	0.11	0.61
PHQ_TT	-0.13	6.79	6.27	17.09	0.74	0.74	0.13

Note: GPWS= General Psychological Well-being Scale; MHC= Mental Health Continuum; EWB= Emotional Well-being; SWB= Social Well-being; PWB= Psychological Well-being; CSE= Coping Self-Efficacy Scale; PFC= Problem focused coping, SUE= Stop unpleasant emotions and thoughts, SFF= Get support from friends and family; PHQ= Patient Health Questionnaire; SHS= Subjective happiness scale E= Experimental group; C= Control group; d= Cohen's d-value ; Adj. Mean = adjusted mean en MSE = mean squared error .*Note:* /Cohen's d-value| ≥ 0.45 & |Spearman Correlation with age| ≥ 0.30 was seen as practically significant

Table 2*ANCOVA Comparisons of post-test scores for experimental and control group, corrected for differences in pre-test scores and age*

Construct	Post_1						Post_2					
	Mean E	Mean C	MSE	F	P	d	Mean E	Mean C	MSE	F	p	d
Creativity a	5.82	5.91	0.60	0.91	0.77	-0.11	5.87	5.93	0.68	0.04	0.85	-0.07
Creativity b	5.43	5.17	1.23	0.37	0.55	0.23	5.23	5.57	0.82	0.98	0.33	-0.37
Curiosity a	5.72	6.00	0.69	0.76	0.39	-0.33	5.62	5.35	1.34	0.38	0.54	0.23
Curiosity b	5.07	4.67	1.31	0.87	0.36	0.35	4.99	5.14	0.67	0.25	0.62	-0.19
Open-mindedness	11.89	10.91	1.77	3.61	0.07	0.74	11.24	11.29	1.08	0.01	0.91	-0.04
Learning	12.07	12.53	1.03	1.43	0.24	-0.44	12.25	12.01	1.46	0.29	0.59	0.20
Perspective a	6.27	6.26	0.25	0.00	0.98	0.01	6.05	6.21	0.40	0.44	0.51	-0.25
Perspective b	5.79	6.41	0.50	5.30	0.03	-0.87	5.90	6.17	0.58	0.86	0.36	-0.35
Authenticity	12.35	12.31	0.64	0.02	0.89	0.05	11.99	12.41	0.78	1.59	0.22	-0.47
Bravery	11.60	11.80	0.85	0.31	0.58	-0.21	11.60	11.86	0.61	0.78	0.38	-0.33
Persistence	12.73	12.40	0.82	0.90	0.35	0.37	12.62	11.98	2.46	1.10	0.30	0.41
Zest	12.46	11.87	0.78	3.22	0.08	0.67	11.98	11.69	2.11	0.29	0.59	0.20
Kindness a	6.45	6.49	0.27	0.04	0.85	-0.07	6.21	6.32	0.66	0.13	0.72	-0.13
Kindness b	6.29	5.91	0.60	1.74	0.20	0.49	6.38	6.42	0.32	0.03	0.85	-0.07
Love	13.07	12.93	1.11	0.14	0.71	0.14	12.66	13.14	0.69	2.34	0.14	-0.57
Social Intel. a	6.17	6.36	0.35	0.76	0.39	-0.32	6.10	6.17	0.48	0.06	0.80	-0.09
Social Intel. b	5.50	5.96	0.82	1.87	0.18	-0.51	5.85	6.15	0.43	1.54	0.23	-0.46
Fairness	11.24	11.56	2.13	0.33	0.57	-0.22	11.44	11.63	1.32	0.19	0.67	-0.17
Leadership a	6.19	6.07	0.29	0.37	0.55	0.23	5.95	5.85	0.55	0.11	0.74	0.12
Leadership b	6.04	5.70	0.51	1.45	0.24	0.47	5.86	6.01	0.41	0.39	0.54	-0.25
Teamwork a	5.84	5.90	0.44	0.06	0.81	-0.09	5.99	6.14	0.18	0.92	0.35	-0.36
Teamwork b	6.45	6.15	0.47	1.38	0.25	0.44	6.02	6.18	0.20	0.92	0.35	-0.36
Forgiveness a	5.53	5.87	0.32	2.50	0.13	-0.60	5.76	5.91	0.45	0.37	0.55	-0.23
Forgiveness b	6.22	6.18	0.34	0.05	0.83	0.08	6.11	6.23	0.36	0.29	0.59	-0.20
Modesty a	6.22	5.92	0.39	1.54	0.23	0.49	6.15	5.92	0.54	0.67	0.42	0.32

Modesty b	6.24	5.69	0.88	2.49	0.13	0.59	6.08	5.85	0.78	0.50	0.49	0.26
Prudence	10.43	10.37	2.62	0.01	0.93	0.03	10.70	10.64	1.65	0.01	0.90	0.04
Self-regulation	11.29	11.44	1.27	0.12	0.73	-0.13	11.74	11.39	1.75	0.50	0.48	0.27
Appreciation a	6.16	6.31	0.40	0.43	0.52	-0.25	6.13	6.47	0.25	3.28	0.08	-0.68
Appreciation b	6.11	5.95	0.71	0.26	0.62	0.19	6.22	6.11	0.47	0.18	0.68	0.16
Gratitude a	6.42	6.25	0.44	0.48	0.50	0.26	6.18	6.55	0.23	4.42	0.05	-0.78
Gratitude b	6.35	6.25	0.30	0.28	0.60	0.20	6.25	6.22	0.27	0.02	0.89	0.05
Hope	12.43	12.50	0.44	0.08	0.78	-0.10	12.19	12.61	0.90	1.43	0.24	-0.45
Humour a	6.40	6.46	0.37	0.06	0.81	-0.10	6.29	5.98	1.78	0.33	0.57	0.23
Humour b	6.30	5.90	0.19	5.72	0.02	0.90	6.46	6.08	0.37	2.80	0.11	0.63
Spirituality a	6.71	6.55	0.18	0.94	0.34	0.37	6.55	6.32	0.71	0.52	0.48	0.27
Spirituality b	6.41	6.19	0.50	0.67	0.42	0.31	6.23	6.11	0.67	0.15	0.70	0.15
MHCSF_EW B	12.60	12.06	2.09	1.02	0.32	0.37	12.64	11.83	2.09	2.25	0.15	0.56
MHCSF_SW B	13.60	15.32	5.64	3.70	0.07	-0.72	15.54	14.33	11.07	0.34	0.34	0.36
MHCSF_PW B	24.73	24.47	6.51	0.06	0.80	0.10	24.94	23.59	10.50	1.16	0.29	0.42
MHCSF_Tot	50.94	51.93	24.93	0.27	0.61	-0.20	53.22	49.65	45.46	1.97	0.17	0.53
GPW_Tot	5.67	5.60	0.23	0.15	0.70	0.15	5.67	5.56	0.19	0.41	0.53	0.24
CSE_PFC	91.34	89.66	52.13	0.36	0.55	0.23	89.89	85.91	248.47	0.43	0.52	0.25
CSE_SUE	69.85	67.80	39.60	0.76	0.39	0.33	65.90	65.50	89.44	0.01	0.91	0.04
CSE_SFF	39.67	37.46	17.49	1.98	0.17	0.53	38.60	38.33	46.63	0.01	0.92	0.04
CSE_Tot	201.89	193.86	205.03	2.11	0.16	0.56	196.32	187.82	877.80	0.55	0.46	0.29
SHS_tot	21.88	22.21	3.35	0.21	0.65	-0.18	22.31	22.09	5.74	0.05	0.82	0.09
PHQ_TT	4.80	4.07	5.15	0.75	0.40	0.32	4.18	4.15	7.97	0.00	0.97	0.01

Note: GPWS= General Psychological Well-being Scale; MHC= Mental Health Continuum; EWB= Emotional Well-being; SWB= Social Well-being; PWB= Psychological Well-being; CSE= Coping Self-Efficacy Scale; PFC= Problem focused coping, SUE= Stop unpleasant emotions and thoughts, SFF= Get support from friends and family; PHQ= Patient Health Questionnaire; SHS= Subjective happiness scale E= Experimental group; C= Control group; d= Cohen's d-value ; Adj. Mean = adjusted mean en MSE = mean squared error .*Note:* $|Cohen's\ d-value| \geq 0.45$ was seen as practically significant
