Mariana Tribuzi Carmo Costa Melo

The effectiveness of a positive group psychotherapy on the promotion of young adults' mental health

Faculdade de Ciências Humanas e Sociais
Universidade Fernando Pessoa
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Assinatura:_____

Master thesis presented to the Human and Social Sciences Faculty of University Fernando Pessoa, as part of the requirements to obtain the Master´s degree in Clinical and Health Psychology, under the orientation of Professor Carla Fonte, PhD.

Resumo

Diversas definições acerca da saúde mental positiva têm surgido, englobando a atual a existência da presença dos níveis de bem-estar e a diminuição dos níveis de psicopatologia. Esta visão acerca da saúde mental positiva tem potenciado o interesse no desenvolvimento de programas e atividades de intervenção psicológica positiva que promovam a saúde mental, aumentando os níveis de bem-estar e diminuindo os níveis de psicopatologia.

O objetivo desta investigação foi verificar o impacto e eficácia de um programa de intervenção psicológica em grupo baseada nos contributos conceptuais da Psicologia Positiva, numa amostra não clínica, no aumento do bem-estar e redução da psicopatologia. Este programa foi desenvolvido numa clínica pedagógica de uma Universidade do norte do país, tendo abordado temáticas com base na revisão da literatura como a gratidão, o otimismo, a espiritualidade, a redução da ruminação mental e comparação social, bondade e perdão.

O processo de seleção da amostra foi por conveniência não aleatória, sendo constituída por 40 participantes, sendo que estes foram subdivididos em grupo experimental e grupo de comparação, constituídos por 20 elementos cada. Para a avaliação da eficácia do programa foi realizada uma avaliação em dois momentos (pré e pós teste), tendo sido utilizadas como medidas de avaliação o MHC-SF (para a avaliação bem-estar) e o EADS-21 (para a avaliação da psicopatologia). Os resultados obtidos mostram uma melhoria significativa no bem-estar social assim como uma redução dos níveis de psicopatologia (ansiedade, depressão e *stress*). Estes resultados demonstram que a participação no programa foi benéfica para a promoção da saúde mental.

Sugere-se a utilização de a uma amostra de maior dimensão e recurso a um processo de aleatorização da mesma em investigações futuras.

Palavras-chave: bem-estar; saúde mental; intervenções psicológicas positivas; avaliação da eficácia, estudantes universitários.

Abstract

Positive mental health has had different definitions, but the current one embraces the presence of levels of well-being and decreased levels of psychopathology. This vision of positive mental health has increased the interest in developing positive psychological intervention programs and activities that promote mental health, increasing levels of well-being and decreasing levels of psychopathology.

The purpose of this research was to verify the impact and effectiveness of a Positive Psychology-based group intervention program, in a non-clinical sample, on the increase of well-being and on the reduction. This program was developed in a pedagogical clinic of a university in the north of Portugal. It approached themes based on reviewed literature such as gratitude, optimism, spirituality, reduction of mental rumination and social comparison, kindness, and forgiveness.

The sample was selected by non-random convenience, consisting of 40 participants, who were subdivided into an experimental group and a comparison group, each consisting of 20 elements. To evaluate the effectiveness of the program, an assessment was done in two moments (pre and posttest), using the MHC-SF (for well-being assessment) and the DASS-21 (for psychopathology assessment) as assessment measures. The results obtained show a significant improvement in social well-being as well as a reduction in the levels of psychopathology (anxiety, depression, and stress).

These results demonstrate that participation in the program is beneficial for mental health promotion.

It is suggested that a larger sample size and a randomization process may be used in future research.

Keywords: well-being, mental health, positive psychological interventions, efficacy assessment, university students

Dedication

To Sofia, my sister, my biggest example of determination and strength.

In memoriam, of Luísa, my aunt, the one I promised to follow my dreams.

Acknowledgements

The master´s degree marks the end of a journey and the beginning of a dream. This dream was only possible to attend, with the help of many special people that I feel the need to thank.

Firstly, I would like to thank to Professor Carla Fonte, PhD for the guidance and support. For always believing in me and inspiring me throughout my academic journey.

To my master´s degree colleagues Beatriz Moniz for hearing my outbursts.

To my aunt, Gabriela, for the special attention while I was writing this dissertation.

To my forever friends, Inês e Clara.

And at last, but not least, to my parents and my sister, for being my shelter all the time. I wouldn´t be able to reach the end of this journey without their unconditional support.

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Abbreviations List

CG- Control Group

DASS-21- Depression Anxiety and Stress Scale

DV- Dependent Variables

EG- Experimental Group

IV- Independent Variables

MHC-SF- Mental Health Continuum Scale - short version

PWB- Psychological Well being

SBW- Subjective Well-Being

WHO- World Health Organization

Introduction

Positive Psychology concept is very complex. However, it can be understood has the study of the processes that contribute to flourishing and optimal functioning of individuals, groups, or institutions. In this sense, positive psychology is not the denial of the negative aspects of life nor a temptation to see it as perfect. It tries to focus on the human potentials, motivations, and abilities (Gaible & Haidt, 2005). In this sense, Positive Psychology suggests that Psychology should not only focus on the study of illness, losses, or weaknesses, but empower human virtues and strengths, so as to encourage the investigation of positive experiences (Gable & Haidt, 2005; Seligman & Csikszentmihalyi, 2000).

Psychological interventions began to have the intention of relieving distress, promoting optimal psychological functioning and new concepts of flourishing. These interventions focus on the individual's well-being, proper functioning, and the development of a meaningful life (Baptista, 2013).

Positive psychology is focused on the prevention by using positive activities. These activities promote positive emotions (e.g., forgiveness, gratitude, and kindness), decreasing negative symptoms –highlighting the subjective well-being, the psychological well-being, social well-being – important elements of mental health (Lyubomirsky & Sheldon, 2011; Fredrickson, Cohn & Coffey, 2008; Froh, Sefick & Emmons, 2008; Lyubomirsky & Layous 2013, Ryan & Deci, 2001).

This field of psychology focuses on the study of different levels of human experience, being concerned with subjective experiences at a subjective level: well-being, contentment, and satisfaction (regarding the past), hope and optimism (regarding the future). It also focuses on positive individual characteristics, at an individual level, including the capacity to love, the vocation, courage, interpersonal skills, sensitivity, perseverance, forgiveness, originality, talent, and wisdom. On a group level, it focuses on how institutions promote individual characteristics and on aspects such as civic mindedness (Seligman & Csikszentmihalyi, 2000).

In this sense, the goal of positive psychology interventions is to reduce distress, but also to enhance optimal psychological functioning or flourishing. These interventions aim not only the wellbeing of the individuals, but also their good functioning and the will to lead a meaningful life. In this way, happiness does not only come from feelings of pleasure and well-being, but also from a life of virtues, effort, and persistence to achieve

goals (Baptista,2013).

The present research aims to evaluate the effectiveness of a group positive psychology intervention program on the promotion of well-being and mental health, through a quasi-experimental study. It is structured in two main parts - the theoretical framework and the empirical study.

In the first part (theoretical framework) a review of the literature is presented about positive psychology and its connection to the study of psychopathology and mental health. Next, the various types of well-being and the concepts of positive emotions and happiness are discussed. This is followed by a review of the literature on the importance of positive psychology interventions on the promotion of these concepts, as well as the effectiveness of programs already developed and applied with different populations (Part I).

The second part (part 2) refers to the empirical study, focusing on the description of group positive psychological intervention and its effectiveness. The last part contains the results, conclusions, limitations, and implications of this work for future research and practice.

Part A-Conceptual Framework

1.Positive psychology, psychopathology, and mental health

The investigation on mental health has been changing through the years. In fact, mental health has been seen as the absence of symptoms. The World Health Organization (2005) defines it as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stress of life, can work productively and fruitfully and is able to make a contribution to his or her community”.

Mental health has been conceptualized as positive emotion (positive affect), including feelings of happiness, psychological resources of self-esteem, a sense of mastery and resilience, allowing the ability to cope with adversity (WHO, 2004).

This definition shows that mental health is more than the absence of illness. It evolves emotional, social, and psychological aspects that transform health on complete state (Monte, Fonte & Alves, 2015). Also describes the condition in which individuals are using their potential and enjoying their lives. This is a condition that allows for the full, healthy, and positive development of the psychological, biological, and social aspects of human beings. However, only a relatively small percentage of the population can be described as "flourishing" (Huppert, 2005; Paludo & Koller, 2007). However, it hasn´t always been like that.

Until the Second World War, traditional psychology, clinical psychology, used to focus their attention on the diagnosis and treatment of pathologies (Sheldon, 2001). The focus of psychology and the vision of mental health started to change with the arrival of Matin E.P Seligman to the American Psychological Association presidency (Seligman, 1999): an holiday meeting in the winter of 1997 with Csikszentmihalyi and a special moment with his daughter was enough to make Seligman realize that psychology had been neglecting important developments: curing mental illness, guiding people to a more productive and fulfilling life and identifying nurturing high talent (Linley et al, 2007). Given this neglection, Seligman decided to start a shift on psychology´s vision towards a more positive psychology (Seligman, 1999).

Positive psychology can be interpreted on many different levels. On a meta-psychological perspective, positive psychology has the aim to change the focus of traditional psychology, that is to repair the worst things in life, to start valuing the good ones (Seligman & Csikszentmihalyi, 2000). It means that the study of health, fulfilment and well-being is as valuable as the study of illness dysfunction and distress (Linley et

al., 2007). To put this on an evidence, Seligman and Csikszentmihalyi published on a special edition of *American Psychologist* in January 2000, the importance of the virtues and strengths of all human beings. On this publishing, they emphasized that some gaps were present on some psychological investigations, highlighting the need of research about positive aspects such as hope, creativity, courage, wisdom, spirituality and happiness (Paludo & Koller, 2007). Positive psychology´s aim is not the denial of negative circumstances or aspects of life, nor a temptation to see it as perfect (Gable & Haidt, 2005). It is fully aware of human suffering but tries to emerge as a way of facing the negative bias of the human development by promoting the best way of living life (instead of concentrating on the cure of mental illness). This area of psychology tries to make psychologists adopt a different approach, an approach that appreciates the human potentials, motivations and abilities. This approach tries to make some concepts such as optimism, hope, joy, satisfaction as important as depression, anxiety, anguish, and aggressiveness (Nunes, 2007).

It is also important to say that positive psychology is centered on the prevention, instead of treatment. The prevention is based on positive activities. These activities are, as said before, focused on the promotion of positive emotions (e.g. forgiveness, gratitude and kindness), decreasing negative symptoms – they are going to highlight the subjective well-being, the psychological well-being, social well-being – important elements of mental health (Boehm, Lyubomirsky & Sheldon, 2011; Fredrickson, Cohn & Coffey, 2008; Froh, Sefick & Emmons, 2008; Lyubomirsky & Layous ,2013; Ryan & Deci, 2001). So, positive psychology is the study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups or institutions (Gable & Haidt, 2005).

Keyes (2002) defines mental health as a sum of symptoms of positive emotions and positive functioning. He proposed a model of mental health and flourishing that aims to evaluate mental health through different types of well being, namely, subjective well-being (happiness and life satisfaction); psychological well-being (positive affect, avowed happiness or avowed life satisfaction, self-acceptance….) and social well-being (actualization, social actualization,…).To determine if someone is flourishing, according to the model proposed by Keyes (2005), has to fill at least two symptom scales of the hedonic well-being and six or more of the positive functioning. (Table 1)

Table 1

Categorical diagnosis of Mental Health

Diagnostic Criteria	Symptom description
Hedonia *Criteria:: High levels on at least one of the symptoms*	1.Regarding positive affect on the past 30 days: • Cheerful • Good spirits • Happy • Calm • Peaceful • Full of life 2.Feels happy or satisfied with life overall or domains of life (avowed happiness or avowed life satisfaction)
Positive functioning *Criteria: high levels on six or more symptom scales (symptoms 3-13)*	3.Self-aceptance; 4.Social aceptance 5.Personal growth 6.Social actualization 7.Purpose in life 8.Social contribution 9.Environmental mastery 10.Social coherence 11.Autonomy 12.Positive relations with others 13.Social integration

Note. Adapted from Mental illness and/or mental health? Investigating axioms of the complete state model of

health (p.542), by Keyes, 2005, *Journal of Consulting and Clinical Psychology*.

It is important to note that the diagnosis and treatment of a disease is important, but the key is to foster strategies that aim to achieve optimal functioning for the greatest number of people or to improve what may already be well. In this way, it is essential to have interventions to increase well-being and happiness when the individual does not meet the criteria for flourishing. This means that it is important to intervene not only when there is a diagnosed psychopathology, but also when the person languishes or has moderate mental health (Baptista, 2013

This means that it is important to intervene not only when there is diagnosed psychopathology, but also when the person languishes or has moderate mental health (Baptista, 2013).

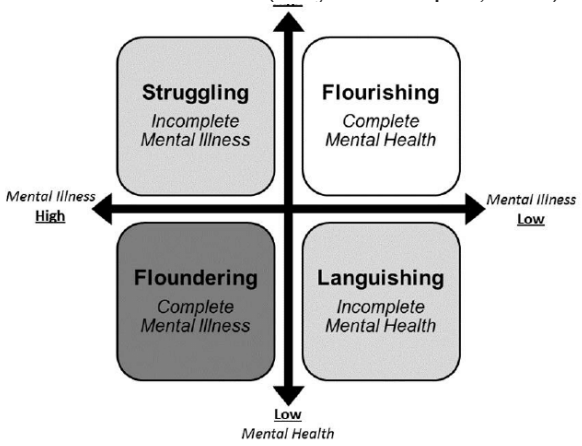
It is also emphasized that positive mental health contributes to individuals' well-being and quality of life and, simultaneous helping society and the economy. This happens because it increases social functioning and social capital, representing a contribution to the functioning of society and with effects at the level of overall productivity, being also an important resource for individuals, families, communities, and nations (Jané-Llopis et *al.*2005; WHO, 2004).

Mental health is affected by individual and experiential factors, social interaction, societal structures, and cultural resources and values. And it has both a reciprocal relationship with well-being and productivity of a society and its members (WHO, 2004).

To operationalize mental health, Keyes (2002) sums it up on a continuum model (two continua model) that evolves of concepts: languishing, flourishing and moderate mental health (table 2). The first one indicates a negative mental health, that interferes with the individual´s functioning; the second, preconizes the presence of emotional well-being and positive functioning, and the third, means that those who are not flourishing, nor languishing are on a moderate mental health state.

Figure1

Two Continua Model (Keyes & Lopez,2002)



Note: From Half Full or Half Empty: The Measurement of Mental Ilness in Emerging Australian Adults, p.4,by Teng et al (2015)*, S*ocial Inquiry into Well Being.

So, flourishing is related to the presence of mental health, meaning the absence of pathology and the existence of high levels of psychological, emotional and social well-being (Keyes *et al.,* 2010).

According to Keyes (2008), someone can have a mental illness and simultaneously high levels of well-being, not being categorized in a full mental health level. The absence of psychopathology is neither needed nor enough to guarantee individual lives productive, fruitful, and actualized life.

Although mental health and mental illness are two distinct dimensions, they are strongly connected. Therefore, this author designs the two continua model of mental health and illness, confirming that mental health and mental illness are not poles of the same continuum but two axes that become distinct, but correlated. Thus, mental health must be viewed as a complete state (Keyes, 2002, 2005, 2007).

Studies made by Keyes (2005) show that 17% of the adults that fulfill the criteria of different mental disorders (depression, generalized anxiety disorder, panic disorder and alcohol abuse) were flourishing and 18% were languishing. An estimate of 23% of the sample was found to have any of the four mental disorders, of which 7% were completely mentally ill, meaning that they were also languishing.

In the next sections, it will be reviewed the three main definitions that comprise the well-being construct, namely emotional or subjective well-being, that falls under the hedonic perspective, and psychological and social well-being that fall under the eudaimonic perspective.

2.Well-being, positive emotions, and happiness.

2.1) Well-being

The definition of well-being has been different through the years. This concept has about 45 years of life. It appeared with the thesis of Wilson (1960) that studied this concept as it is known nowadays.

However, this notion had its ideological root on 18th century, during the enlightenment period in which the matter of the Humanity existence was the life, instead of the service of the King or God (Galinha & Ribeiro, 2005). From that moment on, the personal development and happiness became very important. The society was seen has capable of giving to its citizens the satisfaction of their needs to the achievement of a good life. The constitution of the United States of America, on that period (18th century) expressed “We hold the truths to be self-evident, that all men are created equal, that they

are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness".

A long time went by then, during the 60th decade the sense of well-being started to be related to the economic power (material well-being). That quickly changed and it became necessary to relate it to other notions as health, interpersonal relationships and quality of life (Galinha & Ribeiro, 2005).

With the growth of the importance of well-being, many theories around this topic have been created. One of them was PERMA theory, by Seligman (2011). This theory claims the existence of five elements that complete the sense of well-being, having an important contribution to it: positive emotions, engagement, positive relationships, meaning and achievement. (Seligman, 2011). Seligman's research implies that a focus on these five elements can help people work towards living a life richer in fulfillment, happiness and meaning. Even though none of these concepts defines well-being, they all contribute to it.

During the 80th decade, a crisis on the definition of well-being occurred, due to the amount of investigation produced on this concept. It resulted on the distinction of two different concepts: subjective well-being and psychological well-being. On this split, the subjective well-being integrates affection and life satisfaction dimension in one hand; in other hand, the sense of psychological well-Being represents the dimensions of autonomy, self-acceptation, environmental control, life purpose and personal development (Galinha, 2008).

As said in the other chapter, the notion of social well-being must be added to this classification: it is relation with the subject´s mental health, due to his need of socialization. This sense of well-being was preconized by Keyes (2005), once the subjects are included on social structures, finding tasks and challenges related to social situations (Keyes, 2005).

To better define these notions, they will be distributed on the following points.

2.1.2) Subjective Well-Being (SWB)

Well-being has been equalized with hedonic pleasure or happiness. This equalization has a long story: it had its beginning with Aristippus, a Greek philosopher from the fourth century A.C that claimed that the goal of life is to experience the maximum amount of pleasure and that happiness is the top exponent of one´s hedonic moments. This philosophical term – hedonism- has been followed by many others.

Psychology has adopted this concept. So, Subject Well-being (SWB), is centered on the way that individuals perceive their lives. It means, that this notion tries to associate life events with the way people think and feel about it, granting them the right of deciding if their lives matter (Diener, 2008; Deci & Ryan, 2008).

This type of well-being combines three crucial elements: life satisfaction (positive cognitive evaluation with life as whole), presence of positive affect (number of positive emotions on an individual, e.g pride, interest) and absence of negative affect (number of negative emotions on an individual, e.g hostility, disturbance) (Campbell, 1976; Diener, 2000, McCullough *et al*.,2000).

In this sense, the concept of SWB, preconizes two different but correlated dimensions: cognitive dimensions and affective dimensions. The first dimension includes global life satisfaction, satisfaction with different life domains, for instance: work, family, health, among others (Keyes, 1998) and consists on the assessment one does to life in general (Novo,2003). The other dimension associates' emotional reactions from an individual to his life events, combining positive affect and negative affect (Diener, Smith & Fujita, 1995). In what comes to emotional experience, the frequency of its experience means the most to well-being than the intensity – happy people feel moderate positive emotions, most of the time (Diener, Sandvik & Pavot, 1991.)

As a cognitive dimension, life satisfaction has been considered the affective dimension of subjective well-being (Woyciekoski, *et al* ,.2012; Deci & Ryan, 2008). Positive affect is a transitional feeling, a pure hedonist contentment that happens on an exultation moment or activity. In other hand, negative affect represents several different emotions as anxiety, depression and other psychological dimensions (Keyes *et al.* .2002; Albuquerque & Trócoli, 2004)

Research on subjective well-being points to the fact that people not only avoid discomfort, but also seek happiness. Therefore, the scientific study of well-being is known for marking the shift in psychology's orientation towards mental health, as a reaction to the generalized focus on disease symptoms (Galinha & Ribeiro, 2005).

The aim of SWB is to experience enjoyable emotions, adding low levels of negative affection and high levels of life satisfaction (Diener, Lucas & Oishi, 2002).

According to Diener (2001, 2002), people´s mood reflect momentary to events happening to them: they experience more positive than negative emotions when they are evolved in agreeable activities to them; they also experience positive emotions when they experience more pleasure than pain.

The model of Hedonic Adaptation consists of the adaptation to affectively relevant stimuli (Frederick & Loewenstein, 1999). This model conceives the idea that the pleasure obtained by successful moments and the anguish from failure ones tend to decrease with time (Neves & Brei, 2015.

After a negative or positive experience, there´s a lack or a gain on one´s well-being — this means that hedonic adaptation can be perceived as a set of processes that soften the emotional impact in the long run, whether in good or adverse circumstances (Neves & Brei, 2015)

The ability to appreciate life changes can lead to a feeling of satisfaction about what one´s already have, decreasing the need of looking for something better. Therefore, the referred model underlines that having lasting ways of well-being can result on positive life changes: these ways of well-being should be practiced intentionally (Lyubomirsky, 2011; Sheldon & Lyobomirsky, 2012).

Next, the psychological well-being perspective will be described.

2.1.3) Psychological Well-Being (PWB)

Despite the acceptance of the hedonic perspective, a lot of authors have considered happiness as the main definition of well-being. Aristotle, for instance, thought that hedonic view was a trivial ideal, affirming that true happiness relies on the expression of virtue – doing what is worth it (Ryan & Deci, 2001).

The expression “eudaimonia” approaches that well-being is different from happiness, meaning that subjective happiness cannot be equated with well-being (Ryan

& Deci, 2001). Waterman (1993) suggested that eudaimonia happens when people´s activities are congruent with their deeply values are holistically fully engaged.

Through the expression mentioned above, a new concept emerged: psychological-well-being. This concept came out as a response to the critics about SWB, due to its restrictive view. In fact, SWB is focused on life´s content and on the process of living well and PWB is interested on the result. PWB, tries to understand what leads to one´s search for living well and the expected consequences of this choice (e.g intimacy, health, hedonic pleasure, life meaning…) (Ryff, 1995).

"Eudaimonia", is a part of trait psychological well-being, being also a part of Ryff´´s empirical research. She claims that a psychologically well person is healthy, functions optimally and succeeds in spite of life´s existential challenges (Huta & Waterman, 2014; Ryff & Singer, 2008). According to the same author, being psychologically well is also much more that being free from suffering or having a mental illness diagnosis – is to have self-esteem, sense of mastery, positive relations with others, autonomy, a sense of purpose in life, personal growth (Ryff, 1995).

These concepts are part of the model proposed by the same author, Carol Ryff – model of psychological well-being. This model is based on the "eudaimonic" tradition and on various theories and humanistic understandings of Maslow, Airport and Rogers (Ryff & Keyes, 1995), the utilitarian philosophy of Mill and Russell (Ryff, 2013) and on the theories of human development by Erikson (Burns & Machim, 2009; Ryff & Keyes, 1995; Triadó, Solé & Celdrán, 2007). In fact, the theorical underpinnings that were used to develop this model are: maturity (by Alport); individuation (by Jung); mental health (by Jahoda); will to meaning (by Frankl); self-actualization (Maslow); executive processes of personality (by Neugarten); basic life tendencies (by Bühler), personal development (by Erikson) and fully functioning person (by Rogers).

The model created by Ryff consists of six dimensions of psychological well-being (figure): self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, personal growth. On the following points, these factors are fully clarified (Ryff, 1989; Henn, Hill & Jorgensen, 2016)

1) **Self- acceptance:** to have a realistic perception of the self, including both good and bad qualities, and still be able to accept oneself. This notion of self-acceptance is an important aspect for a positive functioning -it derives from the convergence of different sources described in the literature, namely Maslow (1968) who referred to a generic acceptance of nature, others, and oneself as a characteristic of self-actualization (Ryff,

1995). Rogers (1961) conceptualized the self as a person with value and Allport (1961) included self-acceptance, which he described as emotional security, in his conceptualization of maturity. Erikson (1959) argued that the stage of integrity of self emphasizes not only acceptance of the self, but also the individual's past life and his or her triumphs and disappointments/deceptions. And, the first concept of mental health defined by Jahoda (1958) refers to positive attitudes toward the self, which include self-acceptance and self-confidence (Ryff, 1995)

2) Positive relations: with others: the ability to establish significant relationships with others (caring and warm ones), developing intimacy and empathy with others. Maslow, for example, describes self-actualization as an aspect that involves demonstrating social interest (i.e., having feelings of empathy and affection for all human beings) and being capable of greater love, deeper friendship, and more complete identification with others than those who are not self-actualized. In the view of Rogers, a fully functioning person is described as demonstrating a basic trust in human nature.

3) **Autonomy:** The capacity of making decisions without waiting for or depending on the approval of others; the ability to count on oneself according to one´s beliefs and not the beliefs of others.

4)Environmental mastery: the ability to choose environments that fit into one´s needs and values.

5)Purpose in life: life goals and sense of life meaning and directedness, feeling of meaning to present and past life, having aims and objectives of life, holding beliefs that contribute to life purpose

6)Personal growth: to grow and to develop continuously as a person; working to achieve a full potential. Individuals are fully functioning when they like most of themselves, have affectionate and trusting relationships, see themselves developing into better people, have trusting interpersonal relationships, have a direction or purpose in life, are able to shape their environments to meet their needs, and have a degree of self-determination (Keyes, 2002).

In addition to this conceptualization, Ryff and other investigators found antecedents, complements or consequences of psychological well-being. On this classification are biological findings that show that psychological well-being has positive health benefits in relation to the cardiovascular, neuroendocrine, musculoskeletal and immune systems (Boehm & Kubzansky, 2012; Ryff & Keyes, 2006, Ryff et al., 2006). Other authors found out a relationship between culture and well-being (Kitayama et al.,2010). Ryff (2013)

declared a link between family experiences and well-being. Socio-demographic findings, such as age and socio-economic status, have been reported in scientific literature to be related to well-being (Ryff & Singer, 2008). Psychological well-being has been reported linked to psychological constructs like life experiences, emotional intelligence, and personality traits (Augusto-Landa, *et al.,*2011, Ryff, 2013). It was also found out a positive relationship between educational standing and psychological well-being (reporting to personal growth and purpose in life) (Ryff & Singer, 2008).

It is also relevant to underline that psychological well-being, as defined by Ryff (2013) can be characterized as an outcome variable and a predictor, being possible to be determined through self-reports, observer ratings or performance scores (Huta & Waterman, 2014). Research has shown that, psychological well-being as an outcome variable, is influenced by people´s context (Ryff & Singer, 2008). Another research found out that psychological well-being is a result of meaningful activities, for instance, healthy relationships.

In what comes to acting as a predictor, research has found out that PWB is capable to predict multiple levels of well-being (environmental mastery, self-acceptance and purpose in life), in experiences related to parenthood (Ryff *et al,.* 1999). According to literature, positive relations predict physiological functioning and healthy results.

Beyond subjective well-being and psychological well-being, there is another concept of well-being: social well-being. This concept is characterized on the following point.

2.1.4) Social Sell-Being

Social well-being is also related to eudaimonic concept and to the perspective of human development. As a social species, human beings have responsibilities and tasks to fulfill, but also have rights to enjoy. To prove this thought, some investigators studied how important is the social model and how its related to positive mental health. Life´s social nature and its challenges can be used criteria that one uses to evaluate life (Keyes, 1998).

McDowell & Newell observe that social well-being can be divided into two different concepts: social adjustment and social support (Larson, 1992). Social adjustment is a combination of relationship satisfaction, social performances, and the adjustment to

the environment. Social support is related to the amount of contacts of a person´s social network and the satisfaction with that amount.

Larson (1993) proposes a model of social well-being consisting of two elements: social adjustment and social support. Social adjustment is the combination of satisfaction with relationships, performance of social roles, and adjustment to the environment. Social support is composed of the number of contacts in one's social network and satisfaction with these contacts

Keyes (1998) defines social well-being as the appraisal of an individual´s circumstance and functioning in society. On this line of thinking, the cited author proposed a multidimensional model with five interrelated dimensions:

1) **Social integration:** corresponds to the evaluation of the quality of one´s relationship to society and community. Healthy individuals identify themselves as a part of the society and the community (Baptista 2013, Keyes, 1998);
2) **Social acceptance:** is defined as the positive attitudes that one´s has with others, knowing his difficulties and limitations. Individuals that have social acceptance trust others, believe in others´ kindness and that the others are laborious (Keyes, 1998). Social acceptive people feel good about their personalities and accept the good and the bad aspects of others (Honey, 1945);
3) **Social contribution:** consists on the evaluation of an individual´s social value, believing that one is a vital member of the society, having something valuable to give to the word (Keyes, 1998);
4) **Social actualization:** relies on one´s belief of the communities' potential to develop on a positive way, evaluating the path of society through its institutions and citizens. Socially healthier individuals can perceive that all the society is worried about its future, believing that they all beneficiaries the world´s growth. (Keyes, 1997; Blanco & Díaz, 2005);
5) **Social coherence** includes the perception of quality, organization, operation of the social worlds and the preoccupation about knowing the world. Social healthier people care about the kind of the word they live in and feel that they can acknowledge what happens around them. (Keyes, 1998). They believe that they do not live in a perfect world, they just have the desire to make sense of live. In a psychological way, healthier people feel that their lives are meaningful and coherent (Ryff, 1989)

According to Keyes (1998), the social dimension of well-being is as important as the personal dimension, as they influence each other mutually.

To sum up, it is possible to verify that scientific literature approaches three types of well-being, divided into two different perspectives, eudaimonic and hedonic. These concepts result on what is known as positive mental health and flourishing

On the next items, it described the comprehension and the importance of positive emotions and a conceptual definition of happiness, as claimed by literature.

3) Positive Emotions

Positive emotions have been studied through the years. They have been studied as factors of overall well-being or happiness. As stated by Cohn & Fredrikson (2009) positive emotions are constituted by pleasant responses, fluctuating from interest and contentment to love and joy. However, they are different from pleasurable sensation and undifferentiated positive affect.

A consensual perspective on positive emotions, claim that positive emotions can be on the origin of various problems (e.g mania, drug addictins). Other one, formulates that negative emotions are the most prominent causes and effects of pathology and also the most studied by the researchers (Cohn & Fredrikson, 2009)

Positive emotions were squeezed into many theories, but the Frederickson's (1998, 2001) broeaden-and built theory of positive emotions seems to be the most complete.

The broaden-and-built theory of positive emotions illustrates that positive emotions "broaden" one´s momentary thought-action repertoires and takes over actions that " build" durable personal resources (Frederickson, 1998; 2001). This means that, according to this model, positive emotions allow, instead of negative emotions, the expansion of one´s ideas to eventual actions; permitting the expansion to a larger than the usual range of thoughts and attitudes (Fredriksson, 1998; 2008).

As mentioned by Akhtar (2012). Positive emotions can decrease the adverse effects of negativity on the body, as high blood pressure, fast heart rate, contributing to homeostasis. These emotions can protect individuals from pathologies, as depression and can prevent a relapse. The expanded reasoning proposed by positive allows problem-solving and it can be got by the higher amount of positivity felt by an individual (Akhtar, 2012).

Other studies, as the one by Mujcic & Oswald (2016), explored whether improvements in psychological well-being occur after increases in fruit in vegetable consumption. The results showed that fruit and vegetable consumption was predictive of increased happiness, life satisfaction and well-being. Kaempfer & Mutz (2013), stated that having enough sunlight contributes to happiness and health.

Beyond this studies, other ones have been made to evaluate the relationship between well-being and health. They have been shown that the lack of mental health is directly connected with the increase of mental illness (Keyes et al., 2010), also showing that psychological well-being is intimately related to a death decrease caused by cardiovascular and renal failure (Chida & Steptoe, 2008).Well-being isn´t related with the increase of cardiovascular and physiological reactivity, demonstrating that well-being can directly reinforce the immunity system and cushion the stress impact (Howell et al., 2007).

In conclusion, it can be underlined, that positive emotions are very important nowadays. In the light of several studies related to this topic, it is possible to declare that they have a fundamental importance on the developmental and growth perspective. Once they have the possibility to provide a more open view experience and a consciousness expansion, they prepare individuals to look for solutions and react to the adversities in an adaptive way. Of course, positive emotions have also an importance on the physical and mental health field. It promotes mental health and has effects on physical health, contributing to a improvement on immunity system and an increase on pain tolerance.

3.1) Happiness

The nature of the concept of happiness hasn’t been descript in a uniform way. It can mean a sum of pleasure, life satisfaction, positive emotions, a life with a meaning, feeling of contentment, among other constructs (Diener et al, 2008 During a lot of time, many philosophers have been discussing the conceptualization of happiness. For instance, the pre-Socratic philosopher Democritus stated that a happy life is enjoyable due to the way a person reacts to his/her life circumstances (Tatarkiewicz, 1976). Thinkers as Socrates, Plato and Aristotle claimed that eudemonia concept of happiness supports the idea of having the greatest good available (Tatarkiewicz, 1976).

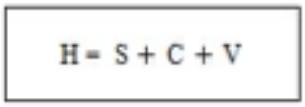
The concept of happiness is defined in the literature as having frequent positive affect, less frequent negative affect, and a higher life satisfaction. All these components

represent the main constituents of SWB, as mentioned in the earlier chapters. (Dierner, Suh, Lucas, 1999). Happiness, frequently called as “good life”, is surrounded by positive emotions, that can help human beings expand the though-action repertoire, encouraging them to experience varied and exploratory thoughts and actions. These, can result, over time, in new abilities and new physical, social and intellectual resources. (Fredrikson, 1998, 2001). Otherwise, negative emotions impulse limited thoughts and behaviors, that are concentrated in an immediate survival (Fredrickson, 2001).

Around the 20th century, psychologists and scientists decided to study what is happiness, how can it be measured and what causes it. Seligman (2002), proposed a happiness formula that relates and evolves the variable dimensions of well-being in the long-run.

Figure 2

The happiness formula



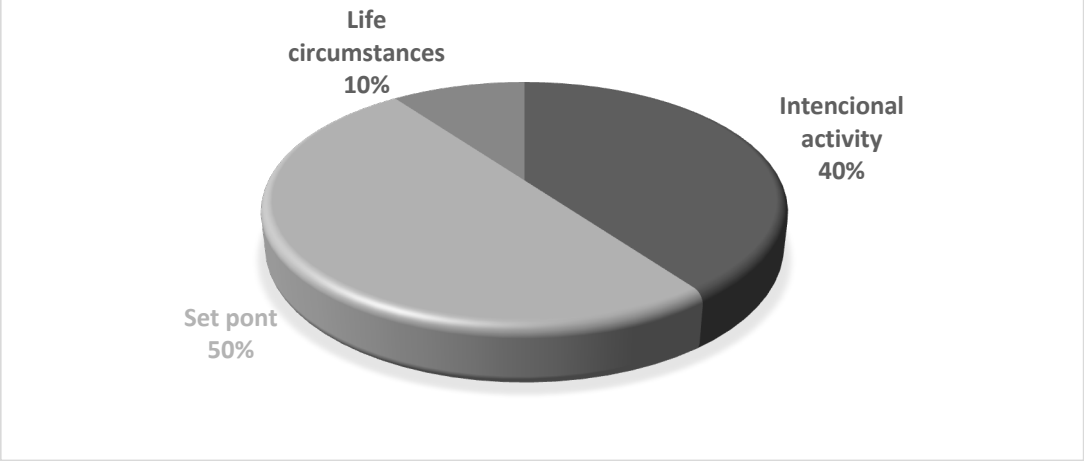
Note. From *Authentic Happiness:Using the new positive psychology to realize your potencial for lasting fullfilment* , p.319, by Seligman (2002), Free Press

Whereas “h” corresponds to the enduring level of happiness, “S” sets the range preestablished through genetic inheritance, “C” refers to life circumstances and V is the representation of factors that are under voluntary control.

In a similar way, Lyobomirsky *et al.* (2005) present a new model, the model of sustainable happiness. In accordance with this model, chronic happiness or happiness, for a specific period in life, is determined by three fundamental factors – one´s set point, one´s life circumstances and the intentional activities in which an individual engages. Each factor has a correspondent percentage, as illustrated on the following figure (figure 3

Figure 3

The three factors that influence chronic happiness



Note: From Pursuing Happiness: The Architecture of Sustainable Change by.Lyobomirsky et al 2005.

On this model, the genetic inheritance, is determined by the "set point" and has 50% of the level of happiness (Lykken & Tellegn, 1996). The "set point" defines the level of happiness that is established: it means that one´s born with the ability to reach a certain level of happiness, gravitating back to that level after a meaningful event. The "set point" is different in each person, being higher in some of them (Kurtz & Lyubormisky, 2008).

Life circumstances include a lot of factors, especially accidental ones, that are relatively stable in one´s life. Life events can interfere in happiness, such as childhood trauma, winning the lottery or having an accident. Other factors as health, marital status, job security, financially stable incomes, religious affiliations can also affect happiness. These life circumstances contribute to only about 10% of happiness (Argyle, 1999, Dienner et al,1999).

Coming back to the "set point" of happiness genetically preestablished is the way individuals adapt to the change to life circumstances (Diener & Oishi, 2000; Galiani, Gertler & Undurraga, 2015). This premise shows that changing the life circumstances, is not the best way to rise happiness.

A rise of happiness can be held if there is a commitment on doing activities that are related with this increase (Lyobomirksy et al, 2005). Intentional and consistent activities, correspond to a high percentage of happiness. The intentional ones are related

to actions or exercises that can include thoughts (e.g thoughts of gratitude) or behaviors (e.g. acts of kindness) that change the way a person thinks about his/herself, about his/her life or about the world (Lyobomirsky et al,., 2005).

According to Novo (2005), the approach of happiness is considered as having two main components. One is more focused on the virtues of human being and the other on the satisfaction of having.

So, happiness is a concept that has multiple theories and then viewed under multiple perspectives. Happiness is also related to positive emotions, that was previously explained

4.The importance of positive psychology group interventions

Over the decades, many studies have showed the importance and efficacy of positive psychology interventions, such as: counting your blessings, practicing kindness, setting personal goals, expressing gratitude and using personal strength to increase well-being levels or to decrease depression levels (Bollier et al, 2013). Positive psychology interventions can be described as a treatment method or intentional activities that aim to cultivate/develop positive feelings, behaviors, and cognitions. They consist of a regular, simple, intentional practice designed to mirror people's thoughts and behaviors in order to increase the well-being and happiness of those who practice them (Sin & Lyubomirsky, 2009; Layous & Lyubomirsky, 2014).

According to Lee Duckworth, Steen and Seligman (2005) positive psychological interventions increase pleasure, meaning and evolvement, decreasing mental illness, being useful to treat and prevent mental illness and function as the principal focus of a favorable psychotherapy (Duckworth, Steen & Seligman, 2005). These kind of interventions, positive ones, do not imply that the rest of psychotherapies are negatives, in spite of the name suggestion (Rashid, 2009): the nuclear premise of any positive intervention is that it is impossible to understand the positives without the acknowledge of the negatives.

It is also relevant to refer that positive psychology interventions don’t deny distressing, unpleasant or negative experiences, as it aims to motivate clients to use their strengths to understand their weakness (Rashid, 2009). They implement positive emotions, positive behaviors, positive cognitions (Sin & Lyubomirsky, 2009) to alleviate the impact of mental illness symptoms on an individual´s life (Meyer et al.2012).

So, positive psychological interventions are complementary strategies that can be used on the promotion of mental health. They can also contribute to an effective clinical practice (Boiler et al, 2013; MacLeod, 2012).

According to the perspective of Duckworth, Steen, and Seligman (2004), positive psychotherapy works for two reasons: first, these therapies, by definition, generate pleasure, commitment, and meaning in life; second, the development and building of positive emotions, commitment, and meaning in life counteracts one's own inner confusion.

Some of the behavioral strategies that are used on positive interventions are physical exercise, acts of kindness (Baptista, 2013), and some evolution strategies that concern setting and conquering personal goals or meaningful causes. These exercises have in common that they are always activities guided by others; they are self-administered activities and promote feelings, positive thoughts, and behaviors (Lyubomirsky et al., 2005; Lyubomirsky & Layous,201; Layous & Lyubomirsky, 2014).

Boiler et al, (2013) made a meta-analytical study of the effectiveness of positive psychology interventions for the public and for individuals with specific psychosocial problems. Forty articles, describing 39 studies, totaling 6139 participants met the criteria for inclusion. Subjective well-being, psychological well-being and depressive symptoms were the outcome measures that were used, including self-help interventions, group training and individual therapy. The results of this investigation indicate that positive psychology interventions can be effective in the magnification of subjective and psychological well-being and on the reduction of depressive symptoms.

Seligman (2002) established two classes of good therapy: tactics and deep strategies. Among the tactics of good therapy are:

1) Attention
2) Authority figure
3) Rapport
4) Paying for services
5) Trust
6) Opening up
7) Naming the problem
8) Tricks of the trade (e.g Let´s stop here).

Otherwise, deep strategies are the ones that therapists use but are not covered up on books or rely on a theorical model or are trained by students (Seligman, 2002). Deep

strategies are techniques of positive psychology. One of these strategies is implant hope (Snyder, Hardi, Michael & Cheavens, 2000). Another is “building of buffering strengths”: firstly identify and then help clients to build a variety of strengths instead of healing techniques (Seligman, 2002). The strengths build on psychotherapy are:

1) Courage;
2) Interpersonal skill;
3) Rationality;
4) Optimism;
5) Insight;
6) Honesty;
7) Perseverance;
8) Realism;
9) Capacity for pleasure;
10) Putting troubles into perspective;
11) Future-mindedness;
12) Finding purpose.

Narration is also another deep strategy. Seligman (2002) and Csikszentmihalyi (1993) believe that life storytelling, the perception of what is chaotic, discovering a life trajectory and perceiving life in an anti-victimhood way is profoundly positive. The same authors believe that psychotherapy forces narration and it buffers against mental illness as hope does.

All in all, it matters to understand if positive psychology interventions are effective and how effective they are, as well as, to know in which population they are most effective. This is important so therapists and mental health professionals can do improved interventions that effectively aim the increase mental health and flourishing, maximizing human potential and not just looking for the suppression of symptoms or mental pathology.

On the following point, there are going to be discussed various studies on the efficacy of positive psychology interventions in two kinds of samples: clinical samples and non-clinical samples.

4.1) The efficacy of positive psychology interventions

Positive psychology research is primarily intended to complement, not replace, what is covered by the concepts of suffering, weakness, and disturbance. The premise is

to gain a more complete and balanced understanding of the human experience. Thus, psychology as a whole, must include an understanding of suffering and happiness, as well as their interaction, validating interventions that reduce suffering and increase it (Seligman et al., 2005).

Accordingly, it is important to highlight the relevance of analyzing many different types of interventions, in this case, positive psychology interventions, its effectiveness, what works best with different groups, and the effectiveness of positive psychology-based exercises in promoting effective wellbeing and mental health (and consequent reduction in psychopathology).

4.2) The efficacy of positive psychology interventions on clinical samples

Some studies show the efficacy of positive psychology interventions on clinical samples, as described on the following studies.

A study made by Hon Wai Chu et al (2022) aimed to determine the effectiveness of Positive Psychology for Psychosis on the well-being of people with psychosis in Hong Kong. Randomized control trial with two arm parallel groups: both groups received treatment, including 13 session intervention based on the Cantonese Chinese translation of the Positive Psychotherapy for Psychosis manual. A total of 174 participants participated on this study (78 under intervention, 76 under control). Intervention group participants showed significant changes over time on the primary outcome of well-being assessed using the Chinese Short Warwick- Edinburgh Mental Well-being Scale and on secondary outcomes of hope. It was found that Positive Psychotherapy for Psychosis was an effective treatment on the improvement of well-being and other mental outcomes for people with psychosis.

Also under the psychosis field, a study caried out by Zimowska et al (2021) aimed to determine the impact of positive psychotherapy on it and well-being on a group of patients diagnosed with chronic schizophrenia. SWB was defined by sense of effectiveness, affective balance, and strengths of character. The sample of this investigation consisted of an experimental group of patients diagnosed with schizophrenia participating in Positive Psychotherapy of Psychosis and other on therapeutic and rehabilitation classes; it also included a control group of healthy people. 25 people were on each group.

The impact of Positive Psychotherapy for Psychosis was measured before and after classes on both groups using the Generalized Self-Efficacy Scale, Positive and Negative Experience Scale and Strengths Questionnaire. Results showed that positive psychotherapy of psychosis increases subjective well-being of patients with chronic schizophrenia and also the sense of agency and number of positive emotions experienced.

Under the depression field, Mira et al (2017) did a study that consisted on the implementation and development of positive clinical psychology protocol for depressive symptoms. 5 depressive patients have participated on this investigation. Depression, anxiety, negative affect and orientation were measured at pre and post treatment and a 3-month follow-up. Results showed that this was a viable intervention that reduced depression, anxiety, negative affect and increased positive affect and orientations towards enjoyment.

A meta-analysis examined the efficacy of a positive psychology intervention in treating depression in 11 articles published from 2010 to 2020 (Pan et al, 2022). A random-effects model was used to compare positive psychology interventions and control groups on post and pre- intervention differences in depression scores. The instruments used by the data analysis were Depression Inventory-II (BDI-II), Center for Epidemiologic Studied Depression Scale (CES-D) and Quick Inventory Depressive Symptomatology-Self-Report (QIDS-SR16). Results show that positive psychology interventions are effective on the treatment of depressive symptoms.

All these positive psychology interventions seem to show great increases on the potentiation of well-being and on the decreasing of psychopathological symptoms on clinical samples. Next, there are going to be approached the most recent studies on the efficacy of positive psychology interventions on non-clinical samples.

4.3) The efficacy of positive psychology interventions on non-clinical samples

Clinical samples or samples covered by individuals with psychopathological symptoms are used to study the impact and efficacy of positive psychology interventions. However, non-clinical samples or individuals without psychological illness or symptoms can also be used to study the efficacy of positive psychology interventions. Literature confirms the statement that positive psychology interventions should mitigate the suffering, reduce psychopathological symptoms, increase flourishing, and increase mental illness.

On this point of view, it seems important to acknowledge if positive psychology interventions are effective on non-clinical samples.

A study carried out by Kim (2021) aimed to study the efficacy of a mindfulness positive program to call center workers. There were 54 participants in these investigations, that was active from January to February 2014. The Mindfulness- Positive Psychology program was effective in the reduction of job stress of call center workers, increasing subjective well-being and mitigating stress responses.

Another study made by Lambert et al (2019) consisted on introducing a 14 week positive psychology intervention program (Happiness 101) to university students from 39 different nations studying in the United Arab Emirates. They were exposed to 18 different positive psychology interventions. To assess hedonic and eudemonic well-being and beliefs regarding the fear and fragility of happiness, pre, post and 3 month post measures were used. Participants exposed to Happiness 101 program presented higher levels of both hedonic and eudaimonic well-being and lower levels of fear of happiness and the belief that happiness is fragile. These aspects were maintained 3 months post-intervention.

Also, a randomized wait list control study by Waters (2020) examined the effects of two positive psychology interventions on 300 families across six countries.

A study made by Garcia-Alvarez et al (2021) intended to determine the impact of a positive psychology program such as a character strengths intervention on the education practioners´well-being on a pre and post-test modification. It also aimed to examine the relationship between psychological well-being and character strengths after the application of the program. This study was conducted in two different education practitioner groups at Uruguayan educative system levels with to sample groups: group A with 34 individuals and group B with 26 individuals. The instrument used to the assessment was the Scale of Psychological Well-Being for Adults and the character and strengths sub-scales. The results showed that there were statistically significant changes in the education practitioners ‘well-being on both groups. There were also significant positive correlations between psychological well-being and character strengths after the application of the program.

A system review and meta-analysis was developed by Dhilon et al (2017) and aimed to assess the effect of mindfulness-based interventions carried out during pregnancy. The goal was also to explore mindfulness and mental health outcomes. 14 articles met the inclusion criteria and were included on the investigation. Results suggest

that mindfulness-based interventions can be beneficial for outcomes such as anxiety, depression and perceived stress and levels of mindfulness during the perinatal period.

It is also relevant to cite a study from Dambrun & Dubuy (2014) that had the objective to assess the effect of a positive psychology intervention on a population of long-term unemployed people. Twelve participants accepted under treatment condition and the remaining ones constituted the control group. Members of the treatment condition were asked to complete five positive psychology exercises for two weeks. The findings showed that the positive psychology intervention significantly decreases psychological distress and increases well-being.

Positive online interventions also have efficacy on the increasing of well-being on non-clinical samples. An investigation made my Heekerens et al (2022) randomized 432 German adults to perform either optimism, gratitude, self-compassion, or control writing interventions in an online setting. Findings showed higher momentary optimism after the best-possible-self intervention and higher momentary gratitude after the gratitude letter than after the control task. No differences were observed when comparing the intervention with gratitude letter- both increased the number of positive self-relevant thoughts.

With the revision of these studies with non-clinical samples, it is possible to conclude the efficacy of positive psychology interventions on the promotion of well-being and on personal growth-development.

Next, it will be explored some themes of interest that some literature has indicated and suggested as being able to be worked on in positive psychology interventions.

4.4) Gratitude

Gratitude throughout time has been approached in many different ways: as an emotion; state of mind; moral virtue; personality trait; habit; form of coping or, simply, as a way of being in life (Emmons, 2009). It can be understood as an attitude of looking at life as a gift or as an emotional/affective reaction to receiving something (Alarcón, & Isasi, 2012).

Gratitude is the result of recognizing a gesture of kindness and generosity from another.

Thus, gratitude can be seen as a positive emotional response motivated by receiving a benefit from another, and this gesture can be interpreted as a gesture of good faith (Alarcón, & Isasis, 2012).

According to Emmons and McCullough (2003) to feel gratitude one must be aware of three important aspects: the object of gratitude is always another (a person, a charity); gratitude is an emotional response generated by the behavior of a benefactor, the one who provides the pleasure/benefit (material, emotional, spiritual) and lastly this feeling comes from the subject's evaluation of the benefactor's actions, considering them as intentional.

The research developed on gratitude has allowed the deepening of the knowledge about this dimension. For example: one study developed by Cunha et al.,2019 aimed to evaluate the effect of a gratitude intervention on a community sample of adults regarding aspects involving well-being and mental health. A randomized clinical trial was conducted with 1,337 participants, composed of an intervention group (Gratitude group, n = 446), and two control groups (Hassles group, n = 444 and Neutral Events group, n = 447). The gratitude intervention managed to increase positive affect, subjective happiness and life satisfaction, and reduce negative affect and depression symptoms. This change was greater than the changes in the control groups in relation to positive affect. In the other outcomes analyzed, similar changes were observed in the gratitude intervention and the neutral events intervention.

4.5) Savoring

Savoring is an emotion regulation strategy aimed at increasing, sustaining, and deepening positive emotion (Bryant, 1989). From the perspective of Positive Psychology, it consists on the ability to value and emphasize the positive experiences in life, such as: appreciating the beauty of nature (landscapes, sunsets); valuing the time spent with loved ones, experiencing any kind of art; appreciating simple pleasures like a hug or a good laugh and valuing personal accomplishments, such as graduations, weddings, and birthdays (Akhtar, 2012).

A study by Killbert et al., (2022) aimed to examine whether different savoring interventions could increase important coping resources (i.e., positive emotions) in response to a social-evaluative hassle, showed that savoring increased positive emotions. In fact, there was a significant time x intervention interaction effect: individuals in the savoring a reported higher level of positive emotions (at post-intervention) compared to individuals assigned to the true control group.

Such findings offer support for savoring the moment exercises as a primary prevention strategy to bolster effective responses to social-evaluative hassles.

4.6) Acts of kindness

The concept of kindness addresses the act of performing something good for another person, and this gesture can be large or small (Boniwell, 2015). Thinking of others and being altruistic is one of the main characteristics of happy people. These are generous and like to indulge in activities related to others or activities that focus on helping them.

These activities go beyond the self's duty and obligation. Thus, it is considered that kindness and generosity are the basics of a healthy and happy person with positive social relationships (Baptista, 2013).

The practice of random acts of kindness provides greater happiness to the targeted individual and the giver is filled with great feelings of well-being. It is important to state that it is crucial to diversify and repeat these acts so that they can remain invigorating and meaningful (Boniwell, 2016).

A study aimed to (done by Symeonidou et al., 2018) examine the effects of the character strength of kindness on subjective wellbein showed that at subjective wellbeing as an overall sense of wellbeing and its specific components was enhanced for participants in the kindness intervention. This study had a sample of 54 individuals that were split into experimental and control group.

4.7) Optimism

Optimism refers to the general expectation that good results will be achieved in the future (Scheier & Carver, 1985). According to the literature, optimism consists of two important elements: learned optimism (Peterson & Seligman, 1984) and dispositional optimism (Scheier & Carver, 1985). Learned optimism is like a personal characteristic.

Optimistic individuals use it as an adaptive attributive style to explain adverse situations. In contrast, dispositional optimism is related to a general belief that good things will happen rather than bad things in the future. Thus, optimism, understood as a personality trait, reflects good expectations for the future.

A study conducted by Serrão & Peixoto (2020) analyzed the impact of mindfulness-based brief meditation practices on optimism, internal shame, and perceived stress in first-year students of a higher education course in the Social Sciences. Twenty-seven students participated, non-randomly distributed in the control group (n = 12) and the experimental group (n = 15). The results obtained point to the effectiveness of the intervention, given the significant changes observed in internal shame, optimism and

stress in the experimental group compared to the control group. Indeed, there was a decrease in internal shame and perceived stress, and an increase in optimism. Implications for research and practice are discussed.

4.8) Forgiveness

Forgiveness can be understood as an intra- and interpersonal process that, in some ways, can be approached as a pro-social change in emotions, thoughts, or behaviors toward others (McCullough & Witvliet, 2002). These changes may include awareness and acceptance of strong emotions such as anger, letting go of previously unmet needs, modifying thoughts about others, developing empathy toward others and constructing a new story of a situation (Malcolm & Greenberg 2000). These positive changes can lead to increased well-being (McCullough 2000; Allemand, Hill & Ghaemmaghami, 2012).

According to Worthington (2007) there are four potential benefits forgiveness: physical, mental, relational, and spiritual health. These four dimensions of life stimulate the lives of individuals. It is also possible to add that being satisfied with interpersonal relationships and maintaining physical and psychological health is strongly related to happiness, meaning that if individuals are satisfied with these aspects of their lives, they are likely to be happier. Forgiving oneself, others, or situations will increase well-being (Yalçın & Malkoç, 2015).

An article (Akthar, 2018) reported the findings of a systematic review and meta-analysis of the efficacy of process-based forgiveness interventions among samples of adolescents and adults who had experienced a range of sources of hurt or violence against them. Results provide moderately strong evidence to suggest that forgiving a variety of real-life interpersonal offenses can be effective in promoting different dimensions of mental well-being.

4.9) Spirituality

Spirituality and religion are overlapping concepts, although they are completely distinct. Spirituality, in one hand includes the experience of compassion, awe of humanity, self-development, and the search for the meaning of life from something greater and more important than oneself. It consists of a personality trait called self-transcendence. Religiosity, on the other hand, concerns the traditional aspects of religious experience, and can vary from religion to religion. Religiosity implies spirituality, but the opposite does not apply (Baptista, 2013; 2014).

The spiritual dimension provides an integrative force. This dimension affects and is affected by physical state, feelings, thoughts, and relationships. If an individual is spiritually healthy, they generally feel alive, purposeful, and fulfilled, but only to the extent that they are psychologically healthy (Ellison, 1983).

Spirituality is associated with transcendence, or the ability to find purpose and meaning beyond oneself, a commitment that engages with the meaning of life, and the ability to relate positively to God, parenting, and life experiences that promote trust and fundamental optimism which in turn increase the capacity for faith and hope that appear to be an integral part of spiritual well-being (Ellison, 1983), however spirituality is not necessarily related to a particular religious belief or tradition (Chirico, 2016).

In a study carried out by De Mello et al. (2021) the objective was to verify if two intervention programs focused on quality of life influence the levels of spirituality in university students in Portugal. 107 students participated in the "Life Skills Program", while 48 students participated in the "Interculturality and Mindfulness Program". A sociodemographic questionnaire and the Spirituality in Health Contexts Scale were used, with pre- and post-test measurements. There was an increase in spirituality in both intervention programs. This result demonstrates the trend that programs based on promoting quality of life raise spirituality levels.

On the next chapter, an empirical study is presented with the main objective of testing the efficacy of a positive psychology intervention. This study represents one of the few national studies of this topic.

Part B – Empirical study

This chapter contains the presentation of the methodology and the objectives of the carried out empirical study. This research aims to evaluate the effectiveness of a positive group psychological intervention program on the promotion of well-being and mental health. The chapter begins with the presentation of the aims of the study and the hypothesis to be tested and is followed by a description of the sample, the chosen instruments for the data collection, the study design and the procedures that were used.

Posteriorly, the results are presented, followed by its discussion and conclusion.

1.Methodology

1.1 Purpose of the study

According to what was previously mentioned, the practice of positive psychology exercises can stimulate well-being and mental health. Following this idea, a growing number of studies have emerged, focusing on the evaluation of the effectiveness of positive psychology interventions on different contexts, individual and in group and in different age groups.

However, the data from these interventions are often inconclusive due to differences in the topics and exercises approached on the multiple interventions or due to the analysis measures used. This can possibly lead to high instability in the obtained results.

In addition, it is relevant to say that there aren´t a lot of research done in Portugal, being this a relevant motive to do an investigation in the Portuguese population in order to test its effectiveness. In this sense, we intend to contribute to the existing knowledge about the effectiveness of positive psychological interventions in the national context.

After an intense literature review, as presented on the first part of this dissertation, that provides an empirical concept of the constructs of well-being and mental health and about the effectiveness of some positive psychological interventions on the promotion of well-being and the reduction of psychopathology, the purposes of the main study were formulated.

The main purpose of this research is to evaluate the effectiveness of a positive psychological group intervention on mental health, promoting the well-being and reducing psychopathology on a non-clinical sample

More concisely, the goal is to investigate the impact of the program (later described) on the changes in emotional, social, and psychological well-being as well as on anxiety, depression, and stress. To confirm this, a pre and post intervention evaluation was used with an experimental and a comparative group. It is expected that in the experimental group might be an increase of the variables of well-being and a decrease of psychopathology, between the pre and post intervention.

1.2) Method

1.2.1) Participants/Sample

A non-probability convenience sampling method was used for the selection of the sample as the participants were chosen according to their accessibility and availability.

The probability of an element being included in the sample is unknown (Ribeiro, 2010).

This intervention program contains a sample of 40 individuals from a university in Northern Portugal, composed by first year psychology students. The total sample of this study (*n*=40) is divided into two groups: The experimental group (EG) (*n*=20) and the comparison group (CG) (*n*=20). The sociodemographic characteristics will be described below.

The experimental group is made up by 11 men (55%) and 9 women (45%), with ages between 18- 27 years old, being the average of ages 20,70 (*SD*= 2,830). All the participants of this group are single, and their academic qualification is higher education (university degree).

In terms of the subjective evaluation of quality of life: 5% (n=1) of the participants of this group classify this dimension as neither good or bad as very good, 75% (*n*=15) say it is good and 20% (*N*=4) classify it as very good. Then, in connection with health satisfaction 10% (*N*=2) report being neither satisfied nor dissatisfied, 65% (*n* 13) evaluate themselves as satisfied with their health and 25% (*n=5*) consider themselves as very satisfied with their health). Lastly, 36,8% (*n*=7) of the sample refers having health problems while the remaining 63,2% (*n=12*) say they do not have any health problems, in which 36,8% (*N=7*) report taking medication, 63,2% (*n= 12*) report not taking any medication and the remaining 5% (*n*=2) did not answer the question.

The comparison group is composed by 10 women (*N=50%)* and 10 men (*N=50%)* aged between 18 and 27 years old, being the average of the ages 22 (*SD*=6,808). Regarding marital status, 10% (*N=2*) of the participants are married and 90% *(N*=18) are single. All the participants report higher education (university degree). In relation to the subjective evaluation of their quality of life, 5% (N=1) refer that is neither good or bad, 75% (*N*=15) evaluate it as good and the remaining 20% (*N=4*) consider it as very good. Additionally, in what comes to satisfaction with health, 2 subjects report being neither satisfied nor dissatisfied (10%), 15 say they are very satisfied and the last 4 individuals (20%) describe being very satisfied with their health. Referring to health problems, 3 (15%) subjects affirm having health problems and 17 (85%) say they do not have any health problems, being only 2 (10,5 %) individuals taking medication and the other 17 (89,5 %) not taking it

Table 2

Characterization of the sociodemographic variables of the sample (by group)

		Experimental Group (*n*=20)		Comparison Group (*n*=20)	
		n	**%**	***n***	**%**
Gender	Male	11	55%	10	50%
	Female	9	45%	10	50%
Marital Status	Single	20	100%	18	90%
	Married	0	0%	2	10%
Academic qualification	Higher education	20	100%	20	100%
Quality of life	Neither good nor bad	1	5%	1	5%
	Good	15	75%	15	75%
	Very Good	4	20%	6	20%
Satisfaction with life	Neither satisfied nor dissatisfied	2	10%	2	10%
	Satisfied	13	65%	12	60%
	Very Satisfied	5	25%	6	30%
Health Problems	Yes	7	36,8%	3	15%
	No	12	63,2%	17	85%
	Did not answer	1	2,5%	0	0%
Medication	Yes	7	36,8%	2	10,5%
	No	12	63,2%	17	89,5%
	Did not answer	2	5%	2	5%

1.2.2) Material

For data collection, anonymous self-answered questionnaires were used, specifically a sociodemographic questionnaire and the Portuguese versions of the following instruments: the Mental Health Continuum Scale - short version (adults) (MHC-SF), as well as the Depression Anxiety and Stress Scale (DASS-21/ EADS-21). In addition, participants were asked to sign an informed consent form.

The instruments mentioned below will be briefly described in order to explain their relevance to the study.

1.2.3) Sociodemographic questionnaire

The sociodemographic questionnaire is composed by eight questions that aim to describe the participants, concerning the age, gender, marital status, academic qualifications, subjective assessment of quality of life (on a scale from 1, very poor to 5, very good), satisfaction with health (on a scale from 1, satisfied to 5, very satisfied), current health problems as well as the use of medication.

1.2.4) Mental health continuum- short form (MHC-SH).

On the study, it was used the Portuguese version of the Mental Health Continuum Scale for adults (MHC-SF) since it provides an assessment of three dimensions of positive mental health: emotional well-being, psychological well-being and social well-being (Matos et al, 2010; Fonte, Silva, Vilhena & Keyes, 2020). The MHC-SF is a brief self-report questionnaire consisting of 14 items in which the respondents answer how frequently over the past month they experienced each facets of subjective well-being on a scale from “never” to “everyday”. Of these 14 items: 3 items are related to emotional well-being (happy, satisfied and interested in life), 6 items reflect psychological well-being (self-acceptance, autonomy, purpose in life, personal growth, environmental mastery and positive relations with others and 5 items refer to social well-being (acceptance of others, social coherence, social integration, social contribution, and social growth). (Fonte et al., 2020).

This instrument allows individuals to be categorized into three categories: flourishing, languishing and moderate mental health (Keyes, 2007). In order to be

categorized as flourishing, the respondents must say they experienced at least 1 of the 3 emotional well-being items combined with 6 or more of the 11 functioning well (i.e. psychological and social well-being) “everyday” or almost “everyday”. The respondents who are neither flourishing nor languishing are categorized as having moderate mental health. To consider a respondent as “not flourishing”, the prevalence of languishing must be low, combining with moderate mental health. (Keyes, 2007).

It is relevant to say that MHC_SF, throughout the various studies, has shown internal consistency and validity for the assessment of the positive mental health of different populations, as adolescents, adults, and senescence and with different nationalities (Fonte et al, 2020; Matos et al, 2010).

1.2.5. The Depression, Anxiety and Stress Scale (DASS-21/EADS-21)

The DASS-21 is a set of three four-point Likert subscales for self-reporting. Each subscale consists of seven items, aimed to assess three different constructs: anxiety, depression, and stress (Pais-Ribeiro, Honrado & Leal, 2004)

This questionnaire was administered on this study to evaluate the previously mentioned constructs on the participants of the pre and posttest.

The questionnaire is composed by 21 items divided into 7 items by each subscale: anxiety (items 2,4,7,9,15,19,20); depression (3,5,10,13,16,17,21); stress (items, 1,6,8,11,12,14,18).

The respondents are asked to mark the extent to which each statement applied to him/her during the last week. So, there are four possible answers, organized in a scale from 0 (“ did not apply to me at all”) to 3 (“Applied to me very much or most of the time”). The result is known by adding up the scores of the items for each of the three subscales.

This four-point self-report Likert scale consists of 14 items, seven of which assess anxiety and seven depressions.

Each subscale approaches the diverse concepts. The depression subscale assesses symptoms like inertia, anhedonia, dysphoria, lack of interest/involvement, self-depreciation, devaluation of life and discouragement. The anxiety subscale evaluates excitation of the autonomous nervous system, musculoskeletal effects, situational anxiety, subjective anxiety experiences. Lastly, the stress subscale assesses difficulty to

relax, nervous excitation, easy perturbation/agitation, irritability/exaggerated reaction and impatience. (Apóstolo et al, 2006).

The scientific investigation has shown that this scale has a good intern consistency, good psychometric qualities, and good reliability, among young adults, adults and senescents in different cultures (Daza, Nov, Stanley & Averill, 2002; Pais-Ribeiro et al 2004; Willemsen, *et al.,* 2010).

1.3. Study plan and procedure

1.3.1. Study plan

The present research is quantitative, as it is based on measurable characteristics of the participants. It is also focused on analyzing numerical data of quasi-experimental nature to test the efficacy of an intervention. Thus, it was not possible to accomplish the randomizing criteria of the participants by each group (Pais Ribeiro, 2010).

1.3.2. Studied variables

This study as dependent variables and independent variables. The dependent variable are: well-being, including its three types (emotional well-being, social well-being and psychological well-being) and three psychopathology dimensions (anxiety, stress and depression). The independent variable relies on the participation in the positive psychology intervention program.

There are also sociodemographic variables that were considered on this research: gender, age, marital status, subjective evaluation of quality of life, the perception of satisfaction with life, the existence of health problems and the use of medication.

1.3.3. The data collection procedure

The present research belongs to a project of the Pedagogical Clinic of The Fernando Pessoa University (Clínica Pedagógica da Universidade Fernando Pessoa), called “Research on the Pedagogical Clinic of the Fernando Pessoa University”. This had a positive approval by the Ethics Committee of the University Fernando Pessoa and by the clinical director of the Pedagogical Clinical, the professor Sónia Alves, MSc. The

execution of this project involved a team composed by psychology interns under the supervision of the professor Carla Fonte, PhD.

The authorization to use the Mental Health Continuum Scale- Reduced Version (MHC-SF) was requested to Professor Carla Fonte, PhD. It was not necessary to request the authorization to the authors to use the Depression, Anxiety and Stress Scale (DASS-21) once it has been published.

Considering that the population used on this research was a non-clinical one, it was decided to select a convenience sample made up by first year students of the first cycle of studies in Psychology at a university in the north of Portugal. To do the data collection, it was request authorization to some teachers of the first year class to do a presentation of the positive psychology group intervention program. An hour and a date were set, so the participants could be directly contacted by the trainees' psychologists who would be conducting the intervention program. This contact aimed to inform the class about the objectives of the program, its structure and duration.

After the oral explanation of the program, it was distributed by the students an informative pamphlet and it was also given a registration form so that the interested participants could fill it out and place it on a box that was left in the classroom to this purpose. It was emphasized by the trainees that the collected data was confidential and anonym and that there was a possibility to withdrawal at any stage of the program.

Subsequently, the participants were contacted personally to be informed about the location, day and time of the implementation of the program. It is relevant to say that the entire process and the participation on the program was voluntary- an informed consent was obtained from the participants.

Once all the vacancies for the intervention group were filled, the remaining were selected for the control group (no intervention, just filling out the pre-test and post-test). The elements of this group were informed about this particularity.

In the first session of the program, the participants were reminded about the program´s objectives and the procedure of the data collection. They were informed about the possibility to withdraw from the program. All the doubts and questions that were asked, were clarified.

After this, the participants were asked to fill out the consent form, as well as the pre-test instruments. In the control group, the pre-test was completed again on the same week on previously scheduled class.

In the experimental group, the post-test was filled on the last session of the program. The control group filled it out on a scheduled class on the same week.

1.3.4. Characterization of the program

Table 3

Characterization of the group intervention program

Sessions	Description	Materials
1 "Basic ingredients to happiness"	• First assessment moment (pre-test) • Presentation of the elements of the group- knowing the rules and the objectives of the program. • Psicoeducation about the concept of happiness and well-being. • Developing a conscience of what provides and what doesn´t provide well-being. Working on hapiness and unhapiness through the "happiness thermometer exercise" • Promoting the change with the exercise "Positive presentation of myself2	• "Happiness thermometer" • "Positive presentation of myself"
2 "My best possible self: optimist and grateful"	• Reviewing the inter-session exercises. • Promoting and developing optimism. • Promoting and developing gratitude. • Session´s evaluation.	• "My best possible self" • Gratitude diary.
3 "Being happy with the others"	• Exploring homework ("The acts of gratitude diary"). • Reflecting about the mental rumination concept and social comparison and its impact on the well-being. • Presenting the kindness concept (how to practice kindness and positive social relationships). • Homework "Writing the acts of kindness" and session´s assessment.	• **" The rubbish bin of worries"** • **Practicing and writing the acts of kindness-promoting positive social relationships.**
4 "Being forgiven and to forgive"	• Homework analysis. • Presenting and developing the forgiving concept: being forgiven and to forgive someone. • Homework "Writing a forgiveness letter" and session´s assessment.	• Writing the acts of kindness. • Forgiveness letter. • Relaxing music.

5 **"Tasting the daily life positive events"**	• Homework review • Presenting and thinking about the tasking concept and life events. • Homework: self reinforcement activity • "Bringing something good to share with the group" and session´s assessment.	• How to practice the appreciation of the daily life positive events.
6 **"Taking care of me"**	• Homework review. • Thinking about the importance of self-care. • Analyzing the spirituality concept and its implications on well being. • Thinking about the benefits of exercising to the well-being. • "Bringing something good to share-celebrating the end of the program. • Global assessment of the program. • Posttest assessment.	• Snack (brought by the facilitators and the participants). • The program´s final message.

1.3.5) Statistical procedure

After its collection, the data (sociodemographic and psychometric assessment) was introduced and analyzed in IBM SPSS (Statistical Package for Social Sciences - version 25).

To define the statistical tests to be used, an exploratory data analysis was performed. The Kolmogorov-Smirnov test, asymmetry and kurtosis were used to analyze the normality of the distribution of variables.

This analysis revealed the existence of variables that did not assume an approximately normal distribution. Thus, given that not all assumptions for the use of parametric tests were met and given the fact that the sample does not follow an approximately normal distribution in all dependent variables analyzed and due to the fact that it was not randomly selected for its small size, a non-parametric statistic was used (Martins, 2011; Pais-Ribeiro, 2010).

Considering the formulated objective of this research (to assess the effectiveness of a positive psychological intervention program on mental health), it was decided to use difference tests once it was intended to assess whether there were differences in the experimental group before (pre-test) and after the positive psychological intervention (post-test) and whether there were differences between the comparison group and the experimental group in terms of well-being and psychopathology.

Thus, in order to evaluate the existence of pre and posttest differences in the variables of well-being and psychopathology in the experimental group, a within subjects design is presented. And, as mentioned above, in this case, the VI is the time moment and is defined by two conditions - pre-test and post-test data. The dependent variables (DV) are emotional/subjective, psychological, social well-being, anxiety, depression, and stress. Given that the requirements for the use of parametric statistics were not met, a use non-parametric statistic, in this case the Wilcoxon (*Z)* Test was used (Martins, 2011).

Descriptive statistics were also used to characterize the sample, through the distributions and frequencies of the sociodemographic data, the means of the dependent variables, as well as a previous analysis of the comparison between groups to analyze whether the groups are identical in terms of their characteristics.

In all statistical analyses, a $p<0.05$ was assumed as the critical significance value for the results. All the results with a significance level of $p<0.10$ were also considered marginally significant.

2.Results.

In this section, the results of the performed analyses will be presented, considering the objectives of this study. This presentation is merely descriptive, and the interpretation of the results is reserved for section 3.

Firstly, the results of the group equivalence tests at the pre-test, regarding dependent variables are presented and after the data about the effectiveness of the program is presented.

2.1) Group comparison at the pre-test.

In order to analyze if the experimental group and the comparison group were not statistically different in terms of sociodemographic characteristics and on the dependent variables at the pretest, a preliminary analysis using the Qui-square association test and Mann Whitney test was performed. It is important to underline that the control group is used to compare its results with the group that participated in the psychological intervention

Regarding the sociodemographic characteristics, it was not possible to identify statical differences between the two groups on the following variables: gender (χ^2 (1) = 0,1 p= 0,752), health problems (χ^2 *(1) = 1,427, p<0,232),* medication (χ^2 (1) = 2,330, p= 0,127).

It is also important to underline that it wasn´t necessary to do a Chi-Square analysis on the academic qualifications, because it was the same on both groups.

On the analysis of the other sociodemographic characteristics, it was possible to verify that on the 2x2 table was a note declaring that the cells (superior to 20%) had an expected count less than 5. On this case, it was necessary to do a *Fisher´s Exact Test (Martins, 2011).* The Fisher´s exact test results were age (p=11,338), health satisfaction (p= 0,298), quality of life (p=0,308). These results show that are no statistical differences between the groups on the mentioned variables.

It is also important to underline that it wasn´t necessary to do a Chi-Square analysis on the academic qualifications, because it was the same on both groups.

Table 4

Differences on the sociodemographic variables between the groups

Sample (n=40)	χ^2	Fisher´s Exact Test **
Gender	0,1	---------
Age	---------	11,338
Quality of Life	-------	0,308
Health Satisfaction	-------	0,298
Health Problems	1,423	-------
Medication	2,330	-------

**p>0,05*

*** Cells <20% had expected count less than 5. Trusty χ^2 values if the percentage is under 20%.*

Regarding the dependent variables at the pre-test, the comparison between both groups didn't show any statistical differences on emotional well-being, social well-being and psychological well-being. However, the groups are different on the psychopathology variables, concretely on stress variables, showing a tendency to

statistical significance (U =132.500, p= 0,066): the experimental group seem to present higher stress level.

Table 5

Statistical differences between groups in the pretest concerning the dependent measures Mann-Whitney Test).

	Experimental Group (N=20)	Comparison Group (N=20)	***U***
	Average (SD)	Average (SD)	
Emotional well-being	14,35 (2,277)	14,90 (1,889)	166,500
Social well-being	19,35 (3,748)	19,10 (4,352)	189,000
Psychological well-being	29,65 (3,014)	27,00 (6,009)	160,00
Anxiety	3,57 (3,876)	1,708 (1,992)	139,000
Depression	3,16 (3,505)	1,83 (2,122)	148,500
Stress	6,35 (3,133)	4,81 (4,261)	132,500 *

* p<0,05

As a matter of fact, the groups are equivalent in the sociodemographic variables and the well-being variables. However, they vary in the stress subscale (assessed by the DASS-21), where the experimental group presented higher levels. This higher score on the experimental group in the stress variables can be explained by the fact that these individuals chose the program to promote positive mental health.

In the following sections, the results regarding the effectiveness of the program are presented.

2.2) Results about the effectiveness of program.

In this section are presented the quantitative results regarding the impact of the positive psychology intervention program on well-being (MHC-SF - emotional, social and psychological well-being) and psychopathology (DASS-21 - anxiety, depression and stress). These variables were assessed in two temporal moments: pre and post intervention.

The aim was to analyze the existence of statistically significant differences between the pre and posttest moments in the experimental and comparison groups, as well as the differences between the comparison group and the experimental group concerning the same variables at the post test moment.

2.3) Results regarding well-being

The descriptive analyses regarding the levels of well-being (MHC-SF) of the experimental group (EG) show that the participants have overall high levels of well-being in both assessment moments (pre and posttest) (Table 6). They report having feelings of happiness, good mood; they feel calm and satisfied with life (emotional well-being subscale), they also feel that they have a purpose in life, are able to accept themselves, feel capable/aware of the environment, are autonomous, are able to establish positive relationships with others (psychological well-being subscale), perceive themselves as being able to contribute to their groups, to integrate, to be a part of a society/community and to trust others (social well-being subscale).

Using inferential statistics, it is possible to observe that, concerning the psychological well-being, the existing differences were not significant between the pre- and post-intervention periods (Z= -0,831, $p = 0.406$), even with the increase of the average (posttest average 30,35). There weren´t also significantly statistic differences on emotional well-being (Z = -1,042, p = 0.297), even with the increase of the average (posttest average = 14,50). On the other hand, regarding social well-being, significant differences were found between the two time periods (Z = -2,160, p = 0,03.

Table 6

Differences on well-being at pre and posttest in the experimental group (Wilcoxon Test

	Pre -Test (*N*=20)	**Post-Test (*N*=20)**	**Z**
	Average (SD)	Avarage (SD)	
Emotional Well-being	14,35 (2,27)	14,50 (2,395)	-1,042
Psychological Well-being	29,65 (3,014)	30,35(3,990)	-0,831
Social Well-being	19,95 (3,748)	22,50 (3,663)	-2,160*

*p<0,05

Concerning the comparison group (CG), the individuals presented high levels of well-being in both moments of the assessment. There is a decrease in the mean scores for emotional well-being (Z= -1,118, p= 0,264) and social well-being *(*Z= -0,438, p= 0,662) and an increase in the psychological well-being score (Z= -0,548 p= 0.584), with no significant values (Table

Table 7

Differences on well-being at pre and posttest in the comparison group (Wilcoxon Test)

	Pre-Test (*n*=20)	**Posttest (*n*=20)**	**Z**
	Average (*SD*)	Average (*SD*)	
Emotional well-being	14,90 (1,889)	14,40(2,088)	-1,118
Psychological well-being	27,00 (3,014)	27,70 (5.620)	-0,548
Social well-being	19,10 (3,748)	2218,95 (4,395)	-0,438

When comparing the two groups at the post-intervention moment, the mean values of emotional, psychological, and social well-being were higher in the EG.

No significant differences were found in emotional well-being (*U*=188,500, *p*= 0.753) and in psychological well-being (U=148,500, p= 0.162). In respect to the social well-being construct, the differences are significant between the two groups (*U*=113,000 *p*= 0.018), being also higher in the EG (Table 7).

In conclusion, the participants in the program felt, on the average, more socially integrated; with a greater sense of cohesion; acceptance; happier and more satisfied with life. They also seem to be more autonomous and have the ability to establish more positive relationships with others and also have greater social coherence when compared to the comparison group

Table 8

Differences on well-being between groups at posttest (Mann-Whitney Test)

	Experimental Group (*n*=20)	Comparison Group (*n*=20)		
	Average (*SD*)	Average (*SD*)	*U*	*P*
Emotional well-being	14,50 (2,395)	14,40 (2,008)	188,500	0,753
Psychological well-being	30,35 (3,990)	27,70 (5,620)	148,500	0,162
Social-well being	22,50 (3,663)	18,95(4,395)	113,00	0,018*

**p*<0,05

2.4) Results regarding psychopathology

In terms of psychopathology (assessed by the DASS-21), participants in the experimental group had low levels of psychopathological symptoms, namely anxiety, depression, and stress. Since the cut-off point is 10.5 points (half of the maximum score

for each subscale), the average results obtained show that they are below this cut-off point in all dimensions.

Verifying the data obtained in the post intervention in the experimental group, it can be observed that there was a decrease in all dimensions (anxiety, depression, and stress), showing that in this period the participants seem to feel: more excited; confident; more relaxed; more resistant to frustration; more patient; showing less situational anxiety; fewer subjective experiences of anxiety, and less intense fear responses after participating in the program.

In what respects to the results of inferential statistics, it indicates the existence of statistically significant differences between the two moments (pre and posttest) at the level of anxiety (Z = -2.972, p = 0.003).

To sum up, at the psychopathological level the results of the experimental group indicate a decrease in the levels of anxiety, depression, and stress after participation in the program.

Table 9

Differences in psychopathology at pre and posttest in the experimental group (Wilcoxon test)

	Pre-Test (*n*=20)	**Post Test** *(n=20)*	**Z**
	Average (*SD*)	Average (*SD)*	
Anxiety	3,57 (3,876)	2,30(2,904)	-2,972*
Depression	3,16 (3,505)	2,45 (2,012)	-1,015
Stress	6,35 (3,133)	6,20 (3,318)	-0,095

**p<0,05*

In the comparison group, the mean values obtained in all subscales were higher in the post-test with an increase in the mean scores. It can be said, therefore, that the CG participants (who did not participate in the program) at the post-test assessment seem to have higher levels of negative affect. However, the differences between the two-time assessments were not significant (anxiety - Z = -0,951, p = 0.332; depression - Z = -1,034 p = 0.301; stress - Z = -1,142, p = 0.253),

Table 10

Differences in psychopathology at pre and posttest in the comparison group (Wilcoxon-Test)

	Pre-Test (*n*=20)	**PosTest (*n*=20)**	**Z**
	Average (SD)	Average (SD)	
Anxiety	1,70 (1,922)	2,50(2,982)	-0.951
Depression	1,82 (2,122)	3,10 (4,090)	-1,034
Stress	4,81 (4,261)	6,35 (4,826)	-1,142

**p<0,05*

When comparing the two groups at post-test assessment, no statistically significant differences were found. The levels of anxiety (U=193,500, p= 0.857), depression (U=187,500, p= 0.731) and stress (U=196,000 p= 0,913) vary between the experimental group and the comparison group, but these differences are not statistically significant (Table 11).

Table 11

Differences on psychopathology between groups at posttest (Mann-Whitney Test)

	Experimental Group (*n=20*)	Comparison Group (*n=20*)		
	Average (*SD)*	Average (*SD*)	*U*	*P*
Anxiety	2,30(2,904)	2,50(2,982)	193,500	0,857
Depression	2,45 (2,012)	3,10 (4,090)	187,500	0,731
Stress	6,20 (3,318)	6,35 (4,826)	196,000	0,913

In fact, through this descriptive and inferential analysis of the results concerning the psychopathological measures, the sample shows reduced symptoms in both moments.

It is possible to notice some differences, namely in the experimental group, with a significant reduction in anxiety, depression, and stress. When comparing the two groups, although there are no significant differences, the EG shows lower mean values in the depression and anxiety variables, as they were higher in the pre-test.

In this sense, according to the empirical research, the participation in the program seems to positively affect the levels of WB and psychopathology, improving the daily lifestyle of the individuals.

3. Discussion

Here it is presented the discussion and critical analysis of the results obtained with the positive group intervention, comparing them with the theoretical framework of reference, in order to better integrate the results and reach the meaning of the results. The discussion will follow the order in which they were previously presented.

In the pre-test, the groups did not differ significantly in the sociodemographic variables nor in the dependent variables regarding emotional, social, and psychological well-being. However, regarding the psychopathology variables, it was found that the groups differed statistically in the stress variances, with the experimental group scoring higher levels. In what concerns the depression and anxiety variables, the experimental group had higher levels. Regarding the stress variable, there were no significant differences.

In the pre-test assessment, the groups did not differ significantly in the sociodemographic variables or in the dependent variables regarding emotional, social and psychological well-being. However, regarding the psychopathology variables, it was found that the groups differed statistically in stress variables, with the experimental group having higher levels. Regarding the anxiety and depression variables, there were no statistically significant differences. It is possible to state that the groups are homogeneous regarding the sociodemographic variables and the levels of well-being. However, the differences at the psychopathological level (stress) in the EG may be understood by the fact that these individuals wanted to participate in the intervention when compared to others, i.e., the participants were aware that they needed to improve their mental health. Within the existing literature, stress related to academics is ranked as one of the most common stressors faced by college students (Beiter et al., 2015).

The program purpose was to help participants learn some strategies to enhance positive emotions experienced in daily life, as well as strategies to cope with adversity, based on positive psychology. The program practiced different constructs (gratitude, forgiveness, spirituality, mental rumination, social comparison, among others), as

mentioned above, as well as strategies that empirical studies show to be effective in promoting mental health.

It is possible to verify in the pre-intervention, through the data collected by the mental health continuum scale (MHC-SF) and the anxiety, depression, and stress scale (DASS-21), that in a first descriptive analysis the sample already had high levels of well-being and reduced scores in psychopathology, proving that the sample is nonclinical, as proposed by the study. More specifically, in both groups (comparison/experimental) the mean scores obtained suggest that the participants perceive themselves as using their potential and enjoying their lives to the fullest (mental health)

Regarding well-being, when the differences in the experimental group were explored between the two moments of evaluation, it was found that the participants tended to have higher levels of well-being, particularly social well-being (statistically significant value). The participants in this group felt significantly more socially integrated, felt more socially accepted, felt a greater sense of contribution to the group to which they socially belonged, as well as more social cohesion and integration.

When comparing the two groups, the mean values of emotional, psychological, and social well-being were found to be higher in the EG. However, the values were significant in social well-being (significant value). It can be stated that the program has main impact on these constructs.

This significant improvement in social well-being in the experimental group at the post-test assessment may be explained by the use of therapy format: the fact that a group psychological intervention was developed. Several studies have shown that this format of interventions can promote social support, allows individuals to encourage each other to share similar experiences, build a social network, and provide social support (Hamill et al., 2022; Carballeira et al., 2016).

Although the program did not include specific exercises or activities that seem to be directly related to the promotion of social well-being, the format of therapy and its inherent mechanisms may have contributed to these results (social well-being). Specifically, group interventions allow subjects to have a space where they can share experiences, learn through the experiences of others, have feedback from others, group cohesion, feel stimulated by the progress of other participants, promote hope, and may serve as mediators of the change process (Burlingame et al., 2018; Couto & Vicente, 2018). So, one of the positive aspects of the program seems to be related to the format, being this an important aspect for the practice.

In terms of psychopathology, the experimental group showed significantly lower levels of anxiety, which suggests that the exercises used in this program may have made it possible to achieve these results. In particular, in the program, exercises were used to reduce mental rumination and social comparison, aspects that are often linked to high levels of anxiety in individuals and to processes that negatively impact anxiety (Watkins & Roberts, 2020).

In addition, the program included gratitude exercises that may have also contributed as a protective factor for experiencing lower levels of anxiety. Studies show that gratitude can have a protective effect against anxiety (Sun et al., 2020).

It may, therefore, be stated that, in relation to the experimental group, the intervention program seems to have contributed to the promotion of mental health (decrease in psychopathological symptoms and increase in well-being) in the previously mentioned dimensions. These results add support to the numerous studies on the effectiveness of positive psychology interventions that mainly report improvements in dimensions such as well-being and a significant decrease in anxiety traits (Dijkstra et al., 2017; Krahnen et al., 2022 Shoshani & Steinmetz, 2013).

In the comparison between groups as well as in the CG there were no significant differences. An important aspect to consider is that in the pre-test, the members of the experimental groups had higher values of depression and anxiety than in the control group. After the intervention, these differences are no longer significant, and it can be stated that the program had a positive impact on the mental health of the participants.

In fact, the results obtained show that, for the EG, the program seems to have contributed to the promotion of mental health (decrease in psychopathological symptoms and increase in well-being) in the previously mentioned dimensions. These results are in line with some studies on the effectiveness of positive psychology interventions (Dambrun & Dubuy, 2014; Heekerens et al 2022, Lambert et al 2019).

Conclusion

This study aimed to evaluate the effectiveness of a positive psychology intervention program in a group, using positive exercises (described in the literature as effective) to promote and develop well-being and mental health.

In the first part of this analysis, it was possible to verify, through the literature review, that there is strong scientific evidence of the effectiveness of programs that promote well-being and mental health that are based on the practice of positive exercises. Through simple cognitive-behavioral strategies, sometimes self-administered, it is possible to promote positive feelings, thoughts, and behaviors. These benefits are seen in different domains such as: decreased psychopathology, increased levels of emotional and psychological and social well-being.

In general, it can be said that the results of this study confirm what is described in the literature through the already performed studies. As for the pre and post results in the evaluation of well-being, both in the assessment of the EG and in the comparison of the two groups, show that it had an impact in increasing well-being. Especially in social well-being. It is possible to verify that the program promoted in the participants a sense of purpose in life, they feel capable, autonomous, are able to establish positive relationships with others, identify themselves as able to contribute to the group where they are inserted, to integrate, to be part of a society, and to trust others. An important aspect of this program was that it took place in a group setting, as it seems to have a significant impact on social well-being.

Concerning the pre- and post-intervention evaluation in the EG only, regarding psychopathology, the results are also in agreement with the literature review. It is observed that there was a decrease in all dimensions (anxiety, depression, and stress), showing that in this period the participants seem to feel: more cheerful; confident; more relaxed; more resistant to frustration; more patient; less situational anxiety; fewer subjective experiences of anxiety, and less intense fear responses after participating in the program.

The results confirmed some of the data described in the literature, namely its significant benefits in promoting social well-being and the significant reduction in anxiety levels, compared to the group that had no intervention. These data leads to consider the effectiveness of the program in promoting some aspects of mental health.

Some important aspects for the practice emerged from the application of this program. Namely, the fact that it took place in a group intervention context, which seems to have had a significantly positive impact on social well-being.

This study presented some limitations, particularly the sampling process: the sample was not randomly selected, but selected by convenience, which makes it impossible to interpret conclusions. The sample size can also be considered a limitation as it consists of only 40 participants.

Thus, in future research it would be relevant to address these limitations by changing the sampling process, with the formation of groups of a random sample, as well as increasing the sample size to provide the possibility of generalizing the results. It would be equally important to do a follow-up session in order understand whether the differences have been maintained over time and if the participants applied them to their daily lives.

It is also relevant to say that the fact that this program was done in a group with first-year Psychology students may have contributed to the emergence of a significant impact on social well-being when comparing the two groups there are significant changes. It could be relevant, for future research, to conduct these programs in the reception of university students. The students with good mental health are more successful academically, being their social, emotional and decision-making skills affected positively, which leads to good academic performance.

In this sense, it is important to continue to develop studies in this area. This type of study increases the scientific knowledge about positive psychological interventions in the Portuguese population, providing the perception that mental health is a complex concept and that it does not only comprehend the absence of psychopathology, but also promotes the existence of high levels of well-being. Since there are few studies on this subject in Portugal, it is urgent to develop new research that point in this direction. In addition, for future research, we suggest changing the sample selection process and increasing the number of participants. The sample should be followed over time to verify changes.

Therefore, it is essential to investigate in this area to develop programs for the promotion of well-being.

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Anexes

Anex A: Socio-demographic questionaire

Anex B- MHC-SH

Anex C: DASS-21

Anex D: Ethics Comitee Report

Anex E: Informed Consent