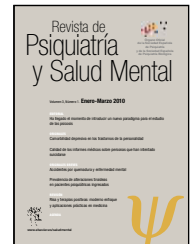


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REVIEW

Laughter and Positive Therapies: Modern Approach and Practical Use in Medicine

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Abstract

The exploration of the possible strategies centered in positive emotions is a suggestion to investigate and probably useful to raise the efficiency of therapeutic interventions. Laughter and humor have been classified as part of the 24 personal strengths and are considered as one of the activities that encourage personal well-being, savoring, and promoting flow states. Laughter therapy, classified within alternative or complementary therapies in medicine, includes a group of techniques and therapeutic interventions aimed to achieve laughter experiences which result in health-related outcomes, both physiological and psychological. Recent advent of positive psychology has developed high interest and expectations in the benefits of adding positive techniques to laughter therapy (and to other mind-body therapies). Consequently with this modern approach positive laughter therapy was born, as add-on to conventional laughter therapy and positive psychology, with its contributions and limitations. Health professionals can exert an important role in order to disseminate overall benefits of “positive therapies” while applying them in real-world clinical settings, for both patients and themselves.

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PALABRAS CLAVE

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aplicada;
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alternativa

Risa y terapias positivas: moderno enfoque y aplicaciones prácticas en medicina**Resumen**

La exploración de las posibilidades de estrategias centradas en las emociones positivas es algo sugerente para la investigación y muy probablemente útil para incrementar la eficacia de los tratamientos. La risa y el humor se han clasificado dentro de las 24 fortalezas personales y se los considera una de las actividades más proclives al bienestar subjetivo, el saboreo y la promoción de los estados de flujo. La terapia de la risa, clasificable entre las terapias alternativas o complementarias en medicina, es el conjunto de técnicas e intervenciones terapéuticas para conseguir experimentar risa que se traduzca en los beneficios fisiológicos y psicológicos conocidos. El reciente advenimiento de la psicología positiva ha despertado un grandísimo interés y expectación sobre los beneficios de aplicar el trabajo con recursos positivos a la terapia de la risa (y a otras terapias mente-cuerpo). Por lo tanto, nace con este moderno enfoque, la terapia positiva con risa, como complemento de la terapia de la risa “general” y de la psicología positiva, con sus aportaciones y sus limitaciones. Los profesionales sanitarios pueden ejercer un importante papel para difundir los beneficios de las “terapias positivas” y aplicarlas en condiciones reales, tanto para los pacientes como para ellos mismos.

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“Laughter is the poetic voice of positive emotions”

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vocabulary terms for negative emotions than positive emotions, and this situation making it more likely that the effect of negative states, rather than positive and pleasant ones, is highlighted.

Positive Emotions and Health

Whenever human emotions have been studied, much more importance has traditionally been given to negative emotions rather than positive ones. Based on the fact that their adaptive value has been proven essential in humans, the study of positive emotions is necessary and should be approached with the same scientific rigour. However, positive and negative emotions are not mutually exclusive but both are part of the same person and are expressed in a multidimensional way, so both types of emotions have to be considered independently. Reducing negative emotions, for example, will not result in an increase in positive ones. For Seligman,¹ positive emotions can be determined and classified according to thoughts from the past (contentment, pride, complacency, etc.), the present (joy, triumph, amusement, elevation, fluency, etc.) and the future (optimism, confidence, hope, faith, etc.). All are independent and can occur together or individually.

The following have been described as among the benefits of positive emotions: a) they improve the way of thinking;^{2,3} b) they are related to health, increased well-being, better quality of life and survival,^{4,5} and c) they help in dealing with adversity.^{6,7} Therefore, continuing to explore the possibilities of positive strategies is a subject worthy of research and very likely to increase the effectiveness of treatments. However, first an effort to observe and identify positive emotional states must be made, to try and intensify them later. This is due to there being more

Optimism and Happiness

Optimism is a psychological disposition that is linked to positive expectations and future projects;⁸ although it also refers to the way we explain life's events to ourselves.⁹ An optimist is one who interprets his setbacks as caused by external circumstances which are specific, surmountable and transient. Pessimists, on the other hand, think the cause of their problems is internal, personal, general and permanent. And exactly the opposite occurs for positive developments: optimists believe they have an internal cause, are general and permanent, while pessimists believe they are due to external, temporary and specific reasons.

Optimism is one of the most important positive emotions in positive psychology research. It is the modern branch of psychology that seeks to understand the processes that underlie the personal strengths and positive emotions of being human through scientific research.¹⁰ Optimism does not imply the denial or avoidance of problems and is not the only valid way to deal with life.¹¹ There are times when negative thinking is positive. Hence, positive psychology advocates a flexible or intelligent optimism,¹² which is adaptable to the states of alert needed to confront different situations. It has been consistently shown that optimism affects health, welfare and the quality of life^{13,14}; it reduces suffering and unease, determines the manner in which we face up to anxiety and stress, and brings with it healthier habits for life. There are many studies

linking optimism with health and longevity.¹⁵ Although it is known that genes influence the development of an optimistic or pessimistic personality, many other variables and environmental circumstances determine the way of dealing with different situations that occur in life. However, it is possible to educate these towards optimism through cognitive therapy techniques, such as the Seligman model.¹⁶ This establishes an alternative inner dialogue leading to the suppression or modification of pessimistic thoughts by questioning beliefs.

Available studies seem to show that most people say they are “happy”. Although it is known that one can be born with an inherited happiness, which can be up to 50% of the total, the other half of happiness is “acquired”, depending on the environment and, especially, personality - the most important factor with explanatory power. The introversion-extroversion pairing, especially, is a constant in many different studies, countries and cultures.^{17,18} Extroverts tend to laugh and have fun more often and are happier than introverts. But what really seems to matter, according to available studies, is not whether you are outgoing or not, but whether you have outgoing people around you, and to behave and act similarly. Every person, regardless of their personality, can modify their behaviour and learn to act with a certain degree of extroversion and to increase, accumulate or “acquire” more happiness.

Happiness is a concept with many nuances and connotations, therefore in, biomedical literature it is preferable to use the term subjective well-being,¹⁹ which is more neutral and has less connotations attached to it; although its definition is still complex and goes beyond simple experimentation with pleasure and good times (hedonistic theories). It can include both positive emotions (joy, inspiration, triumph, fun, hope, love, etc.) and other not exactly positive emotions (challenge, commitment, pain, etc.). This demonstrates how complex the human experience of “happiness” can be, where both positive and negative emotions overlap and coexist. Seligman¹ distinguishes three types of happiness: the pleasurable life, based on the accumulation of pleasures, the good life, based on experiencing positive emotions, and the meaningful life, which involves gratification. The latter is a much more longer-lasting state, involving more thoughts and emotions, and which comes into contact with virtues and personal strengths developed and expressed through the will. Gratification is usually accompanied by states or experiences of flow,²⁰ during which time flies and the person is totally absorbed, savouring the present, involved in an activity for its own pleasure and enjoyment. For example, physical activities (sports, dancing, yoga, etc.), activities with senses (music, art, food, etc.), intellectual activities (writing, reading, poetry, theatre, languages) and laughter and humour (described as one of the 24 personal strengths²¹) are the most prone to savouring and the promotion of states of flow.

Laughter and Humour: Some Initial Definitions

Although a complete dissertation on the theories of laughter and humour is beyond the scope of this review,

some concepts and definitions are necessary for an introduction. In everyday language, there is little agreement and much confusion in the application of this terminology, which is compounded by the many nuances and meanings imposed by different languages. For our purposes, humour is defined as one of the stimuli that can help us to laugh and be happy. Sense of humour is a psychological trait that varies considerably and can respond to different types of humorous stimuli. And laughter is a psycho-physiological response^{22,23} to humour or any other similar stimuli (positive emotions, pleasant thoughts, or by their spreading, etc.) whose external characteristics are²⁴: a) strong contractions of the diaphragm accompanied by repetitive syllabic vocalisations, typically heard as “ha, ha” or “ho, ho”, b) characteristic facial expression, c) body movements, and d) a series of associated neurophysiological processes. Internally, laughter is associated with an identifiable positive emotion (hilarity). Consequently, humour and laughter are different events (though often related). While humour is a stimulus and can occur without laughter, laughter is an emotion/ response and can occur without humour.¹⁶

Laughter Therapy: Indications and Dosage

The biomedical literature available to date supports different indications and physiological benefits of laughter (table 1).²⁴⁻²⁸ Consequently, laughter therapy, falling between complementary or alternative therapies, is the set of techniques and mind-body therapeutic interventions (applicable to a person or a group) that lead to a controlled state/feeling of lack of inhibition in experiencing laughter that translates into the health benefits described.²⁹ Laughter is universally well tolerated, with very limited side effects. Contraindications are almost non-existent, although caution is advised in patients with certain health conditions, such as recent surgery, heart disease or glaucoma. In either case, laughter is not indicated when it involves clear discomfort or additional pain.

In the clinical setting, laughter therapy can be used with preventive intent or as a complementary or alternative therapeutic option to other established therapeutic strategies. In the social field, it is mainly for preventive interventions aimed at promoting health benefits in the workplace, the community, or family or personal surroundings. Each individual laughter therapy session has to ensure that “intense laughing out loud”, can be experienced either alone or in groups, supported with abdominal pressure and appropriate projection of the voice, for at least 3 min in total per session. The minimum duration of an individual session is 20 min (with a recommended maximum of 2hr), and there should be a minimum of two sessions per week during a total of at least 8 weeks. After the recommended first eight weeks, the results of the programme are evaluated on an individual basis (therapeutic response depending on the initial conditions), and the appropriateness of extending it considered as a consequence.²⁹

Table 1 Physiological and psychological benefits of laughter

Physiological	Psychological
It exercises and relaxes the muscles	It reduces stress and the symptoms of depression and anxiety
It exercises and improves breathing	It elevates mood, self-esteem, hope, energy and vigour
It reduces concentrations of stress hormones	It improves memory, creative thinking and problem solving
It stimulates circulation	It improves interpersonal interaction, social relationships, attraction and approachability
It stimulates the immune system	It increases friendliness and collaboration and facilitates group identity, solidarity and cohesiveness
It raises the pain threshold and tolerance	It promotes psychological well-being
It improves mental function	It improves doctor-patient relationship and quality of life
	It intensifies hilarity and is highly contagious

Laughter and Positive Therapies: the Modern Approach

The recent advent of positive psychology has aroused great interest and excitement about the benefits of applying work with positive resources for laughter therapy (and other mind-body therapies). Instead of trying to eliminate the states of distress, the therapist can teach the individual or patient to function optimally in spite of this condition or state. If from the first contact the qualities and positive experiences of the individual are included, therapeutic intervention not only takes into account the modification or elimination of “symptoms” but also the construction of potential, so one can assume an additional therapeutic effect. As a result, positive therapies have arisen with this modern focus, and among these is positive therapy with laughter, as we have defined, as a complementary intervention to “general” laughter therapy and positive psychology, with its contributions and its limitations.²⁴ However, it is important to note that the term “positive” is not designed to filter reality by minimising or eliminating the importance of the dysfunctional or negative, or assume that positive emotions are good and negative ones are bad in their own right (they depend on the situation or circumstances they appear in). Neither does it recommend that it is necessary to laugh at all times, or be optimistic and happy (but to describe the consequences of these features), among other considerations. This is nothing new in terms of concepts, but it makes it possible to increase interest, research, balance and implementation of everything to do with laughter and positive resources (as opposed to negative). It is not a self-help exercise or a magic wand for achieving well-being and happiness. Neither is it an opportunistic marketing tool. However, in the path towards its application, it is faced with a major threat, common to other complementary or alternative disciplines in medicine: straying from the scientific method. It can be dangerously seductive to apply “positive therapy” based more on experiences, ways of operating, intuition or personal beliefs than on facts (“evidence”) provided by biomedical research. Studies made in the following areas of medicine can target the “evidence” now available on laughter therapy and its applications: oncology,³⁰⁻³³ allergy

and dermatology,^{34,35} immunology,^{36,37} pneumology,³⁸⁻⁴⁰ cardiology, endocrinology and metabolism,⁴¹⁻⁴³ internal medicine and rheumatology,⁴⁴ rehabilitation,^{45,46} psychiatry and medical psychology,⁴⁷⁻⁵⁰ neurology and neuroimaging,⁵¹⁻⁵⁷ biophysics and acoustics,⁵⁸⁻⁶² geriatrics and ageing,⁶³⁻⁶⁵ paediatrics,⁶⁶⁻⁶⁸ obstetrics,⁶⁹ surgery,⁷⁰⁻⁷² odontology,⁷³⁻⁷⁵ nursing and patient care,⁷⁶⁻⁸⁵ palliative care and care for terminally ill patients,⁸⁶⁻⁹³ primary health care⁹⁴⁻⁹⁷, epidemiology and public health^{98,99}, complementary and alternative medicines^{100,101} and medical education and training.¹⁰²⁻¹⁰⁴ However, the difficulty of distinguishing the laughter of humour can add methodological limitations in assessing the results, confusion or additional opportunities. Hence, the therapist must constantly strive for its integrity and scientific rigour, the main vision and mission of health practitioners involved in this specialty.

Positive Therapy with Laughter: Practical Applications

Laughter is one of the most frequent and appealing of positive emotions. Its benefits depend not only on the expression of laughter itself, but on the underlying positive emotion, hilarity. Among other therapeutic qualities, laughter is a lethal weapon against negative thinking. Laughter allows a person to enjoy his/ her real self. Raucous laughter dispels brooding. And when it is installed as a fortress, when the foundations are solid, the body begins to celebrate it. There may be dramatic changes. Posture can take on an open, flexible and harmonious form. The body and mind laugh and enjoy and radiate health, satisfaction and power. And the environment benefits from the state of well-being. As a result, more health professionals are increasingly beginning to apply laughter and positive techniques in their therapeutic interventions. In recent years a series of exercises has been developed, with drills for happiness or well-being, designed to put to work and deploy the positive resources of people.¹⁰⁵ Table 2 shows some of the well-being exercises that can be offered in positive therapy with laughter, both individually and in groups, and easily implemented in routine clinical practice as complementary or alternative therapy. Factors that may

Table 2 Positive therapy with laughter: some “happiness or well-being exercises” of practical application in medicine

Laughter table	Draw up a table with three columns and write down the names of all the people you care about in the first: family members, friends, workmates, etc. In the second column, rate their overall level of good humour, laughter, optimism or happiness, from 0 (minimum) to 10 (maximum). In the third, write down the reasons why. Re-read the table, choose those people with higher scores and compare them with yourself to identify areas for improvement and guidelines to follow
Gratitude laughter	Gratitude is a personality trait closely associated with satisfaction in life and a subjective state of happiness. Think of a person who on some occasion in your life has been particularly good, generous and helpful in difficult times, but whom you have not yet had the opportunity of thanking. Write a “letter of thanks”, and describe in detail all the reasons why. If possible, personally deliver the letter, alternatively, send it by e-mail or similar. After several days, try to meet or talk to that person. It is a very emotional and liberating experience
The three good laughs	This exercise modifies attention and memory and provides a greater awareness of positive emotional states. Every night for a week, write down three good things that have happened in the day in a “diary”. Read them the next morning after getting up and, after finishing reading each one of the three, laugh out loud. After a week, continue the exercise as a daily routine, but without writing anything in the diary
Laughter without borders	In the long run, helping others gives you more pleasure than seeking the satisfaction of personal pleasure. Personal pleasure is fleeting; love and concern for others remain. For a week, choose and perform something pleasant and enjoyable, one for yourself and another aimed at helping others, devoting equal time to each. Compare and contrast your feelings after each activity
Gift of laughter	Plan a gift of spending time laughing with a loved one, and then give it to that person. It only involves doing something together or doing something for him/ her, and spend as much time laughing as possible, without watching the clock. Just that
Legacy of laughter	Imagine you are not long for this world. Write a letter in the third person (as if it were others talking about you), detailing in a realistic and moderate way how you want to be remembered and how you want your life to have been. Save the letter, then read it after a while (at least a year), and consider if it is still valid or should be rewritten because new laughs, accomplishments and goals have arisen
My best laughs!	For at least 2 consecutive weeks, rate every day that passes from 0 (a terrible day) to 10 (a fantastic day). Write down the reasons why, and if good humour and laughter were present that day. At the end of the period, try to find patterns that identify bad days and good days, laughing days and non-laughing days, to develop a strategy to maximise the good days and minimise bad ones
Reconciliation with the last laugh	On a sheet of paper, write down the most important and enjoyable events and positive experiences that occurred in the past. Every time in the future you are surprised by reproaching yourself for things you haven't done, laughed about or managed in the past, re-read the text
A dictionary of laughter	Taking the normal meaning of negative words and expressions, identify the most frequently used ones and give them a new affirmative and positive definition. For example, a “problem” in the new Dictionary of Laughter, could be re-defined as “a challenge to creativity”
The laughter gym	Perform a series of simple exercises repeatedly and consecutively, which little by little will bring you a sense of joy, playfulness, fun and hilarity, so you can experience the physiological and psychological benefits of laughter. It consists of: a) breathing in and breathing out exercises and stretching, b) practising laughing unconditionally without any reason or by a deliberate rehearsal or release exercises, and c) mimic everyday activities or situations replacing movements and words with laughter
The artistic laugh	Choose a picture, preferably of abstract art, and organise a group discussion concentrating on the personal interpretation that each makes of its meaning. While this involves both positive and negative personal choices, at the end highlight the favourable aspects and more positive emotions among the participants

contribute to its success include: a) creating an emotional context that generates savouring and flow, b) an incentive for change, through the shared creation of new points of view, languages and discourse; c) the simultaneous presence of several communication channels and relation formats (laughter, humour, verbal and nonverbal language, art, music, dance, pairs, groups, etc.), and d) a hopeful attitude towards the future, which provides the energy to act, interact, communicate and dream in a different way. A positive programme therapy with laughter is not without its potential limitations, albeit rare, such as a difficulty in some situations to relax, be free of inhibitions and be able to laugh freely, without self-censorship, or an initial barrier to sharing or exposing certain personal issues, or the challenge posed by bringing people of different social strata to share therapy together.

Among others, one of the areas of medicine that can benefit most from modern approaches to positive therapies is the field of mental health and, in particular, mood disorders and anxiety, highly prevalent in society. Both disorders share the presence of a highly negative affliction, but only depression is characterised by a low positive affliction. Therefore, the therapist will work by reducing or eliminating the first and reinforcing the second. Health practitioners can play an important role in spreading the benefits of "positive therapy" and apply them in real conditions, both for patients and for themselves.

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