Humor and Psychotherapy

Presented to

The Faculty of the Adler Graduate School

In Partial Fulfillment of the Requirements for

the Degree of Master of Arts in

Adlerian Counseling and Psychotherapy

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Abstract

The notion that humor possesses therapeutic properties has long enjoyed widespread support. A popular view is that a greater sense of humor enhances both psychological well-being and physical health. This idea can be traced at least as far back as the ancient biblical maxim that “A cheerful disposition is good for your health; gloom and doom leave you bone-tired.” (The Message, Proverbs 17:22). The world over, humor and laughter are frequently presumed to be measures people can use to cope with life's difficulties. Such cultural beliefs are reflected in slogans such as “laughter is the best medicine”, and in lyrics such as “with a smile and a song life is just a bright sunny day, your cares fade away, and your heart is young” (from Snow White and the Seven Swarfs, Disney) and “Pack up your troubles in your old kit bag and smile, smile, smile” (Powell, 1915). There is growing interest in humor research with humor and play conferences, newsletters, web sites, an international society for humor studies, psychology journal articles and an entire journal, *Humor*. Within the field of psychotherapy, there are textbooks and handbooks advocating the use of humor. There is also the American Association of Therapeutic Humor (AATH) which promotes the power of laughter and humor. The following reviews the research supporting both the positive and negative effects of humor as a tool in psychotherapy and the actual moderating effects a sense of humor has on stress, anxiety and depression.
Humor in Psychotherapy

Humor can broadly be defined as an approach to oneself and to others that is characterized by a flexible view allowing one to “discover, express or appreciate the ludicrous or absurdly incongruous” (Gove, 1961). Therapeutic humor includes both the intentionality and spontaneous use of humor techniques by a therapist or other health care professionals, which can lead to improvements in the self-understanding and behavior of clients. The AATH’s official definition of therapeutic humor is “any intervention that promotes health and wellness by stimulating a playful discovery, expression or appreciation of the absurdity or incongruity of life’s situations. This intervention may enhance health or be used as a complementary treatment of illness to facilitate healing or coping, whether physical, emotional, cognitive, social or spiritual (as cited in Franzini, 2001). No matter what the formal definition, it is believed that when we encounter humor we will recognize it. Cognitively, the humorous approach to life situations has the potential for broadening one’s perspective and for discovering new and surprising perceptions, reactions and solutions. Emotionally, humor is an avenue for discharging and relieving pent-up, conflictual and distressing affects (as cited in Rosenheim and Golan, 1986).

The utilization of a humorous approach in the process of psychotherapy has drawn growing interest. As we take into account the helpfulness of humor in psychotherapy, we naturally think of our own experiences with humor in both social and professional settings. There are times and situations when humor is appropriate and other times and situations when humor can be detrimental.
Humor as Detrimental in Psychotherapy

Lawrence Kubie is convinced of the possible harmfulness of humor in psychotherapy. He claims that, “humor has its place in life, but we should acknowledge that one place where it has a very limited role, if any, is in psychotherapy” (Kubie, 1971). For some, humor can have a humanizing influence and can sometimes ease certain kinds of tension and shyness, and thus bring about conversation and communication. Yet others may be frightened into silence even by a general impersonal tone of humor. Sometimes humor expresses true warmth and affection and at other times it is used to mask hostility behind false pretenses of friendship or to dull the sharpness of disagreement. Even in social situations, humor is not always kind. If we examine the therapeutic situation more closely, Kubie finds that only under special circumstances does humor aid the ability for the client to open up in a fashion that furthers the therapeutic process. Too often, Kubie believes, the client is derailed from their natural flow of feelings and thoughts by the therapist’s humor, and it may even halt or block the process of therapeutic results. Of primary importance is the question: to what extent the client was exposed to teasing and mockery in early childhood. The therapist inherits a client’s buried reactions to earlier humor. Only at the end of long analytic study will the therapist discover that some of the most destructive people in the story of a client’s life may have been those who always found something to smile about whenever the client was in pain. Many argue that if humor is not aimed openly and directly at the client, but rather at the client’s “opponents” in life, it communicates a human touch that can bridge gaps and bring client and therapist closer together. Kubie believes there is some measure of truth in this, but this truth is limited by the fact that it is hard for any client ever to feel sure
that he is not in some unacknowledged way the butt of this humor. This may be only because he
resents the fact that he is suffering while the therapist is taking things gaily and lightly. Kubie
believed that inexperienced therapists really do not know how to handle humor properly (Saper,
1987).

Parry (1975) gave a similar opinion. Parry believed it would be fatal to the relationship if
the therapist were to fall into the trap, treating as a jest something that is deeply felt by the client
(as cited in Saper, 1987). Without experience and proper training, a therapist may unintentionally
project his own unsolved problems, and in doing so use the client (or members of the client’s
family) as surrogates for his own parents, siblings, spouse, old friends, and so forth.

Psychotherapy is characterized by an intense joint effort to capture and comprehend the
needs, strivings, feelings and realities of the client. The highly charged psychotherapeutic
relationship is one of the most important relationships in the world, but also one of the most
subtle and difficult. Humor may impair the therapist’s necessary separation between a social and
a professional relationship. The sharing of humor automatically creates a powerful secret
emotional involvement.

Robin Haig (1986) lists the ways in which humor as a therapeutic tool has the potential to
be destructive:

1. Denial, repression, and suppression: The client (or therapist) may consistently
avoid conflicted areas, and deny pain by the utilization of humor, thus inhibiting
therapeutic progress.

2. Ingratiation: The client may try to reward or please the therapist with humor, to
gain acceptability, but also to conceal his hostility. The therapist who is alert to
this may beneficially interpret these aspects. The use of humor by the client to
express hostility in an acceptable way may be distinguished from its use to conceal hostility. In the first situation there is a facilitation of the expression and exploration of feelings sooner than in the second situation.

3. Hostile therapist: The therapist may use humor, particularly sarcasm, as a way of attacking his client.

4. Narcissistic therapist: The therapist may wish to demonstrate his ability and cleverness by utilizing humor in an exhibitionistic mode.

5. Undermining confidence in therapy as a professional enterprise: Humor if used excessively by the therapist may lead the client to doubt whether he is being taken seriously.

Another risk for using humor in psychotherapy is the risk that the client will use humor to divert or disguise their pain. The therapist must be careful that the client, who has a gift for humor, does not use this gift as a screening device or a way of seducing the therapist out of the therapeutic role into one of light participation in fun. Reynes and Allen (1987) claim that if a client tells a joke, or otherwise engages in humorous banter, it can be a type of resistance that ultimately requires interpretation of its defensive function. Alternatively, if the therapist responds with humor, it could be perceived as a counter transference and a distraction from therapy or, at worst, approval of the patient’s avoidance.

In a study by Rosenheim and Golan (1986), they explored the patient’s preference for humorous or nonhumorous therapist interventions. Hysterical, obsessive and depressive patients were presented with three kinds of humorous interventions; emotional confrontation, anxiety reduction and perspective development. The data indicated that the patients consistently preferred the non-humorous interventions, but the degree of this preference varied according to
their own personality style. Obsessive patients stood out in their avid dislike of humorous interventions. The results from this particular study suggest that the desirability of utilizing humor in therapy depends on an assortment of parameters including type of humor used, patient diagnosis and personality type, with personality type being the greatest determinant. The results of this study indicate that applying humorous interventions has to be carefully planned, paying attention to individual temperament and personality.

*Humor as a Useful Therapeutic Tool*

Even Kubie agreed that as a client gradually achieves a progressively deeper self-understanding, gentle and sympathetic humor can sometimes help to mobilize a resolve to use new insights so that the client can limit, control, and guide the symptomatic expression of what remains of the irrational behavior. In other words, as insight helps the client to emerge from the control of their unconscious thought patterns and behaviors, the integration of new insights and behaviors can sometimes be assisted by the light touch of humor (Kubie, 1971).

Recent years have witnessed a renewed interest in the experimental study of humor and the psychological functions that it serves. The first analyst who openly wrote about the positive application of humor and who maintained his standing in psychoanalytic circles was Martin Grotjahn. Grotjahn (1949) argued that humor could be an important therapeutic tool for the therapist and that there was nothing inherent in Freudian concepts that disproved its use. It might be argued that this was a marginalized viewpoint given that the initial place for publication of this paper was the Journal of The Indian Psycho-Analytic Society in Calcutta, hardly the mainstream of psychoanalytic theory and practice. Grotjahn believed that his ideas were consistent with Freud’s writings. Along with Freud’s concept that humor allowed the ego to temporarily transcend itself, Grotjahn (1957) noted that humor involved a form of conservation
of emotional expenditure. Humor can enhance the therapist’s tolerance of the patient’s traumatic and painful emotions and experiences. In specific circumstances humor can allow the therapist to establish and maintain an affective and effective connection to their patient while the patient is expressing extreme emotions such as deep sorrow, unremitting terror, acute anxiety or excruciating trauma. Humor can help the therapist from becoming flooded or overloaded with toxic emotions. Humor can protect both individuals in the dyad from overwhelming affects, even allowing them a form of enjoyment and close association.

Grotjahn (1957) wrote that jokes or humor exchanged between therapist and patient can be enlightening. He stated that there can be key therapeutic learning for the therapist when a patient spontaneously tells a joke or creates a humorous moment which can reveal the core of the patient’s problem. Grotjahn described a session in which one of his patients entered the office and shared a cartoon. The patient broke into uproarious laughter. Analysis of the cartoon and why the patient found it so amusing allowed the patient to reveal a relationship with a man whom the patient previously had a very close and intimate friendship. They had become estranged after an argument. Grotjahn reported that the cartoon had brought to light the unconscious issue and had thus facilitated the release of energy and enabled the patient to get to the root of the problem of repressed homosexual longing. The cartoon and the flow of laughter facilitated the discussion and lead to a deeper understanding of the patient’s unresolved problems.

The most commonly utilized conceptual framework underlying such studies is the notion, derived from both psychoanalytic (Freud, 1928) and learning-based (Byrne, 1956) approaches that humor serves to relieve tension (as cited in Smith 1971). The idea that humor may play a similar stress-moderating role is often accepted as a truism. Numerous psychological theorists
have regarded humor as an adaptive coping mechanism. Martin and Lefcourt (1983) cite that Freud regarded humor as the highest of the defensive mechanisms. According to Freud, humor provides a savings of emotional energy: “The essence of humor is that one covers up the distress to which the situation would naturally give rise and displays a humorous front to conceal an emotional display. This process is an extremely beneficial one—it has in it a liberating element, signifying the triumph not only of the ego, but also of the pleasure principle, which is strong enough to assert itself here in the face of the adverse real circumstances. There is both observational and experimental evidence to suggest that humor is capable of reducing negative affective states”.

Mosak (1987) cites five specific uses of humor in psychotherapy:

1. In establishing a relationship, humor helps patients open up and interact with their therapist.

2. In diagnosis, a patient’s relationship to his or her humor can reveal much about his or her general use of emotions. Also, the kinds of things a patient laughs at can be revealing.

3. To assist in interpretation, humor can provide a buffer that facilitates acceptance. Using humor, patients can begin to realize their suffering is not unique, they are not alone and that they have not been singled out to endure the current difficulty.

4. Often humor is an effective turning point in the therapy. Through paradox or exaggeration patients often reach a discovery regarding their irrational fear or assessment of their situation.

5. As a criterion for termination of services. Mosak and Maniaci explain that "patients who place their problems into perspective and acknowledge their role in
creating and maintaining those problems often rediscover their sense of humor.
Their private intelligence is realigned with common sense, and each frame of reference becomes balanced." (Mosak & Maniacci, 1993).

Haig (1986) also listed how humor can be constructively be used in therapy:

1. **Formation of the therapeutic alliance:** Humor furthers participation with the client in an inner experience involving naturalness and intimacy and can facilitate more gratifying contact with others.

2. **Breaking through the resistive plateau:** Humor enables freeing of rigid defenses, and contact with unconscious processes.

3. **The diminution of excessive anxiety:** Excessive anxiety may be modulated by therapist- (or client-) introduced humor.

4. **As an "affect releaser":** Humor may assist the client to express emotion and enable catharsis. This would appear to be related to but not identical with breaking through the resistive plateau.

5. **Fostering the self-observing capacity of the individual:** The ability to share in humor may involve the necessity to stand outside oneself (a humorous detachment). This vantage point may enable the client to better perceive his own blind spots and gain distance from and mastery over a fantasy world.

6. **Providing an acceptable outlet for feelings of hostility (by the client):** Humor may be a more acceptable way for clients to express hostile feelings initially.

7. **Assisting diagnosis:** The client's response to and use of humor may indicate his degree of maturity or regression.
8. Indicating the counter transference: If the therapist becomes excessively anxious about the client's humor or avoids humor at all costs this may be of importance in understanding the counter transference.

9. Building ego strength: Freud referred to the liberating effects of humor, and also to the humorist who acquires superiority by assuming the role of the grown-up and reducing other people to being children, i.e., the triumph of narcissism. He characterized the intention of humor in the following: "Look! Here is the world which seems so dangerous! It is nothing but a game for children, just worth making a jest about." However, whilst it may be helpful to triumph over the dangerous world, to transform pain or sadness into humor, which is regarded as one of the highest of the defensive processes, the triumph of narcissism may be a hollow victory if this leads to a denial of reality and an isolation of the narcissistic ego.

10. As a form of communication: The client whose normal mode of communication includes banter may require a therapist who is able to reciprocate and participate in his banter initially, in order to promote therapy. Adolescents may have difficulties in participating in psychotherapy, particularly if they feel talked down to, and sharing their banter may be a way of lessening their "disease."

11. Promoting the use of the transitional area: Freud regarded a joke in its formation as a thought put back to the stage of childhood, or developed play. A joke or humor arising in an interpersonal context could be viewed as a phenomenon occurring in the transitional area, described as the potential space between mother and infant, in which arises the area of play, interchange, and shared reality.
Spontaneous humor could assist the promotion of the use of the transitional area in therapy.

12. Free association and lateral thinking: Humor may enable the individual to draw on inner resources to make contact with areas that they may not be fully aware of which can widen their repertoire of available options for coping.

13. Iconoclastic function: Humor may enable the individual to adopt a position in which sacred cows and taboos are taken less seriously, albeit temporarily. During this temporary respite, a reorganization of attitudes may be initiated.

14. Improving palatability of interpretations: An interpretation delivered in a dead-pan manner may be less acceptable than one delivered with some humor. However, the paranoid client may perceive humor, or even a smile, as a hostile attack by the therapist.

15. Helping the therapist: A sense of humor outside therapy sessions may enable the therapist to cope with painful sessions and frustrating clients.

Similar enthusiastic acclamations of humor as a healthful coping strategy have been expressed by a number of theorists since Freud. Allport states “the neurotic who learns to laugh at himself may be on the way to self-management, perhaps to a cure”. Rollo May states that humor has the function of preserving the sense of self. It is the healthy way of feeling a distance between one's self and the problem, a way of standing off and looking at one's problem with perspective”. Dixon suggests that the beneficial effects of humor are produced by means of the cognitive shifts that it entails and the changes in affective quality that accompany it (as cited in Martin and Lefcourt 1983).
An important distinction made by Lehman (Lehman, Burke, Martin, Sultan, and Czech, 2001)) is between two types of humor, reactive versus productive. Reactive humor can be defined as humor appreciation, or the ability to accurately perceive and then respond to humorous stimuli in the environment. In these situations people are responding with a humor response (e.g., laughter, mirth, joy) to situations that most individuals would label as humorous without any use of self-cognitive appraisals or reappraisals of the situation. In contrast to reactive humor, there is the productive humor. Productive humor refers to an individual's ability to produce, construct, and actually use humor within situations that are not inherently humorous (Nezu, Nezu and Blissett, 1988). In these situations, the environment does not provide the humor. It is the cognitive appraisals or processes within the individual who perceives the environmental situation that produce the humor.

Children and adolescents can be seen to direct their humor spontaneously toward circumstances of greatest personal concern and worry. Humor designed in psychotherapy for adolescents has met with varying degrees of success. Without the proper care, a humorous remark may be destructive to the therapeutic relationship. The peril of the adolescent believing he or she is being belittled by the therapist is a risk of using humor during therapy. The therapist who is anxious to utilize any beneficial effects of humor appreciation must take special care to avoid alienating adolescents in treatment. A danger for the professional can be the apparent ease with which humorous remarks can be generated, for the therapist can often see the “folly” of the adolescent’s behavior quickly during therapy sessions. In order to utilize humor effectively in therapy within a guiding framework, Prerost originated the Humorous Imagery Situation Technique (HIST, Prerost, 1981), which uses the directed daydream as a foundation for the use of humor. Through the confronting of distressing life events with humor during imagery scenes,
the unpleasant effect and feelings of apprehension can be diminished. Because of the non-threatening nature of the HIST methods and its expressive nature, it is believed to be particularly useful in therapy with inhibited or isolated adolescents.

Response to humor is manifested both physiologically and psychologically (as cited in Szabo, 2003). An extensive electrical activity in the brain, engaging in whole cerebral cortex, has been observed in response to humor, which takes place before laughter. Then laughter, a general, but not universal, consequence of the appreciated humor is a form of inner jogging activity because it triggers a number of sympathetic responses similar to physical exercise (e.g., increases in heart rate, blood pressure, or breathing rate) without significant muscular activity. On the psychological side, it was reported that humor improves mood and reduces state anxiety. It may be assumed, therefore, that humor has positive psychological effects. However, the magnitude or the significance of these effects is still unknown.

Furthermore, research reveals that a good sense of humor is related to muscle relaxation, control of pain and discomfort, positive mood states, and overall psychological health including a healthy self-concept (as cited in Abel 2002). Kuiper et al. states, in terms of psychological health or well-being, several research findings support the proposal that those with greater sense of humor have a more positive self-concept, with higher levels of self-esteem, fewer dysfunctional self-evaluative standards, and lower levels of perceived stress, anxiety, and depression (as cited in Kuiper et al. 2004).

Reynes and Allen believe that the difference between psychoanalysis and psychotherapy is that in psychotherapy the relationship between the client and the therapist is more remedial and transactional with the emphasis on interaction, and that the interaction can be facilitated with humor (Reynes and Allen 1987). Freud himself reportedly told jokes to his patients upon
occasion and wrote of the psychological usefulness of humor in gratifying sexual and aggressive drives, which otherwise would be censored or frustrated (as cited in Franzini, 2001).

Mindess and Turek (1984) believed that the worst approach to using humor in psychotherapy is to plant a joke that is contrived, forced, and inappropriately pulled into therapy from nowhere without adequately preparing the client. A somewhat better technique is teasing or kidding the client naturally in a context of sufficient rapport and trust. The best technique is for the therapist to provide a role model for the client to imitate, letting the good humor spill over, as it were, into the therapeutic transaction. Salameh (1983) has presented a promising system for rating the levels of therapist humor. This 5-point Humor Rating Scale, which appears to have methodological significance and research potential, rates the therapists' input in the following terms: destructive humor, harmful humor, minimally helpful humor, very helpful humor, and outstandingly helpful humor. Salameh attempted to distinguish "therapeutic" from "harmful" humor (1983, p. 51). Therapeutic humor has an educative, corrective message, promotes cognitive-emotional equilibrium, attacks behaviors while affirming the essential worth of the client, acts as an "interpersonal lubricant," and so forth. On the other hand, harmful humor exacerbates client's problems, thwarts cognitive-emotional equilibrium, undermines personal worth, leaves a deleterious "bitter aftertaste," and so forth.

Winnicott (1958) took a congenial posture to humor in psychotherapy. He cited the sharing of a joke as a mutual creative act emerging from the overlap of "potential spaces" where meaningful communication occurs. The therapist's personal presence and willingness to engage with the patient in playful merger arouses in both participants heightened capacities for self-discovery and integration of previously segregated aspects of experience. Winnicott also suggested that the therapist is in a favorable position in such a merger to model for the patient a
more tolerable world view, an asset this author finds to be of particular relevance in work with narcissistically vulnerable patients whose exquisite sensitivities may impede rather than enhance their empathy for others. Schimel (1978) observed that humor used with care by a sensitive therapist with a talent for playfulness can help to decrease a patient's anxiety and increase capacities for self-reflection, while enabling a true dialogue to emerge in the therapeutic relationship (as cited in Ruvelson, 1988).

Greenwald (1975) found humor a very useful tool in dealing with people who have the feeling that they are helpless victims in the world. His major goal in therapy was to show people that they have options, choices and strength. One of the ways in which he did this is as follows: When a client describes their various problems in life that give them trouble, he would be struck with admiration at the vast creativity of many of their so-called neurotic productions. To a young woman who snatched disaster from victory, he said "You have a fantastic ability you never appreciated." "Me?" says she, "I'm a plain person. What kind of ability do I have?" "You have the ability, whenever something happens that anyone would think is marvelous, you turn it into a Greek tragedy. You are the modern Cassandra!" (as cited in Greenwald, 1975).

A balanced discussion of humor and psychotherapy is provided by Kuhlman (1984). Kuhlman's book is based on the premise that humor in psychotherapy has short-term and long-term effects that can be distinguished. The short-term effects are signaled by the tension-reduction, mirth, and other emotional responses that are the immediate consequences of any effective humor. He went on to develop the thesis that with some exceptions, humor has been conceived as having moment-to-moment tactical benefits in therapy rather than as an overall strategy or goal. On the one hand, it can facilitate a client's movement into a problem upon which the humor is built. On the other hand, it can promote the client's psychological distance away
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from the problem at hand. The long-term effects of humor are to shape, define, and change the relationship of the participants. Kuhlman concluded that humor serves different functions within different therapeutic modalities.

Reynes and Allen (1987) discuss the use of humor as a tool for initial assessment. The eliciting of a client’s favorite joke as part of the initial assessment can provide clues to central instinctual conflicts, much in the same manner as early recollections, projective tests and dream analysis. They also believe that humor can help to expedite a variety of therapeutic functions including: relieving tension in the therapeutic interaction, overcoming resistances, providing alternative methods of coping, as a corrective emotional experience, and the formation of a healthier identification with the therapist.

A growing number of therapists have reported using humor in their practice when they deem it appropriate. Among the better known is Albert Ellis, who in his rational-emotive therapy employs absurdity and humor as one of his "disputing interventions" to challenge clients' false and irrational belief systems. He has said "human disturbance largely consists of exaggerating the significance or the seriousness of things and the ripping up of such exaggerations by humorous counter-exaggeration may well prove one of the main methods of therapeutic attack" (Ellis, 1977, p. 4). Ellis believed that people disturb themselves cognitively, emotively, and behaviorally. Humor, because of its very nature, works in all three of these basic ways. Cognitively, it presents new ideas to the absolutistic, rigid client in an insightful, hard-hitting way. Emotively, it brings enjoyment and mirth, makes life seem more worthwhile, and dramatically intrudes on gloom and inertia. Behaviorally, it encourages radically different actions, it constitutes an anti-anxiety activity in its own right, and it serves as a diverting
relaxant. If clients can even briefly experience amusement, it can serve as an antidote to their sadness.

Numerous humorous techniques have been used by therapists. Frankl (1960) employed a technique called "paradoxical intention" in which clients are encouraged to exaggerate their symptoms to the point of absurdity. Greenwald (1975) focused on clients' ridiculous life decisions and, by mirroring or exaggerating their maladaptive behavior, provided them with a chance to explore new and perhaps better choices. Ellis (1977) had an extensive humorous armamentarium: puns, witty remarks, shocking language, sarcasm, and so forth. These presumably facilitate cognitive restructuring and undermine the tendency of clients to “absolutize”, "awfullize," and falsify the extent of their difficulties. Grotjahn (1970) made jokes, thereby signaling that clients in psychoanalysis may adopt a similar emotional freedom. He believed this fosters a wholesome identification with the therapist and, as a form of interpretation, enables the bypassing of client resistance. Mindess (1971, 1976) used apt jokes, situationally generated wit and mirth, teasing and kidding naturally introduced, and he used himself as a model of humorous demeanor. Such "fun" presumably frees the client to emulate the therapist and adopt a similar way of approaching the goal of effectively getting along and getting ahead in life. Salameh (1983) has pulled together the more useful techniques into a list, including definitions and examples, as follows: "surprise, exaggeration, absurdity, the human condition, incongruity, confrontation/affirmation humor, word play, metaphorical mirth, impersonation, relativizing, the tragicomic twist, and bodily humor" (as cited in Saper, 1987).

Although little systematic empirical research conclusively supports humor in psychotherapy is beneficial, the past 15 years or so have witnessed a burgeoning advocacy of its use.
The Effect of Humor on Stress, Anxiety and Depression

The role of stress in the development of poor health, disease, and various psychological disorders has been studied intensively by numerous researchers. The research has demonstrated that some individuals, when faced with what appear to be significant stressful life situations, do not appear to experience negative effects. Because effectively coping with stress has been demonstrated to be an important mechanism for warding off disease and psychological distress, many professionals have called for the use of humor to help in coping with stressful life events. Many point to the work done by Norman Cousins (Anatomy of an Illness, 1979), and his use of humor and belief in laughter for overcoming fatal illness when providing rationale for promoting humor (as cited in Lehman et al., 2001). Theoretically, explanations include the release of endorphins, the lowering of tension, as well as the distraction that results from humor (as cited in Weisenberg, Tepper and Schwarzwald, 1995). The following studies examined the therapeutic effects of a sense of humor and the use of humor on psychological well-being and reveal the specific effects of humor on stress, anxiety and depression in different settings including; testing, life stressors (illness, death, job stress, etc.), and the viewing of stressful events or media.

The Research

A study by Smith (1971) was designed to assess the effects of humor on the academic test performance of subjects differing in level of test anxiety. In this study, 215 Purdue University students (109 males and 106 females), enrolled in an undergraduate psychology course and possessing differing in levels of test anxiety, were administered a course examination under standard classroom conditions. During the first week of class, all subjects were administered the 37-item Test Anxiety Scale (TAS) (Sarason, Pederson, & Nyman, 1968). On the basis of their TAS scores, subjects were divided into low, moderate, and high test-anxiety groups. Each TAS
A group contained a similar proportion of males and females. Two forms of a 30-item multiple-choice (four choices per item) examination were prepared. On the humorous form of the test, the basis of every third item was designed to be humorous in nature. The corresponding items on the non-humorous form of the test were equated for number of words in the question, and the four responses were identical for each corresponding humorous and non-humorous item. As a check on the comparative humorous qualities of the humorous and non-humorous items, the test was administered to an independent sample of 54 undergraduate psychology students, who were asked to rate each item on a 5-point scale from 1 (not at all humorous) to 5 (extremely humorous). The test was given midway in the semester, and the subjects were told that their scores on the examination would count for one-half of their course grade. Within each of the three test-anxiety groups, approximately one-half of the subjects were given the humorous form of the test, while the remainder of the subjects were administered the non-humorous form. High-test-anxious subjects in the non-humorous condition clearly demonstrated the lowest level of task performance. On the other hand, the high-anxious subjects in the humorous test condition not only performed at a significantly higher level than did the high-anxious subjects in the non-humorous condition, but they also equaled the performance level of the low-anxious groups. A rather unexpected result concerns the relatively low level of performance of the moderate-anxiety group in the humorous test condition. While the performance level of this group did not differ significantly from that of any other group, the possibility is nonetheless suggested that the manner in which humor affects performance may be a complex function of the level of anxiety being experienced. In conclusion, the high-test-anxious subjects receiving the non-humorous form performed significantly more poorly than did low or moderate-test-anxious subjects, and at a significantly lower level than did the high-anxiety group that received the humorous form.
The results of Smith suggest that the effects of humor on anxiety may be reflected in ongoing task-oriented behaviors. It seems reasonable to assume that the manner in which humor affects the efficiency of such behaviors is a function of the nature of the task, the level of anxiety, and the characteristics of the situation. An optimal drive level concept would predict that humor-mediated anxiety reduction would facilitate performance only if anxiety were above the optimal level required for the performance of the task in question. In this study, the major focus was on highly test-anxious subjects engaged in a complex task under stressful conditions, so that the assumption that anxiety reduction would result in enhanced performance seems a tenable one. The results were supportive of predictions derived from a conception of humor as having anxiety-reduction properties. High-test-anxious subjects in the non-humorous condition clearly demonstrated the lowered level of task performance, which has been reported in previous studies relating test anxiety to performance under achievement-oriented conditions. On the other hand, the high-anxious subjects in the humorous test condition not only performed at a significantly higher level than did the high-TAS subjects in the non-humorous condition, but they also equaled the performance level of the low-anxious groups.

Martin and Lefcourt (1983) conducted three studies that investigated the hypothesis that a sense of humor reduces the harmful impact of stressful experiences. The first study consisted of fifty-six psychology students (twenty-nine men and twenty-seven women) who were asked to complete all of the following measures:

1. *Life Events of College Students* (Sandier & Lakey, 1982). This checklist is composed of a list of 112 experiences that are considered relevant to college students. The subjects were instructed to check off the events that had occurred to them during the
preceding year and to rate the effect that each event had had on their lives (very negative, slightly negative, slightly positive, or very positive).

2. *Profile of Mood States* (POMS; McNair, Lorr & Droppleman, 1971). To assess predominant current mood levels rather than transient moods, the subjects were instructed to fill out this scale in terms of how they had generally been feeling during the preceding month. This measure yields scores on five negative moods (tension, depression, anger, fatigue, and confusion) and one positive mood (vigor).

3. *Situational Humor Response Questionnaire* (SHRQ; Martin & Lefcourt,). This measure was used to assess subjects' sense of humor, defined as the frequency with which they display mirth in a wide variety of life situations. It is composed of eighteen items in which a relatively common situation is described. Subjects were asked to recall a time when they were in each of the situations described and then to indicate the degree to which they experienced mirth on a 5-point Guttmann-type scale ranging from “I would not have been amused” to “I would have laughed heartily.”

4. *Sense of Humor Questionnaire* (SHQ; Svebak, 1974). This 21-item measure provides scores on three subscales. The first sub-scale, called the Meta-Message Sensitivity scale measures the degree to which subjects report being able to notice humorous stimuli in their environment. A typical scale on this item is “I can usually find something comical, witty or humorous in most situations.” The second sub-scale, Personal Liking of Humor, assess the degree to which subjects report valuing humor in their lives. A typical item on this scale is “It is my impression that those who try to be funny really do it to hide their lack of self-confidence.” The third sub-scale is Emotional Expressiveness. It is concerned with the degree to which subjects express
their emotions, including humor. A typical item is “I appreciate people who tolerate all kinds of emotional expression.” This sub-scale did not correlate with any of the other humor measures and therefore was not used in this study.

5. *Coping Humor Scale* (CHS). This seven item scale was designed specifically by Martin and Lefcourt (1983) to assess the degree to which people indicate actually using humor as a coping strategy in response to stressful events.

The results of this first study lend support to the hypothesis that humor reduces the impact of negative life experiences on moods. With three out of the four self-report measures of the sense of humor a significant moderating effect was found such that as scores on the humor measures increase, there is a systematic decrease in the magnitude of the correlation between current level of reported mood disturbance and the number of negative life experiences. Although the various humor measures are intercorrelated, the moderate correlations among them indicate that they each measure a somewhat different aspect of the complex sense-of-humor construct. A comparison of the results for each scale provides some indication of the particular aspects of humor that contribute to its stress moderating effect. The significant results obtained with the SHRQ, the Personal Liking of Humor subscale, and the Coping Humor Scale indicate that the negative effects of stress are less pronounced for individuals who tend to laugh and smile in a wide variety of situations, who place a high value on humor, and who make use of humor as a means of coping with stress than for those to whom these descriptions do not apply. On the other hand, the ability to notice humorous situations in the environment, when taken by itself, does not appear to contribute to the moderating effect of humor.

Because the first study made use only of self-report measures of the sense of humor, it was decided in the second study to obtain a more behavioral assessment of subjects' ability to
produce humor to avoid the possible biases of self reporting. This study consisted of 29 male and 33 female undergraduate students. In the psychology laboratory a life events measure, a mood scale, and the SHRQ were administered to the subjects. The life events measure used in this study was the Life Experiences Survey (LES; Sarason, Johnson, & Siegel, 1978), which includes instructions to check off the events that occurred during the preceding year and to rate whether they had a negative or positive impact. The negative-life events score was composed of the total number of events checked and rated as having had a negative impact. The Total Mood Disturbance score on the POMS was again used as the dependent variable.

To assess the subjects' ability to produce humor, a technique described by Turner (1980) was used. After completing the questionnaires, the subjects were individually seated at a table on which had been placed about a dozen miscellaneous objects, such as an old tennis shoe, a drinking glass, and an aspirin bottle. The subjects were instructed to make up a three minute comedy routine by describing the objects on the table in as humorous a manner as they could. If unable to think of any witty comments, they were simply to describe the objects. They were given thirty seconds to collect their thoughts, after which a tape recorder was turned on and the experimenter left the room for three minutes. The tape-recorded monologues were subsequently scored, following Turner's method, for (a) the number of witty remarks and (b) overall wittiness, as rated on a four point scale, where 0 = no humorous comments, attempts monologue but simply describes objects; 1 = attempts at being witty but with limited success, tries to do more than simply describe objects; 2 = a few clearly humorous remarks but routine, not a smooth flow of humor; and 3 = a regular comedy routine with total monologue directed toward humorous remarks. The results provided further evidence for the stress-moderating role of humor.
humor in the laboratory also tended to report that they exhibit mirth in a wide variety of life situations.

In the preceding studies a number of different measures of humor, both self-reported and behavioral, were used to investigate the stress moderating effects of humor. In each case it was assumed that subjects with high scores on the humor measures, because they tend to enjoy and see humor in general, would also tend to make particular use of humor as a means of coping with the stressful experiences that they encounter in their everyday lives. Martin and Lefcourt’s third study specifically assessed subject’s ability to produce humor in stressful situations. This study consisted of twenty five (14 men and 11 women) introductory psychology students. These subjects had previously completed the Life Events of College Students questionnaire (Sandier & Lakey, 1982) and the POMS (McNair et al., 1971) as well as several humor scales in classroom sessions. Students were shown the film Subincision, which has been found to be mildly stressful. The film is a silent film about the male initiation rites amongst a tribe of aborigines in Australia. Student were told to make up a humorous narrative, describing what they were seeing in as funny a way as they could. This was recorded during their viewing and subsequently rated for overall humorousness on a scale from 0 to 3, following the same scoring criteria used by Turner (1980). After viewing the film, the subjects were given a brief questionnaire that included the following questions: “You have just attempted to make up a humorous narrative while watching what is considered to be a rather stressful film. How likely would it be for you to normally use humor in this kind of situation?” They responded using a 5-point scale ranging from “I would not
normally use humor in this sort of situation” to “I would always use humor in this sort of situation”. This question was included to assess the hypothesis that the rating of the humorousness of their narrative reflects the subjects’ tendency to use humor is real-life stressful situations. In addition, the scores on the Coping Humor Scale could be used to test the hypothesis. Once again, the evidence of the stress-buffering effect of humor was obtained.

These studies by Martin and Lefcourt represent an attempt to investigate a hypothesis that has long been maintained by a large number of humor theorists, psychotherapists, and laypersons alike, that a sense of humor permits one to cope better with the aversive experiences of life. To demonstrate more adequately the causal relations that were assumed in their studies, further research using prospective and experimental methodologies is warranted. Further research is also needed to explore the specific processes involved in the stress-buffering effects of humor, the kinds of stressors with which humor is most effective and those with which it is less appropriate, the particular aspects or types of humor that are most effective in moderating stress, and the ways in which humor of this kind develops in individuals. Martin and Lefcourt claim that answers to each of the questions hypothesized in the three studies will not only provide information specific to the stress moderating role of humor but will also further our general understanding of the ubiquitous but still largely unexplained human phenomenon called humor (as cited in Martin and Lefcourt 1983).

Porterfield (1987) attempted to replicate the findings of Martin and Lefcourt with a more adequate sample, and determine whether humor also moderates the impact of life stress on physical illness. Ninety-five male and 125 female undergraduates completed the College Students’ Life Events Schedule (CSLES), the Situational Humor Response Questionnaire (SHRQ), and the Coping Humor Scale (CHS). The dependent variables in this study were the
Center for Epidemiological Studies Depression Scale (CES-D, Radloff, 1977) and the Cohen-Hoberman Inventory of Physical Symptoms (S. Cohen and Hoberman, 1983). Consistent with the findings of a host of studies, Negative life events were significantly related to depression in this study. Contrary to the findings of Martin and Lefcourt, however, there was no evidence that sense of humor moderated that relation. Subjects with higher humor scores reported significantly less depression than did those with loser scores regardless of their life stress levels. These findings suggest that sense of humor mitigates depression directly, rather than by assisting individuals to cope with stressful life events. Porterfield found that the results are consistent with a main effect model of the effect of humor on psychological well-being rather than the buffering model championed by Martin and Lefcourt. Porterfield also evaluated in this study the effects of a sense of humor on physical well-being and found the results disappointing. In contrast to the findings for depression, there was no evidence that a sense of humor moderated the relation to physical well-being (as cited in Porterfield, 1987).

Nezu, Nezu and Blissett (1988) set out to provide for a more rigorous test of humor as a stress-buffer hypothesis by using a prospective design that also attempted to control for the variance attributable to prior level of distress. This study included 87 undergraduate students. This study was conducted at two different time periods. During the first testing, subjects were asked to complete the Life Experiences Survey (LES), Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), Coping Humor Scale (CHS), and the Situational Humor Response Questionnaire (SHRQ). Two months later, the participants were asked to complete the LES, BDI, and STAI. For the second LES, subjects were instructed to indicate only those stressful events that they had experienced during the period between testing sessions. The analysis of the data produced strong support for the hypothesis that one’s sense of humor does
function to reduce the impact of stressful events. These results partially replicate those of Martin and Lefcourt and are supportive of their overall conclusions. This study attempted also to differentially evaluate the moderating role regarding two different forms of distress, depression and anxiety. They found that humor as a moderator hypothesis only supported depressive symptoms and not anxiety and concluded that the relations between, stress, humor and distress appear to be more complex.

Nezu et al. suggests future research should focus on populations that include subjects experiencing depressive symptoms on a more severe level. Additionally, since their study was designed only to assess whether humor actually served as a moderator of stress, it is unable to pinpoint the nature of the actual processes involved. In other words, how does humor function as a coping process? Future empirical investigations appear warranted as a means of delineating a more specific understanding of this phenomenon. It is possible that people who use humor to cope with stress do so as a function of their positive evaluations concerning self-efficacy and personal control. For example, appraisal of the stressful event may allow it to be perceived more as a challenge than a threat. The cognitive shifts produced by humor, similar to certain problem-solving processes, may function as a means of distancing oneself from the stressful nature of an event and can facilitate attempts to view it from alternative perspectives. Thus, humor may function both as a means of initially minimizing the aversiveness of the situation itself and as a way of coping with the consequences and problems emanating from the event. Humorous reactions to stress may increase positive social reactions, whereas depressive responses might cause individuals to become rejected by others. Because humor is a ubiquitous human experience, such studies may add to a more complete understanding of the relations among stress, personality variables, and distress as cited in Nezu, Nezu and Blisset, 1988).
Anderson and Arnoult (1989) conducted a study of 159 college students to also study the effects of coping humor, beliefs about personal control, irrational beliefs, and the occurrence of positive stress as moderators of the effects of negative stress on psychological and physical health. They, however, had inconclusive results and were not able to duplicate the results of Martin and Lefcourt (as cited in Anderson and Arnoult (1989).

In 1987, Lefcourt, Davidson, Prkachin and Mills conducted a study on humor as a moderator in the prediction of blood pressure obtained during five stressful tasks. This study consisted of 69 male and 49 female undergraduate students who were participating in the Waterloo Longitudinal Reactivity Study designed to track the stability of cardiovascular reactions among healthy young adults to a variety of laboratory-based stressors. Again, humor was assessed using the Coping Humor Scale (CHS) and the Situational Humor Response questionnaire (SHRQ). The first lab-produced stressor was a 12-minute structured interview assessing “Type A” behavior (Chesney, Eagleston, and Rosenman, 1980). This interview is considered interpersonally stressful because the interviewer poses questions in a challenging manner. The other four lab-induced stressors consisted of 2-minute tasks:

1. The Favorable Impressions task (Borkovec, Stone, O’Brien and Kaloupek, 1974) which requires students to talk with a member of the opposite sex with the goal of creating a favorable impression.

2. The Cold Pressor task (Hilgard, Ruch, Lange, Lenox, Morgan and Sachs, 1974) which involves submerging an arm in a circulating bath of ice water

3. The Mental Arithmetic (MA) task (Rose, Grim and Miller, 1984) which entails serial subtractions (e.g., of 13 from 7683)
4. The Stroop Color-Word test (Jensen and Rohwer, 1966) which causes “cognitive interference” when students are asked to name colors that are written in inks of conflicting colors.

The results of the study, with regard to the hypothesized moderating effects of humor, the findings offered some limited and equivocal support. The position that humor produces a main effect upon or is simply a correlate of other complementary mood states was supported only in the female population. That humor could moderate stress effects was also supported but only among males, and that support was confined to certain tasks. Lefcourt et al found that the results fail to resolve the stress moderating effects of humor. However, they believed the sex differences found in this study may prove important in to future research.

Millicent Abel (1998) conducted a study of introductory psychology students (70 women, 61 men) examining the interaction of humor in moderating relationships among perceived stress, anxiety and physical symptoms. This study also included the influence of gender on the stress buffering effect of humor. Abel used the Perceived Stress Scale (PSS; Cohen, Kamarck and Mermelstein, 1983; Cohen and Williamson, 1988) which is a self-report global measure of perceptions of stress. He also used the Multidimensional Sense of Humor Scale (Thorson and Powell, 1993) which is also a self-report measuring overall sense of humor. Overall the results of this study did support the moderating effects of humor in the relationship between stress and physical and psychological well-being (Lefcourt et al, 1995 and Martin and Lefcourt, 1983). A significant stress-humor-anxiety relationship for the men contradicted the results of Nezu et al. (1988), which revealed no moderating effect of humor in the relationship between stress and trait anxiety, however, their study did not examine gender as a variable. In this study, humor significantly moderated the relationship between stress and physical symptoms. Abel concluded
that the results do indicate the need for continuing research in this area. How humor actually moderates the impact of stress was not addressed; that is, does a humorous disposition as a personality factor affect the appraisal of stress or does the influence of humor in coping strategies, regardless of a humorous disposition, reduce the impact of stress in men and women? He claimed that understanding the use of humor by men and women in the appraisal of stressful experience and the role of humor in cognitive alternatives to coping with stress require further study.

Berk (2000) conducted a six-year study on the affects of humor on test anxiety and found that by adding humor into either the test questions or answers that humor had a positive effect on the test results for undergrad and graduate students. Berk had uncovered research that found that humor’s primary psychological function is detachment, but it is used as an adaptive coping mechanism. Using humor in a testing situation produces a cognitive shift in perspective that allows students to distance themselves from the immediate threat – the test. Humor can reduce the negative feelings that would normally occur, namely, anxiety, tension, and stress. It promotes an objectivity that buffers the negative response and provides a sense of empowerment over the testing situation that can improve students’ mental functioning and performance. Berk’s study consisted of seventeen samples of students (n = 695) enrolled in both undergraduate and graduate statistic courses at the John Hopkins University’s school of nursing. Berk injected humor into test items in a variety of ways. Upon completion of the second test in the courses the students were given the Humorous Effectiveness Evaluation (Berk, 1996 and Berk and Nanda, 1998). Berk’s study found that the students reported humor to be effective in reducing their anxiety and made it possible to perform better on the tests.
Nezlek and Derk (2001) conducted a study with 286 participants to expand our understanding of people's use of humor as a coping mechanism by examining the relationships between this construct and people's day-to-day social lives and their general psychological adjustment. The study was guided by the general hypothesis that the use of humor as a means of coping would be positively related to the quality of people's social lives and their general psychological adjustment. The results suggested that people's use of humor as a means of coping with stress is positively related to how enjoyable their social lives are and to how confident they feel when interacting with others. They also found strong interactions between coping with humor and depression in their analyses, although depression and humor coping were not strongly related (as cited in Nezlek and Derks, 2001).

In a study by Lehman, Burke, Martin, Sultan and Czech (2001) four different experimental conditions were used to assess the impact of a stressful situation on mood and anxiety. Two conditions had subjects produce a humorous narrative response to a stressful situation. One of the conditions included an instructional video on the use of productive humor. A third condition had subjects produce an intellectual narrative; while a fourth condition had subjects produce no narrative. The humorous narrative conditions were hypothesized to lead to the greatest moderation in stress (i.e., mood and anxiety). Lehman et al. recruited 100 (32 male and 68 female) introductory psychology students and randomly assigned them to four experimental conditions, ensuring equal proportions of males and females to each group. Students completed questionnaires measuring reactive humor, productive humor, mood state and state anxiety using the Sense of Humor Questionnaire (SHQ), the Coping with Humor Scale (CHS), the Profile of Mood States (POMS), and the State-Trait Anxiety Inventory (STAI). Subjects in the humorous narrative with priming condition were shown a priming film, The
Humor (National Geographic Society, 1982). A narrative discussing the use of productive humor was recorded over the film. All subjects were then shown the film Land of the Tiger (National Geographic Society, 1985), a film rated moderately stressful in a pilot study. Students were given instructions based on their experimental condition assignment. Subjects in the no narrative condition were simply asked to view the film. After watching the film, all subjects completed copies of the same questionnaires measuring mood state and state anxiety that they completed before watching the film. Subjects in the two humorous and intellectual narrative conditions also completed a questionnaire assessing their beliefs as to the effectiveness of their produced narratives in moderating their perceived stress. The results of the study provided limited support for the main hypothesis, that productive humor has a positive stress-moderating effect (as cited in Lehman et al., 2001).

Abel (2002) explored relationships between sense of humor, stress, and coping strategies with 258 undergraduate students. The students completed a perceived stress scale, an everyday problems scale, a state anxiety inventory, a sense of humor scale, and a scale assessing their preferred coping strategies. High and low sense of humor groups were determined by selecting participants with self-reported sense of humor on the sense of humor scale. The high sense of humor group appraised less stress and reported less current anxiety than a low sense of humor group despite experiencing a similar number of everyday problems in the previous two months. The high humor group was more likely to use positive reappraisal and problem-solving coping strategies than the low humor group. A weaker relationship existed between appraisal of stress and number of problems in the low humor group because this group perceived greater stress at low and average number of everyday problems than the high humor group. The results supported the role of humor in restructuring a situation so it is less stressful, and the relationship of humor
to both emotion-focused and problem-focused coping strategies. Abel’s earlier study (Abel 1998) also found the moderating effect of humor in relationships between stress and physical and psychological well being, however the results for anxiety were obtained only for men. Abel suggests the use of college students as participants is always in question when generalizing results to the total population, and the everyday problems used to measure stressful life events were restricted to problems particularly experienced by college students. Hence, further research should assess stressful life events in an adult population to determine whether these results remain valid. Abel suggests a promising area of research could focus on determining the specific dimensions of sense of humor most influential in the cognitive appraisal of stress.

Researchers investigating the characteristics of individuals who have a propensity to worry (trait worriers) have reported that worriers, when compared with non worriers, tend to report more physical discomforts, obsessional symptoms, boredom, depression, stress, anxiety, perfectionism, and pessimism. The relationship between worry and sense of humor was investigated by Kelly (2002). Participants in this study were 140 (89 women and 51 men) undergraduate students enrolled in a southwestern university Worry was measured with the Worry Domains Questionnaire (WDQ, Tallis, Eysenck and Mathews, 1992) and sense of humor was measured using the Multidimensional Sense of Humor Scale (MSHS; Thorson and Powell, 1993). The results of this study found that worry has a negative effect related to sense of humor, thus individuals with a sense of humor are less likely to worry.

Kelly suggests that the results of this study have implications for the treatment of worry. Previous research indicates that humor is helpful in decreasing negative affective and cognitive states. Therefore, increasing the production of humor and sense of humor among worriers might assist clients to reduce worry and other unpleasant affective states, such as depression, which
coexist with worry. Furthermore, there is evidence that humor might be more effective in reducing unpleasant psychological outcomes among worriers than among individuals who are not prone to worry. Using therapeutic interventions involving absurdities is more effective with individuals reporting less sense of humor (such as worriers) than with individuals who have a greater sense of humor. Using respectful humorous therapeutic interventions, increasing the production of humor, and facilitating a more playful, humorous perspective among clients may prove to be helpful techniques for therapists working with worriers. Kelly found that individuals with a sense of humor are less likely to worry. This finding is consistent with previous research in which lower scores on sense of humor were related to negative psychological outcomes and with the finding of Cann, Holt, and Calhoun that humor moderates the negative outcomes of stressful events. Russell and Davey (1993) found that worry appears to occur often as the result of stressful life events. Hence, a sense of humor might moderate the relationship between stresses and worry. Kelly suggests future research should include larger, more diverse samples to attempt to replicate the findings. More research is also needed to experimentally evaluate the clinical efficacy of using humor as a therapeutic technique for worriers (as cited in Kelly 2002).

Szabo (2003) studied 39 (22 males and 17 females) second year sport science university students weekly over a three week period. Students were asked to prepare for exercise at each session. During the first session the students ran (or jogged) for 20 minutes. During the second session the students watched a 20-minute giant screen projection of a stand-up comedian. During the third session, students watched a 20-minute documentary about the evolution of life on Earth. State anxiety was measured before and after each experimental condition with the Spielberger State Anxiety Inventory (SSI).
The results of this exploratory study demonstrated that: 1) humor has positive effects on state anxiety and mood, and 2) these effects are comparable or possibly stronger than those of a similar duration of exercise. While the Szabo study shows there are positive psychological benefits from humor, it is suggested that several limitations be addressed in future research. In the humor condition, the amount, frequency and magnitude of laughter need to be assessed. The duration of the effect is another issue that needs to be investigated to see whether humor could be prescribed as an alternative behavior intervention for anxiety and stress. Also Szabo suggest that using both situation specific and more general instruments in gauging mood could lead to clearer results. Finally, the presentation of the treatments in several different orders and in several waves using a variety of students (not only sports science students) along with a truly neutral control session could strengthen the findings. Szabo’s study warrants future research. In the area of mental health, it is expected that improving fitness is a benefit to mental health. However, for those who wish not to or cannot exercise, the importance of other leisure activities, such as humor, for improving mental health could prove significant (Szabo, 2003).

Kuiper, Grimshaw, Leite and Kirsh (2004) presented a study to further explore the relationship between sense of humor and psychological well-being in the context of contemporary multidimensional models of sense of humor that clearly acknowledge both the positive and negative elements of this construct. These contemporary models do not assume that all elements of sense of humor are positive, and thus of potential benefit to psychological well-being. Instead, these models also highlight specific negative aspects of sense of humor, such as self-defeating or belabored humor, which may actually prove detrimental to well-being. Their hypothesis proposes that any potential psychological effects, either beneficial or detrimental, must be carefully mapped against the specific sense of humor dimension being assessed (i.e.,
either positive or negative). In other words, the contemporary models suggest that the distinct aspects of sense of humor may sometimes have quite opposite relationships with psychological well-being.

In this study, by Kuiper et al., a total of 137 individuals (93 female and 44 male) participated in the study. The participants were assessed on sense of humor using the Coping Humor Scale (CHS), the Humor Styles Questionnaire (HSQ), and the Humor Behavior Deck-Revised (HBD-R, Kirsh and Kuiper, 2003). They were also assessed on psychological well-being with The Rosenberg Self-Esteem Inventory (RSEI; Rosenberg, 1979), the Social Self-Esteem Inventory (SSEI; Lawson et al, 1979) the Center for Epidemiological Studies – Depression Scale (CESD; Radloff, 1977), the Costello Comrey Anxiety Scale (CCAS; Costello and Comrey, 1967) and the Positive and Negative Affect Scale (PANAS; Watson et al., 1988). They were also given the Anxiety Control Checklist (ACC; Rapee et al., 1966) and the Interpersonal Competence Questionnaire (ICQ; Buhrmester et al., 1988) to measure self competency.

Kuiper et al. began by ascertaining the extent to which the most well-established positive component of sense of humor, namely coping humor, was associated with the various indices for psychological well-being. They found that higher levels of coping humor were linked with significantly lower levels of depression, anxiety and negative affect as well as significantly higher levels of self-esteem and positive affect. Furthermore, the research indicates that greater coping humor was also associated with more positive self-competencies regarding control over anxiety-related threats and one’s reaction to those threats and greater initiation of social interactions. Overall, this study offered clear empirical support for two major theoretical propositions relating to an examination of sense of humor and psychological well-being. The
first proposition is that sense of humor should be viewed as a multidimensional construct, consisting of both adaptive and maladaptive components. It is in marked contrast to prior research that has focused on the potential relationship of positive aspects of humor on psychological well-being. The second proposition suggests that the distinct adaptive or maladaptive component of sense of humor may have either a facilitative or detrimental impact on psychological well-being. Kuiper et al. suggests future research should consider the type of humor being used; either aggressive, rude humor, self-defeating or belabored humor and should clarify much more fully why maladaptive self-defeating or belabored humor shows such a negative relationship with psychological well-being.

Szabo, Ainsworth and Danks (2005) conducted yet another study on the effects of aerobic exercise, humor and music on the state anxiety and affect of healthy women. The participants completed the Spielberger State Anxiety Inventory (SSAI) and the Profile of Mood States (POMS) five minutes before and after the corresponding interventions which consisted of; cycling, watching a humorous video, listening to music, and sitting still. The results concluded that watching a humorous video and listening to music produced the same psychological benefit as aerobic exercise.

Conclusion

In conclusion, the beneficial use of humor, as with all elements of psychoanalysis, depends on the degree of pain expressed and experienced, the strength of the patient, their level of functioning, their defensive structure, and the use that humor plays in their life. One assumption is that the use of humor demonstrates a high level of functioning. It adds to life and one’s experiences. It is also true that the use of humor (by both client and therapist) can be a tool that is used to reduce the intensity and discomfort of painful, horrific or shameful affects.
This, also, can potentially be destructive to the therapeutic process. Freud indicated that humor was a high-level defense and when repression failed, humor was often employed to help deal with feelings of displeasure. In addition, Freud theorized that humor or comical asides could allow patients to present themselves as "grown-up" and "too mature" to still be bothered by old painful events.

The therapist needs to distinguish between humor that distracts and humor that enhances the situation. (Corey, 1986, p. 380) Ideally, therapists who use humor with their patients will examine closely what motivates it, and how their patients respond. For those who can regard such issues with care and maintain consistent, reliable empathy and a sense of spontaneity in their work, efforts to incorporate humor into an overall therapeutic style can be productive as well as pleasurable for both patient and therapist (as cited in Ruvelson, 1988). Laughter makes the person feel good, free, and happy. It also promotes better interpersonal relations. These consequences have been invoked to justify the use of humor in psychotherapy.

A number of relationship conditions would have to be met before humor could have the desired effects. These would have to include mutual respect and caring, rapport, and similar indications that the client accepts the therapist in this particular humorous role and agrees that mirth and frivolity have a legitimate place in the therapy. Also, different types of personality may prefer different types of humor. For this reason, therapists who set out to use humor in therapy would be well advised to know themselves as well as their clients as thoroughly as possible.

The conclusion about the use of humor in psychotherapy is that humor should be used with caution but does have a place in psychotherapy. Humor when sensitively and properly
applied, enriches therapy, increases the mutual enjoyment of client and counselor, draws people closer together, and even saves lives (as cited in Richman, 1996).

A common notion in the literature is that a greater sense of humor facilitates better health. It has been proposed that a greater sense of humor may promote positive cognitive evaluations of potentially stressful events. The capability to use humor as a mode of managing stress appears to develop during childhood as part of the socialization process (as cited in Prerost, 1984). The function of humor may contribute to lower stress levels, ultimately having a positive impact on both physical and psychological well-being. Learning to laugh and jest as a response to threat or stress may allow a person to recapture feelings of effectiveness and control while alleviating attendant anxieties. This was observed in the experiments by Milgram in which subjects were required to administer what they thought were extremely painful shocks to other participants. Although they were evidently under a great deal of moral stress, the subjects would suddenly begin laughing. These uncontrolled bursts of laughter were believed to alleviate anxiety (as cited in Blank, Tweedale, Cappelli and Ryback, 1983).

An important dimension in working with clients who are in psychological distress is their own ability to safeguard the effects. The research explored in this review has largely indicated that possessing a sense of humor and the use of humor can positively impact the effects of stress and anxiety. Although in this review the research failed to find a decrease in depression and anxiety levels for those with a greater sense of humor (Porterfield, 1987). Given that there is research to dispute the general hypothesis of humor as a moderator of stress and anxiety and overall physical and psychological well-being, there is a need for more precise theoretical models that specify the exact conditions under which sense of humor may or may not benefit physical and/or psychological health. A fundamental component is that a much clearer
explanation of what is meant by sense of humor, including both its positive and negative elements, is essential to this research (Kuiper et al., 2004).

In medical circles, laughing is found to lower blood pressure, reduce stress hormones, increase muscle flexion, and boost immune function by raising levels of infection-fighting T-cells, disease-fighting proteins called Gamma-interferon and B-cells, which produce disease-destroying antibodies. Laughter also triggers the release of endorphins, the body's natural painkillers, and produces a general sense of well-being. Laughter is infectious. Hospitals around the country are incorporating formal and informal laughter therapy programs into their therapeutic regimens. Humor is a universal language. It's a contagious emotion and a natural diversion. It invites camaraderie and breaks down barriers. It is the conclusion of this review that humor has a useful place in psychotherapy, both in the client’s own ability to buffer the effects of stress, anxiety and depression and in the therapist’s use of humor a therapeutic intervention.
References


