

THE RELATIONSHIP OF MINDFULNESS AND EXISTENTIAL ANXIETY

by

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A Thesis Submitted to the Faculty of

The Wilkes Honors College

in Partial Fulfillment of the Requirements for the Degree of

Bachelor of Arts in Liberal Arts and Sciences

with a Concentration in Psychology

Wilkes Honors College

Florida Atlantic University

Jupiter, Florida

April, 2014

This thesis was prepared under the direction of the candidate's thesis advisor, Dr. Laura Vernon, and has been approved by the members of her supervisory committee. It was submitted to the faculty of The Honors College and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Arts in Liberal Arts and Sciences.

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ABSTRACT

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Title: The relationship of mindfulness and existential anxiety.
Institution: Wilkes Honors College of Florida Atlantic University
Thesis Advisor: Dr. Laura L. Vernon
Degree: Bachelor of Arts in Liberal Arts and Sciences
Concentration: Psychology
Year: 2014

Adopting various mindfulness techniques has been shown to affect both psychological and physiological conditions within the body (Hill & Updegraff, 2012; Nyklícek et al., 2013). This experiment was conducted to explore the relationship between mindfulness meditation techniques and existential anxiety reported by participants. Existential anxiety has been defined within past research as “a deep concern over whether or not one is living a meaningful and fulfilling life” (Morse, 1998). Due to the nature of the concept of mindfulness, adopting mindfulness techniques was thought to lead to generally more meaningful experiences for an individual, which would decrease the individual’s report of existential anxiety. Within the present study, mindfulness training was administered by means of videos viewed upon a computer screen. Participants were instructed to complete a number of self-report questionnaires both before and after viewing the videos, and the analysis of the data collected after administering the training indicated that not only did levels of mindfulness increase post-treatment, but also that mindfulness and existential anxiety do seem to share a strong negative correlation.

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Introduction

Issues surrounding the implications of mortality have plagued man as a species for thousands of years. Philosophers, theologians, and more recently, psychologists, have been the ones most heavily focused on the anxiety that may arise as humans confront the so-called “givens” of life, so named by the prominent psychiatrist Irvin Yalom, which include, “death, isolation, meaning in life, and freedom,” (Yalom, 2002). Other psychologists characterize these existential “givens” of human mortality slightly differently; the esteemed humanistic-existential psychologist James Bugental defined these existential givens as issues of: “awareness, embodiedness, finitude, actionable, autonomy, and separate but related,” (Bugental, 1995).

Regardless of how these issues are individually sanctioned and defined, the fact remains that for any human mind, entertaining these thoughts and considering their implications at length can produce a great amount of anxiety, which can manifest in a number of different ways within an individual. The effects of any type of anxiety, including existential anxiety, can be displayed physiologically as well as emotionally or mentally, and for many years, psychoanalysis seemed to be the go-to suggestion for many psychological professionals when confronted with such distress. However, in recent years, with new strides in the field of psychology have come new techniques, and the exploration of certain physical awareness and grounding techniques, such as meditation as well as mindfulness-boosting strategies, are continually being explored with the hope that these relatively simple tasks can be utilized and applied to subdue certain elements of anxiety as they manifest concretely within an individual.

Existential Anxiety

The term “anxiety” derives from the Latin “anxiētātem,” or “having the quality of being anxious.” The Latin “anxius” stems from the verb “angēre,” (“to choke or distress,”) and is defined as being “troubled in mind.” This derivation gives us our modern term, “anxious,” which according to the Oxford English Dictionary is attributed to one who is “troubled or uneasy in mind about some uncertain event; being in painful or disturbing suspense; concerned, solicitous.” It would follow, then, that the modern term “anxiety,” can be applied to a state characterized by a discomfort or unease concerning some future event.

The “existential” element of the definition of existential anxiety has already been addressed, but may be abridged to simply having to do with any of the previously mentioned “givens” of human life, (e.g. death, isolation, autonomy, etc.) Hence, a conceptualization of the definition of existential anxiety, formed from the ground up, might look something like: “a state of uneasiness or discomfort concerning the concepts of human life that may be described as the existential “givens;” these concepts may include death, isolation, freedom, meaning in life, or any other existential concept faced by the human species in light of a conscious element of reflection.”

In his article, “Confronting Existential Anxiety: The Ultimate Stressor,” Donald R. Morse defines existential anxiety as “a deep concern over whether or not one is living a meaningful and fulfilling life,” (Morse, 1998). Morse also mentions that anxiety can be further categorized into psychological anxiety, which includes feelings such as “nervousness,” “a sinking of the stomach,” insomnia, or the inability to concentrate, and somatic anxiety, the physical component, comprised of sensations such as trembling, sweating, stomach pain, headache, or stammering (Morse, 1998). The hypothetical treatment of such physical manifestations of somatic anxiety seems quite simple: a well-placed relaxation technique, perhaps meditation, or, if need be,

painkillers for symptoms like headaches or stomach pains, or even anti-anxiety medication, if the symptoms are persistent, will handle all of these physical ailments brought on by anxiety. The psychological side of the problem is not so easily addressed. For decades, psychological professionals like Sigmund Freud assumed they could cure the various manifestations of anxiety within an individual simply by exposing them; the concept of “anxiety” to Freud was only the conscious representation of the disconnect between the wants of the id, the social knowledge of the superego, and the vacillations of the ego as it scrambled to reach a compromise between the two, all within the unexplored realms of the unconscious. Once this divide was uncovered, the problem was perceived as solved; the individual would face whatever had been hiding in their unconscious, exploring the issues in a clinical psychotherapy setting, and their anxiety would theoretically dissolve.

When considering something like existential anxiety, these approaches seem to ignore the actual concern- the question, as defined by Morse, of whether a meaningful and fulfilling life was or is being lived. To address this issue, one must first feel the effects of the anxiety, assess what type of life one is currently living, outline his or her ideal meaningful and fulfilling life, identify the disconnect between the actual and ideal, and then, consciously work towards the changing of the one into the other. This process sounds exhausting, and I’m sure for all who experience crises of existential anxiety, it is. One must wonder- isn’t there, couldn’t there be some technique for moderating the effects of this anxiety that individuals could implement within their everyday lives? Something simple, something built into the way they function to improve their outlook on life as it is being experienced, in each separate moment?

Mindfulness

The term “mindfulness” is defined as a “moment-to-moment awareness of one’s experience without judgment,” (Davis & Hayes, 2011) and can be associated with a more full and complete experiencing of each independent moment which is analyzed only in terms of the sensations that it produces. The term is thought to derive from the English translation of the Pali word “sati,” which “connotes awareness, attention, and remembering,” (Didonna, 2008). A number of studies have been conducted in recent years to assess levels of mindfulness in individuals, as well as the effect of the adoption or institution of mindfulness techniques on emotional and also physiological aspects of the lives of these individuals. It has been found in the scope of previous research that individuals high in mindfulness exhibit increased emotional regulation, low levels of emotional reactivity, and also low levels of emotional lability, or instability, for both positive and negative emotions (Hill & Updegraff, 2012). Mindfulness training in “employees working in emotionally demanding jobs,” has also been shown to increase job satisfaction and mitigate burnout effects that are related to emotional exhaustion (Hülshager, Alberts, Feinholdt & Lang, 2013).

In terms of physiological effects, Mindfulness-Based Stress Reduction (MBSR) techniques have been shown to decrease blood pressure during periods of acute stress (Nyklíček, Mommersteeg, Van Beugen, Van Boxtel & Ramakers, 2013). These results imply that the use of MBSR to treat those suffering from manifestations of acute stress, such as panic attacks, may be pursued in the future as a lucrative, organic and cost-effective avenue of treatment. Mindfulness training in female university students with high scores on measures of worry has been found to reduce anxiety levels within this population of participants; this reduction of anxiety and consequently, the mental process of worrying is possible due to the fact that the implemented

mindfulness training promotes “emotional and physiological regulatory mechanisms contrary to those maintaining chronic worry” (Delgado, Guerra, Perakakis, Vera, et al., 2010).

Due to the fact that mindfulness has been linked to decreased anxiety in the past (Delgado et al., 2010), it seems natural to consider exploring the use of mindfulness as a technique that may mitigate the effects of more than just an acute stress response. It is clear to me that mindfulness techniques, since they are cost effective, simple, and can be easily assimilated into the daily functioning of any given individual, should at least be considered as a viable means of long-term stress and anxiety reduction. Furthermore, concerning the element of mindfulness that includes fully experiencing each moment without judgment, it follows that in light of this characteristic, these techniques could possibly be applied to the question of whether or not a fulfilling life experience has been achieved. The present study seeks to discover whether individuals higher in mindfulness characteristics exhibit lower levels of existential anxiety, with the assumption that those high in mindfulness will report a more “fulfilled” quality of life, and hence, will not face doubts concerning whether or not their time on earth has been spent effectively.

Methods

Participants

Seventeen participants, ($n = 17$) were selected from a population of undergraduate students who currently attend the Harriett L. Wilkes Honors College of Florida Atlantic University. Participants were recruited from various undergraduate courses throughout the campus and were compensated with extra credit points applied within their respective classes, or the option of a gift card if no class credit could be applied. Participants were between the ages of 18 and 22, with both a median and average age of 20 years. Upon completing the demographics questionnaire, 76.5% of participants identified as “Female,” 17.6% identified as “Male,” and 5.8% identified as “Queer/Gender Fluid.” Fifty-eight point eight percent (58.8%) of participants identified as “White,” 17.6% as “Asian,” 11.8% as “Black,” 5.8% “Hispanic,” and 5.8% preferred not to disclose their racial background.

Materials

Five Facet Mindfulness Questionnaire. Mindfulness was measured in part by the Five Facet Mindfulness Questionnaire, or the FFMQ (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). The FFMQ was designed to assess general levels of mindfulness reported by participants; the 39 items are assessed using a 5-point Likert scale, with answers ranging from “1- Never or rarely true,” to “5- Very often or always true.” Among the characteristics of mindfulness assessed by the FFMQ are observing sensations, describing, acting with awareness, non-judging of inner experience, and non-reactivity to inner experience. Some of the sample items include: “When I’m walking, I deliberately notice the sensations of my body moving,” as well as, “I’m good at finding words to describe my feelings.” The internal consistency of the total scale was strong, $\alpha=.927$, when measured at Time 1 of the present study.

Toronto Mindfulness Scale. Levels of mindfulness during the previous week were assessed using the Toronto Mindfulness Scale, or the TMS (Lau et al., 2006), which is a self-report, 13-item questionnaire that also uses a 5-point Likert scale ranging from “1- Not at all,” to “5- Very much.” The TMS has been utilized and evaluated within a number of studies and has been described to have an alpha coefficient of 0.95 and item reliability scores of 0.93 for “curiosity” and 0.91 for “decentering” subscales (Lau et al., 2006). Sample items from the TMS include: “I was curious to see what my mind was up to from moment to moment,” and “I experienced myself as separate from my changing thoughts and feelings.” The internal consistency of the TMS was moderately strong as measured at Time 1, $\alpha=.889$.

The Spiritual Intelligence Self-Report Inventory. The Spiritual Intelligence Self-Report Inventory, or SISRI (King, 2008), is a self-report 24-item questionnaire which uses a 5-point Likert scale with potential responses ranging from “0- Not at all true of me,” to “4- Completely true of me.” The SISRI is comprised of questions that together make up four subscales: (1) Critical Existential Thinking (CET), (2) Personal Meaning Production (PMP), (3) Transcendental Awareness (TA), and (4) Conscious State Expansion (CSE). Due to the overlap between the CSE items and the items offered on both mindfulness measures, these items were not included and only three of the four subscales were used (CET, PMP and TA). Some of the items used include: “I have often questioned or pondered the nature of reality,” (CET) and “I am highly aware of the nonmaterial aspects of life” (TA). The internal consistency of the SISRI was assessed at Time 1, and was strong, $\alpha=.907$.

Existential Anxiety Questionnaire. The Existential Anxiety Questionnaire, or EAQ (Weems et al., 2004), was designed to measure levels of existential anxiety. The EAQ is a self-report measure comprised of 13 items that are rated using the responses of either “True,” or

“False.” Due to the redundancy of some of the items, 4 items were eliminated for the purpose of the current study and 9 items from the EAQ were ultimately used. Some items include: “I often think about death and this causes me anxiety,” “I often feel anxious about feelings of guilt,” and “I know that life has meaning.” The internal consistency of the EAQ at Time 1 was $\alpha=.727$.

Procedure

Participants within the experimental condition viewed videos administered via computer as the mindfulness training aspect of the study. The participants were guided through a number of videos detailing different aspects and types of mindfulness meditation, and engaged in a short discussion with other participants following each video. All of the discussions were moderated by one or more of the researchers; participants contributed to the discussions using a chat function within an online forum, and as a part of each short discussion, participants were asked to respond to various reflections on the meditations. Such reflections were posed in the form of questions including: “How did this video make you feel?” “How did this video compare to the others that we have watched thus far?” and “What aspects of mindfulness can be identified within and taken from the meditation training video that we just watched?”

Participants in the experimental condition were asked to complete questionnaire measures at three distinct periods; once, before any potential mindfulness training, once again immediately following the completion of the mindfulness training, and once more one week after the mindfulness meditation training session. Although the data collected as a result of the present study was evaluated independently, this research was completed as part of a larger study and included additional questionnaires that which will not be elaborated upon within this thesis. The research presented in this paper focuses only on the relationship between mindfulness and

existential anxiety, and as a result, only the data directly related to these variables will be discussed within the scope of the presented results.

Individuals were given questionnaires and asked to complete them independently, answering the items honestly and within private rooms. In the case of the third round, or follow-up, questionnaires, participants were emailed a web link to the follow-up survey items and asked to complete these items in a non-laboratory setting. Participants completed the questionnaires in a semi-randomized order to limit fatigue and order effects.

Participants in the control condition were asked to complete the first round of questionnaires without receiving any mindfulness meditation training, and then were instructed to return a week later to complete the questionnaires again and then receive the training and complete the questionnaires again.

Before participating in any experimental activities, individuals were asked to sign an informed consent statement, and at the completion of the experiment, each participant was debriefed as to the purpose of the experiment. Participants were also given the option of receiving extra credit for a Psychology or Forum course or a ten dollar gift card as a means of compensation for their involvement in the study.

Results

Since the aim of the current study was not only to examine the effects of mindfulness meditation on levels of existential anxiety, but also to determine whether individuals who inherently display more mindfulness also naturally display lower levels of existential anxiety, correlations between levels of mindfulness and existential anxiety were calculated for both pre- and post-treatment periods. These correlations can be found within Table 1. As hypothesized, individuals who displayed higher levels of mindfulness on the FFMQ before any sort of exposure to the mindfulness training also displayed lower levels of existential anxiety ($r = -.64, p = .006$).

Scores on the EAQ were also compared to scores of spiritual intelligence on the SISRI, (King, 2008) as it was also hypothesized that individuals who display high levels of existential anxiety would possess high levels of spiritual intelligence as well. Surprisingly, this was not the case; at pre-treatment, the correlation between the EAQ and the SISRI was found to be quite weak and not statistically significant ($r = -.12, p = .65$). The correlation between FFMQ mindfulness and spiritual intelligence was also calculated at pre-treatment and were not strongly related ($r = .35, p = .17$).

One alternate scale designed to measure mindfulness was included in the collection of data within the current study. The Toronto Mindfulness Scale, or TMS, (Lau et al., 2006) was utilized to corroborate levels of mindfulness displayed by participants, but upon analyzing the data collected by means of these measures, it was found that the TMS and the FFMQ, two measures that, based on their content and purposes, should show a strong positive correlation with one another, did not. In fact, the two measures exhibited a weak, negative correlation ($r = -.27$). The TMS did, however, display a slight positive correlation at Time 1 with the SISRI, ($r = .34$) as well as a slight negative correlation with the EAQ ($r = -.23$). Upon reviewing the data and

methods of input, it was decided that data from the TMS would not be utilized within the current study, due to the fact that it did not seem to measure consistently what it should have, based on the correlation that it shared (or did not share, rather) with the FFMQ.

As can be seen in Table 2, at one-week follow-up the EAQ and the FFMQ strongly negatively related ($r = -.84, p < .0001$), furthering the hypothesis that increased mindfulness is related to decreased existential anxiety. The correlation between the EAQ and the SISRI post-treatment was somewhat stronger but still not statistically significant ($r = -.32, p = .22$). The correlation between the FFMQ and the SISRI at follow-up was positive ($r = .58, p = .01$).

Along with a correlation analysis, a two-way paired samples t-test was performed on the data taken at both pre-treatment and one-week follow-up time periods. This test was performed to discern whether significant differences could be seen among the participants' responses to the scale items as a result of the effects of the mindfulness meditation training. The results of the two-way paired samples t-tests, which can be found in Table 3, indicated that there was a significant difference in levels of mindfulness ($t = 2.43, p = .02$). There was not a significant change in reported existential anxiety or spiritual intelligence, however; EAQ ($t = 6.79, p = .50$), SISRI ($t = 1.37, p = .19$).

Discussion

Although there is not a large amount of past research devoted to the relationship between mindfulness and existential anxiety, the findings of the present study seem to support the conclusion that mindfulness techniques may be applied to help mitigate anxiety (Delgado et al., 2010; Nyklíček et al., 2013). While the mindfulness meditation training did seem to help reduce existential anxiety among participants, the fact that pre-treatment measures of existential anxiety and mindfulness levels were already correlated supports the initial hypothesis proposed within the current study which sought to discover if more mindful individuals would exhibit lower levels of existential anxiety because they are experiencing each moment more fully than a less mindful person might. This in turn would theoretically lead to lessened existential anxiety, because these more mindful individuals would seemingly be less likely to ruminate over “whether or not one is living a meaningful and fulfilling life” (Morse, 1998, p.112). Within the scope of the current study, this reasoning, whether based in fact or merely conjecture, seems to be partially supported by the data. Interestingly, although it was assumed that more mindful individuals would display higher levels of spiritual intelligence, upon analyzing the data offered by the self-report of the participants, this simply does not appear to be the case.

As far as the treatment condition is concerned, based on the results of the experiment, it does appear that there is a slight effect of mindfulness meditation training on levels of existential anxiety and spiritual intelligence as well and this effect might have reached statistical significance with a larger sample size. This effect, unfortunately, was not statistically significant in the current small sample ($n=17$), however, and hence cannot indisputably be said to have been caused by the mindfulness meditation training. The only significant effect that can be derived from the mindfulness meditation training session is an increase in reported mindfulness.

Although the results of the current study do not support the claim that mindfulness training administered via computer video directly lessens existential anxiety, since this type of mindfulness exposure was found within the experiment to increase overall mindfulness levels, and since it was also found within this experiment that higher mindfulness levels are often associated with lower levels of existential anxiety, it may be concluded that indirectly, by increasing mindfulness in this way, one may also be able to affect levels of existential anxiety within an individual. With the prospect of future research in mind, it would be interesting to explore whether continued exposure to mindfulness training might gradually bring about less existential anxiety. If this were found to be the case, it would be a relatively simple practice to adopt techniques such as those described within the current study into the daily routine of any individual, and eventually, this practice may result in physical and psychological benefits for the individual. With such a simple method of application, the possibilities of its impacts are virtually endless.

Despite its success, the present study did possess a number of limitations. Due to a restricted population of potential participants, there was not a great deal of age or demographic diversity among the sample of participants. Also, this restricted population size and the fact that completion of the current study involved multiple, lengthy sessions along with a follow-up questionnaire that in many cases was never submitted resulted in only a very small number of participants; the final number of participants who yielded complete, usable data was only 17. Future research with a larger sample will be important.

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Tables

Table 1

<i>Pre-Treatment Scale Correlations</i>			
	EAQ	FFMQ	SISRI
EAQ		-.64*	-.12
FFMQ			.35
SISRI			

* $p < .01$

Table 2

<i>Post-Treatment Scale Correlations</i>			
	EAQ	FFMQ	SISRI
EAQ		-.84**	-.32
FFMQ			.58*
SISRI			

* $p \leq .01$ ** $p < .001$

Table 3

<i>Two-Way Paired Samples t-test Results</i>			
Measure	Time 1 <i>M (SD)</i>	Time 2 <i>M (SD)</i>	<i>t</i> value
EAQ	1.70 (.26)	1.75 (.25)	6.97
FFMQ	3.35 (.53)	3.51 (.41)	2.43*
SISRI	4.01 (.60)	3.85 (.83)	1.37

* $p < .05$