

## **Mindfulness, Wisdom and Eating: Applying a Multi-Domain Model of Meditation Effects**

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### Abstract

This program, a joint collaboration between the LSI Center for the Study of Health, Religion, and Spirituality at Indiana State University, and independent filmmaker Carolyn Speranza, will use video to express both the range of experiences that are engendered by meditation practice, and the depth of change that even brief training can produce. Meditation is a universal practice that promotes spiritual and practical wisdom by disengaging the mind from conditioned patterns of reactivity and self-concerns. Dr. Kristeller will present an overview of a multi-domain model of meditation effects, illustrated by Ms. Speranza's film "Sight of Stillness" with highly experienced meditators. This video was produced during a series of meditation workshops conducted in Pittsburgh. Ms. Speranza has also worked with Dr. Kristeller to capture on video the personal experiences of individuals participating in an NIH-funded trial that evaluated the effects of a mindfulness meditation based treatment on binge eating disorder. That research has demonstrated how the MB-EAT (Mindfulness Based Eating Awareness Training) program, a 9-week structured experience with mindful eating and other meditation practice, can substantially reduce compulsive eating in obese individuals, while improving depression and sense of self. Videotaped interviews with participants sharing their personal experiences, along with results from the study, will be presented to illustrate how focused meditative practice can produce life changes in relationship to eating and to the self. This paper is highly pertinent to the Dr. Kristeller's presentation and the film.

### Biography

*Dr. Jean Kristeller received her doctorate in clinical and health psychology from Yale University in 1983. She is currently Professor of Psychology and Director of the Center for the Study of Health, Religion and Spirituality at Indiana State University. She has been conducting research in the therapeutic uses of meditation for over 20 years. Her research areas also include the role of spirituality in adjustment to cancer. She currently has funding through the NIH Center for Complementary and Alternative Medicine for research on the use of mindfulness meditation in treating binge eating disorder, and from the Metanexus Institute through the Spiritual Transformation initiative.*

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The Buddha, in his first teachings, identified meditation as the most important element on the noble eightfold path to bring into existence right action, right speech, right livelihood, right effort, right understanding and right thought. These areas map fairly well onto how we can now construe major dimensions of human functioning from a contemporary perspective: physiological, cognitive, emotional, behavioral, relation to self and others, and spiritual. This paper will examine how meditation practice may be brought to bear in re-regulating each of these six domains of functioning, particularly as they relate to creating more balanced relationships with food and eating.

Meditation has been used for promoting general well-being, as well as for treatment of anxiety, addictions, pain management, and as an adjunct to psychotherapy (Marlatt & Kristeller, 2000; Rubin, 1996; Kabat-Zinn, Massion, Kristeller et al., 1992). Numerous models (Austin, 1999; O'Connell & Alexander, 1994) have been presented regarding the mechanisms of the effects of meditation. While meditation is often simplistically represented as a "relaxation" technique, it appears to be better construed as a means for promoting self-awareness and general self-regulation, for decreasing emotional reactivity, and for enhancing insight and the integration of perceptual, cognitive, and behavioral aspects of human functioning.

Our relationship to food and eating – which might be viewed as a somewhat mundane aspect of ourselves, limited to behavior and in the service of survival – can also be considered to encompass each of these earlier mentioned domains of functioning. Furthermore, examining our relationship to food can provide a valuable picture into how the most basic processes of the body – the necessary ingestion of nutrition and energy – become highly conditioned and enveloped within constructed meaning. It is extraordinarily common in our food abundant society for "unwise" eating patterns to develop and become entrenched, resulting in eating disorders and obesity. Patterns developed since childhood interact with societal pressures to override basic nutritional needs. Food as a viable source of pleasure and emotional satisfaction

becomes distorted. Self-observations of disregulation are reinforced by endless social instructions as to what type of eating is most correct, healthy or appropriate. We often try to drag ourselves out of patterns of overeating, overindulgence, and over-attachment by rigid adherence to diets or even fasting, efforts that may increase a sense of control but provide little balance. We have created structures and habits related to our eating, and when they become counterproductive, we often try to create alternatives that are equally poorly informed by the very real needs – both physiological and psychological – that food serves.

Buddha taught the middle way – not just as a reaction against the extreme asceticism of the yogis of his time – but as a challenge to find a truer place of wisdom and balance. He recognized that the opposite of grasping is not avoidance, but being able to hold the object of desire more gently and mindfully. How might this middle way translate into finding a place of balance in relation to our desires for food and for eating? And by extension, can finding such a place of balance in relation to our eating and the role of food in our lives teach more important messages about seeking wisdom in other arenas, perhaps ones that may even be easier to negotiate and revalue mindfully? The concept of wisdom is increasingly being examined as a psychological construct (Sternberg, 1990), but often in a more limited way than within Buddhist psychology. This paper proposes the perspective that “wisdom” is an emergent process that occurs when the immediate, generally self-protective reactions of the conditioned mind are suspended, and integration of more complex processing is allowed to occur. This type of “wisdom” can therefore occur within any domain of functioning, and need not entail any amount of intellectual processing, as is often implied in Western concepts of wisdom; often, while meditating, this result of this process is experienced as a sense of “knowing” that one has identified a true or wise perspective on a problem for oneself. The actual content or problem solved may not be profound, but the solution is experienced as balanced and unconflicted.

Using Meditation in the Clinical Treatment of Eating Disorders

The first exercise that Jon Kabat-Zinn uses in his widely respected mindfulness meditation program (Kabat-Zinn, 1990) at the University of Massachusetts Medical Center is his “raisin” meditation. In this meditation the goal is to experience observing and eating a single raisin as completely and mindfully as possible – as if one has never eaten a raisin before. He uses this exercise as path into mindfulness, as a way to illustrate how mindful awareness can be brought to every aspect of daily life, and as a way to de-mystify the process of mindfulness meditation that will be introduced to participants over the following 2 months. Although this “raisin meditation” takes only a few minutes, it is not uncommon for individuals to report it having a meaningful impact on their subsequent experience of eating and food.

While I was working at the University of Massachusetts Medical Center, I was deeply influenced by Jon’s work. I had been developing a meditation-based intervention for compulsive eaters before I went to UMMC that was originally based on mantra meditation and relaxation techniques, coupled with cognitive-behavior therapy. This intervention was informed by principles of self-regulation (Schwartz, 1975), evidence from sensory deprivation research (Suedfeld & Kristeller, 1982 ; Kristeller, Schwartz & Black, 1982), and the growing evidence suggesting that chronic dieters and compulsive eaters were disengaged from internal self-regulatory systems of eating control, and overly influenced by external cues, belief systems, or emotional signals (Rodin,1981; Kristeller & Rodin,1989).

We have expanded this early work, creating an 8-week program for individuals with Binge Eating Disorder (BED) that teaches basic mindfulness meditation techniques and focused meditative exercises that engage experiences of hunger, satiety, eating awareness and appreciation, recognition of the distorted thoughts that often accompany urges to eat, and the pervasive sense of self-loathing that these individuals often report. In a pilot study with 18 overweight women who met criteria for BED—eating excessively large amounts of food and feeling out of control, generally several times per week -- we found that this program significantly decreased frequency and intensity of bingeing,

improved mood, and increased a general sense of self-control and self-worth (Kristeller & Hallett, 1999).

We are currently evaluating this intervention further with obese men and women who are enrolled in a randomized clinical trial. All are at least 30% overweight and some participants have weighed over 300 lbs. for most of their adult life. Their average age is about 40, and some of them are over 60. Almost all have a history of trying numerous diets; many have given up hope of ever having control over their eating. Many are seriously depressed. Some of them are on medical disability due to their weight; others hold down highly skilled jobs. Quite a few are teachers, nurses or other professionals.

The current treatment encompasses a number of elements designed to increase mindfulness. One important element is training in basic meditation techniques – both extended sitting meditation for about 20 minutes per day, and “mini-meditations”, which provide a means to bring focused awareness into the everyday environment. Another element is re-engaging the body through focused breathing, body awareness and simple yoga movements. Often these individuals abhor their bodies, feeling both disconnected from them and totally defined by them at the same time. Meditative breathing serves as both a relaxation component and as an important meditative tool (Haruki & Takase, 2001; Lehrer, 1999) by re-regulating the balance of the autonomic nervous system and by providing a link to physiological processes that can be directly experienced, yet is not threatening. In addition, different focused meditations are used during each week of treatment; these guided meditations ask participants, in the safe space of the group, to engage ‘bare awareness’ in relation to their experience of food, hunger, feeling full, thoughts about food and eating, and emotions. About half involve use of actual food, expanding the raisin meditation to chocolate cake, cheese, crackers – and a whole meal that participants create themselves. Also important is a forgiveness meditation that raises issues of anger and hurt toward both themselves and to others, and teaches the ability to accept these feelings non-judgmentally. Finally, we engage what might be called “spiritual wisdom”, asking them to find a

place of inner peace and awareness that can connect them to higher purpose, values and strength.

The following represents a focused meditation on the experience of eating:

“Centering yourself in your chair, in your body, gently close your eyes and bring your attention to your breath. Be aware of your breath moving in, flowing down toward your stomach, flowing out again through your nose. Relax your stomach, being aware of the gentle movements up and down. Now bring yourself into awareness of a recent time you are planning to eat. ...What are you planning to eat? What does the food look like? How did you choose to this food? Notice the feelings you are having, the thoughts. Are you experiencing hunger? How do you know? What does that feel like? How much hunger are you feeling? ... Now imagine yourself beginning to eat as you usually do. What is your mouth doing? How fast are you eating? What are your thoughts? Continue eating as you usually would. ... You have now eaten most of the food. How full are you? How do you know? ... What are your thoughts? What are your feelings? What do you want to do now? ... What is your breath doing?... Now bring your attention just to your breath. Take a few slow, deeper relaxed breaths. Bring your awareness back to the feeling of sitting in your chair. Bring yourself back into the space of the room, and gently open your eyes.”

This exercise incorporates several of the domains mentioned above: physical experience, thoughts, and emotion. Another aspect of the meditation is important to note. Whereas this may appear to be a type of guided imagery or even hypnosis, care is taken to be non-directive as to the nature of the experience that may arise or to the interpretation of that experience. No meaning is imposed from without; rather the message is given repeatedly that the wisdom can be found within, once the nature of the mind is simply observed, rather than being reacted to, and once patterns of reaction are disengaged.

Meditation as a Path to Wise Eating

How does meditation lead to balance and self-regulation in a process as complex as eating? How would a constructivist model of meditation (i.e., Delmonte, 1987) apply here? Why is changing our relationship to eating a good model for the potential of meditation as a means to self-regulation? Although eating might be viewed simplistically as a fairly primitive behavior – after all, even the lowest organisms “eat” – in fact, the act of eating can engage virtually all domains of human functioning. Furthermore, the very extent to which eating can be reduced to relatively simple components makes apparent the sheer complexity of the conditioned and constructed elements that are involved. In a food abundant society, with almost an infinite variety of choice, patterns become established that are extremely difficult to disengage.

Meditation has not been systematically studied as an intervention for eating disorders. In a randomized design, Bauhofer (1983) reported double the weight loss in individuals who practiced Transcendental Meditation in addition to a regular weight control program. Research on meditation with other addictive behaviors (Gelderloos et al., 1991), including alcohol (Marlatt et al., 1984; Brooks & Scarano, 1985), smoking and other drug addictions (O’Connell & Alexander, 1994; Monahan, 1977), suggests it to be effective for producing changes to many of the factors relevant to BED. The mechanisms posited to be involved--an alternative means for relief from distress, personal empowerment/sense of perceived control, a heightened ability to resist impulsive urges, a “deconditioning” of habitual behavioral patterns--could all be presumed to be applicable to the compulsive aspects of BED, including elevated anxiety and dysphoria, distorted and reactive thinking patterns, and severely disturbed awareness of normal physiological cues related to food intake.

Our treatment program appears to produce effects across multiple domains of functioning: physical, emotional, behavioral, cognitive, relation to self and others, and spiritual. In each arena, our goal is to lead the individual to recognizing a deeper sense of wisdom on which to construct new experience.

Meditation and physical response. In the physical realm, food and eating, in contrast to other addictions, are necessary to basic survival and life. The body contains numerous natural feedback signals for hunger and satiety for initiating and terminating eating, from the mouth to the gut. These signals are sensitive to blood sugar levels (you will salivate more to a food if you haven't eaten for a while), levels of fat deposits (individuals who are starving will almost always overeat), and hormonal feedback from individual cells of the muscles, fatty tissue and the liver. At the same time, these signals are highly conditionable and elastic, allowing for overload and flexibility to a degree that other physiological systems, such as our need for sleep or water, do not have. While most of us ignore or override our hunger and satiation signals on occasion, individuals with eating disorders, whether binge eating, bulimia or anorexia, appear to be particularly disengaged from this physiological feedback (Hetherington & Rolls, 1989; Hadigan et al., 1992). Meditation may therefore be particularly well suited to treating such problems. Unlike other compulsive behaviors in which abstinence is possible (such as smoking, drugs or alcohol), abstinence is not a possibility. Moderation and flexibility must be learned, and mindfulness meditation techniques may be particularly valuable for reconnecting the mind and the body.

Meditation and emotion. Benson (1975) originally popularized meditation as a stress management tool. Literature reviews (Delmonte, 1985) and meta-analyses (Eppley et al., 1989) have supported the value of meditation in decreasing both state and trait anxiety. Kabat-Zinn et al. (1992) found that an eight-week mindfulness meditation program was effective in significantly lowering the anxiety, panic symptoms, and level of dysphoria of subjects, an effect that remained after extended follow-up. Teasdale and his colleagues (2000) recently completed a randomized clinical trial using mindfulness meditation that substantially reduced relapse in individuals diagnosed with chronic depression. In the arena of eating disorders, meditation may also provide a particularly powerful path for re-regulation around the emotional value of eating. There is a common misperception that only individuals with eating problems eat in response to

stress or for other emotional reasons. In fact, for most individuals, and in virtually all cultures, food is integrally linked to meeting emotional and non-nutritive needs (Kristeller & Rodin, 1989). Food is used for celebration and for comfort. Our preference for sweet and high fat foods is biologically and genetically based, then shaped by our associations between feeding and nurturing as infants and children, and further determined by repeated exposure and cultural patterns. Yet our emotional relationship to food may take on a love-hate dimension, with food coming to represent uncontrollable and overwhelming urges as our concern about weight and dieting increase. Some of this emotional conflict is driven by investing in excessively stringent and inappropriate “rules” of food intake (i.e., fad diets) or extreme restriction that bear little relationship to actual needs or food as an appropriate source of satisfaction. Meditation practice may provide a way to bring this pendulum back into balance, to allow for living in the present, without either overly grasping or rejecting. The emotional associations to food are powerfully conditioned, and meditation may allow for a gentler and more effective disengagement than does simply taking on a new set of externally constructed and imposed rules.

Meditation and cognition. Meditation is inherently a cognitive process. It involves learning to shift and focus the attention at will onto an object of choice. The role of “bare attention” may be one of the most powerful aspects of meditation practice for individuals whose conscious mind is habitually caught up in thoughts and reactions to those thoughts. The mind is designed to construct meaning out of experience and, for most individuals, that constructed meaning is encapsulated by their conscious thoughts. One of the initial effects of meditation is acute awareness of the “monkey mind” – the continuous jumping of the thought from one point to another. Compulsions and obsessions, such as occur in eating disorders, are often powerfully directed by such thoughts, which the individual experiences as both uncontrollable and as an inherent aspect of “self”. Experiencing that these thoughts are “just” thoughts – that they can be separated from the reactions they entail and need not be responded to -- can be extremely powerful in returning a sense of control to the individual. In his work with depression, Teasdale

and his colleagues (2002) suggest a model in which mindfulness meditation allows the individual to interrupt cascades of negative thinking that otherwise contribute to psychobiological dysregulation and relapse into major depression.

Meditation and behavior. What is “right action”? How does meditation practice promote this? Participants in our treatment programs report profound contrasts between their ability to change their eating patterns by using mindfulness techniques in contrast to using a prescribed “diet”. First, they find that their meditation practice allows them to simply observe their own behavior in a more useful way, as illustrated by something as simple as paying attention to eating a raisin. They are able to be “in the moment” with their eating rather than caught up in the constructed associations, both positive and negative, that food and eating engender. By learning to disengage from emotional and cognitive compulsions, they can see eating as just eating, and food as just food.

Improved Self-Concept and cultivation of spirituality. A somewhat more elusive effect of meditation may be to improve self-concept and self-acceptance, areas that are often disturbed in individuals with BED. Bono (Bono, 1984) found that a group of novice TM meditators appreciably improved their self-concept in relation to a “sitting-only” control. A more recent study (Easterlin & Cardena, 1998) found that more experienced meditators reported a higher sense of “acceptance” when under stress than did less experienced meditators.

Kornfield (1993) has written eloquently of meditation as a path to loving kindness and to opening the heart. A recent randomized study (Shapiro, Schwartz, & Bonner, 1998) with medical and premedical students showed substantial and consistent changes across all measures of well-being, including increased spirituality, in those participating in a 7-week mindfulness meditation program.

Several elements of our program are designed to contribute to the process of engaging relationship to self and to others in a healthier way. As the group progresses, meditation is focused less on food *per se*, and more on the types of cognitions and emotions surrounding

eating out of control. Many of these involve self-hatred and disgust. Recognizing and then gradually disengaging from these negative cognitions leads to an improved sense of self. Meditation also appears to promote ability to re-engage parts of the self that are more loving and able to appreciate others. The members of the group often express powerful feelings of connectedness to each other, a connection that is not as evident in our control treatment groups (who use an educationally-oriented approach but have about as much group discussion and sharing). In a final session, we explicitly call on participants to identify or access whatever, for themselves, is experienced as a sense of spiritual or religious strength or source. By this point, they often report that this has become possible in relationship to their self-image and to their relationship to food and eating. It is identified as a higher – or deeper – connection to a power to disengage the conflicts related to food, and to make wiser choices.

#### In Summary

Understanding and engaging the processes of eating from a meditative perspective has proved to be a particularly powerful road into understanding the potential of mindfulness meditation as a therapeutic tool and as a path to wisdom in every domain of human functioning. As noted above, the process of eating and our relationship to food and our bodies can be seen as engaging a wide range of physiological and psychological conditioning. If meditation is conceived as a way to disengage ourselves from the wheel of *samsara*, from the bounds of endless conditioning, while allowing a full engagement with life in the moment, then examining how we relate to food brings us right up against many of these issues. Examining these processes in relation to such a common, universal, everyday experience as eating may be valuable in understanding the power of the meditative process in creating wisdom in other areas as well.

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