EDITORIAL

Varieties of Contemplative Practice

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The article by Kok and Singer[1] appearing in this issue of *JAMA Psychiatry* presents a novel training program to enhance perceived social connectedness through the use of dyadic contemplative practice. While scientific research on meditation and other contemplative practices has burgeoned over the past decade,[2] this research has focused on a small subset of practices and, in particular, on the cultivation of mindfulness through formal sitting meditation. The current study by Kok and Singer[1] (and the ReSource Project from which it is drawn) represents an important advance in scientific research by investigating the differential impact of multiple styles of contemplative practice and modes of training.

Related article

In traditional contexts, a wide range of contemplative practices were used to bolster well-being. Some of these practices emphasized introspection and solitary self-inquiry, whereas others focused on self-exploration and self-transformation in the context of dialogue and relationship. The dyad practices featured in this investigation[1] thus have roots in many contemplative and humanistic traditions and warrant serious study.

The research reported in this article[1] is thus a welcome addition to the growing scientific literature on contemplative practice and highlights a form of practice that has heretofore not been systematically studied. In this editorial, we contextualize the work of Kok and Singer and use their important study[1] as a springboard to call attention to critical issues in this area of research.

What Is a Contemplative Intervention?

Contemplative practices have figured prominently in religious, philosophical, and humanistic traditions since antiquity. The boundary that defines what falls within the category of contemplative practices is somewhat hazy, but from a general perspective, we can say that this form of training emphasizes self-awareness, self-regulation, and/or self-inquiry to enact a process of psychological transformation. These practices thus involve some form of mental training, even when they also involve physical movement or dialogue-based exercises. Although contextualized differently among the traditions that use them, contemplative practices are typically viewed as practical methods to bring about a state of enduring well-being or inner flourishing.

As we can see from the work of Kok and Singer,[1] contemplative practices are not limited to solitary meditation practices. Indeed, frameworks of contemplative training are rich and varied. Modes of contemplative training include introspective meditations, interpersonal dialogue and intersubjective inquiry, and also practices that involve bodily movements such as yoga and tai chi. These modes of training, moreover, can be used to target different psychological processes. Some practices train meta-awareness and other attentional processes, some aim to cultivate qualities such as equanimity and compassion, and others use self-inquiry to develop self-understanding and insight.[2] Studies of contemplative training should thus consider both the mode of training and the style or family to which a contemplative practice belongs.

Neuroplasticity and Mental Training

The study of contemplative practices is predicated on the view that the neural circuits that subserve the cognitive, affective, and social targets of the practices exhibit plasticity. These circuits are shaped by experience and are often affected by factors that lie outside of conscious awareness. The invitation in this type of work is that we can change our brains by voluntarily cultivating healthy habits of mind. In other components of the ReSource Project that Kok and Singer studied, measures of brain function and structure are obtained to document the neural changes that accompany behavioral changes induced by the intervention. The very fact that mental training leads to changes in the brain is critical because it indicates that neural changes can be produced by purely mental training. This suggests that alterations in brain function and structure might underlie enduring changes in behavior and experience.

In addition, this perspective offers an important twist on how we think of most socioemotional traits. Enduring aspects of social and emotional behavior are often viewed as genetically determined and resistant to change.[3] The work presented by Kok and Singer[1] and the larger body of neuroscientific research on contemplative practices[4] invite a different view of such social and emotional traits. This body of research indicates that mental training, whether in the form of simple meditation practices or dialogue-based exercises, may involve useful strategies that produce beneficial changes in social and emotional behavior.[2]

Well-being: Not Simply the Absence of Illness

The types of practices featured in the world's contemplative traditions were not originally developed to treat psychopathology. They were developed to catalyze optimal psychological well-being.[2] Although the origins of the dyadic interpersonal practices that were studied by Kok and Singer[1] can be found in both contemplative and psychotherapeutic traditions, a serious scientific exploration is needed to determine whether these practices are well suited to the treatment of social cognitive deficits among individuals with disorders such

autism. That such practices can improve well-being in otherwise healthy individuals has received strong empirical support.[5]

Varieties of Contemplative Interventions

An important contribution of the work of Kok and Singer[1] is that their ReSource Project investigates different families of contemplative practice, including those that target self-awareness (presence), emotion (affect), and cognition (perspective), and also different modes of training, including both solitary meditation and interpersonal dialogue. These represent 2 important dimensions of contemplative practice that have received little attention from the research community. The breadth of the ReSource Project thus provides an important window into the differential and synergistic effects of different families of contemplative practice and modes of training.

The study by Kok and Singer[1] thus highlights several varieties of contemplative practice and suggests that they may be instantiated in different brain circuits and may lead to different behavioral outcomes. This fact is important to emphasize, particularly in light of the recent focus on mindfulness-based interventions in the empirical literature on meditation. While the past 5 years have seen some increase in emphasis on loving-kindness and compassion interventions in the scientific literature,[6] there are many other forms of contemplative practice. Many styles of practice have received scant attention in the form of sustained research, yet these practices hold promise in transforming the self-related psychological constructs that lie at the root of many forms of suffering.[2] We strongly urge our colleagues in this area to broaden their study of contemplative interventions to include a wider range of practices, especially analytical meditation and others that use self-inquiry as a strategy.

What Are the Active Ingredients in the Kok and Singer Intervention?

While the combination of specific forms of meditation and dyadic interaction was clearly chosen to maximize the potency of impact, it prevents us from learning which specific component may have been the active ingredient in producing change on the outcome measures. Perhaps the meditation practices by themselves would have produced comparable change. Conversely, the dyadic interaction alone might have yielded identical effects. In the absence of dismantling designs that dissect the different constituents of the intervention, we cannot answer this question. Future work would benefit from such studies.

Moreover, it may well be the case that different combinations are optimal for types of individuals who differ in cognitive and/or affective style. The optimal matching of specific individuals to specific types of contemplative intervention can be aided by studies that assign individuals to interventions based on preexisting individual difference measures. These individuals can then be followed to systematically determine who benefits most from which types of interventions. This effort may eventually result in a form of "precision contemplative intervention" akin to the recent efforts in precision psychiatry,[7] although the phenotype in this case would be defined on the basis of behavioral, not genetic, criteria.

Scaling

The interventions studied by Kok and Singer[1] include a combination of both online and in-person components. The possibility of deploying interventions online and/or with mobile devices dramatically broadens the opportunity to have widespread impact. There is an increasing number of scientific studies that have evaluated the impact of contemplative interventions delivered online.[8,9] These studies have consistently found beneficial effects on behavioral and neural measures for interventions delivered digitally. Such studies provide encouraging support for the possibility of delivering these interventions to a wide population using online technology, particularly if they include some in-person component as Kok and Singer[1] have done.

Conclusions

The study[1] described by Kok and Singer is part of a growing wave of rigorous empirical research on practices that originated in the world's contemplative traditions. The accruing evidence from this body of work underscores the value of these practices for cultivating different aspects of well-being and for altering neural and other biological processes that support enduring change. This collective body of work provides the empirical foundation for the more widespread incorporation of these practices in psychiatry with the proper guidance and instruction. We look forward to the vibrant growth of this area in the near future.

ARTICLE INFORMATION

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Published Online: December 28, 2016. doi:10.1001/jamapsychiatry.2016.3469

Conflict of Interest Disclosures: Dr Davidson is the founder, president, and serves on the board of directors for the nonprofit organization Healthy Minds Innovations, Inc. Dr Dahl serves as chief contemplative officer for Healthy Minds Innovations, Inc. In addition, Dr Davidson serves on the board of directors for the Mind and Life Institute. No other disclosures are reported.

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