# Acta Neuropsychiatrica

# INTERVENTION NSIGHTS

# Meditation, mindfulness and mind-emptiness

Meditation is widely perceived as an effective method for reducing stress and enhancing wellbeing. The US Centers for Disease Control and Prevention's 2002 National Health Interview Survey administered to 31 000 representative adults showed that 8% of respondents had practiced meditation at some time (1). The Australian Community Survey found that 1.5 million Australians had tried meditation in the past 12 months and that while 29% of Australians found prayer to be a source of peace and wellbeing, 24% used meditation for the same thing. Remarkably, despite the fact that only about 20% of Australians attend church monthly or more often, around 33% of Australians pray or meditate at least weekly (2,3).

Health professionals are also enthusiastic about meditation, despite a lack of formal education about it; a survey of Australian general practitioners (GPs) found that almost 80% of respondents had recommended meditation to patients at some time in the course of their practice, yet less than 35% had any formal training or education in the field (4). Mindfulness has become particularly popular in recent years both among consumers and health professionals.

# The conundrum

Although more than 3000 scientific studies have been published on meditation within the English-speaking peer-reviewed databases, only about 4% are reports on randomised controlled trials (RCTs) – the only way to reliably exclude the placebo effect. High-quality reviews of these RCTs consistently find that meditation, as it is practised and defined in western society (e.g. relaxation, attention focusing and

mindfulness), is little more than a sophisticated way of generating a non-specific effect (5).

In other words, meditation as it is currently understood does not give better results than taking a short nap, listening to pleasant music or thinking pleasant thoughts. This logically calls into question the expense and/or effort that many meditation methods entail. Furthermore, it also questions the cultural and historical expectations that have come to surround meditation.

The mismatch between the scientific evidence, consumer enthusiasm and perceptions embedded in the wider noosphere creates a conundrum for professionals seeking to make responsible recommendations in practice.

We propose that these conflicting notions about meditation can be meaningfully resolved by changing its definition to bring it in closer alignment with its ancient origins.

### **Ancient clues**

Modern science most commonly characterises meditation as a relaxation response or a pattern of specifically focused attention. These conceptualisations differ fundamentally from the authentic descriptions of the meditative experience originating in ancient India. The original source texts clearly state that a key defining feature of meditation is the experience of mental silence. For example, in what is probably the oldest known definition of meditation, the narrator explains in the ancient Indian Mahabharata that a meditator is '... like a log, he does not think' (6). Similarly, Lao Tse instructs the reader in the Tao Te Ching to 'empty the mind of all thoughts'. Many other

explicit examples of this idea can be found in Eastern literature from virtually every historical period. Yet Western definitions of meditation have consistently failed to acknowledge this crucial feature. Perhaps this is because of the predominance of the Cartesian dictum 'cogito ergo sum' (I think therefore I am) that has come to characterise Western philosophy.

## **Evidence**

The Meditation Research Program (MRP) is specifically interested in scientific evaluation of the mental silence phenomenon. Our findings so far suggest that it is associated with a detectable specific effect. For example, a rigorous RCT of sahaja meditation (a technique typified by the experience of mental silence) for occupational stress showed significantly superior effects on measures of work-related stress and depressive feelings (7) when compared to an active control. Another RCT showed specific effects on asthma-related parameters (8). Other trials conducted elsewhere also show promising outcomes.

In both RCTs, mental silence appears to generate an improvement in psychological parameters and aspects of quality of life that is clinically and statistically greater than that seen with more conventional stress management. There is also some evidence that aspects of physical disease processes may also be significantly impacted. This is the subject of ongoing research.

# Psychophysiology of mental silence

A well-designed electroencephalographic (EEG) study reported that the experience

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is consistently associated with symmetrically distributed fronto-parietal midline alpha/theta activity. Perhaps most remarkable was the strong correlation between subjective quality of self-reported meditative experience and the strength of these electrical changes (9).

Further, a remarkable although preliminary study of experienced meditators compared to a matched control group asked to relax demonstrated that while heart rate changes in both groups were not different, the skin temperature of the meditators paradoxically fell rather than increased. The degree of skin temperature change correlated strongly with the meditator's self-reported quality of mental silence experience. This contradicts the relaxation response model often used to explain the effects of meditation (10).

Taken together these studies create a picture suggesting that the mental silence experience may be associated with a specific pattern of central and peripheral physiological activities. Whether or not these changes explain the specific effects observed in the clinical studies remains to be determined.

# **Practical ramifications**

First, all approaches to meditation, be they relaxation, mindfulness, contemplative or whatever, are associated with beneficial non-specific effects as are all stress management style interventions. Second, however, mental silence-orientated approaches to meditation may be associated with additional, specific effects that are clinically beneficial. Third, the beneficial impact of meditation is not related to its cost. In fact, non-commercial approaches to meditation, especially if they involve mental silence, may be preferable.

# Mindfulness and mind-emptiness

Finally, the principle of mental silence represents an important progression on the mindfulness concept. It is important to remember that mindfulness methodology was most explicitly laid out in Buddhist meditation texts, yet the practice of meditation and the notion of mental silence predates ideas of mindfulness by some thousands of years. The practice of mindfulness essentially involves the passive observation of internal and

external stimuli without mental reaction. Mental silence is a logical progression of this principle wherein the meditator not only observes their mental content without reaction but in fact attains a state of no mental content at all, while remaining in full control of their faculties.

The practical experience in our clinical trials bears this notion out since we found that mindfulness strategies were often useful to facilitate mind-emptiness. We propose that mindfulness was in fact developed with the intention of facilitating the experience of mental silence.

Mindfulness may be better understood as a means to an ends rather than being an ends in itself.

# Towards a new taxonomy

The notion of mental silence as the definitive meditative state logically suggests that contemplative and meditative practices could be unified in a single taxonomy based on mental activity. Within this schema, it may be possible to position meditative methods on a spectrum according to the way in which they are intended to modulate thinking. At the high end of the thinking activity spectrum would be methods such as prayer and visualisation. At the other end would be mental silence-orientated techniques such as sahaja and Zen. Midway would be relaxation methods which, by reducing arousal, might reduce mental activity more so than prayer or visualisation, but not as much as, say, mantra-based meditation that focuses on a single syllable or word. Mindfulness might be positioned towards the mental silence end, just before those techniques that specifically focus on mental silence itself. Extrapolating on this concept, methods at the 'high mental activity' end of the spectrum will be associated with non-specific effects, while those at the 'low mental activity' end might be more likely to be associated with specific effects. Although possibly over-simplistic this novel perspective offers a practically meaningful way of contextualising the otherwise heterogeneous and sometimes contradictory methods that claim a home under the rubric of meditation.

In conclusion, the mental silence paradigm might offer not only a more historically authentic approach to meditation but also a resolution to some of the crucial paradoxes associated with the genre with beneficial implications for clinicians and the community.

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Acta Neuropsychiatrica 2011: 23: 46–47 © 2011 John Wiley & Sons A/S DOI: 10.1111/j.1601-5215.2010.00519.x

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