

MENTAL HEALTH PROMOTION: THEIMPACT OF A CULTURALLY ATTUNED MINDFULNESS PROGRAM ON WELLBEING AND ACADEMIC PERFORMANCE AMONG MUSLIM COLLEGE WOMEN

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Abstract: Mindfulness has grown in prominence in recent decades. Its efficacy has been an important contributor to its acceptance and proliferation. Although secularised, mindfulness-based interventions are derived from Eastern spiritual traditions, particularly Buddhism. For this reason, there is a need to explore the efficacy and acceptability of such approaches among individuals committed to theistic traditions such as Islam. This study examines the impact of a culturally adapted version of mindfulness based on bridging concepts that communicate key aspects of these interventions in a manner more culturally attuned and religiously resonant with the worldviews of Muslim clients. Muslim college women (N= 30), citizens of the United Arab Emirates, were randomly assigned to either an 8-week mindfulness program or a waiting list condition. Measures of depression, stress reactivity and academic performance were collected at time one and time two. The experimental group improved significantly (less depressive symptoms and stress reactivity). However there was no difference between the groups concerning academic performance. The results are discussed in relation to culturally attuning mindfulness and its use within educational contexts .

Keywords: Mindfulness, Muslim, Depression, Culture, Academic Performance

I. INTRODUCTION

Depression is one of the leading causes of disability world-wide, and represents a significant public health problem (Moussavi et al. 2007). In the USA approximately 6% of the population meet the criteria for a depressive disorder at any point in time, and 20% of those experiencing depression will have symptoms that persist beyond 24 months (Keller and Mueller 1992). The lifetime course of depression is described as 'chronic', with 80% of individuals experiencing multiple episodes (mean = 4 major lifetime episodes) and each subsequent episode greatly increasing the likelihood of future relapse (Teasdale et al. 2000). Relatively high rates of relapse are even found amongst those receiving prophylactic anti-depressant medication (Kaymaz et al. 2008). The rising prevalence, high rates of recurrence and economic burden associated with depression, have all contributed to a growing research interest in primary (onset) and secondary (recurrence) prevention (Rodgers et al. 2012).

Mindfulness has arisen as an intervention demonstrating great potential in the context of preventing depression and reducing stress reactivity. Bibliometric citation analysis further confirms the growing scientific interest in such approaches. Using the Scopus bibliographic database, Chiesa et al. (2017) report a year on year increase in the publication of mindfulness-related review articles (N = 128), with a mean annual growth of around 19% between 2003 and 2015. Altmetrics, such as internet search volume, can also provide an idea about the growing interest in mindfulness among the broader public. Using Google trends (2017), a database of internet search activity, we can see that the search

volume index for the term "mindfulness" rose annually between 2012 and 2016, with a mean annual increase of 22.33 %.

This rapidly growing interest in mindfulness has perhaps prompted a backlash. Some critics have coined the term McMindfulness, making uncomplimentary parallels with the fast-food chain McDonald's, alluding to the secularisation and, what some perceive as, the aggressive marketing of a despiritualized mindfulness (Purser and Loy 2013). Borup (2016) argues that the popularisation of mindfulness is also bound up in the broader "mediatization" and "commodification" of Buddhism in the West. However, despite these occasional criticisms, the popularity of mindfulness-based interventions continues to grow and expand within and beyond healthcare.

Workplace well-being programs have integrated mindfulness-based interventions, as have educational curricula; there have even been mindfulness programs specifically developed for the US military (Brewer 2014). Part of this broader appeal is that mindfulness-based approaches extend beyond traditional therapeutic models, encompassing ideas of primary and secondary prevention, resilience promotion and flourishing (Malinowski 2013, Crane 2009, Teasdale et al. 2000). Mindfulness-based approaches also differ from their psychotherapeutic predecessors in that they are, in part, influenced by spiritual or religious philosophies. Mindfulness meditation is an essential element within several Buddhist traditions, including Zen and Vipassana (Bodhi 2011). The Sanskrit term used for mindfulness within Buddhist tradition is Sati, denoting a lucid awareness of whatever is occurring within the phenomenological field (Bodhi 2011). Similarly, many of those

influential in popularising mindfulness in the West have themselves studied Buddhism, notably, Jon Kabat-Zinn, the founder of mindfulness-based stress reduction (MBSR) and creator of the Center for Mindfulness at the University of Massachusetts Medical School (Kabat-Zinn 2011).

With its origins in Buddhism, mindfulness meditation practices might seem, for some Muslims, particularly alien or threatening. We propose that, in some cases, the use of bridging concepts derived from the Islamic narrative will enable Muslim clients to more fully comprehend, appreciate and engage with mindfulness-based interventions. The present study evaluates the impact/efficacy of such an attuned intervention on mood and academic performance among Muslim college women in the United Arab Emirates.

II. METHOD

Participants

The study's participants were an opportunity sample of female students at Zayed University (N = 30). The first 30 students to sign-up were randomly allocated to either the MBSR or a waiting list control group (WLC). The mean age for participants was 18.49 (SD = 2.74), with no significant age difference between MBSR and WLC participants. The two groups did not differ on cumulative grade point average, 2.8 and 3.1 respectively.

Measures

Beck Depression Inventory-II (BDI) The BDI (Beck, Steer, and Brown 1996) is a 21-Item self-report inventory widely used for assessing the severity and intensity of depressive symptoms. Each item reflects either a cognitive, or somatic-affective symptom of depression; items are rated from 0 to 3, with higher scores reflecting heightened symptom severity. Studies of the BDI's psychometric properties, spanning many nations, report favorably on the instrument's construct, convergent, and predictive validity (Al-Musawi 2001, Osman et al. 2004, Sprinkle et al. 2002).

Daily Life Stress Scale UAE (DLSS) This culturally grounded measure of reactivity to routine stressors was described as part of study 1.

Mindfulness Based Stress Reduction (MBSR): The MBSR program consisted of 10 sessions in all with session 1 being an orientation session where baseline measures were collected and session 10 being a debriefing session where endline measures were collected. Sessions 2 to 9 were closely followed a standard MBSR manual based on the work of Kabat-Zinn (1990) and adapted as per (Thomas et al 2017) these sessions were spaced over 8-weeks with a 50 minutes duration and weekly homework set. The MBSR program was delivered by the first and second authors of this paper who both have postgraduate qualifications in psychotherapy and more than 3-

years experience in delivering MBSR programs. The core elements of the program are detailed in Table 3

III. PROCEDURE

Prior to being randomly allocated, all participants completed the baseline questionnaire measures in a classroom setting. Those allocated to the MBSR condition were given reading materials and set of audio CD's to accompany the course. The MBSR group met in a comfortable seminar room for 50 minutes each Tuesday during a common break, immediately before class. The first and second authors of this paper lead each MBSR session, typically beginning with a review of the homework allocated at the end of the preceding session before going on to introduce and practice new concepts and techniques. There were 8 sessions of MBSR in total a final separate meeting was arranged where endline measures were collected from the MBSR and WLC group. All participants completed all 8 sessions.

IV. RESULTS

MBSR and WLC participants did not differ on any demographic or study variables at baseline (see table 1). Mean depressive symptom scores were similar to the norms reported in other studies of healthy college students (Alansari, 2005; Beck et al., 1996)

Table 1
 Means and standard deviations for all study variables at baseline

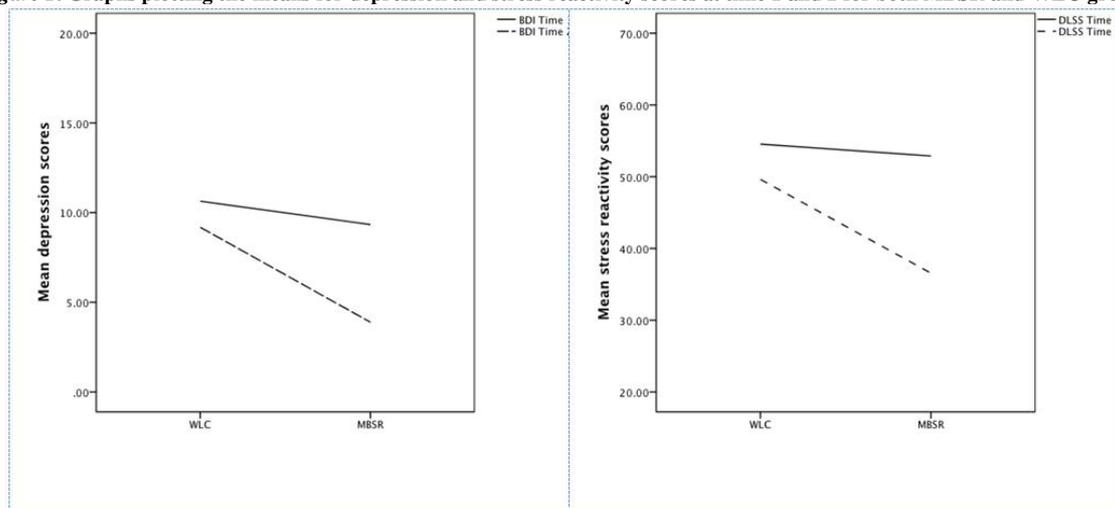
	DLSS		BDI	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MBSR	52.60	15.59	9.8	5.41
WLC	53.58	18.58	11.25	7.28

Endline measures of depressive symptoms (BDI) for the MBSR group (M = 3.88, SD = 3.14) were lower than those of the WLC group (M = 9.18, SD = 8.38). These differences were statistically significant; $t(22) = -1.78, p < .05, d = -0.75$. Similarly, endline measures of stress-reactivity (DLSS) for the MBSR group (M = 36.55, SD = 16.18) were lower than those of the WLC group (M = 49.63, SD = 15.95). These differences were statistically significant; $t(22) = -1.83, p < .05, d = -0.78$.

To explore within groups differences across time, repeated measures (paired samples) T-tests were used to compare baseline and endline scores for both groups independently. For the MBSR group, endline depression scores (M = 3.88, SD = 3.14) were lower than baseline scores (M = 9.80, SD = 5.41). This reduction in depressive symptoms was statistically significant; $t(11) = 2.72, p < .05, d = 0.9$. The same pattern was observed for endline (M = 36.55, SD = 16.18) and baseline (M = 52.60, SD = 15.59) stress reactivity scores; $t(11) = 3.54, p < .01, d = 1.17$. For the WLC group however, there were no significant changes in baseline and endline depressive

symptoms, or stress-reactivity scores. Groups did not differ on time one or time two GPA (time two 3.2 and 2.9, respectively).

Figure 1. Graphs plotting the means for depression and stress reactivity scores at time 1 and 2 for both MBSR and WLC groups



DISCUSSION

The study supports the efficacy of the culturally adapted mindfulness (MBSR) intervention. The exclusion of males in the study was dictated by the single sex nature of university education in the UAE. Most federal universities have some form of gender separation at the undergraduate level. However, a previous review of gender differences in the efficacy of mindfulness interventions did not find a pattern of significant gender differences (Katz & Toner, 2013). That said none of the previously reviewed studies focused on Arab/Muslim populations, and future studies exploring the efficacy and acceptability of MBSR amongst Emirati males are warranted. Furthermore, to better assess the efficacy of MBSR, future studies might employ an active control condition in addition to a waiting-list control. At least one study, employing a carefully developed active control condition (health enhancement program), concluded that, while MBSR was effective in promoting well-being it did not outperform the active control (MacCoon et al., 2012). The small sample size in the present study could also be viewed as a limitation. However, the small number of participants reflects the typical class size for an MBSR program adding ecological validity.

Despite being a relatively small pilot study, the MBSR program achieved relatively large effect sizes in terms of reductions in stress-reactivity and depressive symptoms between baseline and endline measures. Larger studies with greater controls are required to more fully evaluate the relative efficacy of MBSR within an Arabian Gulf context, however the present results support the idea that stress-reactivity is associated with depressive symptoms amongst UAE college students, and MBSR shows promise as a potential means to reduce stress-reactivity and depressive symptoms amongst the same population.

There were no adverse consequences or benefits in terms of academic performance as indicated by CGPA

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