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Psychological inflexibility and depressive symptoms among Asian English speakers: A study on Indian, Philippine, and Singaporean samples

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ABSTRACT

Psychological inflexibility is a core concept in Acceptance and Commitment Therapy. The primary aim of this study was to examine psychological inflexibility and depressive symptoms among Asian English speakers. A total of 900 adults in India, the Philippines, and Singapore completed some measures related to psychological inflexibility and depressive symptoms through a Web-based survey. Multiple regression analyses revealed that higher psychological inflexibility was significantly associated with higher levels of depressive symptoms in all the samples, after controlling for the effects of gender, marital status, and interpersonal stress. In addition, the effect sizes of the changes in the R^2 values when only psychological flexibility scores were entered in the regression model were large for all the samples. Moreover, overall, the beta-weight of the psychological flexibility scores obtained by the Philippine sample was the lowest of all three samples.

1. Introduction

Psychological inflexibility is defined as "the rigid dominance of psychological reactions over chosen values and contingencies in guiding action" (p. 678, Bond et al., 2011), which often occurs when individuals attempt to avoid experiencing unwanted internal events. On the other hand, psychological flexibility refers to "the ability to fully contact the present moment and the thoughts and feelings it contains without needless defense, and, depending on what the situation affords, persisting in or changing behavior in the pursuit of goals and values" (Hayes et al., 2006). Psychological inflexibility is a core concept in the Acceptance and Commitment Therapy (ACT) model (Hayes et al., 1999, 2006); the model's goal is to discourage experiential avoidance and to increase psychological flexibility. ACT is one of the most representative therapies of the so-called third wave of behavior therapy, and the efficacy of treatment based on ACT has been supported by considerable empirical evidence (for reviews, see Hayes et al. (2006), Ruiz (2010, 2012) and Öst (2014)).

1.1. Psychological inflexibility and depressive symptoms

Depression is a leading cause of disability worldwide. The WHO (2001) reported that, of all diseases, unipolar depressive disorders were the leading cause of disease burden. Specifically, unipolar depressive disorders accounted for 8.6% of total disability-adjusted life years, and were the leading cause of years of life lived with disability (YLDs), accounting for 16.4% of YLDs.

The efficacy of ACT for depression is well-known (Öst, 2014, Ruiz, 2012), and previous studies have provided considerable evidence of a positive association between psychological inflexibility and depressive symptoms in samples of college students (e.g., Masuda et al., 2014; Woodruff et al., 2014), people with mental disorders (e.g., Curtiss and Klemanski, 2014; Fergus et al., 2013), and chronic pain (e.g., McCracken et al., 2013, 2014). Moreover, in an intervention study by Bohlmeijer et al. (2011), in which ACT was used to treat depressive symptomatology, reduced psychological inflexibility (post-treatment minus baseline scores) was associated with scores on lower levels of depressive symptoms at follow-up, after controlling for the effects of baseline psychological inflexibility and depressive symptoms scores.

1.2. Interpersonal stressors and depressive symptoms

Interpersonal stressors are a risk factor for depressive symptoms (Kato, 2015). Researchers studying depression (e.g., Hammen and Shin, 2014; Rudolph, 2009) have proposed mechanisms by which interpersonal stressors increase the risk and recurrence of depression, such as the interpersonal vulnerability theory. In fact, previous studies have provided evidence for the relationships between interpersonal stressors and depression. For example,

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Sheets and Craighead (2014) found that interpersonal chronic stressors predicted depressive symptoms after controlling for the effects of baseline depressive symptoms, whereas non-interpersonal chronic stressors did not predict depressive symptoms.

In the ACT model, it is hypothesized that psychological inflexibility would lead to an increase in psychological dysfunction when individuals encounter stressors. Therefore, in the present study, we hypothesized that psychological inflexibility would be associated with depressive symptoms, after controlling for the effects of interpersonal stressors.

1.3. Psychological inflexibility in Asian cultures

For the current study, we selected India, the Philippines, and Singapore as sample sites, as they are English-speaking Asian countries – other Asian countries in which English is an official language are Pakistan and Israel. Philippine culture has been influenced by Western cultures for a long time, due to the colonization of the Philippines by Spain for more than three centuries, after which the former became a territory of the United States (US) for about a half century.

There are several reasons for our selection of Asian English speakers as participants in the present study. First, individuals in Asian cultures are more susceptible to the effects of interpersonal stress, given that Asian cultures typically have social values based on collectivism and interdependence, which emphasize respecting others, living in harmony, and basing one's behavior on the perceived thoughts, feelings, and actions of others (Markus and Kitayama, 1991). Second, mindfulness- and acceptance-based therapies, including ACT, have their philosophical roots in East Asia (Hall et al., 2011; Hayes, 2002). More specifically, there are clear parallels between psychological flexibility in ACT and Buddhist philosophy and practices (Hayes, 2002), which originated in India and was subsequently introduced to East Asia. Therefore, ACT can reduce psychological dysfunction, including depressive symptoms, by increasing psychological flexibility in Asian cultures as well as in Western cultures (Hall et al., 2011). In fact, a few studies have found higher psychological inflexibility to be associated with higher levels of psychological dysfunction in Asian cultures (e.g., Zhang et al., 2014), including Asian-American culture (e.g., Cook and Hayes, 2010; Masuda et al., 2014). Therefore, in the present study, we hypothesized that psychological inflexibility would be associated with depressive symptoms.

In the current study, we also examined cross-cultural differences in psychological inflexibility and in the strength of the relationship between psychological flexibility and depressive symptoms. We did not formulate hypotheses on these cross-cultural differences because there is insufficient evidence to enable the development of hypotheses in this regard. However, the examination of cross-cultural differences may contribute toward the development of ACT, specifically for Asian cultures. In cross-national research, use of the same language does not bring about complications regarding translation equivalence. This was also one of the reasons for the use of Asian English speakers as participants in the present study.

2. Method

2.1. Participants

2.1.1. Indian sample

This sample comprised 150 men and 150 women aged 20–72 years (mean age 36.06 years, SD=11.28). Approximately 12.7% were Punjabi, 11.0% were Tamil, 10.7% were Gujarati, 10.0% were Bengali, 10.0% were Marathi, 9.3% were Telugu, 6.3% were Kannada, 4.3% were Malayali, and 24.7% were of other ethnicities; three persons preferred not to state their ethnicity. Further, about 69.7% of the participants were married, 29.3% had never been married, and 1.0% were divorced, separated, or widowed.

2.1.2. Philippine sample

The Singaporean sample included 150 men and 150 women aged 20 to 73 years (mean age 36.43 years, SD=11.62). Approximately 93.7% were Filipino, 2.7% were Chinese, 1.7% were half-Filipino, and 1.6% were of other ethnicities; one person preferred not to specify ethnicity. In addition, approximately 47.0% were married and 49.7% had never been married, while 3.3% were divorced, separated, or widowed.

2.1.3. Singaporean sample[1]

Individuals in this sample included 150 men and 150 women aged 20–74 years (mean age 35.94 years, SD=10.55). Approximately 88.3% were Chinese, 4.7% were Malay, 4.3% were Indian, and 2.7% were of other ethnicities. In terms of marital status, 46.3% were married, 51.7% had never been married, and 2.0% were divorced, separated, or widowed.

2.2. Procedure

All participants were recruited through a Web-based survey named the 2014 Coping and Health Survey. This project used the Web panel (see http://research.rakuten.co.jp/en/) of Rakuten Research (Tokyo, Japan), a polling organization. The panel comprised more than 9.44, 1.60, and 3.92 hundred-thousand members in India, the Philippines, and Singapore, respectively, who had each registered and received a personal identifier. Women in the Indian, Philippine, and Singaporean panels made up 31%, 69%, and 63% of the respective samples. The three countries major, sampled age groups categories were 20–29 years (48%, 46%, and 34%, respectively) and 30–39 ages (27%, 30%, and 32%, respectively). The percentages of full-time employees were 56%, 57%, and 64%, respectively. All members of the Indian, Philippine, and Singaporean panels would respond to the survey in English or Hindi, English or Tagalog, and English, respectively.

In early December 2014, the details of the survey were sent to potential participants via e-mail; they were English speakers, whose ages ranged from 20 to 79 years. Individuals agreeing to participate in the survey could click on another link to view the survey. The participants obtained Rakuten points for their participation, which they could use to pay for the many services (e.g., shopping) provided by the Rakuten groups. The data were collected so that samples were almost evenly divided by gender and age in each country. A Kruskal-Wallis rank analysis revealed no significant differences in age between the three samples ($\chi^2=0.12$, $p=0.940$).

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000. The study was approved by the local institutional review board. Informed consent was obtained through a Web-based survey from all individual participants included in the study.

[1] All analyses in the present study were also conducted using the data excluding Indian participants from the Singaporean sample. The results rarely differed from those of the Singaporean sample, including Indian participants.