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Introduction

Studies have shown that increased psychological flexibility and valued living positively effect a wide range of mental health and related conditions (A-Tjak et al., 2015; Levin, Hildebrandt, Lillis, & Hayes, 2012). And in these studies, AAQ-II (Bond et al., 2011) and VQ (Smout, Davies, Burns, & Christie, 2014) are among the most-used measures of psychological flexibility and valued living, respectively. As a contextual therapy, ACT is theoretically well-suited to cross-cultural application (Hayes, Luoma, Bond, Masuda, & Lillis, 2006; Hayes, Muto, & Masuda, 2011). But the ACT model and its components require considerably broader examination in culturally diverse samples (Flynn, Berkout, & Bordieri, 2016). This exploratory study questioned whether a model predicting common psychopathologies and global satisfaction using psychological flexibility and subscales of valued living would perform similarly among different cultural dimensions of a fairly large sample of college undergraduates.

Method

Participants

- 103 Males (31.7%) and 222 Females (68.3%)
- Ethnicity
 - (M): 78.6% White; 15.5% African Am.; 3.0 % Hispanic; 3% ; 3.0% Asian
 - (F): 64.9% White; 29.3% African Am.; 3.6% Hispanic; 2.25% Asian
- Age: $M = 19.45$, $SD = 3.02$
- Sexual Orientation: 89.2% Heterosexual; 10.8% Non-heterosexual

Measurements and Instruments

Demographic Questionnaire (DQ). The DQ was designed for the purpose of this study to gather data regarding gender, ethnicity, and sexual orientation.

Acceptance and Action Questionnaire-II (AAQ-II). The AAQ-II (Bond et al., 2011) is a seven-item self-report measure of psychological flexibility.

Valuing Questionnaire (VQ). The VQ (Smout, Davies, Burns, & Christie, 2014) is ten-item self-report scale designed to assess engagement in valued living. The VQ assesses two dimensions: progress and obstruction

PTSD Checklist (PCL-5). The PCL-5 (Blevins et al., 2015). is a twenty-item self-report measure which assesses PTSD symptoms a person may have after experiencing actual or threatened trauma.

Depression Anxiety and Stress Scale (DASS-21). DASS-21 measures depression, anxiety, and stress with higher scores indicating higher levels of each. The DASS-21 subscales can validly be used to measure the dimensions of depression, anxiety, and stress (Henry & Crawford 2010).

Satisfaction With Life Scale (SWLS). The SWLS (Diener, Emmons, Larsen, & Griffin, 1985) is a five-item questionnaire designed to measure global life satisfaction.

Results

MLR showed that AAQ-II and VQ subscale score significantly predicted depression, anxiety, stress, trauma, and satisfaction with life scores. Dichotomous variables for gender, ethnicity, and sexual orientation were not significant predictors. Interactions between dichotomous variables and other predictors were mostly non-significant. However there was a small significant interaction between sexual orientation and AAQ-II on anxiety only.

DASS-21 depression

$R^2 = .41$

$F(3,316) = 73.33^{***}$

AAQ-II $\beta = -.25^{***}$, VO $\beta = .29^{***}$, VP $\beta = -.32^{***}$

DASS-21 anxiety

$R^2 = .21$

$F(3,316) = 27.74^{***}$

AAQ-II $\beta = -.12^*$, VO $\beta = .29^{***}$, VP $\beta = -.14^{**}$

DASS-21 stress

$R^2 = .34$

$F(3,316) = 55.09^{***}$

AAQ-II $\beta = -.32^{***}$, VO $\beta = .28^*$, VP $\beta = -.25^*$

PCL5 trauma

$R^2 = .37$

$F(3,316) = 61.75^{***}$

AAQ-II $\beta = -.42^{***}$, VO $\beta = .24^{***}$, VP $\beta = -.02, ns$

SWLS

$R^2 = .29$

$F(3,316) = 43.55^{***}$

AAQ-II $\beta = .35^{***}$, VO $\beta = .05, ns$, VP $\beta = .37^{***}$

DASS-21 anxiety

$R^2 = .24$

$F(7,312) = 13.93^{***}$

AAQ2 $\beta = -.33^{**}$, VO $\beta = .30^*$, VP $\beta = -.10, ns$

SexOr $\beta = .01, ns$, SexOr X AAQ-II $\beta = .25^*$

* $p < .05$. ** $p < .01$. *** $p < .001$.

Procedure

Participants were recruited from an on-campus support group meeting, email, and social media posts. After directing their browser to the online study, the participants first reviewed the informed consent form. This form included the voluntary nature of the study, participants' right to withdraw without penalty, assurance of anonymity, potential benefits and costs, and compensation (course credit). Those participants that agreed to volunteer then provided their consent by clicking "continue to study." Participants who chose not to participate were thanked for their time and prompted to close their browser. Participants completed a series of questionnaires including the Demographic Questionnaire, DASS-21, PCL-5, SWLS, AAQ- II, and VQ.

Analysis

The following methods were used to analyze the collected data:

- Correlational analysis of all data
- MLR: [AAQ-II, VQ Progress, CQ Obstruction] predicts [DASS-21 Depression, Anxiety, Stress, PCL5, and SWLS]
- HR: Step 1: see MLR; Step 2: Dichotomous cultural variables [Male/Female, White/Non-white, Heterosexual/Non-heterosexual]; interaction effects: dichotomous cultural variables X [AAQ-II, VQ Progress, VQ Obstruction]

Conclusions

In the study, the following were found:

- Psychological flexibility, values progress, and values obstruction were found to significantly predict depression, anxiety, and stress. Only psychological flexibility and values obstruction predicts trauma, while only psychological flexibility and values progress predict satisfaction with life.
- There was no significant interaction between sex and ethnicity and any predictor.
- There was a small yet significant interaction between sexual orientation and psychological flexibility for anxiety only.

Discussion

As expected, PF/VL predicted common psychopathologies and satisfaction with life significantly, consistently, and with a medium to medium-large effect size. The strongest effects were on depression, stress, and trauma. Overall, the model does not appear to have been sensitive to changes in cultural dimensions, indicated by the lack of significance of sex, ethnicity, and sexual orientation variables on all criteria and of the interaction of these with most predictors, for most criteria. While the sample was skewed as to age and sex, it was very close to US population estimates for ethnic (70/30) and sexual-orientation (90/10) make up. Given that the predictors are theoretically based on basic operant conditioning principles, we expected the model to be robust irrespective of cultural variable, and this this seems to be the case;. Further targeted study is necessary to confirm.

Limitations

The study has limitations:

- Sample homogenous as to age
- Hispanic, Asian participants were underrepresented
- AAQ-II, while widely used, is under recent scrutiny for validity
- Generalizability from the general population to the clinical population cannot be assumed

References

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