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Acceptance alone is a better predictor of psychopathology and well-being than emotional competence, emotion regulation and mindfulness

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ABSTRACT

Emotional competence, emotion regulation, mindfulness and acceptance have all been strongly associated to emotional disorders and psychological well-being in multiple studies. However little research has compared the unique predictive ability of these different constructs. We hypothesised that they will all share a large proportion of common variance and that when compared to the broader constructs emotional competence, emotion regulation and mindfulness, acceptance alone would predict a larger proportion of unique variance

Methods: 228 participants from a community sample completed anonymously measures of anxiety, depression, happiness, acceptance, mindfulness, emotional competence and emotion regulation. We then ran multiple regressions to assess and compare the predictive ability of these different constructs.

Results: For measures of psychological distress, the acceptance measure uniquely accounted for between 4 and 30 times the variance that the emotional competence, emotion regulation and mindfulness measures did.

Limitations: These results are based on cross-sectional designs and non-clinical samples, longitudinal and experimental studies as clinical samples may be useful in order to assess the potential protective power of acceptance over time. Another limitation is the use of self-report questionnaires.

Conclusions: Results confirmed our hypothesis, supporting the research on the importance of acceptance as a central factor in the understanding of the onset and maintenance of emotional disorders.

1. Introduction

"For after all, the best thing one can do when it is raining is let it rain."

Longfellow (1906)

Psychological health is a central issue in our societies. According to a recent systematic review and analysis encompassing data from 63 countries, one in five respondents reported a disorder in the year preceding the assessment, and almost a third of the respondents have experienced a psychological health disorder some time in their life (Steel et al., 2014). Lifetime prevalence of emotional disorders, such as anxiety or depression, is considered as high as 29%, for anxiety or 21% for mood disorders (Kessler et al., 2005). In this paper, psychological health is defined both by it pathological dimension (measured by three indexes of emotional disorders: anxiety, depression and stress) and its positive dimension, measured by happiness.

There are several empirically based predictors of emotional disorders. A well-established one is conceptualised as emotional competence (Petrides et al., 2016). Emotional competence (EC) refers to individual differences in the way individuals are able to identify, understand, regulate, and use their emotions (Mikolajczak, 2009). A high level of emotional competence is related to improved psychological and physical health (Martins et al., 2010).

Emotion regulation is one of the EC that has received extensive attention (Gross, 2002) and there is strong evidence that anxiety, depression and stress are multifactorial disorders that are at least partly linked to maladaptive emotion regulation patterns (Cisler and Olatunji, 2012; Joormann and Gotlib, 2010). Acceptance and mindfulness are two other well-studied predictors. Meta-analysis has shown that acceptance has a positive effect on various indicators such as anxiety, depression or addiction (A-tjak et al., 2015). Conversely, a meta-analysis has shown that mindfulness-based therapy can be considered as an effective intervention for treating anxiety and depression (Goyal et al., 2014).

Because EC, emotion regulation, mindfulness and acceptance all

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seem to be effective but offer different perspectives on emotions and psychological health, we wanted to compare their respective ability to predict symptom severity (stress, anxiety, depression) and psychological well-being (happiness). To our knowledge, no prior study has examined this issue yet.

A growing body of research is now suggesting that acceptance is a central trans-diagnostic process that explains a large proportion of variance in diverse mood disorders (Kashdan et al., 2006). Following Hayes and colleagues' psychological flexibility model, acceptance can be seen as a trans-diagnostic process that is central in psychopathology (Hayes et al., 2006). Therefore, we hypothesised that acceptance would have a unique incremental predictive validity over the three other predictors (mindfulness, emotional competence and emotional regulation). We hypothesised that a) the four predictors combined will significantly predict psychopathology and psychological well-being, b) each of the four predictors will separately predict psychopathology and psychological well-being, c) all 4 predictors will share important common variance, but compared to the three other processes, acceptance will predict a larger proportion of unique variance.

2. Method

2.1. Participants

Participants were recruited by an internet announcement posted by a non for profit organization that organizes mindfulness interventions. The sample consisted of 228 participants (175 women, 53 men) from a French-speaking community sample. The participants were 25–69 years of age (mean age = 43.70 years, SD = 10.04). 67% were living with a partner, 33% were single. 63% had a high level of education (master or higher).

2.2. Procedure

Ethical standards related to privacy, anonymity and informed consent, in accordance with the ethics code of American Psychological Association, were respected. The questionnaires were completed in French anonymously online and the participants were given no retribution for participation in order to avoid the risk of undue inducement. Participants were voluntary, they were aware they were participating in a study and could withdraw from the questionnaire at any time. The study received the authorisation of the ethical committee of the university.

2.3. Materials

Anxiety and depression. Anxiety and depression were measured with the HADS, Hospital Anxiety and Depression Scale (Bocéréan and Dupret, 2014). The HADS comprises fourteen items: seven items (α = 77) assessing anxiety (HADS-A) and seven items (α = 79) measuring depression (HADS-D). Each item is coded from 0 to 3, giving a score varying between 0 and 21 for each scale.

Stress. Perceived stress was evaluated via the Perceived Stress Scale (PSS; Cohen et al., 1983). The PSS is a 10-item scale (α = 87) designed to measure the degree to which individuals appraise their life as stressful.

Happiness. Happiness was assessed using the SHS, the French version of the Subjective Happiness Scale (Kotsou and Leys, 2017). The measure is composed of 4 items (α = 89) scored on a 7-point Likert-type scale and provides a general assessment of whether one is a happy or an unhappy person.

Acceptance. The Acceptance and Action Questionnaire (AAQ-II) was used to asses acceptance (Bond et al., 2011). It is a 7-item (α = 90) measure scored on a 7-point scale (1 = strongly agree, 7 = strongly disagree). A high score on the AAQ means a low level of acceptance.

Mindfulness. Mindfulness was assessed with the MAAS, the Mindful

Attention Awareness Scale (Jermann et al., 2009). The MAAS is a 15-item (α = 87) instrument measuring the general tendency to pay attention to present-moment experiences in daily life (which can be considered to be one of the dimensions of the multidimensional construct of mindfulness), using a 6-point Likert-type scale (almost always to almost never).

Emotional competence (EC-T) was assessed with the Profile of Emotional Competence (PEC; Brasseur et al., 2013). The PEC is a 50-item (α = 91) tool that measures 10 facets of Emotional competence. The scale can also be used with a single score.

Emotion regulation was measured with one of the PEC subscales, "Regulation of own emotions" (ER), which consisted of 5 items (α = 75) As described in the introduction, this measure is supposed to be an important predictor of psychopathology and well-being, and thus it was of particular interest to us.

3. Results

3.1. Correlations

Descriptive statistics are provided in Table 0 in Supplemental materials. Pearson's Correlations are reported in Table 1. We used SPSS 24 for all analysis. As predicted, all four predictors correlate significantly with psychopathology – namely anxiety, depression and stress - and positively with happiness, and each association was in the predicted direction.

3.2. Multiple regression analysis

We then ran multiple regressions to assess the total variance (R2) that could be attributed individually to the four centered predictors. In accordance with our hypothesis, we then separately compared AAQ with each of the three others predictors, the total EC-T, ER and MAAS with HADS-A, HADS-D, PSS and SHS as dependent variables. We wanted to assess the overlap in prediction between the variables (the common variance) and the unique contribution in variance that can be attributed to each construct, above and beyond the other factors (sr2).

When introduced individually in regression analysis, MAAS and HADS-A, R^2 = .15 [.07;.23]; MAAS and HADS-D, R^2 = .07 [.01;.13]; MAAS and PSS, R^2 = .22 [.13;.31]; and MAAS and SHS, R^2 = .07 [.01;.13]. We did the same analysis for EC-T and HADS-A, R^2 = .08 [.01;.15]; EC-T and HADS-D, R^2 = .07 [.01;.13]; EC-T and PSS, R^2 = .15 [.07;.23]; and EC-T and SHS, R^2 = .12 [.04;.20]. Then we computed the regression for ER and HADS-A, R^2 = .17 [.08;.26]; ER and HADS-D, R^2 = .10 [.03;.17]; ER and PSS, R^2 = .25 [.15;.35]; and ER and SHS, R^2 = .21 [.12;.30]. Lastly we computed regression between AAQ and HADS-A, R^2 = .31 [.21;.41]; AAQ and HADS-D, R^2 = .24 [.14;.34]; AAQ and PSS, R^2 = .39 [.29;.49]; and AAQ and SHS, R^2 = .44 [.34;.54].

We then systematically compared AAQ to the total score of EC-T,

Table 1
Variable characteristics.

Variables	n	M	SD	α	Skewness	Kurtosis
HAD-A	228	1.43	.56	.77	.11	−.54
HAD-D	228	.78	.49	.79	.77	.29
PSS	228	2.06	.62	.87	−.08	−.42
SHS	228	4.33	1.24	.89	−.29	−.51
AAQ	228	3.87	1.18	.90	.05	−.25
MAAS	228	3.34	.74	.87	.13	.66
EC-T	228	3.31	.45	.91	−.05	.03
ER	228	2.59	.74	.75	.20	.38

HADS-A = Hospital Anxiety and Depression Anxiety Subscale, HADS-D = Hospital Anxiety and Depression Subscale, PSS = Perceived Stress Scale, SHS = Subjective Happiness Scale, AAQ = Acceptance and Action Questionnaire, MAAS = Mindful Attention Awareness Scale, EC-T = Emotional Competence Total Score, ER = Regulation of Own Emotions Subscale.