Presence and Personality: A Factoral Exploration of the Relationship Between Facets of Dispositional Mindfulness and Personality.

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Abstract

Background / Aims / Objectives

The purpose of this study is to explore the relationship between the discrete facets of personality and dispositional, or trait-like, Mindfulness.

Methodology / Methods

The study employed a factoral quantitative design and 229 participants completed two online measures, the Five Factor Mindfulness Questionnaire (FFMQ) and the NEO-PI-R Personality Questionnaire. The latter measured the 'Big Five' factors of personality (Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness) and their 30 associated facets. Participant data was analysed via Principal Components Analysis with Varimax rotation utilising scores across all 35 variables, that is, the 5 dispositional Mindfulness domains plus the 30 personality facets.

Results / Findings

Analysis resulted in the emergence of a 5-factor model. These 5 'new' factors aligned closely with the 'Big Five' personality factors. Hence, dispositional Mindfulness domains were statistically indistinct from established factors of personality. Notably, 3 out of the 5 FFMQ dispositional Mindfulness domains (namely, Non-Judging of Inner Experience, Non-Reactivity to Inner Experience, and Acting with Awareness) loaded inversely on to the 'Neuroticism' factor. Additionally, 2 FFMQ domains (Acting with Awareness and Describing) loaded positively on to 'Conscientiousness', while 1 FFMQ domain (Observe) loaded

positively on to ‘Openness’. These results align with previous studies conducted at factor level while deepening understanding of facet-level relationships.

Discussion / Conclusions

Mindfulness training as a clinical intervention is now utilised extensively, often within the context of a broader therapeutic approach. The results of this study suggest that tailoring such interventions more to the client’s particular personality may maximise benefit and negate the possibility of harmful consequences. For example, accentuating self-compassion, perhaps by setting the work in the context of a richer compassion-based approach, could be beneficial for a self-critical client scoring highly on trait Neuroticism.

Introduction

What is Mindfulness?

Mindfulness has its origins in Buddhist contemplative practice (Kabat-Zinn, 2010; 2011). Shonin, Van Gordon & Griffiths (2015, p.28) highlight that Buddhist teaching indicates that:

> *"Individuals have a tendency to ruminate about the past and/or rush towards the 'ungraspable' future, which never materialises - it is always the present. This behavioural tendency of 'not being fully present' can distort an individual's perception of reality and lessen their ability to consciously participate in the present moment. The non-Mindfulness practitioner is often likened in the Buddhist teachings to a 'walking corpse', or to one who goes through life on 'autopilot'."*

Mindfulness may be conceptualised as fundamentally a state of consciousness typically defined as being attentive to and aware of what is taking place in the present moment (Brown & Ryan, 2003), accompanied by a non-judgmental and accepting outlook. Jon Kabat-Zinn (2010, 2011) emphasises this when he describes the practice as paying attention in a particular way; on purpose, in the present moment, and non-judgmentally.

The key mechanism for the beneficial impact of Mindfulness is a perceptual shift in how one relates and responds to cognitive, affective and emotional stimuli (Baer, 2003). Mindfulness practitioners "objectify their thoughts and feelings and apprehend them as passing phenomena" (Shonin et al, 2015, p. 30). This contrasts sharply with rumination over past events or imagining what may happen in the future, while accepting whatever exists in one's present moment awareness non-judgementally requires self-compassion (Gilbert, 2010a).

Dispositional Mindfulness and Its Benefits

Dispositional Mindfulness has been described as a naturally occurring characteristic that shows meaningful variation in non-clinical and non-meditating samples (Brown & Ryan, 2003) and relates to one's habitual thinking patterns and tendency to be fully present, attentive to oneself and one's environment, and non-judging in any current moment.

Dispositional Mindfulness is hence trait-like and distinct from the 'mindful state' one may enter when engaged in Mindfulness practice, typically in the form of meditation. Disciplined meditative practice has been shown to produce enduring increases in levels of dispositional Mindfulness (Begley, 2007; Carmody & Baer, 2008; Toneatto & Nguyen, 2007), enabling individuals to become consistently more aware of present moment thoughts, emotions and feelings, and to be able to direct their attention where they would like it placed (Jha & Stanley, 2010).

Increased dispositional Mindfulness is widely recognised as producing a variety of positive outcomes, most notably, reduced feelings of stress, anxiety and depression (Baer, 2003; Gilbert, 2009a; Grossman, Niemann, Schmidt & Walach, 2004; Kabat-Zinn, 2010; Krasner et al, 2009), and increased feelings of wellbeing and happiness (Gilbert, 2010a; Haidt, 2006; Seligman, 2008). Two important mediating paths for these positive effects are suggested. Firstly, one's tendency to negatively appraise the stressors faced in daily life is reduced and, secondly, one's ability to adapt and cope with difficult, stressful situations as they are encountered is increased (Weinstein, Brown & Ryan, 2009).

Studies have indicated that as little as eight weeks Mindfulness practice may lead to significant increases in grey matter concentration in regions of the brain associated with emotion regulation, perspective taking, empathy, learning and memory, and attention (Holzel et al, 2011; Lazar et al, 2005; Siegel, 2007). Greater dispositional Mindfulness has also been associated with both left and right hemisphere activation in the brain, resulting in fewer cognitive failures, improved efficacy of executive resources, enhanced memory and access to declarative knowledge, increased cognitive flexibility, greater creativity, more effective problem-solving skills, and sharper attentional focus (Heeren, Van Broeck & Philipoot, 2009; Herndon, 2008; Shao & Skarlicki, 2009).

Consequently, Mindfulness training as a clinical intervention is now utilised extensively, often within the context of a broader therapeutic approach (Shonin, Van Gordon & Griffiths, 2013). Mindfulness has also been adopted across a range of settings including within the NHS, since 2004 (Derbyshire, 2014), in the shape of 'Mindfulness Based Cognitive Therapy' (MBCT), which is used particularly in the case of people with chronic depression where it is

claimed to have halved relapse rates (Crane & Segal, 2016; Gilbert, 2009a; National Institute for Clinical Excellence (NICE), 2016). Mindfulness programmes also exist outside of clinical psychological therapy programme settings, including within families (Bogels & Restifo, 2015), schools (Woods, 2014), sport (Kaufman, Glass & Arnkoff, 2009), forensic psychology (Shonin, Van Gordon, Slade & Griffiths, 2013), positive psychology (Ivtzan & Lomas, 2016) and organisations (Dane, 2010; Personnel Today, 2013).

Personality Traits and Dispositional Mindfulness

While studies have been conducted into the relationship between personality and Mindfulness previously, these have been mainly limited to consideration of the 'Big Five' factors of personality and, typically, a unitary, global Mindfulness measure. There is a need, therefore, to provide a more granular understanding of the relationship between these two areas by considering facet-level constructs (Giluk, 2009), because there are important implications for the discipline of Counselling Psychology given the increasing adoption of Mindfulness-based clinical interventions to treat human distress and, critically, the emerging narrative that such interventions, rather than being entirely benign and suitable for anyone, can in fact result in harmful consequences for some practitioners (Baer & Kuyken, 2016). Exploring dispositional Mindfulness in greater detail by understanding its relationship with individual differences in personality at a facet-level, may offer the possibility of targeting Mindfulness-based clinical interventions more appropriately, or perhaps ruling out their use entirely. As a minimum, it will increase our understanding of the relationship between these two areas.

The five-factor model of personality is pervasive within the field of individual differences in personality traits. Costa and McCrae (1992) measure the 'Big Five' factors via their NEO-PI-R personality questionnaire. The personality trait Neuroticism is considered to be of particular interest in the present study given one of its components is a tendency to worry. Those scoring highly on the Neuroticism scale tend to be anxious, self-conscious, moody, insecure (Barrick, Mount & Judge, 2001) and more susceptible to stress and psychological distress (Costa & McCrae, 1992). Greater dispositional Mindfulness has been associated with emotional stability while Neuroticism has already been found to correlate significantly and inversely with dispositional Mindfulness at factor level (Giluk, 2009; Walsh, Balint, Smolira,

Frederickson & Madsen 2009). The same pattern is predicted to emerge in the present study.

In terms of the other personality traits, individuals scoring highly on the Conscientiousness scale are characterised as being achievement orientated (Barrick et al, 2001) and self-disciplined (Costa & McCrae, 1992), and Conscientiousness has also been found to correlate positively with dispositional Mindfulness (Giluk, 2009). The findings of previous research exploring the relationship between the global personality factors of Extraversion, Openness and Agreeableness and dispositional Mindfulness have been more equivocal. However, an individual possessing greater dispositional Mindfulness could be expected to score more highly on each of these three traits (Baer, Smith & Allen, 2004; Giluk, 2009). It is predicted, therefore, that Extraversion, Openness and Agreeableness may also positively correlate with dispositional Mindfulness.

Assuming these hypotheses are correct, it is anticipated that factor analysis, utilising personality facet and Mindfulness domain data, will result in the identification of five factors or 'components' that align with the 'Big Five' factor model of personality. In other words, it is predicted that dispositional Mindfulness and personality are entwined and do not represent orthogonal constructs.

In summary, exploring the relationship between personality and dispositional Mindfulness in greater depth, by unpacking the relationship of the facets, particularly those of Neuroticism, will significantly add to the body of knowledge on this topic and will help inform how Mindfulness-based clinical interventions may be better tailored by Counselling Psychologists.

Methodology

Design

The research methodology utilised was a quantitative, factor-analytic design.

Measures

Dispositional Mindfulness was assessed using a self-report psychometric instrument, the Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ is a 39-item questionnaire that was derived from exploratory factor analysis that combined five separate Mindfulness questionnaires, namely, the Mindfulness Attention Awareness Scale, Kentucky Inventory of Mindfulness Skills, Freiburg Mindfulness Inventory, Cognitive and Affective Mindfulness Scale-Revised, and Southampton Mindfulness Questionnaire, each with internal consistency alpha coefficients of between .81 to .87 (Baer, Smith, Hopkins, Krietemeyer & Toney, 2006).

The FFMQ measures five domains of dispositional Mindfulness:

- *Observing* – attending to or noticing internal and external stimuli, such as thoughts, feelings, emotions, sights, sounds, and smells;
- *Describing* – mentally labelling these stimuli with words;
- *Acting with Awareness* – paying attention to one's current actions, rather than acting without attention or automatically;
- *Non-Judging of Inner Experience* – refraining from evaluation of one's thoughts, feelings and emotions;
- *Non-Reactivity to Inner Experience* – allowing thoughts, feelings and emotions to come and go, without becoming immersed in them.

Participants respond via a 5-point Likert-type scale ('never or very rarely true' to 'very often or always true').

The five Mindfulness domains have shown construct validity (the scales represent related but distinct constructs), with significant intercorrelations of between .32 to .56 and internal consistency ranging from .75 to .91 (Baer et al, 2008).

Individual differences in personality were assessed using the NEO-PI-R personality questionnaire. This is a 240 item, self-report questionnaire measuring the domains of the five-factor ('Big Five') model of personality, with 48 items loading discretely on to each factor of Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness (Costa & McCrae, 1992).

The 6 facets measured in respect of each of the 5 higher-order personality factors are as follows (with 8 questionnaire items loading on to each facet):

- *Neuroticism* – Anxiety, Angry Hostility, Depression, Self-Consciousness, Impulsiveness, Vulnerability;
- *Extraversion* – Warmth, Gregariousness, Assertiveness, Activity, Excitement-Seeking, Positive Emotions;
- *Openness* – Fantasy, Aesthetics, Feelings, Actions, Ideas, Values;
- *Agreeableness* – Trust, Straightforwardness, Altruism, Compliance, Modesty, Tender-Mindedness; and
- *Conscientiousness* – Competence, Order, Dutifulness, Achievement Striving, Self-Discipline, Deliberation.

The internal consistency information of the NEO is high while the test retest reliability is similarly strong (Kurtz & Parrish, 2001; Terracciano, Costa & McCrae, 2006).

Thus, the variables under consideration were arguably operationalized via the most appropriate (in terms of construct validity) and well-proven (in terms of validity and reliability) psychometric instruments available.

Participants

A total of 243 participants took part in the study but data from 14 respondents was discounted due to being incomplete. Hence, 229 participant responses were included in the analysis, giving an acceptable ratio in excess of 6 participants per variable. The magnitude

of factor loadings and the fact that more than 4 loadings were greater than 0.6 per factor was also noted positively (Guadagnoli & Velicer, 1988). All communalities were also above 0.5 except for 2 of the 35 variables, providing further comfort that the sample size of 229 was adequate (MacCallum, Widaman, Zhang & Hong, 1999). The mean age of participants was 21 years (SD: 6.7 years) and ages ranged from 18 to 74 years. Participants were predominantly drawn from the University of the West of England's participant pool, complemented by limited snowball sampling activity. Participants were required to have a good understanding of English in order to take part but were not selected based upon any demographic dimensions.

Procedure

Both psychometric instruments were administered to participants sequentially, remotely and online via the Qualtrics tool. Data collected was analysed utilising SPSS.

Results

Tests of Adequacy

The Kaiser-Meyer-Olkin measure (Kaiser, 1970) verified the sampling adequacy for the analysis, KMO=.83 (which is 'great' according to Field, 2009), and all KMO values for individual items were >.69, which is well above the acceptable limit of .5 (Field, 2009). Bartlett's test of sphericity $X^2(595) = 4121.46$, $p<.001$, indicated that correlations between items were sufficiently large for Principal Components Analysis.

Principal Components Analysis

Principal Components Analysis with Varimax rotation provided eigenvalues for each component in the data. Seven components had eigenvalues over Kaiser's (1960) criterion of 1 and in combination explained 63.79% of the variance. Kaiser's criterion can be accurate when the number of variables is less than 30 and when the sample size exceeds 250. However, given the number of variables exceeded 30 (actually 35) and the sample size was smaller than 250 (actually 229), the scree plot was examined and given deference (Figure.1).

INSERT FIG.1 ABOUT HERE

A sample of more than 200, as in the case of the present study, means the scree plot provides a fairly reliable criterion for factor selection (Stevens, 2002). Cattell (1966) instructs that the point of inflexion of the curve represents cut-off for selecting the number of components, and that the component at the point of inflection itself should not be included. The inflexion point (and 'levelling off' of eigenvalues) was apparent at the sixth component and, hence, the decision made to re-run the analysis specifying 5 components. This decision was further supported by the fact that, when examined, initial components six and seven did not lend themselves readily to explanation, while the 5 components clearly aligned with the very well-established 'Big Five' factor theoretical model of personality, which was deemed logical given the data under consideration. In combination, once the analysis was re-run, the 5 specified components explained 57.3% of the variance.

Identified Components

The relevant six facet scores loaded as expected on to each of the components, thus giving five factors of Neuroticism, Conscientiousness, Agreeableness, Extraversion and Openness. In terms of Mindfulness, 3 domains loaded negatively on to Neuroticism: Non-Judging of Inner Experience (that is, refraining from evaluation of one's thoughts, feelings and emotions); Non-Reactivity to Inner Experience (that is, allowing thoughts, feelings and emotions to come and go, without becoming immersed in them); and Acting with Awareness (that is, paying attention to one's current actions, rather than acting without attention or automatically). Additionally, the FFMQ Mindfulness domains of Acting with Awareness and Describing (that is, mentally labelling stimuli with words) positively loaded on to Conscientiousness, while Observing (that is, attending to or noticing internal and external stimuli, such as thoughts, feelings, emotions, sights, sounds, and smells) loaded on to Openness. No Mindfulness domains loaded on to the Agreeableness or Extraversion factors.

A summary of the components identified is included below (Table 1).

INSERT TABLE 1 ABOUT HERE

Correlations

For completeness, facet-level correlations are included below in respect of the identified components Neuroticism (Table 2), Conscientiousness (Table 3) and Openness (Table 4). To minimise the risk of Type 1 errors, given the number of correlations under consideration, a p-value of 0.01 was applied. Overall, the correlations reinforce the view that dispositional Mindfulness is comprised of low Neuroticism, high Conscientiousness and high Openness.

INSERT TABLES 2, 3 & 4 ABOUT HERE

Discussion

The present study sought to examine the relationship between facets of personality and dispositional Mindfulness. A five-factor structure was identified following Principal Components Analysis with Varimax rotation. All of the expected 'Big Five' factors were evident and the corresponding 6 NEO-PI-R facets loaded perfectly on to each. Additionally, 'Neuroticism' inversely included 3 domains of the FFMQ dispositional Mindfulness questionnaire, namely, Non-Judging of Inner Experience, Non-Reactivity to Inner Experience and Acting with Awareness, while 'Conscientiousness' incorporated FFMQ domains of Acting with Awareness and Describing, and 'Openness' included the FFMQ domain, Observing. Overall, the results were in line with the predicted outcomes in that they demonstrated a significant relationship between, in particular, the personality traits of Neuroticism (inversely), Conscientiousness, and Openness, and domains of dispositional Mindfulness.

Previous research findings have already indicated that specific domains of Mindfulness have particular effects. For example, individuals with a higher degree of the non-judgemental aspect of dispositional Mindfulness (i.e. FFMQ Non-Judging of Inner Experience, which refers to the ability to refrain from judging one's own cognitions, emotions, and bodily sensations) have been shown to be less prone to depression, anxiety and stress-related symptomatology (which are all features of trait Neuroticism). Similarly, a higher degree of the Act with Awareness FFMQ domain (which is the ability to maintain awareness of daily activities) has been found to predict lower depressive symptomatology (again, a trait Neuroticism tendency; Cash & Whittingham, 2010). Separately, the Non-Judging of Inner

Experience domain has been indicated to have the highest correlation with psychological symptoms, neuroticism, thought suppression, difficulty regulating emotion, and experiential avoidance. Hence, Non-Judging of Inner Experience and Acting with Awareness may be the most important Mindfulness domains in predicting psychological symptoms (with Acting with Awareness being particularly relevant in terms of depression). Accordingly, findings from previous research combined with those from the present study suggest that the relationship between domains of dispositional Mindfulness and trait Neuroticism may be critical from a clinical outcome perspective.

Mindfulness training as a clinical intervention is now utilised extensively, often within the context of a broader therapeutic approach (Shonin, Van Gordon & Griffiths, 2013). A key mechanism for the beneficial clinical impact of Mindfulness is a perceptual shift in how one relates and responds to cognitive, affective and emotional stimuli (Baer, 2003). Fundamentally, this entails accepting whatever exists in one's present moment awareness *non-judgementally*, and such a perspective requires self-compassion (Gilbert, 2010a). In the absence of self-compassion, for example, such as when a high trait Neuroticism individual engages in Mindfulness training, then this mechanism will likely fail to deliver the associated positive benefits. Rather, in such circumstances, engagement with Mindfulness can cause or increase distress.

Neuroticism, Self-Compassion and Acceptance

Improving the efficacy and negating the potential risk of a Mindfulness-based clinical intervention, by tailoring it more closely to a client's particular personality, is an important potential consideration. Of particular significance in the present study was the inverse relationship between the personality trait of Neuroticism and the FFMQ domains of Non-Judging of Inner Experience, Non-Reactivity to Inner Experience and Acting with Awareness. Taken together, it could be argued that these dispositional Mindfulness domains constitute conscious awareness, self-compassion and acceptance, key tenets of Mindfulness in the Buddhist tradition. Moreover, their inverse relationship with the personality trait of Neuroticism is indicative of high trait Neuroticism individuals' tendency towards harsh self-judgment and reactivity, such as in the form of self-critical negative rumination. In this context, one hypothesis for the psychological difficulty experienced by some meditators is

that, in the absence of self-compassion and acceptance, bringing greater attention to one's difficult thoughts and feelings merely fuels negative rumination and increases distress.

Baer et al (2008) investigated the mediating role of the FFMQ Mindfulness domains in the relationship between meditation experience (i.e. months of regular practice) and wellbeing. Non-Reactivity to Inner Experience and Non-Judging of Inner Experience (together with Observing and Describing) were significantly positively correlated with meditation experience, while these dimensions also completely mediated the relationship between greater meditation experience and improved wellbeing. Developing self-compassion and greater acceptance *first* in highly self-critical individuals may, therefore, allow potential difficulties arising from meditation (caused by bringing greater attention to one's difficult material) to be overcome and enable well-being benefits to emerge.

Bringing attention to difficult, previously avoided material may result in distress, particularly when accompanied by a tendency to judge such negative thoughts, feelings and emotions (the inverse of Non-Judging of Inner Experience), and to become completely and overwhelmingly immersed in them (the inverse of Non-Reactivity to Inner Experience). Gilbert (2009b, 2010b), in his description of a compassion-based approach to treatment, suggests that developing self-compassion might represent a critical first stage *prior to* clients giving consideration to the actual content of their difficult material, and this seems directly relevant to paying attention to one's thoughts and feelings via Mindfulness meditation. The rationale for this position is essentially two-fold. Firstly, self-compassion activates one's soothing emotion-regulation system and helps foster a sense of psychological safety and, secondly, it is this soothing emotion-regulation system that counters the psychological difficulties associated with one's threat-focused emotion-regulation system, and this threat-focus system can be activated by bringing attention to difficult material that can be interpreted as dangerous and threatening. High trait Neuroticism Mindfulness practitioners are likely to be more prone to having their threat-focused emotion-regulation system activated in the first place because harsh self-criticism is a known characteristic of the Neuroticism personality trait. It is also the antithesis of the Non-Judging of Inner Experience domain of the FFMQ. The present study validated this inverse relationship between dispositional Mindfulness and Neuroticism, and the

relationship with the FFMQ domain Non-Judging of Inner Experience more specifically suggests that fostering self-compassion may protect against negative meditation outcomes.

Counselling Psychologists may want to consider, therefore, utilising a specific self-compassion development intervention with high trait Neuroticism clients prior to facilitating their engagement with the content of difficult material. For example, Kristin Neff's (2019) 'Self-Compassion / Loving-Kindness' meditation together with Paul Gilbert's (2009b, 2010a, 2010b) 'Compassionate Other' exercise might form the basis of early therapeutic work. Only when the client consistently conveys a gentler, kinder way of being with themselves would the therapy then progress to more content-related Mindfulness work. Additionally, utilising the Mindfulness guidelines championed recently by Willoughby Brittan (2019) and David Treleaven (2018), to ensure that all Mindfulness practices are conducted within the client's 'window of tolerance', in the same way Counselling Psychologists already often work with trauma, will ensure that Mindfulness-based clinical interventions remain safe, risk is negated and the potential for positive benefits to emerge is optimised.

Study Limitations

The homogeneity of the participant group means generalizability of the results may be limited. For example, research suggests that three of the 'Big Five' factors of personality decrease with age, namely Neuroticism, Extraversion and Openness, while the remaining two, Agreeableness and Conscientiousness, increase (McCrae et al, 1999). While there could, therefore, be an age-related effect, it was not considered consequential, as any associated impact on personality would likely be reflected also in facets of Mindfulness, given the predicted relationships between the variables.

Future Research

A potentially fertile area for future research would be investigation into specific Mindfulness-based clinical intervention treatment protocols that take into account individual differences in personality. Particularly, much needs to be explored in terms of identifying the causal factors that underlie successful outcomes or difficulties encountered when meditating. Research in controlled conditions should evaluate whether the 'influencing factors' identified in a study by Lindahl, Fisher, Cooper, Rosen & Britton (2017)

are correlated with a category of experience. In the context of the present study, measuring the facet-level personality traits (one of the 'practitioner-level influencing factors' identified by Lindahl et al, 2017) of would-be practitioners before they embark upon a programme of meditation, and exploring the relationship between those traits (particularly Neuroticism) and the experience of practitioners, positive or otherwise, might be worthwhile. A further study could then seek to enhance any initial findings by controlling the meditation variable itself, by utilising different types of meditative practice ('Open Monitoring' versus 'Self-Compassion / Loving-Kindness' meditations, for example), in combination with participants reporting low, medium and high-trait Neuroticism. Such research could eventually lead to the tailoring of Mindfulness-based clinical interventions based upon facet-level consideration of trait Neuroticism.

Conclusion

It is hoped that the results of the present study deepen the understanding of the relationship between dispositional Mindfulness and individual differences in facet-level personality and begin to support greater tailoring of Mindfulness-based clinical interventions to a client's particular personality. In particular, it is anticipated that further research may prove fruitful into the potential for Neuroticism to be measured as a key part of an individual's pre-Mindfulness programme screening and for the selection of appropriate complimentary clinical interventions (e.g. initial self-compassion training).

The constructs of Mindfulness and clinical symptomatology, and Mindfulness and personality, are intertwined. Unravelling causality, in terms of practitioner-level factors such as personality, will help inform individually tailored Mindfulness interventions which are ultimately targeted at particular symptoms, thereby maximising positive clinical outcomes and, crucially, negating the potential for harm.

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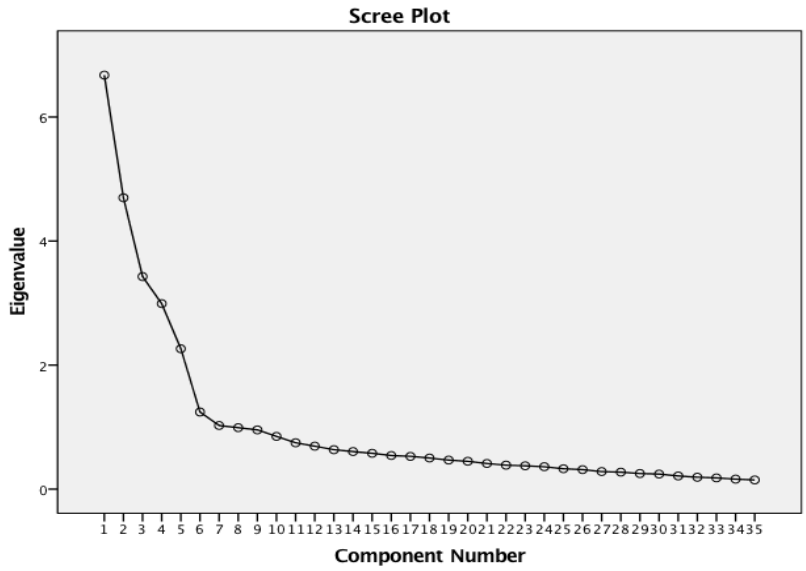

Figure 1. Scree Plot.

Table 1. Summary of Components Identified by Factor Analysis

Variable	Component 1 Neuroticism	Component 2 Conscientiousness	Component 3 Agreeableness	Component 4 Extraversion	Component 5 Openness
N1_Anxiety	.806				
N2_Angry	.607		-.526		
N3_Depression	.816				
N4_Self-Consciousness	.628				
N5_Impulsiveness	.554				
N6_Vulnerable	.750				
C1_Competent		.734			
C2_Order		.677			
C3_Dutifulness		.742			
C4_Achievement		.826			
C5_Self-Disciplined		.818			
C6_Deliberation		.490		-.527	
A1_Trust			.588		
A2_Straightforward			.732		
A3_Altruism			.688		
A4_Compliance			.703		
A5_Modesty			.648		
A6_Tender-Minded			.681		
E1_Warmth			.460	.645	
E2_Gregariousness				.759	
E3_Assertiveness			-.410	.583	
E4_Activity		.416		.584	
E5_Excitement				.677	
E6_Positive-Emotion				.646	
O1_Fantasy					.715
O2_Aesthetics					.746
O3_Feelings					.621
O4_Actions					.408
O5_Ideas					.653
O6_Values					.423
FFMQ_Non-Judge	-.739				
FFMQ_Non-React	-.616				
FFMQ_Awareness	-.509	.519			
FFMQ_Describe		.463			
FFMQ_Observe					.727

Table 2. Mindfulness and Neuroticism

		M1 - OBSERVE	M2 - DESCRIBE	M3 - AWARENESS	M4 - NONJUDGE	M5 - NONREACT
N1 – ANXIETY	Pearson Correlation	.122	**-.195****	**-.411****	**-.583****	**-.460****
	Sig. (2-tailed)	.065	**.003**	**.000**	**.000**	**.000**
	N	229	**229**	**229**	**229**	**229**
N2 - ANGRY	Pearson Correlation	.051	-.031	**-.267****	**-.318****	**-.323****
	Sig. (2-tailed)	.439	.641	**.000**	**.000**	**.000**
	N	229	229	**229**	**229**	**229**
N3 - DEPRESSION	Pearson Correlation	.108	**-.311****	**-.477****	**-.670****	**-.389****
	Sig. (2-tailed)	.105	**.000**	**.000**	**.000**	**.000**
	N	229	**229**	**229**	**229**	**229**
N4 – SELF-CONSCIOUS	Pearson Correlation	.031	**-.312****	**-.402****	**-.488****	**-.203****
	Sig. (2-tailed)	.636	**.000**	**.000**	**.000**	**.002**
	N	229	**229**	**229**	**229**	**229**
N5 - IMPULSIVE	Pearson Correlation	.161*	-.135*	**-.344****	**-.335****	**-.222****
	Sig. (2-tailed)	.015	.041	**.000**	**.000**	**.001**
	N	229	229	**229**	**229**	**229**
N6 - VULNERABLE	Pearson Correlation	-.040	**-.353****	**-.508****	**-.541****	**-.485****
	Sig. (2-tailed)	.547	**.000**	**.000**	**.000**	**.000**
	N	229	**229**	**229**	**229**	**229**

Table 3. Mindfulness and Conscientiousness

		M1 - OBSERVE	M2 - DESCRIBE	M3 - AWARENESS	M4 - NONJUDGE	M5 - NONREACT
C1 – COMPETENCE	Pearson Correlation	.094	**.398****	**.468****	**.209****	**.199****
	Sig. (2-tailed)	.155	**.000**	**.000**	**.001**	**.003**
	N	229	**229**	**229**	**229**	**229**
C2 - ORDER	Pearson Correlation	-.055	**.220****	**.274****	.049	0.15
	Sig. (2-tailed)	.408	**.001**	**.000**	.460	.816
	N	229	**229**	**229**	229	229
C3 - DUTIFULNESS	Pearson Correlation	-.011	**.303****	**.357****	.140*	.053
	Sig. (2-tailed)	.871	**.000**	**.000**	.034	.429
	N	229	**229**	**229**	229	229
C4 – ACHIEVEMENT	Pearson Correlation	.061	**.332****	**.441****	.121	-.063
	Sig. (2-tailed)	.355	**.000**	**.000**	.067	.342
	N	229	**229**	**229**	229	229
C5 – SELF-DISCIPLINE	Pearson Correlation	-.083	**.358****	**.571****	**.269****	.100
	Sig. (2-tailed)	.212	**.000**	**.000**	**.000**	.132
	N	229	**229**	**229**	**229**	229
C6 – DELIBERATION	Pearson Correlation	.015	.057	**.267****	.096	.083
	Sig. (2-tailed)	.819	.388	**.000**	.147	.213
	N	229	229	**229**	229	229

Table 4. Mindfulness and Openness

		M1 - OBSERVE	M2 - DESCRIBE	M3 - AWARENESS	M4 - NONJUDGE	M5 - NONREACT
O1 – FANTASY	Pearson Correlation	**.421****	.094	-.121	-.019	.007
	Sig. (2-tailed)	**.000**	.158	.067	.775	.912
	N	**229**	229	229	229	229
O2 - AESTHETICS	Pearson Correlation	**.541****	.125	.038	-.086	-.027
	Sig. (2-tailed)	**.000**	.059	.564	.194	.689
	N	**229**	229	229	229	229
O3 - FEELINGS	Pearson Correlation	**.407****	**.199****	.018	-.135*	**-.201****
	Sig. (2-tailed)	**.000**	**.003**	.786	.041	**.002**
	N	**229**	**229**	229	229	**229**
O4 – ACTIONS	Pearson Correlation	**.186****	.133*	.125	**.203****	.006
	Sig. (2-tailed)	**.005**	.044	.058	**.002**	.923
	N	**229**	229	229	**229**	229
O5 - IDEAS	Pearson Correlation	**.331****	**.228****	.168*	.006	.014
	Sig. (2-tailed)	**.000**	**.000**	.011	.927	.830
	N	**229**	**229**	229	229	229
O6 – VALUES	Pearson Correlation	.123	.104	.112	-.043	-.063
	Sig. (2-tailed)	.064	.117	.092	.522	.346
	N	229	229	229	229	229