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RESEARCH PAPER

Can Gratitude and Kindness Interventions Enhance Well-Being in a Clinical Sample?

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Abstract Grounded in Fredrickson's (Rev Gen Psychol 2(3):300–319, 1998) broaden and build model of positive emotions, the current study examines the efficacy of 2-week self-administered gratitude and kindness interventions within a clinical sample on a waiting-list for outpatient psychological treatment. Results demonstrate that we can reliably cultivate the emotional experiences of gratitude but not kindness in this brief period. Further, both the gratitude and kindness interventions built a sense of connectedness, enhanced satisfaction with daily life, optimism, and reduced anxiety compared to a placebo condition. These brief interventions did not impact on more overarching constructs, including general psychological functioning and meaning in life. These findings demonstrate that gratitude and kindness have a place in clinical practice; not just as end states, but as emotional experiences that can stimulate constructive change. Further, these strategies can serve as useful pre-treatment interventions that may reduce the negative impact of long waiting times before psychological treatment.

Keywords Gratitude · Kindness · Interventions · Treatment · Clinical sample · Broaden and build

Positive psychological interventions have much to offer the field of clinical psychology (Duckworth et al. 2005; Lyubomirsky and Layous 2013; Wood and Tarrier 2010). Recent

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research indicates that even very brief self-administered positive psychological interventions can have beneficial outcomes for clinical samples (Layous et al. 2012; Mitchell et al. 2010). A significant problem for clinical psychology is the difficulties caused to clients by the need to wait unaided before they can access treatment. The aim of the present study was therefore to evaluate the efficacy of brief self-administered positive psychological interventions in a clinical sample on a waiting list to receive psychotherapy. Participants completed either a gratitude intervention, a kindness intervention, or a mood-monitoring placebo control intervention across a 2-week period to explore whether these interventions might serve as a valuable pre-treatment intervention for clients waiting to enter treatment.

1 The Need for Intervention Whilst Waiting for Therapy

The long period clients are often required to wait before they can access psychological intervention presents a substantial challenge for the field of clinical psychology. The little research available on the waiting period prior to entering therapy indicates that a long waiting period is linked with client dissatisfaction and even pre-intake drop out (Carpenter et al. 1981; Kokotovic and Tracey 1987; Orme and Boswell 1991; Paige and Mansell 2013; Peeters and Bayer 1999; Shueman et al. 1980). Perhaps more important is that lengthy waiting times potentially affect clients' attempts to seek help (May 1991), and the majority of people who drop out of therapy prior to initial appointment do not go on to seek help elsewhere (Archer 1984; Christensen et al. 1975; May 1990; Peeters and Bayer 1999; Sparr et al. 1993). Furthermore, the adverse consequences of lengthy delays in receipt of therapy appear more pronounced for clients with more severe or urgent concerns (May 1990). Thus, it is critically important to explore possible 'pre-treatment' strategies to reduce the negative impact of long waiting times.

Several clinical and administrative strategies have been trialled with clients on waitlists for therapy to reduce pre-intake attrition and increase timeliness of service provided. Pre-training procedures including education on the therapy process, allaying fears, increasing optimism (Lawe et al. 1983), motivational telephone interventions (Parker et al. 2002) and making pre-intake therapy groups available to clients on waitlists (Collins et al. 1973; Stone and Klein 1999) have each demonstrated some efficacy. Drawing from Fredrickson's (1998, 2000a) broaden and build theory of positive emotion, the present research investigated the efficacy of self-administered positive psychological interventions for clinically distressed people on a waiting list to receive treatment.

2 Broaden and Build Theory of Positive Emotion

The broaden and build theory of positive emotion posits that "experiences of positive emotions broaden people's momentary thought-action repertoires, which in turn serves to build their enduring personal resources" (Fredrickson 2001, p. 218). For example, the positive emotion of joy *broadens* by generating the urge to play. This play then *builds* more enduring personal resources, such as long-lasting social relationships (Fredrickson 1998, 2001). Thus, the experience of short-term positive emotion may set the stage for long term benefits, and Fredrickson (Fredrickson 1998, 2000b) argues that positive affect may in fact be the best way to resolve problems associated with negative emotions. Positive emotion has an "undoing effect" on damaging negative mood states (Fredrickson and Levenson 1998; Fredrickson et al. 2000), and is self-perpetuating, such that the experience

of positive emotion can lead to an upward spiral of positive emotion (Fredrickson and Joiner 2002; Tugade and Fredrickson 2004). Thus, in the context of positive emotion, one's habitual ways of thinking are thus expanded and broadened, as opposed to a tendency to act in a specific or habitual way (Fredrickson 1998, 2000b).

It is this broadening that enables the second adaptive process of the broaden and build model: 'building' personal skills and resources. The model suggests that the flexible, broadened thinking characteristic of positive affect readies an individual to become more engaged with their environment and their goals. People are then better able to acquire new skills, build lasting personal resources, and prepare themselves for future challenges (Fredrickson 2001). Importantly, the broaden and build model is accumulating increasing empirical support (Fredrickson and Branigan 2005; Strauss and Allen 2006).

The broaden and build model provides a strong argument in favour of including positive emotions in the treatment of psychological problems. From a clinical perspective, the model underscores the importance of positive emotions in stimulating positive clinical change. The undoing effect indicates that even those people who are experiencing significant distress and negative emotion could benefit from positive emotion (King 2000). Fredrickson (2000b) argues that during moments of feeling good, however fleeting, perceived safety and satiation take precedence over perceived threat and need, therefore making possible the more lasting positive consequences of positive emotion. Furthermore, the broaden and build model is hopeful in its promise of lasting and self-perpetuating positive change.

2.1 Gratitude

Gratitude is a positive emotional response to a perceived benefit bestowed by another (Emmons and Crumpler 2000; Emmons and McCullough 2003; Peterson and Seligman 2004; Tsang 2006). Gratitude magnifies the positives in life, and has a positive impact on well-being, interpersonal relationships, and prosocial behaviour, Bartlett and DeSteno 2006; Dunn and Schweitzer 2005; Janoff-Bulman and Berger 2000; Langston 1994; Tsang 2006; Wood et al. 2010). The broaden and build model is particularly relevant to gratitude (Fredrickson 2004), as the emotional experience of gratitude may facilitate the development of lasting personal resources. Consistent with this proposition, research indicates that gratitude increases the likelihood one will engage in prosocial behaviour, increases trust in others, and helps to build and reinforce social bonds (Bartlett and DeSteno 2006; Dunn and Schweitzer 2005; McCullough et al. 2001; Tsang 2006). Gratitude may also enhance optimism, connectedness with others, meaning in life, motivational drive, empathy, strategic planning abilities, strengthened spirituality and faithfulness, and resilience and coping during adversity (Emmons and Crumpler 2000; Emmons and Shelton 2002; Kashdan et al. 2006; McCullough et al. 2002; Miley and Spinella 2006; Ventura and Boss 1983).

Growing evidence attests to the positive effects of gratitude interventions on psychological health (Bolier et al. 2013; Wood et al. 2010). Several randomised controlled trials have found beneficial effects of cultivating gratitude interventions (Chan 2010; Emmons and McCullough 2003; Froh et al. 2008; Seligman et al. 2005; Sheldon and Lyubomirsky 2006; Watkins et al. 2003). Sheldon and Lyubomirsky (2006) found that a 4-week self-administered gratitude intervention led to a reduction in negative mood in a sample of undergraduates. Lyubomirsky et al. (2011) examined the efficacy of an 8 month gratitude intervention on well-being, and found that participants who self-selected into the study displayed improved well-being. Further, a 6-week gratitude intervention has been shown to lead to improvements in life satisfaction compared to a control condition (Boehm et al. 2011). Finally, Geraghty et al. (2010) investigated whether a 2-week self-directed internet gratitude

intervention would reduce body dissatisfaction in a sample of community volunteers. Results revealed that not only did the gratitude intervention reduce body dissatisfaction compared to a control condition, but that attrition from the intervention was very low, suggesting that self-directed gratitude interventions may be a useful approach. In brief, the studies reviewed above clearly demonstrate that enhancing gratitude has beneficial effects. It would therefore be useful to explore whether self-administered gratitude interventions can assist clinical samples waiting to receive psychotherapy. Also in the spirit of the broaden and build model of positive emotions, kindness interventions hold much promise.

2.2 Kindness

Kindness is a combination of emotional, behavioural, and motivational components (Otake et al. 2006). Whilst kindness is greater than an emotional experience alone, it has been demonstrated to have a clear emotional undercurrent; namely, compassion. The momentary thought-action tendency sparked by kindness is clearly an altruistic motivation or the urge to act prosocially. Acts of kindness can build trust and acceptance between people, encourage social bonds, provide givers and receivers with the benefits of positive social interaction, and enable helpers to use and develop personal skills and thus themselves (Bartlett and DeSteno 2006; Musick and Wilson 2003; Wills 1991).

Lyubomirsky et al. (2004, cited in Lyubomirsky et al. 2005) examined a behavioural kindness intervention in which university students were asked to complete five acts of kindness per week across a 6 week period. The authors found that performing acts of kindness led to greater well-being. Similarly, several studies have demonstrated that meditations that cultivate feelings of loving-kindness (directed toward the self and others) enhance a range of positive outcomes including enhanced positive affect, purpose in life, social support, and mindfulness, and reduced negative affect and symptoms of illness (Cohn and Fredrickson 2010; Fredrickson et al. 2008; Hoffman et al. 2011), and even reduce negative symptoms of schizophrenia (Johnson et al. 2011). Otake et al. (2006) examined the importance of kindness in augmenting subjective happiness by comparing a kindness intervention with a no-treatment control group. In the kindness condition, happiness of students increased following the intervention, and the most substantial increases in happiness were observed in participants who had completed the most kind acts, whereas no increase in happiness was observed for the control group.

In summary, the positive emotions underpinning both gratitude and kindness lead to a range of positive outcomes, and may stimulate a constructive process of broadening and building. It is notable that although growing evidence converges to indicate that gratitude and kindness interventions are beneficial, remarkably little research has examined the efficacy of these interventions in clinical samples. As mentioned earlier, a critical problem in clinical psychology is the potentially negative impact of long waiting times to receive psychological assistance. Given that even very brief self-administered gratitude and kindness programs lead to positive psychosocial outcomes, it is possible that these self-administered interventions may be valuable ‘pre-treatment’ activities that clients can engage in while waiting to begin therapy.

3 The Present Research

The aim of the present study was twofold: Firstly, we sought to evaluate the efficacy of a gratitude intervention and a kindness intervention compared to a mood-monitoring placebo

control condition in a clinical population. Secondly, we aimed to explore whether these interventions might serve as a valuable pre-treatment intervention for clients waiting to enter treatment. Clients on a wait-list to receive psychological treatment were offered the 'Pre-Treatment Program' as a means of doing something constructive whilst they were waiting to enter treatment proper.

4 Hypotheses

4.1 Gratitude Intervention

We predicted that gratitude (Hypothesis 1) would increase in the gratitude condition and not in the control condition. Based on the broaden and build model of positive emotions, it was predicted that this gratitude intervention would further stimulate improvements in psychological functioning (Hypothesis 2; hedonic well-being, eudaimonic well-being, general psychological functioning, negative mood states, and connectedness with others) and no such effects would be observed in the control condition.

4.2 Kindness Intervention

It was predicted that kindness (Hypothesis 3) would increase in the kindness condition and not in the control condition. Again, based on the broaden and build model of positive emotions, it was predicted that this kindness intervention would lead to improvements in psychological functioning (Hypothesis 4) in the kindness condition and not in the control condition.

5 Method

5.1 Participants

Participants were 48 adults (36 females and 12 males) ranging in age from 19 to 67 years ($M = 43$ years, $SD = 11.1$) currently seeking individual psychological treatment at one of seven outpatient psychology clinics in Queensland, Australia. Self-reported presenting problems included depression, anxiety, relational problems, posttraumatic stress, substance use disorders, and eating disorders. Fifty four percent of participants reported having previously seen a therapist. Table 1 displays means and standard deviations of demographic information and outcome measures at time 1 by condition.

5.2 Measures

5.2.1 Gratitude and Kindness

Participants were asked to list either things they were grateful for (gratitude intervention), or to list the kind acts they had committed (kindness intervention), and to rate the intensity of gratitude or kindness felt on a scale of 1 (somewhat grateful) to 7 (extremely grateful) each day of the 14-day intervention. This provided a measure of gratitude/kindness frequency (number of discrete daily situations that elicited gratitude/kind acts committed) and mean episodic intensity (mean gratitude/kindness intensity).

Table 1 Means and standard deviations in parentheses for demographic and 14-day composite outcome measures by condition

Measure	Condition		
	Gratitude (n = 16; 3 male)	Kindness (n = 16; 4 male)	Control (n = 15; 5 male)
Age	46.06 (12.15)	41.81 (10.48)	41.53 (10.77)
Gratitude composite	10.19 (1.08)	9.16 (2.87)	8.58 (1.53)
Kindness composite	9.63 (1.43)	9.68 (2.51)	8.36 (1.62)
Hedonic well-being			
Percent happy days	69.20 (24.15)	59.38 (30.50)	50.00 (31.84)
Daily affect balance	.75 (.87)	.60 (1.30)	.12 (.61)
Satisfaction with life	4.95 (.80)	4.91 (1.22)	4.11 (.68)
Optimism	5.12 (.79)	5.25 (1.07)	4.38 (.74)
Relational functioning			
Connectedness with Others	5.33 (.63)	5.20 (1.26)	3.96 (.69)

As a measure of gratitude in participants' daily moods, we obtained a composite measure of three gratitude related words (*grateful*, *thankful*, and *appreciative*), as in Emmons and McCullough (2003), McCullough et al. (2004) and Kashdan et al. (2006). These words were integrated into the PANAS list above to reduce demand characteristics. Participants rated the extent to which they had experienced each of these emotions during the past day using a 1–5 Likert scale. This composite displayed high internal consistency in the present sample ($\alpha = .96$). As a measure of kindness in participants' daily moods, three kindness related words (*kind*, *compassionate*, and *considerate*) were integrated into the PANAS. Individuals rated the extent to which they had experienced each of these emotions during the past day using a 1–5 Likert scale. Internal consistency in the present sample was high ($\alpha = .95$).

5.2.2 Hedonic Well-Being

As a measure of positive and negative affect in daily mood, we employed the version of the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988) used by Emmons and McCullough (2003). Each day, participants were asked to rate the extent to which they had experienced each emotion during the day. From these daily reports, two indices of hedonic well-being were constructed in line with prior studies (Diener et al. 1985; Kashdan et al. 2006). The *daily affect balance* was calculated by subtracting total negative affect from total positive affect for each days so that higher scores indicated greater well-being. The *percent of happy days* was calculated by examining the percentage of days that positive affect exceeded negative affect during the assessment period.

Two additional global life appraisals were included in the daily diary to tap individuals' current and future life satisfaction, as employed by Emmons and McCullough (2003). Participants were asked to rate how they felt about their life as a whole today [from −3 (terrible) to +3 (delighted)]. Internal consistency across the 14 days was high ($\alpha = .91$). Finally, anticipated future satisfaction, or optimism, was assessed with the question: Please

rate your expectations for tomorrow. Respondents rated their answers using a scale ranging from −3 (pessimistic, expect the worst) to +3 (optimistic, expect the best). Again, internal consistency across the 14 day period was high ($\alpha = .91$).

5.2.3 Eudaimonic Well-Being

The Purpose in Life test (PIL; Crumbaugh and Maholick 1964) was used to assess eudaimonic wellbeing, and is a 20-item scale designed to assess how meaningful one judges one's own life to be. The PIL evidences good psychometric properties (Crumbaugh 1968; Reker 1977), and demonstrated high internal consistency in the present sample ($\alpha = .93$).

5.2.4 General Psychological Functioning

The Outcome Questionnaire-45.2 (OQ-45; Lambert et al. 2002) is a widely used self-report symptom and distress inventory that has demonstrated clinical usefulness in assessing psychological functioning over time. The OQ-45 consists of three subscales: Subjective distress, interpersonal relationships, and performance with one's social role. The OQ-45 is a reliable and valid measure (Lambert et al. 1998) and demonstrated high internal consistency in the present sample ($\alpha = .90$) for the total score.

The Depression Anxiety and Stress Scale (DASS-21) is a 21-item self-report instrument designed to measure the negative emotional states of depression, anxiety and stress an individual has experienced within the past week (Lovibond and Lovibond 1995). The DASS-21 is a reliable and valid measure (Lovibond and Lovibond 1995; Henry and Crawford 2005), and is sensitive to meaningful clinical change (Ng et al. 2007). The DASS-21 had high internal consistency in the present sample ($\alpha = .91$, .80, and .87 for depression, anxiety and stress scales respectively).

5.2.5 Interpersonal Functioning

Participants rated how connected they felt with others each day using a rating scale ranging from −3 (isolated) to +3 (well connected). The measure was modelled on that used by Emmons and McCullough (2003). Internal consistency across the 14 days was high ($\alpha = .96$).

5.3 Design and Overview of Interventions

Participants were randomly assigned to one of three intervention conditions (gratitude, kindness, or placebo) prior to first contact. There were no significant differences in demographic characteristics between individuals who did not complete all measures to those who did. Non-completers were significantly more distressed, depressed, and reported lower meaning in life compared to individuals who did complete the program and/or returned all materials. Participants in each of the three intervention conditions received a 14-day diary intervention designed to cultivate gratitude, cultivate kindness, or a mood-monitoring placebo group. Purpose in life, the OQ-45, and the DASS-21 were administered at pre- and post-intervention, whereas all other measures were completed daily across the 14-day period.

5.3.1 Gratitude Intervention

On each daily monitoring form provided in the 14-day diary, participants in the gratitude group were instructed: "There are many things in our lives, both large and small, that we might be grateful about. Think back over the past day and write down on the lines below up to five things in your life that you are grateful or thankful for". These five things could be either things that have occurred during that particular day, or could be more general factors that the participant felt particularly grateful for on that particular day. This diary was modelled on the measure used within studies conducted within student samples and with those suffering from neuromuscular disorders (Emmons and McCullough 2003; McCullough et al. 2004). This intervention has proved successful in manipulating felt gratitude, and increasing emotional, behavioural, and physical benefits.

5.3.2 Kindness Intervention

On each daily monitoring form provided in the 14-day diary, participants in the kindness group were provided with the following instructions: "Kind acts are behaviours that benefit other people, or make others happy. They usually involve some effort on our part. On the lines below describe as many as five acts that you did for someone else today. Be sure to include at least one kind act that you did intentionally". This diary was modelled on the committing kindnesses intervention trialled by Lyubomirsky et al. (2004, cited in Lyubomirsky et al. 2005) and the counting kindnesses intervention introduced by Otake et al. (2006). Thus respondents received both a committing and counting kindnesses intervention.

5.3.3 Mood-Monitoring Placebo Control Intervention

Participants in all three conditions were asked to make daily ratings of their mood, their connectedness with others, expectations for tomorrow, and overall satisfaction with life. This mood diary served a dual purpose. Firstly, it provided the outcome measures of positive and negative affect in daily mood and overall life appraisals for all participants. Secondly, it served as the placebo intervention for those respondents in the control group. Mood diaries are often a component of the initial stages of therapy (e.g. in cognitive behaviour therapy) and can themselves have therapeutic effects by increasing awareness and providing concrete and accurate information regarding progress (Kirk 1989). However, monitoring mood in this way was unlikely to manipulate the degree of positive affect, and in particular gratitude and kindness experienced, thus providing an effective placebo control condition for the study.

5.4 Procedure

Recruitment information was provided to several outpatient clinics, and seven sites agreed to offer the program to clients. The program was offered to clients who were required to wait for 1 month or more prior to beginning therapy. Clients who indicated interest in the program were mailed an information package containing information sheets and consent forms. Prior to contacting participants, clients were randomly assigned to one of the three interventions described above. Participants were contacted by telephone, and were informed that the present 'pre-treatment' program was completely separate from any individual therapy they would ultimately receive at the clinic, and that the present program was designed to make a difference whilst they were waiting for therapy. Participants were

mailed diary forms, the pre-intervention questionnaire package, and reply paid envelopes. Respondents were offered SMS or email reminders to aid the completion of the daily diary. In time for their completion of the 2-week diary intervention, clients were mailed the post-intervention questionnaire package with a reply paid envelope. A telephone call was made to clients at the completion of the intervention to debrief participants and receive feedback of their experiences of the pre-treatment intervention.

6 Results

6.1 Preliminary Analyses

The groups did not differ on any of the pre-intervention measures ($p > .16$), nor did they differ according to gender ($p = .72$) or age ($p = .45$). On average and prior to intervention the clients who participated in the pre-treatment program reported a 'moderate' degree of depression, anxiety, and stress symptoms on the DASS-21 (Lovibond and Lovibond 1995). Levels of overall psychological functioning reported on the OQ-45 ($M = 88.02$; $SD = 20.77$) were above the clinical cut off score of 63, indicating that the sample experienced a clinically significant level of distress. Across the groups, clients completed an average of 13.21 days of the diary ($SD = 2.12$). Table 1 displays 14-day composite outcome measures by condition, and Table 2 displays pre and post intervention outcome measures by condition.

6.2 Gratitude and Kindness

6.2.1 Gratitude Intervention

For the gratitude group, the mean number of gratitude-eliciting events listed per day was 2.70 ($SD = 1.28$), and the mean intensity of the grateful emotion associated with each of these events was 5.46 ($SD = .81$). To check that the gratitude intervention successfully manipulated the degree of gratitude experienced in daily mood, we conducted between group comparisons on the gratitude composite measure. Welch's adjusted F ratio was employed to correct for a violation of the assumption of homogeneity of variance. This

Table 2 Means and standard deviations in parentheses for pre and post intervention outcome measures by condition

Measure	Pre			Post		
	Gratitude (n = 16; 3 male)	Kindness (n = 16; 4 male)	Control (n = 15; 5 male)	Gratitude (n = 16; 3 male)	Kindness (n = 16; 4 male)	Control (n = 15; 5 male)
Eudaimonic well-being						
Meaning in life	79.38 (23.79)	86.38 (23.47)	77.31 (15.29)	81.13 (22.49)	88.40 (23.61)	76.46 (19.73)
Psychological functioning						
OQ-45	89.69 (23.77)	84.06 (19.75)	90.64 (19.02)	77.19 (25.93)	73.57 (18.40)	82.94 (19.62)
DASS-depression	18.63 (12.43)	14.50 (11.49)	22.38 (9.99)	15.13 (13.06)	13.60 (9.30)	20.25 (8.03)
DASS-anxiety	14.00 (11.10)	14.88 (9.58)	15.00 (10.61)	9.38 (9.57)	9.07 (4.89)	16.75 (11.24)
Dass-stress	22.50 (11.58)	21.38 (10.87)	23.13 (10.12)	18.00 (11.84)	17.20 (10.02)	23.25 (8.64)

analysis revealed a significant difference between groups, Welch's $F(2, 25.21) = 4.60$, $p < .05$, $\eta^2 = .10$. Pairwise comparisons that do not assume equal variances (Games–Howell tests) showed that the gratitude group gave higher composite ratings of gratitude than the control group, $p < .05$, indicating that the gratitude intervention did indeed enhance degree of gratitude experienced. No differences emerged between the kindness and control conditions with regards to gratitude ($p = .79$). Cohen's d was 1.23 for the mean difference between the gratitude and control group, .52 between the gratitude and kindness conditions, and .27 between the kindness and control conditions, indicating a large effect size for the gratitude intervention relative to the control intervention, and a medium effect size between the gratitude and kindness conditions.

6.2.2 Kindness Intervention

For the kindness group, the mean number of kind acts committed or counted per day was 2.58 ($SD = 1.11$), and the mean intensity of the kind emotion associated with each of these events was 4.50 ($SD = 1.47$). To check that the kindness intervention successfully manipulated the degree of kindness experienced in daily mood, we conducted between group comparisons on the kindness composite measure. This analysis revealed no significant differences between the groups in ratings of average kindness, $F(2, 41) = 2.12$, $p = .13$, $\eta^2 = .09$.

6.3 Outcome Measures

6.3.1 Hedonic Well-Being

Between groups comparisons were made on the daily ratings of clients' PANAS score. Two one-way ANOVA's were conducted on the frequency (percentage) and intensity (daily affect balance) of happy days across the 14-day period. No significant main effect for condition emerged for the frequency ($p = .19$) or intensity ($p = .17$) of positive emotion.

Between groups comparisons were made on the mean satisfaction with life score across the 14-day period. There was a significant main effect for condition, $F(2, 45) = 4.18$, $p = .02$. Post-hoc Scheffe's tests revealed that clients who completed the gratitude intervention rated their satisfaction with life significantly higher than those in the control condition, $p < .05$, Cohen's $d = 1.13$. There was a trend towards higher life satisfaction ratings for clients in the kindness intervention compared to those in the control condition, $p = .06$, Cohen's $d = .81$. No differences emerged between the gratitude and kindness conditions, $p = .99$.

Finally, to determine whether the three conditions differed in optimism, a one-way ANOVA was performed on the 14-day mean optimism rating. The main effect of condition was significant, $F(2, 45) = 4.55$, $p < .05$. A post hoc Scheffe's test revealed that clients in the kindness intervention displayed higher optimism compared to those in the control condition, $p < .05$, Cohen's $d = .95$. Clients in the gratitude intervention displayed a trend towards higher optimism than the control group, $p = .07$, Cohen's $d = .97$. No differences were observed in optimism between the gratitude and kindness conditions, $p = .92$.

6.3.2 Eudaimonic Well-Being

A 3 × 2 mixed ANOVA was conducted to examine pre- and post-intervention differences in meaning in life as measured by the PIL between the three experimental groups. However, no significant main effect for time ($p = .67$), group ($p = .38$) or interaction between condition and time ($p = .79$) emerged.

6.3.3 General Psychological Functioning

To examine change in general psychological function as assessed by the OQ-45, we performed a 3 × 2 mixed ANOVA, using OQ-45 scores as the dependent variable and experimental group (gratitude, kindness, placebo) and time (pre, post) as independent variables. Results revealed a significant effect of time, $F(1, 41) = 23.66$, $p < .001$, such that all participants experienced significantly improved psychological functioning over the course of the intervention. This was a small effect, with $\eta_p^2 = .37$. There was no main effect of group, $F(2, 41) = .78$, $p = .47$, or interaction between group and time, $F(2, 41) = 1.10$, $p = .34$; suggesting that the gratitude, kindness, and placebo interventions were each equally effective in improving global psychological functioning over the 14-days of the intervention.

A series of 3 × 2 mixed ANOVAs were conducted using the subscales of the DASS-21 (depression, anxiety, and stress) as the three dependent variables. For DASS depression, there was no main effect for time ($p = .17$), group ($p = .10$) or interaction between condition and time ($p = .52$) suggesting that clients' ratings of depression did not change significantly during the 14 days of the intervention period. For DASS anxiety, the significant main effect of time, $F(1, 44) = 7.15$, $p < .05$, $\eta_p^2 = .14$, was qualified by a significant interaction between group and time, $F(2, 44) = 4.89$, $p < .05$, $\eta_p^2 = .18$. When the effect of time was examined separately for each group, it was observed that significant reductions in anxiety were reported by the gratitude ($p < .05$) and kindness ($p < .01$) groups, but not the control group ($p = .30$) during the 14 days of the intervention period. For DASS stress, there was a significant effect of time, $F(1, 44) = 5.54$, $p < .05$, $\eta_p^2 = .11$, but no main effect of group, $F(2, 44) = .73$, $p = .49$, or interaction between time and group, $F(2, 44) = 1.58$, $p = .22$, suggesting that all groups in the study reported a reduction in stress levels during the 14 days of the intervention period. To summarise, whereas all groups reported a reduction in stress levels, only the gratitude and kindness groups reported a reduction in anxiety levels.

6.3.4 Relational Functioning

Mean daily rating of connectedness with others was compared between groups using a one-way ANOVA. Welch's adjusted F ratio was employed to correct for a violation of the assumption of homogeneity of variance. This analysis revealed a significant difference between groups, Welch's $F(2, 25.25) = 19.90$, $p < .01$. Pairwise comparisons that do not assume equal variances (Games–Howell tests) showed that, relative to the control group, both the gratitude ($p < .01$, Cohen's $d = 2.07$) and kindness groups ($p < .01$, Cohen's $d = 1.27$) reported higher levels of connectedness with others.

7 Discussion

The present research represents the first attempt of which we are aware to examine the effects of cultivating gratitude and kindness in a clinically distressed sample on a waiting

list to receive treatment. Results demonstrate that we can reliably cultivate gratitude (Hypothesis 1), and that enhancing gratitude leads to enhanced satisfaction with life and connectedness with others, higher optimism, and reductions in anxiety (Hypothesis 2). Results showed that we cannot cultivate kindness in just 2 weeks in a clinical sample presenting for outpatient psychological treatment (Hypothesis 3). With regards to related outcomes, participants in the kindness intervention displayed greater satisfaction with life, increased optimism and connectedness with others, and lower anxiety (Hypothesis 4). In brief, results from this research indicate that self-administered gratitude and kindness interventions may be valuable for clients whilst waiting to receive treatment.

7.1 Enhancing Gratitude and Kindness

Results from the present research demonstrate that we can cultivate gratitude in a 2 weeks intervention in a clinically distressed sample. A daily, conscious focus on things clients were thankful for generated a significantly stronger experience of gratitude in daily life, as compared to a conscious focus on acts of kindness or monitoring mood. These results suggest that gratitude strategies may be useful for clinical populations. In contrast, we were not able to reliably cultivate kindness using a 2-week counting and committing kindnesses intervention. The large amount of individual variability in response to the kindness intervention may have impacted on this finding. This increased variability in response to the kindness intervention suggests that there may be a differential benefit from such an intervention. Uncovering the specific nature of these individual differences would be an important pursuit for further research.

The efficacy of similar kindness interventions has previously been demonstrated within student samples (Otake et al. 2006; Lyubomirsky et al. 2004, cited in Lyubomirsky et al. 2005). In the current study we offered this intervention to people in the height of their distress when presenting to therapy. Perhaps kindness interventions would be more helpful *after* some of the initial groundwork in therapy has been accomplished. Because kindness strategies require a focus on others' well-being, rather than one's own, it is possible that the required behavioural enactment may function as an added burden rather than benefit at this stage of therapy. Finally, it could be that the particular strategy used to cultivate kindness in the current study is not suited to clinical samples. This may not preclude other kindness-cultivating strategies.

7.2 Impact of Gratitude and Kindness on Psychological Functioning

Based on the broaden and build model of positive emotion, we predicted beneficial outcomes for cultivating the positive emotions of gratitude and kindness into two key areas: personal and relational well-being. As hypothesised, the current study demonstrated that both gratitude and kindness interventions can build psychological and interpersonal functioning within a clinical sample. Individuals in both the gratitude and kindness intervention reported more daily satisfaction with their lives than those in the placebo intervention, and higher levels of optimism, as well as lower anxiety compared to the control group. These results are consistent with previous research for both gratitude (Chan 2010; Emmons and McCullough 2003; Froh et al. 2008; Seligman et al. 2005; Sheldon and Lyubomirsky 2006; Watkins et al. 2003) and kindness (Cohn and Fredrickson 2010; Fredrickson et al. 2008; Hoffman et al. 2011; Otake et al. 2006) interventions. These findings suggest that even when starting from a baseline of distress and negative emotion, a

conscious focus on gratitude or kindness has adaptive benefits to well-being, in the form of increased optimism and greater satisfaction with life.

In contrast to previous research in student populations, we did not find that these interventions significantly increased the frequency or intensity of positive or negative affect. Relatively consistently, gratitude interventions have been demonstrated to have a positive impact on affect (Watkins et al. 2003; Emmons and McCullough 2003; Seligman et al. 2005; Sheldon and Lyubomirsky 2006). Whilst cultivating kindness research is in its infancy, Otake et al. (2006) demonstrated that a kindness intervention can increase subjective happiness. That we were unable to reliably replicate these findings may relate to the distinct nature of our clinical population. The majority of participants in the current study presented with affective disorders. In that affect is the metric of the distress of this population, it may well be that shifts in affect would be small and gradual. The time period under study prevents any conclusions regarding the more enduring or progressive nature of these strategies for a clinical sample.

It is interesting that the kindness intervention had greater impact on optimism than the gratitude intervention. In past research gratitude has been linked to greater optimism (e.g. Emmons and McCullough 2003). In explaining the difference, we refer to prior arguments that helping constitutes a proactive means of preventing helplessness (e.g. Midlarsky 1991), and research findings that kindness is associated with an increased sense of mastery and self-efficacy (e.g. Fagin-Jones and Midlarsky 2007; Oliner and Oliner 1988). Thus, if someone feels *able* to do something for others that will make a difference in their lives, they perhaps feel more optimistic that they can be an active agent of self change in the future.

With regards to eudaimonic well-being, contrary to our hypotheses, neither the gratitude or kindness interventions influenced meaning in life in this period, nor was there change to general psychological functioning above that of the placebo group.

7.3 Impact of Gratitude and Kindness on Relational Well-Being

In line with our hypotheses regarding the relational benefits of gratitude and kindness, we found that both gratitude and kindness interventions increased clients' sense of connectedness with others to a significantly greater degree than a placebo intervention. This result suggests that it is not just contact with a professional that helps someone in distress feel more connected, as this contact was equal across each of the three interventions. Instead, it appears that the positive, outward focus afforded by gratitude and kindness interventions mobilised the existing support that people have in their lives, enabling them to forge new, or strengthened connections with others. This finding is consistent with prior research indicating an association between gratitude, kindness, and elements of improved relational functioning (Bartlett and DeSteno 2006; Bono and McCullough 2006; Dunn and Schweitzer 2005; Worthington et al. 2005; Zahn-Waxler et al. 1983) as well as with outcomes of similar gratitude interventions with non-clinical samples (Emmons and McCullough 2003). This result also fits within the build component of the broaden and build model of positive emotion (Fredrickson 1998, 2000b). For both gratitude and kindness, this model predicts the acquisition of positive relational resources, such as new or strengthened relationships. The current study confirms that repeated experience of gratitude or kindness over a 2 week period can in fact strengthen one's relational resources.

7.4 Extent of the Current Findings: A Dose–Effect Relationship?

Overall, results in the predicted directions were seen for a number of daily measures of personal and relational well-being (i.e. optimism, satisfaction with life, connectedness with others) whilst the impact on larger constructs measured prior to and following the intervention were not consistent with our predictions (i.e. general psychological functioning as measured by the OQ45). This may reflect a dose–effect relationship, such that the greater one's distress the larger the dose of intervention required to achieve the same effect (e.g. Howard et al. 1986). In this way a dose–effect is relevant to translating therapeutic strategies to clinical populations. Such an effect implies that an equivalent dose provided to non-clinical and clinical samples may demonstrate a smaller effect for the clinical sample. In some of the initial work examining the impact of gratitude interventions on well-being, Emmons and McCullough (2003) examined the impact of offering a cultivating-gratitude intervention over differing time periods; weekly for 10 weeks or daily for 2 weeks. Interestingly, they found that whilst the shorter more intense intervention had a larger effect on experienced gratitude, the prolonged but less frequent intervention demonstrated an effect on health behaviours, such as time spent exercising, quality of sleep, and extent of substance use. The authors speculated that this difference in effects may have been a result of the time period in question; such that it was possible to detect changes to more lasting habits in the context of the longer time period. One possible explanation of the significant effect of the gratitude and kindness interventions on daily measures of well-being in the current study, but non-significant effect on the larger constructs measured pre- and post-intervention, is that the brief duration of our intervention precluded the observation of significant changes to such overarching constructs as meaning in life, and negative mood states. A similar argument was made by Sheldon and Lyubomirsky (2006, p. 81) following introducing a gratitude intervention to a group of students; with these authors suggesting gratitude may have "deferred effects" on various measures of interpersonal functioning.

It is acknowledged that this was an ambitious program to introduce, given the clinically significant degree of distress experienced by our sample and the brevity of the intervention itself. We presented a brief, general intervention designed to make a constructive difference whilst they were waiting for therapy proper. It is important to contextualise our results in the reality that we would not expect this intervention to bring about a happy state for this sample by just offering these brief interventions. However, despite the brevity of intervention, we have demonstrated that such an intervention can make a positive difference for a clinical sample, particularly with regard to daily experiences. That these findings demonstrate the same pattern of associations between gratitude and kindness with well-being, lends further support to Frederickson's (1998, 2000a) broaden and build model, in that it applies equally well to persons who are and are not experiencing clinically significant distress.

7.5 Duration of the Building Process for a Clinical Sample

Frederickson's (1998, 2000b) broaden and build model of positive emotion predicts that the experience of positive emotion enables the building of positive resources that are themselves durable and lasting. There has been further suggestion that these resources are self-perpetuating, such that the resources beget yet more positive emotion, and thus further acquisition of beneficial skills and resources (Frederickson 2000b). We have demonstrated that both gratitude and kindness interventions can stimulate the acquisition of resources such as optimism, satisfaction with life, and connectedness with others.

As further explanation for this apparent discrepancy between daily indices of well-being and more over-arching constructs, we speculate that this building process may take some time to appear; exactly how much time we do not yet know. In this way, the current findings may indicate the beginnings of an upward spiral. Thus, the initial boost clients in our interventions gained in optimism, life satisfaction, and connectedness, may make larger changes more likely, in an incremental fashion. This requires longer term follow-up, and examination of lengthier interventions; however, we suggest that the current positive findings provide the impetus for further investigation. To exemplify this speculation, we refer to gains in relational functioning; the clients in our study who were allocated to the 2 weeks focus on kindness or gratitude experienced an initial boost in their sense of connectedness with others. This greater sense of connectedness may with time further strengthen these clients' existing relationships, increasing the degree to which their life is intertwined with that of others, gradually increasing their sense that they are adequately socially supported. With these improved relationships, periods of distress are less likely, and positive emotional experiences more likely; thus predicting further gains. Furthermore, with this enhanced building of relationships may come the sense that life is more meaningful. If building resources is incremental, we would expect this building of resources to mediate gains in eudaimonic well-being.

7.6 Implications, Limitations, and Future Directions

The present research has several important implications for clinical practice. Firstly, the finding that clients can benefit from these self-administered positive psychological activities whilst waiting for therapy is of particular importance given the substantial problems associated with long waiting times to receive treatment (Carpenter et al. 1981; Orme and Boswell 1991; Paige and Mansell 2013; Peeters and Bayer 1999). If self-administered positive psychological interventions serve as useful pre-treatment activities for clients whilst waiting for therapy, it is possible that pre-treatment drop-out can be reduced, and therapy outcome can be increased by using these simple interventions. Future research should investigate these possibilities. Secondly, given that much of the research regarding gratitude and kindness interventions has been conducted with student samples, the present research reveals that these strategies are helpful in clinical populations, even at the height of their distress when presenting for therapy.

There are some limitations of the present research that need to be acknowledged. Firstly, the small sample is a limitation of the current research as it may have reduced the power to detect some effects. Thus, it is possible that some of the null results observed in the present research may reflect Type II error. However, it also needs to be acknowledged that small sample sizes can lead to overestimates of effect sizes, and thus it is possible that some results may reflect Type I error. In brief, it is acknowledged that the small sample size does limit the extent to which definitive conclusions can be drawn from the present research, and it is critically important that these findings are replicated with larger samples. Furthermore, the small sample limits the extent to which analyses investigating moderators of treatment effects can be performed. Nonetheless, the results from the present research do provide some encouraging preliminary evidence that gratitude and kindness interventions may be of benefit to clinical samples on a wait-list to receive therapy.

The attrition rate in the current study was high. Approximately half of the clients who signed up for the pre-treatment program did not start or did not complete the program. Available data for clients who did not complete the program or did not return all measures suggested that they were significantly more distressed, depressed, or lacking meaning in

life, compared to those clients who completed the program. This raises the possibility that the intervention is less helpful for those who are highly distressed, as these individuals may be less able to sustain the 2-week self-administered intervention. Due to the small sample size in the present research, it was not possible to conduct subsidiary post hoc analyses to examine this possibility. The differential efficacy of the program at different levels of distress should be investigated in future research. However, despite this limitation, results do indicate that gratitude and kindness interventions are more effective than a placebo control condition, at least for those who completed the interventions. It is also important to acknowledge that due to the absence of long-term follow-up, it is not possible to examine the long-term stability of the effects fond in the present research. It is possible that once participants receive the treatment they were on the wait-list to receive, participants across all conditions may improve to the same extent. However, it is also possible that the gratitude and/or kindness intervention may have additional long-term benefits. Future research should examine these possibilities empirically.

Finally, given that participants were asked to retrospectively report events and mood in the daily diaries, it is possible that participants' current mood while completing the diary may have influenced results. Although this is a possible limitation that needs to be acknowledged, the use of random assignment limits the extent to which this issue might be a limitation. Specifically, participants in all conditions were asked to retrospectively report on events and mood each day, and differential results were found based on the condition participants were randomly assigned to. Thus, it seems unlikely that the results can be totally explained by mood-dependent memory.

Future research should explore whether attrition rates may be reduced if the program was presented by the treating clinician, which could also start to build the relationship between clinician and client and make the program follow a more natural progression from waitlist to therapy. As a final note, we also wish to echo a caveat offered by McCullough et al. (2004); that the interventions offered in this research represent a relatively minimal strategy. We believe this caveat is particularly applicable to our clinical sample, in which a host of other variables would be expected to impact on well-being. Our interventions requested that participants reflect on either the things in their lives they are grateful for or their kind acts towards others, for a duration of 2 weeks, and we anticipated that this would affect their personal and relational well-being. In the context of the many factors that may influence well-being, both individually as well as in combination, it is remarkable to reflect that the single factors targeted in our intervention had a significant impact on these clients' daily lives. Future research should also examine the effects of a longer-term intervention for clinical populations focussing on gratitude or kindness, and explore what the optimal dose of these interventions is.

8 Conclusion

The aim of the present research was to investigate whether brief, self-administered positive psychological strategies may assist clients whilst on a waiting list to receive treatment. Based on the broaden and build model of positive emotion, we argued that kindness- and gratitude-cultivating strategies are well placed to stimulate positive change in well-being for a clinically distressed sample waiting to receive treatment. The present research demonstrated that gratitude and kindness have a place in clinical practice; not as end states, but as emotional experiences that themselves have the capacity to stimulate positive change to daily individual and relational well-being. Further, these strategies may serve as

useful pre-treatment interventions that reduce the negative impact of long waiting times to receive treatment.

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