Examining the Effects of Rational Emotive Behavior Therapy (REBT) on the Irrational Beliefs of Blue-Chip Professionals

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Abstract

The extant literature reveals a scarcity of research applying rational emotive behavior therapy (REBT) in business settings. Against the backdrop of severe market conditions and inevitable involuntary job loss, the application of psychological interventions to reduce mental and physical health issues is highly pertinent and potentially valuable. This paper reports the effects of an intensive REBT programme on the irrational beliefs of staff undergoing redundancy from a Blue-Chip organisation. A repeated-measures single-group intervention design was adopted so that changes in irrational beliefs could be assessed over the course of the REBT programme. Results indicated significant reductions in total irrational beliefs, other-depreciation, need for achievement, and demand for fairness from pretest to posttest phases. Social validation data indicated perceived psychological and performance benefits. Results are discussed with reference to mechanisms of change, study limitations, and applied research issues.

Keywords: business, emotions, applied psychology, intervention, job loss, social validation

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"I have been made redundant before and it is a terrible blow; redundant is a rotten word because it makes you think you are useless." – Billy Connolly

Blue-chip businesses trade in a constantly changing and often unpredictable environment. The economic uncertainty that many organisations are functioning within forces sudden but necessary changes in staffing for the businesses to continue to trade. Unfortunately, as a consequence of leaner financial times, redundancies or layoffs have increased. Indeed, the Chartered Institute of Personnel and Development (CIPD) reported in 2012 that almost 2.7 million people were made redundant between 2008 and 2012 in the U.K., equivalent to one in ten employees at the start of the recession.

There is little doubt that redundancy, also known as a layoff or involuntary withdrawal from work, has a negative psychological impact on the employees it affects. Indeed, research indicates that increased redundancy begets short and long term mental and physical health issues, and impaired psycho-social functioning (Beale & Nethercott, 1985; Catalano, 1991; Penkower, Bromet, & Dew, 1988; Price, Choi, & Vinokur, 2002). Job loss is associated with anxiety, aggression, apathy, passivity, and depression (Cohn, 1978; Leana & Feldman, 1988; Warr, 1978). Job insecurity, considered to be a prelude to job loss (Dekker & Schaufeli, 1995), can be augmented by planned redundancies that have not yet occurred. Work conditions characterised by uncertainty causes stress for employees (Sell, Brief, & Schuler, 1981) stemming from the anticipation of job loss and ambiguity about the future (Joelson & Wahlquist, 1987). In addition, job insecurity is associated with lower job satisfaction and increased self-reported physical stress symptoms (Heaney, Isreal, & House, 1994), and increased psychosomatic complaints as well as psychological distress (e.g., Dekker & Schaufeli, 1995).

Redundancy not only affects those who lose their jobs, it also affects those who survive redundancy and remain working within the company. Indeed, individuals surviving redundancy may suffer reduced organisational commitment, reduced job satisfaction, and increased turnover intention (Brockner, 1988; Brockner, Grover, Reed, & Dewitt, 1992). These outcomes are understandable given that those surviving redundancy are often given heavier workloads and are concerned about the security of their own jobs (Brockner, 1988). In addition, survivors of redundancy, report various negative implications including negative feelings towards co-workers, reduced productivity, risk avoidance, defensiveness, fear, threat, anger, anxiety, guilt, stress, tiredness, depression, a sense of loss, demoralisation, and a lack of motivation (Campbell, Worrall, &

Cooper, 2000). Furthermore, survivors report loss of sleep and adverse effects on their home life (Campbell et al., 2000).

In sum, research indicates significant adverse effects of job loss on those made redundant and those surviving redundancy. Health implications include psychological and physical ailments (e.g., stress related illnesses) that can in some cases become long-term concerns. In addition, non-clinical implications include changes in behavioural variables such as decreased motivation, satisfaction, and effort in individuals who have survived or who have been made redundant but are awaiting their work termination date.

Considering the evidence that redundancy exacerbates mental health risks for victims and survivors, sparse research has examined the use of cognitive behavioural support and interventions for affected individuals, especially within Blue-Chip organisations. One approach that could offer a valuable framework of support for employees affected by redundancy is rational emotive behaviour therapy (REBT). Conceived by Albert Ellis in 1955, REBT posits that in the face of adversity (such as job loss), it is not the situation itself that causes dysfunctional emotions such as depression, but the beliefs about the situation (Ellis, 1957). Specifically, REBT suggests that unhealthy dysfunctional emotions (e.g., immobilising emotions such as anxiety), and associated maladaptive behaviours (e.g., withdrawal), stem from irrational beliefs. In contrast, healthy functional emotions (e.g., mobilising emotions such as concern), and associated adaptive behaviour (e.g., assertiveness), stem from rational beliefs (Ellis, Gordon, Neenan, & Palmer, 1997). In REBT there are four types of irrational belief, one primary (demands) and three secondary (awfulizing, low-frustration tolerance, self-depreciation); the secondary beliefs are derived from the primary belief. In parallel, there are also four types of rational belief, one primary (preferences) and three secondary (anti-awfulizing, high-frustration tolerance, self-acceptance); again the secondary beliefs are derived from the primary belief (Dryden, 2012).

Research has consistently shown that irrational beliefs are associated with dysfunctional emotions such as heightened anxiety, feelings of anger and shame, and psychopathological conditions including depression, anxiety, and suicidal thoughts (for a review see Browne, Dowd, & Freeman, 2010), as well as maladaptive behaviours such as social avoidance, self-harming, procrastination, anger suppression, aggression, and violence (for a review see Szentagotai & Jones, 2010). Therefore the goal of REBT is to help people to change irrational beliefs for rational beliefs, thus changing the way in which an event is cognitively appraised (David, Schnur, & Belliou, 2002; Hyland & Boduszek, 2012), promoting functional emotions and adaptive behaviours that facilitate psychological well-being and goal achievement.

The effectiveness of REBT is well supported across clinical, non-clinical, and performance settings with youths and adults (David, Szentagotai, Eva, & Macavei, 2005; Engles, Garnefski, & Diekstra, 1993; Gonzalez, Nelson, Gutkin, Saunders, Galloway, & Shwery, 2004; Lyons & Woods, 1991; Turner & Barker, 2014). Given that individuals affected by redundancy (directly and indirectly) report experiencing unhealthy emotions and maladaptive behaviours (e.g., Campbell et al., 2000), REBT could provide a valuable strategy for use within business contexts. In their study on redundancy, Campbell et al. provide qualitative data relevant to the current paper in which participants describe events as "terrible" (p11) and describe feeling "devastated" (p12); adjectives that reflect awfulizing irrational beliefs. Therefore, irrational beliefs may be particularly salient within redundancy circumstances.

The use of REBT in blue-chip business settings has been reported in literature sparingly, however a meta-analysis brought together the findings of 23 research studies assessing the effect of REBT interventions on distress in organizational settings (David & Szamoskozi, 2011a). The meta-analysis revealed a large effect size (d = 1.14) for REBT-based programs. David and Szamoskozi (2011b) also examined the effects of Rational Emotive Behavior Coaching (REBC) on emotions, irrational and rational beliefs, and inferential cognitions and behaviours. They conducted REBC interventions in both a private company and an educational organization and compared these interventions to control conditions. For educators, the REBC intervention yielded significant reductions in irrationality compared to no change for the control condition. Also, the REBC intervention led to significant decreases in emotional distress and burnout, and significant increases in job satisfaction. For private employees, the results mirrored what was found with educators, with an additional finding that the REBC intervention significantly increased the quality of life of the private employees. The work of David and Szamoskozi represents a key development in the understanding of the effects of REBT in organisational settings. More specifically related to organisational redundancy, one study implemented an REBC program for managerial staff (The Rational Managerial Coach Program) at a telecommunications group factory in Romania (David & Matu, 2013). During the six-month period in which the program was delivered, the managers were informed that the factory would be closing soon, thus rendering them redundant in the near future. Understandably, results showed that distress increased over the program period, but importantly results also showed that dysfunctional negative emotions had decreased, despite the managers being informed that they would lose their jobs. The authors concluded that the REBC program had increased the managers' resilience in front of this crisis situation by helping them to control their dysfunctional negative emotions.

One recent study takes a cross-sectional approach to exploring the role of irrational beliefs in job security and occupational stressors (Popov & Popov, 2013). Although an REBT intervention was not applied, correlational results indicate a positive relationship between irrational beliefs and distress within an occupational setting, independently of job insecurity and occupational stressors. Popov and Popov suggested that further developments are needed in stress management programs based on the REBT model, given that distress can be predicted by irrational beliefs. Further, and relevant to the current paper, they suggested that group stress-management training programs could be effective as a secondary intervention to help increase individuals' awareness of stress levels and help them to develop effective coping strategies.

Of the subsequent literature, few include empirical evidence of the effects of REBT as the focus of past papers is on anecdotal accounts from a professional practice standpoint. To illustrate, three articles included in the same issue of The Journal of Rational Emotive and Cognitive Behavior Therapy consider the applicability and delivery of REBT in the world of business. In short, the application of REBT in business is both varied and impactful, where it is used to support staff and managers in the pursuit of personal and organisational goals and targets (Criddle, 2007a; 2007b; Grieger, 2007). Valuable insights can be gleaned from this work at a practical level, but an indication of the effectiveness and outcome of the REBT is not quantified. Further, Criddle (2007b), espouses the benefits of using REBT in business settings and states that "REBT is the most business friendly school of psychology when it comes to helping executives, managers, and firms solve people problems, enhance productivity, and help senior people become more effective leaders and managers" (p. 105). Finally, Palmer and Gyllensten (2008) present a case-study where a cognitive-behavioural approach was adopted to help a client with procrastination problems. REBT is discussed as an alternative approach, and although its application in the business context is not discussed at length, the applicability of REBT is once again supported.

In sum, the extant literature concerning the use of REBT in business settings demonstrates strong support for the effectiveness of REBT in organisational settings, particularly in reducing emotional distress and burnout, and increasing job satisfaction and quality of life (e.g., David & Szamoskozi, 2011a). In addition, the use of REBT within business settings is advocated from professional practice and anecdotal perspective. To extend the extant literature, the current paper examines the use of REBT in a Blue-Chip organisation undergoing significant changes and redundancies. To this end, the purpose of this paper is to report the use and effectiveness of a two-day intensive REBT programme with members of staff facing redundancy within six months of the authors' initial contact with the organisation. A secondary purpose was to report in detail the structure and content of the REBT programme to inform practitioners working within a similar context.

Contextual information

The authors were approached by the HR director of a global electronics company to provide consultancy and research support to a group of human resource (HR) staff (from a U. K. branch) who were facing redundancy in the forthcoming months. The HR department of the company was being downsized due to economic reasons and therefore as part of this process support (e.g., emotional and personal development) was being offered to affected staff to prepare them for other employment opportunities along with dealing with the stress of redundancy. The authors' remit was to develop and deliver an REBT programme to support the emotional needs of the group along with collating data to evaluate the efficacy and effectiveness of the programme on key psychological outcomes relative to the redundancy context.

Method

Participants

Participants were 11 (*Female* = 9, *Male* = 2) employees of an international Blue-Chip organisation (*AgeRange* = 28 to 60years). Due to the sensitive nature of the context in which the workshops were delivered, collection of specific demographic data was prohibited. All participants had been informed by the organisation that their contract of employment would cease on a specified date within the tax-year. Informed consent was obtained from all participants and approval was granted by the organisation prior to data collection and intervention.

Research Design

A repeated-measures single-group intervention design was adopted, allowing the within-group effects of the REBT intervention to be examined. Participants received two four-hour intensive REBT workshops. The second workshop took place approximately one month after the first workshop. Self-reported irrational beliefs data were collected at four time-points across the two workshops (October 2012 to November 2012); once prior to the first workshop (pretest), once after the first workshop (posttest 1), once prior to the second workshop (pretest 2) and finally once after the second workshop (posttest 2). Social validation data were collected immediately after each workshop.

Measures

Irrational beliefs. The Shortened General Attitudes and Beliefs Scale (SGABS; Lindner, Kirkby, Wertheim, & Birch, 1999) was used in the present study. This scale consists of 26 items forming eight subscales. Total irrationality (22 items) is made up of self-depreciation (4 items), other-depreciation (3 items), need for achievement (4 items), need for approval (3 items), need for comfort (4 items), and demand for fairness

(4 items). A rationality (4 items) subscale is also included. Participants were asked to indicate the extent that they agreed with each of the 26 statements on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicate stronger beliefs. The SGABS has high test-retest reliability (r = .91; Lindner et al., 1999), and good criterion, construct, concurrent, convergent, and discriminate validity (MacInnes, 2003). In the current study Cronbach's alpha coefficients indicated internal reliability with values ranging from .83 to .93 across all four time-points.

Social validation. Social validation questionnaires (Page & Thelwell, 2013) were completed after each of the two workshops by all participants to ascertain perceptions of the intervention delivery and efficacy. The social validation questionnaire for workshop 1 included three brief questions: What aspects of the session did you find valuable and enjoyable? What changes would you make to enhance the experience of the session? Please comment on the overall quality of the session. The social validation questionnaire for workshop 2 included the same three brief questions, but in addition included questions regarding changes in thoughts, feelings, and behaviours and participants' overall perceptions of the entire programme. Similar to Turner, Slater, and Barker (2014), this included eight questions concerning motivation, positive feelings, self-confidence, rational thinking, and dealing with pressure and change. Participants responded on a 7-item Likert scale ranging from 1 (*do not agree at all*) to 7 (*completely agree*). This was followed by seven open-ended questions regarding perceived changes in thoughts, feelings, and behaviours, and evaluation of the programme. The social validation questionnaire is not formally validated and while based on past research (Turner et al., 2014), it was bespoke to the current study.

Intervention Procedure

The authors, both Chartered Psychologists (by the British Psychological Society) and Qualified REBT Practitioners (Primary Practicum), were brought in as experts to deliver the REBT workshops with members of staff whose contracts would cease. Since what was delivered to the participants is not technically considered to be "therapy", the workshops were akin to that of Rational Effectiveness Training (RET), an REBT-based coaching framework developed by Dominic DiMattia (1990) for use in organizational contexts. That is, while the theoretical aspects of REBT were adhered to, participants were not individually counseled, rather, they were introduced to rational emotive behavior techniques and strategies. The workshops were tailored to the potential adversities being faced by the participants, as the workshops centred around thoughts, feelings, and beliefs regarding facing vast life changes, dealing with perceived rejection, and approaching stress provoking situations such as being interviewed for new jobs in the near future. Although the workshops were planned with particular

issues in mind, the delivery was flexible and highly interactive. Unlike the more structured educational REBT workshops of past research (e.g., Turner, et al., 2014), in the current study the workshops were characterised by group discussions, personal disclosure, and the practical use of the REBT ABCDE framework (A = Activating event or Adversity; B= irrational belief; C = emotional and behavioral Consequences; D = disputes or arguments against irrational beliefs; E = New and more effective emotions and behaviors that result from new rational beliefs; Ellis & Dryden, 1997) to promote self-discovery and autonomy over belief change. Therefore, time was spent educating the participants in the theory and use of REBT, the workshops allowed participants to learn through using the framework with each other in small groups. The author's role at times was to facilitate discussions and support participants in the correct application of the REBT framework. The discussions were intersected by education segments about some of the many techniques and strategies advocated in REBT literature for disputing irrational beliefs and promoting rational beliefs (e.g., Dryden, 2009; Dryden & Branch, 2008; Ellis & Dryden, 1997; Ellis et al., 1997).

Workshop 1. Initially, participants were introduced to REBT with particular attention on the ABCDE framework and the key differences between irrational and rational beliefs. It was important to orient the participants to the framework early in proceedings as the majority of the workshop was spent exploring and discussing the ABC elements. Following this educational start, discussions took place about the framework and any questions participants had were answered. After approximately 30 minutes the authors were confident that the group understood the ABC framework and the key differences between irrational and rational beliefs.

Participants were then randomly allocated to a group of three (a triad) for the next activity, which was to help each other find their As, Bs, and Cs. Within each triad, one participant was the 'interviewer', one participant was the 'interviewee', and the other participant was the 'observer'. It was the interviewer's job to ask the interviewee about their thoughts and feelings about the change taking place in their life, noting the interviewee's As and Cs, with the goal of finding their irrational beliefs. The interviewee was asked to be honest and open in the activity, and the observer was asked to make notes in the interaction to learn more about exploring the ABCs. After the interviewer had located the irrational beliefs, the observer was asked to give their thoughts on the interaction and to give feedback to the interviewer regarding their use of the ABC framework. As the interviews were taking place the authors roamed the room and listened in on the interviews taking place. If the interview was stalled by lack of direction or the interviewer felt that they did not know how to take the interview forward the authors intervened. Advice was offered on questioning which helped to steer wayward interviews towards the intended goal of finding the irrational beliefs. This activity was repeated three times so

that each participant in the triad had an opportunity at being interviewer, interviewee, and observer. It should be noted that prior to the activity a contract was democratically arrived at which set rules for the interviews. This included confidentiality agreements, a commitment to honesty, and an agreement that participants would treat each other respectfully while sharing. This activity lasted 90 minutes in total (3 X 30 minute interviews), after which common found As, Bs, and Cs were collated on a flipchart so that the group could see the commonalities among the members of the group. Participants were also encouraged to reflect openly on using the ABC framework to promote the sharing of information and to develop a shared knowledge of how to find the irrational beliefs.

The final section of the workshop involved educational content about why irrational beliefs can be maladaptive. This involved explaining why rigid demands lead to unhealthy negative emotions and dysfunctional behaviours drawn from research (e.g., David, Lynn, & Ellis, 2002). It was important to help the participants understand how their irrational beliefs lead to maladaptive consequences to engender further motivation to dispute irrational beliefs. Then, participant engaged in some interactive activities underpinned by methods of disputation (D), thus progressing the participants knowledge from ABC to ABCD. This included empirical, logical, and pragmatic arguments against the use of rigid demands and awfulizing. This section allowed participants to briefly engage in disputation on their own irrational beliefs that had been identified in the previous triad activity. While the main focus of the session was on ABC, the authors wanted the participants to leave the session knowing that there are methods through which their irrational beliefs can be disputed, a notion further explored in workshop 2.

Finally, participants received take away points, which were a recap of what the workshop had covered, and the participants were given homework tasks to complete before workshop 2. The homework tasks required participants to find an example in the media of somebody behaving or thinking irrationally, to read an article on self-esteem (Mills, 2003) provided to them, and to keep a diary to write down their thoughts and feelings in relation to situations that led to unhelpful emotions and or dysfunctional behaviours.

Workshop 2. To re-familiarise participants with the REBT framework, the philosophy of REBT was recapped and the key differences between rational and irrational beliefs were reinforced. Then, in small groups the participants had an opportunity to discuss recent instances of emotional experience and to determine what beliefs, rational and irrational, underpinned those experiences. The content for these discussions stemmed from the diaries the participants had kept in between workshop one and two. Participants also shared any interesting examples from the media they had found of individuals expressing irrational philosophies. The initial part of this

workshop helped to re-immerse participants into REBT and language of irrational and rational beliefs (demands and preferences).

The workshop then moved on to help participants gain a deeper understanding of the differences between unhealthy negative emotions (UNEs) and healthy negative emotions (HNEs). In particular, the behaviours that are associated with UNEs and HNEs were discussed and participants reflected on how they behave when experiencing particular emotions. It was important that participants understood that UNEs are maladaptive in part because they are associated with action tendencies that hinder goal attainment, so that their motivation for disputing irrational beliefs was bolstered.

Education on self-depreciation and other-depreciation was then provided with an emphasis on disputing these irrational derivatives in favour of self- and other- acceptance. One of the ways acceptance was encouraged was to have participants to write down their idol, or someone for whom they harbour a deep respect. Then, participants were asked to write down their idol's failures. Participants were readily able to complete this task, and some illustrations of prominent figures throughout history who experienced significant failures in their professional endeavours were provided. The underlying point here was to illustrate that failure is normal part of being a fallible human being, and that the failures experienced by the prominent figures did not make those individuals 'failures' or 'losers'. In essence, participants were helped to understand that global self-ratings are irrational, while accepting that failure is a normal part of being human.

The majority of workshop 2 was dedicated to more triad interviews in which participants developed their understanding of the REBT framework and helped each other to explore their irrational beliefs. Participants at this stage were encouraged to utilise the skills and knowledge they had developed in both workshops thus far. As before, the authors facilitated the activity by providing support to interviewers and also helping the observers to apply the REBT framework to the interactions. Again this activity was completed with a full group discussion about common irrational beliefs, however, in addition a group discussion was also facilitated around how the irrational beliefs could be disputed. Participants were highly engaged in this activity and were keen to apply disputation to the common irrational beliefs as an expression of their developing REBT competencies.

In the final section of workshop 2, participants engaged in a section called "what can we do about it?" in which participants developed rational self-talk statements (e.g., Ellis & Dryden, 1997) that reinforced preferences, anti-awfulizing, HFT, and self- and other-acceptance. The frequent use of these statements was encouraged in everyday life, and individuals were also helped to tailor statements to their specific requirements.

In addition, more homework was set for the group, but as workshop 2 was the last session this homework took the form of take home messages and activities. Broadly, participants were encouraged to consistently apply the REBT framework in their lives, to continue to keep a thoughts and beliefs diary to help them recognise irrational beliefs, and finally to use their rational philosophies frequently. Some final questions were answered and then participants departed.

Results

Analytic Strategy

Prior to main analyses, Shapiro Wilks tests were performed. If the presence of significant ($p < .05$) outliers were indicated then z scores for significant outliers were assessed. Data-points with z scores greater than two were windsorized ($N = 3$; one data point for total irrational beliefs, one data point for other-depreciation, and one data point for need for achievement; all windorized data points were at posttest two and belonged to the same participant) following guidelines for a small sample size (Smith, 2011) and previous research using a similar research design (Turner et al., 2014). Due to unforeseen circumstances one participant was not able to attend the second workshop, therefore only 10 of the 11 participants completed the SGABS at the posttest phase. To maximize statistical power in the absence of complete data for workshop two, the expectation maximization (EM) technique was employed. Prior to EM, Little's test was used to determine whether the data were missing at random or not. Data were missing at random, $\chi^2 = 8.70$, $df = 52$, $p > .05$, and therefore EM was used to estimate the missing values, providing a complete data set at the second workshop time-points ($N = 11$) for main analyses. Main analyses followed two steps. First, and due to a small sample size, to assess the influence of the REBT workshops on irrational beliefs and rational beliefs across the four timepoints (pretest 1, posttest 1, pretest 2, posttest 2), a non-parametric Kruskal Wallis test was conducted for each of the irrational and rational beliefs variable.. Second, post-hoc Kruskal Wallis comparisons, effect size calculations, and inspection of the means indicated between which timepoints significant changes had occurred and in which direction (Green & Salkind, 2008; Keselman, Games, & Rogan, 1979). That is, a test of differences was performed between each timepoint (pretest 1 - posttest 1; posttest 1 - pretest 2; pretest 2 – posttest 2; pretest 1 – posttest 2; pretest 1 – pretest 2; posttest 1 – posttest 2), six tests in total.

Changes in Irrational Beliefs and Rational Beliefs Across Timepoints

For irrational beliefs variables Kruskal Wallis indicated significant effects for time for irrational beliefs, $\chi^2 = 12.93$, $p < .01$, $\eta^2 = .30$, other-depreciation, $\chi^2 = 10.45$, $p < .02$, $\eta^2 = .24$, need for achievement, $\chi^2 = 7.74$, $p = .05$, $\eta^2 = .18$, and demand for fairness $\chi^2 = 14.60$, $p < .01$, $\eta^2 = .34$. For the rational beliefs variable

Kruskal Wallis indicated no effect for time, $\chi^2 = 6.86$, $p > .07$, $\eta^2 = .16$. For each variable where a significant effect for time emerged, Kruskal Wallis paired comparisons were examined (Table 1). For total irrational beliefs there was a significant decrease from pretest 1 to posttest 1 ($p < .01$), from pretest 2 to posttest 2 ($p < .05$), and from pretest 1 to posttest 2 ($p < .01$). For other-depreciation there was a significant decrease from pretest 1 to posttest 2 ($p < .01$), and from posttest 1 to posttest 2 ($p < .04$). For need for achievement there was a significant decrease from pretest 1 to posttest 1 ($p < .04$), and from pretest 1 to posttest 2 ($p < .02$). For demand for fairness there was a significant decrease from pretest 1 to posttest 1 ($p < .02$), from pretest 2 to posttest 2 ($p < .04$), and from pretest 1 to posttest 2 ($p < .01$). In sum, total irrational beliefs, other-depreciation, need for achievement, and demand for fairness were significantly decreased across intervention time-points. There were no significant changes from pretest 1 to pretest 2 and from posttest 1 to pretest 2 for any of the variables.

Social Validation

Workshop 1: Participants found numerous aspects of the workshop valuable and enjoyable, and six participants mentioned specific REBT elements such as the badness scale and rational self-talk statements. Three participants reported that the group work was the most valuable and enjoyable aspect, and the other participants mentioned more general aspects such as developing tools to deal with stressful situations. Participants also shared a range of potential improvements that could be made to workshop 1. In short, these comments centred around providing more time for discussion to take place around the REBT model and having participants arrive to the session with pre-prepared issues to talk about, making the session more fast-paced and being less theoretical, and providing more examples of the REBT model in action (e.g., using business specific illustrations). Two participants said that they would change nothing. Finally, participants were asked to comment on the quality of the workshop and the presenters. The most frequent comment was that the presenters were knowledgeable and interesting. In addition one participant commented that the presenters "showed flexibility and genuine interest in the questions and concerns," with another stating that "presenters were good and engaging."

Workshop 2: Participants commented on what they felt was most valuable and enjoyable about the workshop. Six participants stated that it was the group discussion elements and triad work that was most valuable and enjoyable, with one participant stating that they "enjoyed the structure, break out group sessions worked well (usually I don't enjoy these types of things!)." One participant commented on understanding the differences between healthy and unhealthy anger and anxiety, and the other participants comment more generally about enjoying the whole workshop. Only one participant suggested changes to the session, as they

felt that some elements of the workshop were rushed. In terms of the overall quality of the workshop and presenters, two participants noted some improvements from the first workshop, with one stating that workshop 2 was "better and more effective, fast paced than last session." Another participant appreciated that this session had "more relevance to the business context." One participant commented on REBT in particular stating that "the ABC analogy took some time to get my head around." All other comments reflected that the presenters were viewed favourably, with one participant commenting that the "presenters were clear, clarified their points, and answered questions well."

Overall Program: Social validation data suggested that participants felt the overall program increased their motivation in work related tasks (M = 5.00, SD = .58), positive feelings about the change (M = 5.56, SD = 1.01), self-confidence (M = 5.44, SD = .88), ability to think rationally (M = 5.78, SD = 1.09), ability to deal with pressure and change (M = 5.67, SD = .87), ability to enhance self-confidence (M = 5.44, SD = 1.01), positive feelings about the future (M = 5.78, SD = .97), and ability to reduce unhelpful and irrational self-talk (M = 5.67, SD = 1.00).

In terms of participants' thoughts and feeling about the program, all participants were positive about the program and the changes they had experienced. For example, one participant reflected "first session very sad and emotional; last session, accepting of change" suggesting a change in the way they perceived the change. Three participants referred specifically to strategies delivered in the program. One participant commented that "the rational thinking helped considerably in dealing with the emotions around being made redundant", while another said that "the sessions have gave me a sense of perspective". One participant also commented that they were "initially very cynical, however, the concepts and tools provided have really helped me feel more positive about change and the challenges I face", suggesting that the perceived efficacy of REBT had increased from the first to the last workshop.

All participants felt that they had benefitted from the program, with one participant offering "I felt better enabled to cope with the emotions and confident in myself." Coupled with another participant's statement that "accepting anxiety but using it" was an important benefit gained, it would seem that emotional control was an important benefit of the program. Interestingly, all but one participant, who was "not really sure", indicated that the program had led to them maintaining their effort at work even though they were being made redundant. One participant quantified a motivational change by stating that "I would say 75% motivated vs. 40% had I not taken part." One participant offered "The course has enabled me to be more emotionally controlled, and

therefore my performance has probably been more consistent." It would therefore seem that changes in beliefs from demands to preferences were not detrimental to motivation.

Participants also commented on the delivery of the program. In relation to what participants enjoyed most, only three offered comments. One enjoyed the group work elements, one enjoyed the link between theory and real life situations, and the other enjoyed the homework and practical tools. Further, six participants gave an overall rating for the program (M = 9, SD = .89) out of ten, indicating that participant rated the program highly. One participant also offered "I think this type of programme could be used for other areas of the business to manage the constant state of change in most businesses today," while in contrast another commented that "the program is not for everyone, you need to be interested in the psychology."

In summary of the social validation data, participants enjoyed the group work elements, benefitted from developing coping tools, and felt that the workshops were presented well. Participants also indicated positive changes in a range of cognitions, emotions, and behaviours. Finally, participants reported changes in their perspectives towards a more rational philosophy.

Discussion

The purpose of this study was to report in detail the use and effectiveness of a two-day intensive REBT programme with members of staff facing redundancy, or involuntary removal from work, in a Blue-Chip organisation. This paper adds to the extant literature (e.g., David & Matu, 2013; Popov & Popov, 2013; Turner et al., 2014) by adopting a repeated-measures single-group intervention design to assess changes in irrational beliefs from pretest to posttest. This study adds to the extant research evidencing the effects of group-level REBT (akin to RET; DiMattia, 1990) within a business context.

Results showed that the irrational beliefs of Blue-Chip workers undergoing redundancy decreased from pretest to posttest phases. Specifically, from before the programme commenced, there was a significant reduction in variables total irrational beliefs, other-depreciation, need for achievement, and demand for fairness. In addition, total irrational beliefs and demand for fairness showed a significant reduction after each workshop and overall, a pattern of results which may be suggestive of a dose response to REBT as suggested in past research, where more frequent and longer exposure to REBT begets more long-term changes in irrational beliefs (e.g., Turner et al., 2014; Turner, Slater, & Barker, in press). Unlike past research (Turner, Slater, & Barker, in press), the current study did not utilise a control or comparison group, therefore threats to internal validity could have contributed the reported changes in data. That is, it is not possible to rule out artefacts of history, repeated testing, or maturation. Therefore future researchers should include a control group, or draw on experimental

(e.g., pretest posttest) and quasi-experimental designs (including the non-equivalent dependent variables and the pattern matching non-equivalent dependent variables designs) which rule out rival hypotheses (Shadish, Cooke, & Campbell, 2002).

The initial change in demand for fairness from pretest 1 to posttest 1 reflects an immediate reduction of this variable in response to the first workshop, which could in part be explained by a high Mean pretest1 score of 3.61 compared to all other variables. In contrast to the significant findings, variables self-depreciation, need for approval, and need for comfort did not show significant changes across the timepoints. This may have been because Mean levels at pretest 1 were lower for these three variables compared to all other variables. Indeed, a Mean of 1.36 on a 1-5 Likert scale for self-depreciation may indicate a floor effect at pretest, thus any reductions would unlikely yield significant effects. Although the direction of data for self-depreciation, need for approval, and need for comfort suggest a reduction across timepoints, these changes were not meaningful enough to be statistically significant. Due to the constraints of conducting research in a consultancy context, it is possible that the data analysis lacked sufficient power given the small sample size to detect small but clear directional effects.

As well as reductions in irrational beliefs, results also elucidated a number of associated cognitive and emotional changes via participant social validation. Overall, participants felt more motivated in work related tasks and also reported an enhanced ability to control their emotions, thus aiding their performance. This may have stemmed from reported increases in acceptance of the change, positive thinking, and self-confidence; perceived changes that were reported both quantitatively and qualitatively. Also of particular note is the lack of change in rational beliefs following the intervention. On inspection of the data, it can be seen that this could be attributed to the high baseline levels of rational beliefs prior to intervention ($M_{pretest1}$ = 4; $M_{pretest2}$ = 3.98), thus indicating a ceiling effect on this variable. That participants displayed both high irrational and rational beliefs at baseline reflects the notion that it is possible to hold both kinds of belief and that they are not mutually exclusive (Ellis, David, & Lynn, 2010).

That participants perceived an enhancement in the referred to cognitions and emotions following REBT is consistent with reduced irrational beliefs. To explain, REBT helps individuals to regulate their emotions and behaviours by altering their cognitive appraisals of a situation or event through reducing irrational beliefs and promoting rational beliefs. Therefore, as irrational beliefs are lowered via REBT the primary appraisal of an adversity is altered (Hyland & Boduszek, 2012), changing the emotional responses from unhealthy to healthy. Unhealthy emotions are dysfunctional, associated with maladaptive behaviours, and therefore inhibit goal

achievement, whereas healthy emotions are functional and can help the individual to face up to the situation and or take constructive action to minimise danger (Dryden & Branch, 2008). Therefore, in light of past research and REBT theory, the positive effects perceived by participants following REBT such as heightened motivation in work related tasks and emotional control are empirically underpinned. However, caution should exercised in the interpretation of these findings as no baseline measures were obtained in relation to cognitions and emotions, other than the irrational and rational beliefs measure. The assertion that positive changes in emotions and cognitions occurred is based on social validation data posttest only.

The results indicate not just a reduction in total irrational beliefs, but specific changes in particular variables. Reductions in other-depreciation, need for achievement, and demand for fairness are particularly salient within the context that the programme was delivered. To explain, other-depreciation reflects a tendency to globally rate others in a negative manner (Dryden & Branch, 2008). For example, some participants may have harboured irrational beliefs that those responsible for their change in circumstances are "bad" people, rather than people "who have done something bad," which would be rational. Therefore the reduced level of other-depreciation reflects an acceptance that others can do bad things, but that those responsible are not "bad" people. This is important because depreciation beliefs are associated with unhealthy anger (Szentagotai & Jones, 2010), which can lead to maladaptive behaviours such as violent outbursts, withdrawal, or even recruiting allies against the perceived perpetrator (Dryden & Branch, 2008).

Similarly, a reduction in demand for fairness is important within the study's context, especially given that past research indicates feelings of unfairness as one of the most frequent responses to redundancy (Campbell et al., 2000). The decline in demand for fairness reflects a shift from participants rigidly demanding that others "must" be fair to them, to an acceptance that just because they want to be treated fairly, that doesn't mean that they must be. Of course, in this context it may be true that participants were treated unfairly, but the demand for fair treatment is both erroneous and unproductive. That is, despite demanding fairness they were still treated unfairly thus invalidating the demand, and the rigidity of this demand after the fact (e.g., having already being made redundant) renders this belief unproductive for future endeavours. Lastly, the reduction in need for achievement may help the participants to approach new opportunities with less anxiety and avoidance tendencies, thus potentially facilitating their ability to find new employment. Demanding success after being made redundant would be understandable, given the likely financial implications of losing a job. But as comprehendible as this belief may be, the irrationality of need for achievement could hinder future goal

attainment due to associated unhealthy emotions and maladaptive behaviours. Thus, the reported reduction may be very important for the participants' future success.

In addition to changes in dependent variables, social validation data regarding participants' perceptions and feelings about the two REBT workshops revealed a number of important factors for consideration in future programmes. First, participants were positive about the programme delivery and the value which it had brought to them. Indeed, it was evident from the anecdotal comments that the REBT programme helped participants to cope with the redundancy, and had also learned to transfer REBT principles and strategies into other life situations. Second, participants particularly enjoyed the badness scale and developing rational self-talk statements as tools to deal with stress, both of which allowed participants to actively engage with the REBT model. Finally, the use of group work was regarded by participants as enjoyable and valuable, where triads were used to facilitate an understanding of the REBT process and the sharing of issues within the group. Indeed, the use of disclosing and sharing sensitive information, also known as Personal-Disclosure Mutual-Sharing (PDMS), is a well-supported strategy for developing group bonds and dealing with emotions (e.g., Yukleson, 2010; Evans, Slater, Turner, & Barker, 2013). Future research could perhaps apply rational emotive PDMS to maximise group REBT gains.

Social validation data also revealed a range of potential improvements that could be made to the programme. The timing of workshops was commented on by participants, some of whom felt that too much content was squeezed into the two four-hour workshops, while others felt that content was rushed at times. This reflects the subjective preferences of individuals, and also highlights the potential problem with applying group interventions where content and delivery cannot be efficiently tailored to each individual.

A number of consultancy issues emerged from this study. First, the workshop sessions were effective because the group members were keen to discuss their personal thoughts and feelings about the change situation, and also were forthcoming in offering insightful reflections. This could be attributed to the maturity of the participants and their ability to express thoughts and feelings. A less mature participant group may not be as forthcoming.

Second, there was a level of scepticism from some participants at the start of the program as the authors may have been seen as 'some more consultants' brought in by the company to pay lip-service to redundancy support. However, the authors worked hard during the initial stages of the program to outline that they were only interested in the personal development and welfare of the participants. In essence, through this approach, it

was hoped that rapport would develop quickly and that the participants would perceive the authors as working for them and not the company.

Third, it was important to create a safe environment for the participants to enable them to feel comfortable in the disclosure and discussion of personal and sensitive content during the sessions. In the current study a period of contracting was initiated at the start of each session to establish confidentiality and a code of conduct. This contracting comprised open discussion and the collation of thoughts on flip-chart paper. Without this aspect, it is unlikely participants would have felt comfortable enough to disclosure emotional content.

Though developing and delivering the programme is central to this paper, many applied research issues emerged, stemming from inherent limitations despite the positive findings. In the present study it would have been preferable to have included a control group to reduce threats to internal validity as in previous research (e.g., David & Szamoskozi, 2011b), however the context made this logistically challenging. While a control group would have conceivably reduced threats to internal validity in the present study, the social validation data does offer some evidence that the participants found the REBT sessions and the effects observed were hypothesized a priori. Accordingly, future researchers should consider using social validation or social comparison (see Page & Thelwell, 2013) and focus group procedures as mechanisms with which to further validate treatment outcomes. Including a staggered delivery approach of interventions across a number of individuals and teams using a single-case multiple-baseline design (and the collection of time series data), or the collection of multiple baseline measures before an intervention is delivered would enable the establishment of linear tendencies apart from treatment(s) and would further help to guard against threats to internal validity (see Barker, McCarthy, Jones, & Moran, 2011).

Further limitations to the study stemmed from the context in which the intervention was delivered. More specifically, this study included a low number of participants and no specific demographic data for participants. Due to the nature of the work being conducted and the high profile of the Blue-Chip company that received the intervention, the authors were not permitted to collect demographic information. This is problematic as important personal information could not be included as covariates in the analyses, and we were also unable to compare the participant group to similar groups within past and indeed future research. Regarding the low sample size, the data presented in this study is inclusive of all employees that were facing redundancy at that time. To address these important limitations, more effort could be made to reassure the company of the confidential and anonymous nature of data treatment, thus alleviating any concerns about the collection and use of demographic data in the study. To bolster the sample size, future research could access a comparison group

from a different but similar organisation, or collect more numerous and longitudinal data to provide more data points for a more powerful analysis.

Regarding the measurement of dependent variables, some developments would help strengthen future research. The SGABS used to indicate irrational beliefs is not specific to performance or occupational environments. The use of a performance relevant irrational beliefs measure would indicate more accurately the precise irrational beliefs prevalent within business settings, and more accurately mark pre to post-intervention changes. For example, the Employee Rational and Irrational Beliefs Scale (E-RIBS; Gavita & Duta, 2013) should be considered for future research in occupational settings to ensure that findings are valid and reliable. Relatedly, a measure of work performance was not included. Although participants reported that they felt more motivated and productive after the REBT programme, some objective performance indicators would help to test the relationship between REBT and performance. Future researchers could also include additional psychometrics that indicates emotions so that changes in affect could be assessed. For example, well-validated measures of anxiety, depression, and anger would be suitable, such as the State-Trait Personality Inventory (Spielberger, Ritterband, Sydeman, Reheiser, & Unger, 1995). It would also be valuable to monitor changes in irrational beliefs using a longitudinal design to monitor maintenance effects.

To conclude, the present study adds to the extant literature by providing a detailed account of the use and effectiveness of a two-day intensive REBT programme, similar to RET (DiMattia, 1990), with members of staff facing redundancy in a Blue-Chip organisation. Using a repeated-measures single-group intervention design, results indicated significant reductions in total irrational beliefs, other-depreciation, need for achievement, and demand for fairness, from pretest to posttest. Social validation data also support the changes in irrational beliefs, and offer valuable insights into programme delivery and preference. Broadly, participants valued and enjoyed the programme, reporting positive changes in emotional and behavioural reactions to their current situation. Future researchers should assess changes in work performance and take validated markers of emotions, and consider comparing an intervention group to a control group to limit threats to internal validity. This study contributes to redundancy literature by successfully applying a psychological intervention, and adds to the REBT research by examining the effects of delivering REBT using workshops (e.g., Turner et al., 2014; in press) within a Blue-Chip context. However, research is still sparse, and therefore, the authors encourage more practitioners working within business contexts to report the effects of REBT on emotion and performance.

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Table 1. Kruskal Wallis values, η^2, changes in $M \pm SD$, and paired comparisons for irrational beliefs scores across the four pretest and posttest timepoints.

Variable	Pretest1	Posttest1	Pretest2	Posttest2	χ^2	η^2
Total irrational beliefs	2.54 ± .47	2.04 ± .24[a]	2.23 ± .68	1.78 ± .47[b]	12.93*	.30
Rational beliefs	4.00 ± .34	4.10 ± .26	3.98 ± .24	4.33 ± .73	6.86	.16
Self-depreciation	1.36 ± .32	1.48 ± .36	1.55 ± .57	1.30 ± .38	1.81	.04
Other-depreciation	2.63 ± .64	2.27 ± .59	2.03 ± .64	1.70 ± .55[a, c]	10.45*	.24
Need for achievement	2.75 ± 1.08	2.00 ± .32[a]	2.33 ± .98	1.80 ± .55[b]	7.74*	.18
Need for approval	2.43 ± .68	1.91 ± .60	2.10 ± .83	1.70 ± .46	6.03	.14
Need for comfort	2.43 ± .53	2.20 ± .55	2.43 ± .69	2.10 ± .65	1.90	.04
Demand for fairness	3.61 ± .75	2.66 ± .77[a]	2.85 ± .76	2.10 ± .69[a, b]	14.60*	.34

* $p = \leq .05$

[a] $p = \leq .05$ from pretest1, paired comparison

[b] $p = \leq .05$ from pretest2, paired comparison

[c] $p = \leq .05$ from posttest, paired comparison