Evidence that brief self-affirming implementation intentions can reduce work-related

anxiety in downsize survivors

Abstract

Background and Objectives: Workers were recruited from a UK further education college during a period of organisational downsizing. The study assessed the effects of a brief health psychology intervention on work-related stress in downsize survivors. *Design and Methods:* Sixty-six employees were randomly allocated to one of two conditions: one in which they were asked to create a work-related self-affirming implementation intention (WS-AII), or a control. Feelings of anxiety and depression were measured before and after the intervention or control task, and three weeks later. Job satisfaction, self-efficacy, and self-esteem were also measured. *Results:* There were statistically significant differences between the WS-AII condition and the control. Workers who created work-related self-affirming implementation intentions reported an immediate reduction in anxiety. This reduction was also observed in their appraisal of job-related anxiety three weeks later. There were no significant effects of WS-AII's on depression, job satisfaction or self-esteem. There was, however a significant effect on self-efficacy with workers in the WS-AII condition reporting greater self-efficacy. *Conclusions*: The present findings suggest that the integration of brief health psychology interventions, such as the WS-AII, into existing organisational practice may be of benefit to the well-being of employees.

Keywords: Recession; anxiety; mental health; job satisfaction; job-related well-being

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Economic Recession, Downsizing, and Employee Stress

"The recent financial crisis has affected most countries. With cutbacks in business, trade

and government spending, millions world-wide have lost their jobs…" (Greenglass et al., 2014,

p. 10). In the UK alone, according to Labour Market Statistics, between the 2nd quarter of 2008

(the start of economic recession) and the 4th quarter of 2011, 2.68 million workers were laid off

or made redundant (Philpott, 2012). This active reduction in staff is a "downsizing" strategy

almost universally adopted by companies in difficult financial times, in order to save costs and

remain competitive. Whilst the implications of downsizing for the newly unemployed are

explicitly apparent, there are also underlying consequences for those who remain in post

(Armstrong-Stassen, 1994): 'downsize survivors'. The negative outcomes experienced by

downsize survivors can include the heightened perception of job threat, the burden of taking on

the responsibilities of their departed colleagues, and an overall increase in reported stress and

anxiety (e.g., Armstrong-Stassen, 1994; Brocker & Wiesenfeld, 1993; Cascio, 1993; Wiesenfeld

et al., 2001). In order to improve employee mental health at work, there is a need to develop

interventions that can reduce or buffer these negative outcomes. With British businesses alone

estimated to lose £26 billion per year as a result of work-related stress (CIPD/MIND, 2011), the

importance of maintaining employee well-being should be of paramount importance for

companies, especially those trying to tighten their financial belts. It appears that failing to

effectively manage the negative effects of downsizing may incur more cost and thus render the

downsizing process counterproductive. Through the implementation of effective strategies to

improve employee mental health, UK businesses could save up to £8 billion per year

(CIPD/MIND, 2011).

One potentially useful approach is to draw on the extensive health psychology research

literature in order to develop and test interventions that can be easily applied in occupational

settings, i.e., those that will not place any additional strain on employees or their employers. The

present study applies Steele's (1988) concept of self-affirmation to reduce stress levels in

downsize survivors over both the short- and longer-term. The principal aim of the study was to

test the effectiveness of a brief self-affirmation intervention adapted for use in a work setting.

Self-Affirmation, Stress, and Anxiety

According to self-affirmation theory (Steele, 1988), people are motivated to preserve a

positive, moral and adaptive self-image and to thereby maintain "self-integrity". Thus, threats to

the self elicit defensive information processing. According to Steele's (1988) self-affirmation

theory, however, because people are motivated to defend their *global* sense of self-worth, self-

affirmation in one domain (e.g., by recalling past acts of kindness) should reduce the need to be

defensive when threatened in another domain (e.g., by job uncertainty). In other words, if a

person's self-image can be 'affirmed' in a domain that is important to them, this should act as a

buffer against threats to the self, and therefore reduce the impact on both physiological and

psychological responses (see Sherman & Cohen's, 2006, review).

Evidence suggests that drawing on self-resources can reduce the physiological and

psychological impact of both laboratory-induced (see Creswell et al., 2005; Taylor, Lerner,

Sherman, Sage, & McDowell, 2003), and naturally occurring (see Sherman, Bunyan, Creswell, &

Jaremka, 2009) stressors. For example, one study (Taylor et al., 2003) reported a significant

negative correlation between perceived self-resources and cardiovascular reactivity during a

laboratory stressor, while another study (Creswell et al., 2005) found that self-affirmation

attenuated cortisol response to the Trier Social Stress Task (Kirschbaum, Pirke, & Hellhammer,

1993). In addition to physiological response, Creswell et al. (2005) found that participants with

higher dispositional self-resources (e.g. trait self-esteem and optimism), who affirmed their core

values, reported the least psychological stress. To our knowledge only one study (Sherman et al.,

2009) has examined the effects of an experimental self-affirmation manipulation on stress

responses to an everyday stressor (academic stress prior to an exam). While there was a

cumulative increase in epinephrine (an indicator of sympathetic nervous system activation) in the

urine samples of undergraduates in the control condition in the run up to an exam, there was no

concomitant change in the self-affirmation group.

Existing Methods of Affirming the Self

Multiple means of affirming the self exist in the research literature, principally because any

form of self-affirmation is thought to be sufficient to buffer exposure to threats (Armitage,

Harris, & Arden, 2011; Armitage & Rowe, 2011; Harris & Epton, 2009). Self-affirming

techniques used to reduce stress and anxiety in lab-based studies have typically added to the

demand placed upon participants, limiting their potential application as useful interventions in

real-world settings such as the workplace. For example, Creswell et al. (2005) used the Values

Questionnaire (Allport, Vernon, & Lindzey, 1960) in which participants are required to identify

five personal values across the domains of religion, social issues, politics, theory, and aesthetics,

rank these in terms of their personal importance, and then answer a series of questions about the

highest ranked value. In studies assessing the effects of self-affirmation on the acceptance of

health risk information and/or health behavior change, methods generally involve participants

being asked to reflect on their most cherished values, either by writing essays or elaborating on

prompts within questionnaires (e.g. see Reed & Aspinwall's, 1998, "kindness questionnaire"). While such methods have been shown to increase participant receptiveness to threatening messages (e.g., Armitage et al., 2011; Armitage, Harris, Hepton, & Napper, 2008; Epton & Harris, 2008; Reed & Aspinwall, 1998), and improve health behaviour (see Harris & Epton, 2009, for a review), they have not escaped criticism. Firstly, Napper, Harris, and Epton (2009) argue that due to their length and complexity, researchers have found it consistently difficult to devise appropriately equivalent non-self-affirming control tasks in experimental self-affirmation studies. Secondly, existing self-affimation methods are generally time-consuming, and require participants to be verbally fluent (Armitage et al., 2011). To address these latter concerns, Armitage et al. (2011) developed and tested a briefer, standardized self-affirmation manipulation based on implementation intentions (Gollwitzer, 1993).

The Self-Affirming Implementation Intention

Implementation intentions are specific kinds of if-then plans that work by encouraging people to link in memory-critical situations with appropriate behavioral responses, and which have been used with some success to change health behaviors (Gollwitzer & Sheeran, 2006). The principal idea behind implementation intentions is that the salience of critical situations is enhanced when they are encountered in the environment and that appropriate behavioral responses are triggered automatically (Gollwitzer, 1993). Research has shown that forming implementation intentions can have a significant impact on future behaviour over the longer-term (Gollwitzer & Sheeran, 2006). Based on the work of Harris, Napper, Griffin, Schuez, and Stride (2011), Armitage et al. (2011) sought to develop a brief manipulation in which participants are asked to form an implementation intention (an if-then plan) to self-affirm. For 'the self-affirming implementation intention' participants were presented with the stem, adapted from Harris et al.

(2011), "If I feel threatened or anxious, then I will . . ." where "feeling threatened or anxious" is

the critical situation, and a choice of appropriate self-affirming responses include: "thinking

about the things I value about myself" and "remembering things that I have succeeded in"

(Harris, et al., 2011). To test the efficacy of their new self-affirming implementation intention,

Armitage et al. (2011) compared its influence on the acceptance of messages about alcohol risk,

and subsequent alcohol intake, with the effects of an existing self-affirming questionnaire, and an

active control. While overall self-affirmation significantly increased message acceptance and

decreased alcohol consumption, there was an additional small public health advantage associated

with the briefer self-affirming implementation intention and compared to the self-affirming

questionnaire, a greater adherence to manipulation instructions. From a practical point of view

the authors suggest that this should encourage its future use.

Rationale for the Present Research

The rationale for the present research is as follows. First, there is a need for workplace

interventions that combat employee stress. While self-affirmation has been shown to reduce

anxiety in student populations and in the laboratory, less is known about the extent to which the

effects persist beyond the experimental session, and whether this can be extrapolated to a

workplace undergoing a stress inducing procedure, such as downsizing. Second, two potential

methodological difficulties with self-affirmation research can be addressed by (a) testing a brief

means of affirming the self that has practical potential for use in the workplace, e.g., that does not

require the respondent to write in length about cherished values, and (b) using a non-self-

affirming implementation intention task as an active control, in order to achieve greater "control

equivalence" (see Napper, Harris, and Epton, 2009).

In line with previous research (Creswell et al., 2005; Sherman et al., 2009; Taylor et al., 2003) it is predicted that, compared to the control, the work-related self-affirmation implementation intention will reduce the stress response (state anxiety) of workers immediately after the manipulation. In addition, the strength of the new self-affirmation technique will be explored by evaluating its impact on job-related stress (anxiety and depression), and job satisfaction 3-weeks later.

Although the mechanics of self-affirmation remain unclear (Harris and Epton, 2009), a number of studies suggest that positive effects can be mediated by increases in self-efficacy (see Epton and Harris, 2008; Milne, Sheeran, and Orbell, 2000) and/or self-esteem (Armitage, et al., 2011). To explore this further we will also examine the effect of self-affirmation on the appraisal of these constructs.

Method

Participants

Participants were workers from a medium-sized, further-education college in the North of England during a period of organisational downsizing. Of approximately 120 remaining staff, 66 initially agreed to take part (reduced to $n = 28$ at 3-week follow-up, see Figure 1). The initial sample consisted of 22 men and 44 women, aged between 25 and 60 years ($M = 45.18$ years, $SD = 8.33$ years). Participants were asked to indicate their job type, and 36.4% ($n = 24$) classified themselves as teaching staff, 16.7% ($n = 11$) as managers, 33.3% ($n = 22$) as support staff, and 13.6% ($n = 9$) as premises maintenance staff. Tenure ranged from 0.5 years to 26 years ($M = 8.43$ years, $SD = 5.13$ years).

Design

The research design was mixed. The between-participants variable was condition: Participants were randomized to either the work-related self-affirming implementation intention (WS-AII) condition or a control implementation intention (CII) condition. The within-participant variable was the time interval between baseline and post-manipulation follow-up (immediately after or 3 weeks later). There were six outcome variables. Job-related wellbeing (anxiety and depression), and job satisfaction were measured at baseline and at 3-weeks postbaseline. State anxiety was measured at baseline and immediately following the manipulation, and self-esteem and self-efficacy were measured post-manipulation only.

Procedure

The study was approved by a University ethics committee. Prior to data collection the research was advertised to all workers via a staff bulletin. The bulletin asked if employees would be willing to participate in a study about 'work and well-being' and provided a date on which questionnaires would be posted in all staff pigeon holes. The staff bulletin also informed potential participants that the study would involve filling out a second questionnaire, 3 weeks later. The lead author numbered all questionnaires before sorting them into a random order (using random number tables) and placing them in an unmarked folder. The front sheets of all questionnaires were identical so that the experimenter was blind to condition.

On the date specified in the staff bulletin, the questionnaires were removed from the folder and one was placed in each of the staff pigeon holes, by an individual who was unaware of the conditions. A secure post box was positioned in the staff corridor in order for participants to deposit their questionnaires after completion. A similar procedure was used at follow-up, with the addition of a written thank you sent to all staff with a study debrief (in which all workers

were offered the opportunity to complete the work-related self-affirming implementation

intention). The questionnaire content is described below.

The first page of the questionnaire provided participants with details of their ethical rights

including a request for their consent, as well as instructions for completing the measures.

Demographic measures and measures of job-related wellbeing, job satisfaction and feelings of

state anxiety followed. The self-affirmation manipulation or control task appeared on the next

page, followed by measures of self-esteem and self-efficacy, included to serve as manipulation

checks. State anxiety was then measured once more. Participants in the experimental and control

conditions received exactly the same questionnaire content with the exception of the self-

affirmation or control task.

Materials

The work-related self-affirming implementation intention (WS-AII). The work-related

self- affirming implementation intention was an adapted version of the brief self-affirming

implementation intention developed by Armitage et al. (2011) in which participants are provided

with an implementation intention prompt in the form of a sentence stem, *"If I feel threatened or*

anxious, then I will…". This is followed by four options: *"…think about the things I value about*

myself", "…remember things that I have succeeded in", "…think about what I stand for" and

"…think about things that are important to me". Participants are asked to write out the stem and

their chosen option on three blank lines, with *"If…"* at the start of the first blank line. To reflect

the organisational focus in the present study, the stem was adapted to read *"If I feel threatened or*

anxious about work, then I will…".

The control implementation intention (CII). In response to a call for greater "control

equivalence" in experimental self-affirmation research (see Napper, et al., 2009) we developed a

control implementation intention task for use in the present study. Participants in the control

condition were given the same sentence stem as those in the experimental group, *"If I feel*

threatened or anxious about work, then I will…", however the four options that followed were

designed to ensure that there was no opportunity for participants to self-affirm. To do this the

options were adapted from existing self-affirmation control tasks. The first option, *"…think about*

the shops and buildings I pass on a journey I travel regularly", was taken from the journey

control conceived by Napper et al. (2009). The second option, *"…remember the food I have eaten*

in the last 48 hours", was adapted from Cohen's (2000) food control, and the third and fourth

options, *"…think about the most satisfying season of the year"*, and *"…think about the best*

flavour for ice-cream", were from the personal opinion survey (Reed & Aspinwall, 1998). Akin

to the work-related self-affirming implementation intention, to form the control implementation

intention, participants were asked to rewrite the sentence stem followed by their chosen option on

three blank lines, beginning with *"If…"*.

Measures

    Premanipulation. Warr's (1990) *job-related wellbeing* 12-item scale was used to measure

the axes of anxious-comfort and depressed-enthusiastic. The respondent was asked to evaluate

how frequently his/her job has caused him/her to feel certain feelings during the past 2 weeks.

The anxious-comfort axis is represented by six adjectives, *tense*, *uneasy*, *worried*, *calm*,

contented, and *relaxed*. The depressed–enthusiastic axis is comprised of the adjectives *depressed*,

gloomy, *miserable*, *cheerful*, *enthusiastic*, and *optimistic*. Respondents indicated the frequency

of their feelings on 6-point response scales, ranging from *never* (1), to *all of the time* (6). Positive

items were reverse-scored so that high scores on either axis represents lower levels of work-

related wellbeing (anxiety or depression). Cronbach's alpha for each sub-scale indicated good

internal reliability (anxiety α =.92, depression α =.88).

Job satisfaction was measured using the 16-item job satisfaction scale (Warr, Cook, &

Wall, 1979). Respondents were asked to indicate how satisfied or dissatisfied they are with

different aspects of their jobs such as rate of pay, and the amount of responsibility they are given.

The measure uses 7-point response scales ranging from *extremely dissatisfied* (1) to *extremely*

satisfied (7). High scores represent greater satisfaction (α =.91).

State anxiety was measured using the state version of Marteau and Bekker's (1992) short

form of the Spielberger State-Trait Anxiety Inventory (Spielberger, 1983). Respondents were

asked to indicate the extent to which they were experiencing six affective states at that present

moment in time on 4-point scales ranging from *not at all* (1) to *very much* (4). The six states are

"I feel calm", *"I am tense"*, *"I feel upset"*, *"I am relaxed"*, *"I feel content"*, and *"I am worried"*.

After reverse scoring the responses to the positively worded statements, high scores represent

greater state anxiety (α =.96).

Postmanipulation. To assess the immediate impact of the self-affirming manipulation on

anxiousness, *state anxiety* was measured again, using the measure described above. Again

Cronbach's alpha indicated excellent internal reliability (α =.97).

Robins, Hendin, and Trzesniewski's (2001) single-item self-esteem scale was used to

measure levels of *self-esteem*. Respondents were asked to rate the statement *"I have high self-*

esteem" on a 5-point scale ranging from *not very true of me* (1), to *very true of me* (5).

Schwarzer and Jerusalem's (1995) general self-efficacy scale was used to measure levels of

self-efficacy. Participants were asked to rate their degree of agreement with 10 statements about

their performance, such as *"If I am in trouble, I can usually think of a solution"* and *"I am*

confident that I could deal efficiently with unexpected events". Responses were made on 4-point

scales ranging from *not true at all* (1) to *exactly true* (4). A higher score indicated a higher level

of self-efficacy. High scores represent greater self-efficacy (α =.78).

Follow-up. *Job-related wellbeing and job satisfaction* were measured 3-weeks postbaseline

in the same manner as premanipulation.

Results

Randomization Check

The effectiveness of randomization was checked using MANOVA. The independent

variable was condition with two levels: work-related self-affirming implementation intention and

control. The dependent variables were baseline age, gender, tenure, job type, job-related

wellbeing (anxiety and depression), job satisfaction, and state anxiety. The multivariate test, $F(8,$

$57) = 0.84$, $p = .57$, $\eta_p^2 = .11$, and all univariate tests, were nonsignificant, $Fs_{univariate}(1, 64) =$

0.04 to 3.17, $ps > .08$, $\eta_p^2 s < .05$, which suggests that randomization to condition was successful.

Manipulation Checks: Effects on State Anxiety, Self-Esteem, and Self-Efficacy

The immediate effects of the manipulation were tested using MANCOVA (see Table 1),

with *condition* as the independent variable (work-related self-affirming implementation intention

vs. control implementation intention), self-esteem, self-efficacy and postmanipulation state

anxiety entered as the dependent variables, and premanipulation state anxiety (WS-AII $M = 2.85$,

$SD = 1.00$; CII $M = 2.79$, $SD = 0.98$) entered as a covariate. The multivariate test, $F(3, 61) =$

6.66, $p < .001$, $\eta_p^2 = .25$ was significant, as were two of the three univariate tests. There were

significant differences between groups in state anxiety scores, $F(1, 63) = 4.48$, $p = .04$, $\eta_p^2 = .07$,

and self-efficacy scores, $F(1, 63) = 13.71$, $p < .001$, $\eta_p^2 = .18$, but not self-esteem scores, $F(1, 63)$

= 1.79, $p = .19$, $\eta_p^2 = .03$. Self-affirmation was associated with lower postmanipulation state

anxiety compared to the control and with greater self-efficacy.

Attrition Analyses and Treatment of Missing Data

Thirty-eight participants declined to participate at follow-up meaning that there were

missing cases for follow-up measures of job-related wellbeing (anxiety and depression) and job

satisfaction. The chi-square statistic for testing the assumption that the missing data was 'missing

completely at random' (MCAR) is referred to as 'Little's MCAR test' (Hill, 1997). If this

assumption is met, "[both] complete cases… [and] EM… methods [of missing data analysis and

imputation] give consistent and unbiased estimates of correlations and covariances" (Hill, 1997,

p. 42). The Little's MCAR test obtained for the present study's data resulted in χ^2 ($df = 9$) =

12.17, $p = .21$ for the control group, and χ^2 ($df = 9$) = 15.34, $p = .08$ for the experimental group,

which indicates that the data was indeed missing at random (i.e., there was no identifiable pattern

of missing data).

While data was missing at random within each group, there was a proportionally higher

attrition rate in the control condition (65.52%) compared with the intervention condition

(51.35%). A 2 x 2 chi-square analysis was conducted to test whether there was an association

between attrition (completion vs. non-completion) and condition (experimental vs. control).

There was no significant association, χ^2 ($df = 1$) = 1.34, $p = .25$.

Following the recommendations of Hollis and Campbell (1999), a conservative method of

missing cases replacement, carry forward of last observed response, was utilized. For those

participants with missing data at follow-up, their baseline job-related wellbeing and job

satisfaction scores were inputted. Reported inferential statistics and descriptive statistics (means,

standard deviations) are from analyses conducted with imputed data. The same analyses

conducted with raw data, excluding imputed missing values are reported as footnotes.

Effects of the Manipulation on Job-Related Wellbeing and Job Satisfaction

The effects of the manipulation on these outcomes were tested using ANCOVAs (see Table

1). Firstly, *Condition* (WS-AII vs. CII) was entered as the between-participants factor, work-

related anxiety at follow-up as the dependent variable, and baseline work-related anxiety as the

covariate. The test revealed that participants in the control group were experiencing significantly

more job-related anxiety at follow-up, controlling for baseline job-related anxiety, compared with

the work-related self-affirming implementation intention group, $F(1, 63) = 8.14$, $p = .01$, $\eta_p^2 =$

.11[1]. Two further ANCOVA's revealed no significant differences, at follow-up, between control

and self-affirming participants job-related depression, $F(1, 63) = 0.42$, $p = .52$, $\eta_p^2 = .01$[2] or job

satisfaction, $F(1, 63) = 0.01$, $p = .92$, $\eta_p^2 = .00$[3], when controlling for baseline scores.

Discussion

The aim of the present study was to assess the effect of a brief work-based intervention on

stress in downsize survivors at a further education college. The main findings were that,

consistent with previous research, self-affirmation was associated with an immediate reduction in

state anxiety (see Creswell et al., 2005; Sherman et al., 2009; Taylor et al., 2003). Additionally,

for the first time, the present research showed that the effects were sustained longer than the

period immediately following the manipulation, exhibited as a reduction in the appraisal of job-

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[1] $F(1, 25) = 8.76$, $p = .01$, $\eta_p^2 = .26$
[2] $F(1, 25) = 0.20$, $p = .66$, $\eta_p^2 = .01$
[3] $F(1, 25) = 0.16$, $p = .69$, $\eta_p^2 = .01$

related anxiety 3-weeks postbaseline. The remainder of the discussion considers the theoretical and practical implications of these findings.

Practical Implications

The present study is the first to test the effects of a brief means of affirming the self in an occupational setting, compared with the effects of an equivalent control. The findings that anxiety can be decreased in both the short and longer term suggest that, for the benefit of their employees, organisations should consider the use of self-affirmation techniques in order to buffer the effect of stressors, such as ongoing job loss threat, particularly during periods of recession, organisational change, and more specifically, during downsizing. A novel aspect of the present research was the evaluation of an intervention that was intended to be simple to complete and could easily be applied in work settings without placing additional strain on employees or employers. Full participant adherence to the manipulation instructions to form either a control, or self-affirming implementation intention suggests that we were successful in developing an intervention that can be used in the workplace.

Despite this cautious optimism, additional work is required to test the validity, reliability, and usability of the work-related self-affirming implementation intention. We suggest several avenues for this further research. First, the use, and assessment of the present technique may be extended to other anxiety-provoking work domains (e.g. for health and social care workers, safety-critical workers, etc.). Second, the present procedure could be refined in order to examine the longer-term effects of the intervention on well-being, as a standalone resource or combined with broader occupational health initiatives also shown to improve worker well-being and organizational behavior (e.g. psychosocial safety climate, see Hall, Dollard, Winefield, Dormann, and Bakker, 2013). Third, considering the positive effect of the WS-AII on work-related anxiety

and self-efficacy, in line with existing health psychology research on the benefits of self-affirmation for the processing of health risk information, and health promotion (see Harris & Epton, 2009), there is the potential to examine the utility of the intervention for work-related message acceptance, and behaviour change.

Theoretical Implications

The current findings show that self-affirmation can reduce anxiety outside of the laboratory, beyond the undergraduate student population, and that the effects can last into the longer-term, thus increasing the potential generalizability of earlier studies (cf. Sherman et al., 2009; Taylor et al., 2003). In addition we provide evidence to support the assertion that self-affirmation may boost self-efficacy (Harris & Epton, 2009).

The results concerning job satisfaction were less encouraging. Although our study is the first to explore the effect of self-affirmation on job satisfaction, we anticipated that any reduction in feelings of stress might lead to a more positive appraisal of job satisfaction. The present findings did not support our tentative predictions. One possible explanation centers around the specificity of our manipulation in comparison with our measures: Because our aim was to assess a brief means of affirming the self at work, we chose 'work in general' as the context for our implementation intention stem. In contrast, we chose to use a facet job satisfaction scale with a focus on the appraisal of specific work characteristics (Warr et al., 1979). In future, it might be valuable to consider measures with a similar level of focus on work in general, or to refine the current manipulation instructions by asking participants to think about a specific aspect of their work experience as a self-affirming implementation intention prompt.

Limitations

Despite the seemingly numerous positive implications of the present findings, it is important to acknowledge potential limitations. First, a number of workers declined to participate in the study at follow-up, even though they were made aware of the opportunity and had ample time to participate. A second potential limitation concerns the fact that we only followed workers over a relatively short period. In order to minimize disruption to the workforce during a period of considerable pressure, and to comply with senior management wishes, we made the pragmatic decision to use a 3-week follow-up instead of reassessing participants over a number of months. While recognizing the potential for similar design constraints, in future studies it would be useful to see whether the significant effects on anxiety can persist over a longer period.

Conclusions

The present study provides evidence that brief self-affirming implementation intentions can reduce work-related stress in downsize survivors. Further education college worker anxiety was reduced in both the short- and longer-term, extending the utility of self-affirmation interventions beyond student populations and the laboratory. The suggestion is that the integration of brief health psychology interventions, such as the WS-AII, into existing organisational practices may be of benefit to the well-being of both further education staff and their employers. Further work is required to establish whether these benefits can be replicated in other work populations.

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Table 1

Comparison of Experimental and Control Groups Immediately Postmanipulation, and at 3-Week

Follow-Up

Dependent Variables	Control n = 29		Experimental n = 37		F^a
	M	*SD*	*M*	*SD*	
State anxiety[b]	2.77	0.98	2.70	1.00	4.48*
Self-esteem[b]	3.14	0.79	3.46	1.22	1.79
Self-efficacy[b]	7.44	0.75	8.14	0.85	13.71**
Job-related anxiety[c]	2.87	0.82	2.73	1.18	8.14*
Job-related depression[c]	2.45	0.82	2.29	0.96	0.42
Job satisfaction[c]	11.55	1.72	12.44	2.23	0.01

Note. [a]Univariate *F*s testing postmanipulation/follow-up differences between control and

experimental conditions, controlling for baseline scores; df = 1, 63.

[b]Measures taken immediately postmanipulation.

[c]Measures taken at 3-week follow-up.

p < .01.

**p* < .001.

Figure 1

Flow Diagram of Participant Progress Through the Phases of the Experiment

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                          ┌─────────────────────┐
                          │  Available sample   │
                          │      N = 120        │
                          └─────────────────────┘
                                    │
                 ┌──────────────────┴──────────────────┐
      ┌─────────────────────┐              ┌─────────────────────┐
      │    Randomized to    │              │    Declined to      │
      │      condition      │              │    participate      │
      │       n = 66        │              │       n = 54        │
      └─────────────────────┘              └─────────────────────┘
                 │
       ┌─────────┴─────────┐
┌────────────────┐   ┌────────────────┐
│  Experimental  │   │ Control condition │
│   condition    │   │     n = 29        │
│     n = 37     │   │                   │
└────────────────┘   └────────────────┘
       │                      │
  ┌────┴────┐            ┌────┴────┐
```

| Lost to follow-up *n* = 19 | 3-week follow-up complete data *n* = 18 | Lost to follow-up *n* = 19 | 3-week follow-up complete data *n* = 10 |