

Stream #6. Gender, diversity and indigeneity stream
Competitive stream

**The impact of positive thinking and other techniques on transition experiences
from work to home for reducing work-family conflict**

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Abstract

This paper outlines an experimental research intervention using positive psychological techniques designed to assist workers with developing personal strategies to reduce work-life conflict. Results indicate that following such interventions there has been some change in the behavior of people who decided to take action following the workshops.

Keywords: Work-life balance; Work-family conflict; Positive psychology.

Some people arrive home to their family from work in a better mood or in a better state of mind or are treated in a more welcoming way by their families than other people. Of course, family circumstances affect such attitudes and behaviours, but the work environment they have just left may also affect their attitudes and behaviours. In particular, aspects of the work environment can spill over into the home domain (Edwards and Rothbard, 2000). In many instances the effect of the spillover can be negative as spillover from work can result in the worker being, for example, in not such a good mood, having a mind state that is negative, and this can result in being treated in a less welcoming way by their family members when they arrive home. Such spillover from work can result in increased conflict at home (Carlson et al, 2009). In this paper we investigate the effectiveness of an intervention designed to reduce the potential for negative spillover from work to the home environment.

The intervention is based on positive psychological techniques (Seligman and Csikszentmihalyi, 2000). As will be explained below, it specifically targets factors that are related to the worker's approach to interactions upon arriving home, such as mood and mind state, and in the reaction of family members in the way they treat the worker. Positive psychology research suggests techniques that can affect such factors (Csikszentmihalyi, 1975, 1988, 1990, 2003). Some of the techniques relate to boundary strength, the degree to which the worker separates their work and family commitments (Nippert-Eng, 1996). Other techniques relate to the worker's use of the transition time between leaving work and arriving home (Ashforth et al, 2000). We test some specific hypotheses related to these theories and techniques.

LITERATURE REVIEW

Work-family conflict

One of the most heavily researched constructs in the work-life literature is work-family conflict (WFC). Work-family conflict refers to the impact of the transmission of 'agents' such as moods, from the work domain to the family domain, and that this results in conflict at home (Carlson et al, 2009). WFC was established as a construct by Greenhaus and Beutell (1985:77), who define

WFC as “A form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect”. Frone et al (1992) found that job stressors and job involvement were related to the frequency of WFC and Kossek and Ozeki (1998) found that a consistent negative relationship exists among all forms of WFC and job-life satisfaction. Interestingly, Ford et al (2007) in a meta-analysis found that stress from the work domain had the strongest relationship to work interfering with family life and consequently the level of family satisfaction. Such impacts cause a negative “spillover” from work into the family life.

Negative spillover, work stress and indicators of potential work-family conflict

Spillover of work into family and family into work can be both negative and positive, depending on individual experiences. Negative mood spillover from work to home was seen by Williams and Alliger (1994) as a predictor of work-family conflict. Researchers have found that excessive job demands and strain are correlated with negative spillover into the home domain (Grzywacz and Marks, 2000; Grotto and Lyness, 2010). It can occur as stressful work experiences build up which can spill over into the home domain in the form of negative strain, negative moods or emotions, influencing the worker’s behavior at home and potentially also crossing over into their partner’s wellbeing (Grotto and Lyness, 2010; Sanz-Vergel et al, 2012).

However, although factors around family and supervisor support have been considered by researchers as reducing work-life conflict (e.g. Lapierre and Allen, 2006; Hammer et al, 2011), little research has focused on the potential for individuals to moderate the antecedents of conflict using strategies derived from ideas of positive psychology.

The particular strategies we investigate in this paper are ones designed to be used by individuals in transition from work to home. The effects may be measured from the individual’s mood on arrival at home, the individual’s mind state on arrival at home, and the crossover treatment of the individual by their family on arrival at home. In this research, categories of mood could include calmness, distress, elation, fatigue or arousal (Williams and Alliger, 1994). Unless dealt with, those moods that are negative may then have an impact on the way the worker interacts with or treats their family on arrival at home.

We also understand that an individual’s mind state (Jain et al, 2007) is a related but different concept to mood. Whereas mood may persist, mind state can be deliberately changed by the individual to adjust to the relevant situational context. These are described as positive states of mind by Horowitz et al (1988) and Adler et al (1998) and include: focused attention; productivity; and responsible caretaking. For example, an individual who may have experienced a stressful day at work and feels some distress, may choose to focus on the family when returning home from work. This mind state may then have a positive impact in reducing the potential for work-family conflict.

An immediate indicator of potential work-family conflict is likely to be the manner in which the individual treats their family on arrival at home and in response the treatment by the family of the

worker on arrival at home. Overall, we believe that work stress may involve negative spillover to the home situation, which without intervention, would have a negative impact on both mood and mind state on arrival at home from work. Therefore:

H1a: There is a negative relationship between work stress and mind state on arrival at home.

H1b: There is a negative relationship between work stress and mood on arrival at home.

Work Life balance and positive spillover between work and home

Work-life balance is a 'generic' term according to Chang et al (2010), as it encompasses the array of different constructs between work and non-work activities. We define work-life balance (WLB) as *the need for people to balance the competing demands of work and other areas of life*. However, 'balance' may be seen as a subjective term. One person's view of balance could be quite different to another person's, being influenced by individual factors around commitment, attitudes and the extent of family and caring responsibilities.

There is also much research dedicated to the positive influence of work on home life, and the likelihood that positive experiences in a work role will have a positive impact on the family. Staines (1980) originally proposed three competing mechanisms for understanding the relationship between work and family roles: segmentation, compensation, and spillover. The dual roles of work and family can be beneficial for mental health, physical health and performance, and can buffer the potential negative effects of other roles (Warner and Hausdorf, 2009). The underlying assumption in positive spillover is that participation in one role is made easier, or benefits from enhanced performance, by virtue of participation in the other role (Shockley and Singla, 2011). Greenhaus and Powell (2006:73) explain that participation in multiple roles can produce positive outcomes for individuals through additive effects on well-being, buffering individuals from distress in one of the roles, and experiences in one role producing positive experiences and outcomes in the other role.

However, continued thinking about work when at home can undermine the positive aspects of good work experiences (Demerouti et al, 2012) due to the negative affective states associated from a lack of psychological detachment (Sonnetag et al, 2008). Even so, other research has shown that when individuals discuss good things about work with their partner, then there is positive spillover into the home situation (Culbertson et al, 2012). Positive spillover should impact the perception of individual's work-life balance in that satisfaction and enjoyment of work spills over into the family situation. Therefore we believe that an individual's perception of work-life balance should have a positive impact on indicators of mood and mind state on arrival at home, hence:

H2a: There is a positive relationship between work-life balance and mind state on arrival at home.

H2b: There is a positive relationship between work-life balance and mood on arrival at home.

Boundary strength between work and home

Of relevance to the present research is boundary theory, which describes how individuals move between different roles, such as work and family (Nippert-Eng, 1996). Since the industrial revolution, work and family have often been considered separate domains of life, and this clear division still persists with many people today. However, the boundary between work and family is becoming increasingly blurred, as electronic devices such as computers, mobile phones and tablets enable people to be connected to work in other life environments. Boundary theory examines how boundaries are established and maintained between multiple life domains such as work and family (Chen et al, 2009). However, individuals engage in a variety of roles within each domain and maintain an array of interpersonal relationships (Matthews and Barnes-Farrell (2010), and there is likely to be an overlap or influence on each other when the two domains come in contact.

According to Nippert-Eng (1996), boundaries come in cognitive, physical, temporal, and behavioural forms. Chen et al (2009:83) describe these boundaries as cognitive, physical, and/or behavioral ‘fences’ that exist between individuals’ work and family domains, which may be clear or blurred, allowing for either segmentation or integration of roles. People use boundary management strategies to define and organise their lives into the different realms of work and home (Kossek et al, 1999). For example, some people turn off their work phones when at home, others may only look at work emails after children are in bed. The strategies vary with the individual preferences of people for integration or segmentation of these realms (Ashforth et al, 2000; Olson-Buchanan and Boswell, 2006; Park et al, 2011). Kossek et al (2012) identified three characteristics of boundaries as: cross-role interruption behaviours; identity centrality of work and family roles; and perceived control of boundaries. Interruptions include breaks in the journey from home at work, such as social activities and exercise activities. These are physical barriers in separating work from home (Clark, 2000). Identity centrality includes the mind state of the individual about what is important at a particular point in time, and perceived control is also related to their mind state over work interference with family. These two are psychological barriers, where rules are created by individuals for thinking, and adapting behavior and emotions for the different domains (Clark, 2000).

Ashforth et al. (2000) suggested that individuals construct strong boundaries in order to maintain work and family as separate domains and weak boundaries to facilitate the ease of interaction between domains. Many individuals even define the boundaries by the physical spaces defined by work (e.g. their office) and home in order to maintain a boundary between these roles (Halbesleben et al, 2010). The strength of the boundaries then influences outcomes of the interaction between work and personal life, such as work–family conflict (Bulger et al, 2007). Adding to this, some flexible work arrangements may have disadvantageous side effects because they blur the boundaries between family and work, thus potentially increasing WFC (Desrochers, Hilton and Larwood, 2005).

Further, the extent of segmentation or integration of work and family as associated with the degree of permeability and flexibility of the boundaries between domains (Voydanoff, 2005). If

boundaries are strong, then there should be a positive relationship with worker mood and mind state on arrival at home. If boundaries are weak, then work issues may permeate the boundary, impacting on mood and mind state, hence:

H3a. There is a positive relationship between boundary strength and mind state on arrival at home.

H3b. There is a positive relationship between boundary strength and mood on arrival at home.

Transitions between work and home

Role transitions, according to Ashforth et al (2000:472) are “the psychological (and, where relevant, physical) movement between roles, including disengagement from one role (role exit) and engagement in another (role entry)”. A successful transition between work and family roles should prevent work-family conflict, however a range of factors impact on this success, such as negative work spillover into family life, individual psychological and personality preferences, and role permeability. In this daily transition process, individuals must routinely negotiate the boundaries between work and home as they participate in daily activities (Kreiner, 2006). The process involves some boundary negotiation and can be frustrated by these individual differences and/or environmental circumstances that prevent the transition from occurring successfully.

The journey between work and home is another factor, as Voydanoff (2005) found that one of the demands that was positively related to WFC and perceived stress was commuting time, in addition to bringing work home, job contacts at home, and work-family multitasking. However, the quality of the journey may make a difference. For example, some people listen to music or read novels to ‘zone out’ of the work experience on the journey from home. On the other hand, commuting in the car in peak hour traffic may make the journey experience more stressful.

Individuals make successful transitions between work and home every day. Some of this success is due to psychological factors and where there is conflict, to individual coping styles. Byron (2005:190) found that coping style and skills “seemed to offer some benefit to employees. Those with better time management skills or a better coping style tended to have less WIF [work-interference-with-family]”. As noted by Lapierre and Allen (2006:172), “people who tend to use a problem-focused coping style when faced with life’s difficulties may more easily avoid work-family conflict”.

Such processes act as a defence against environmental stressors, and are typically directed at defining problems, generating alternative solutions, weighting the alternatives in terms of their costs and benefits, choosing among them, and acting (Lazarus and Folkman, 1984). Problem-focused coping has been shown to be a potentially effective means of managing the work-family interface (Aryee et al, 1999; Rotondo et al, 2002). Behavioural strategies that may help resolve conflict include: using other people; dividing tasks; setting priorities; reappraising; sharing friends and activities; planning time for recreation or to be with family; leveraging technology; and allowing boundary permeability (e.g. maintaining an emotional boundary from work, but letting work correspondence through) (Wiersma, 1994; Kreiner et al, 2009). We would argue that coping styles and mechanisms

are an important aspect of work-life transition, which can be taught to workers to help them improve transition experiences and reduce work-life conflict. Resting or taking a break is another strategy that will aid recovery (Demerouti et al, 2012).

Recovery experiences are described by Sonnentag and Fritz (2007:205) as a process opposite to the strain process which “results in restoration of impaired mood”. They mention that recovery experiences include the diversionary strategies of psychological detachment (Etzion et al, 1998) or mentally switching off, relaxation-oriented strategies (meditation, walking in a natural environment, listening to music), mastery-oriented strategies (such as self-efficacy), and personal control during leisure time. Such techniques are mentioned during the workshops. Sonnentag et al (2010) also suggest diversionary activities such as immersion in hobbies, sharing information about work immediately and then moving to other topics, and developing rituals such as not accessing work emails at home.

Another approach to recovery includes physical activities, such as exercise, physical training and sport (Bakker et al, 2013) which contributes to physical and mental health. They found that exercise in the evening resulted in better recovery at bedtime. Also, Ten Brummelhius and Bakker (2012) found that spending time on social and low-effort activities aided relaxation and recovery.

We believe that there may be several avenues that people use to more effectively transition between work and home roles and reduce work-life conflict. These avenues include relaxation, journey interruption for social activity, shopping, exercise or rest. The quality of the journey experience may lessen the likelihood for negative work spillover into the home domain. Also, interruptions break the cognitive attention from work issues, and may redirect focus elsewhere, so we expect that people who use these techniques are more likely to arrive home from work in a positive mood, and experience more work-life balance. Therefore:

H4a: There is a positive relationship between the quality of the journey from work to home and mind state on arrival at home.

H4b: There is a positive relationship between the quality of the journey from work to home and mood on arrival at home.

H5a: There is a positive relationship between interruptions to the journey from work to home and mind state on arrival at home.

H5b: There is a positive relationship between interruptions to the journey from work to home and mood on arrival at home.

Positive psychology and likely effects of the intervention

Of most importance to this research are the practices of positive psychology, which is defined by Linley et al (2006:8) as “the scientific study of optimal human functioning”. This understanding comes from the work of Csikzentmihalyi (1975, 1988, 1990, 2003), drawing on earlier work from psychology around self-esteem (James, 1890) and well-being (Bradburn, 1969). Positive psychology

has a strong focus on quality of life and the opportunities for personal growth and optimal functioning (Henry, 2004). Van Steenberg and Ellemers (2009:618) suggest that it is crucial to not only look at the absence of problems and distress but also at “the presence of positive experiences when examining human health and well-being”. They note that the broaden-and-build theory shows that positive emotions are essential to optimize psychological and physiological functioning (Frederickson, 2001). This theory states that positive emotions produce coordinated changes in people’s physiological responses, thoughts and actions can have long lasting consequences for human functioning and health. Positive emotions involved in enthusiasm or challenge are associated with a mobilization of physiological resources resulting in favourable health outcomes, e.g. decreased vascular resistance (Tomaka et al, 1993). Positive emotions are thought to prompt individuals to pursue a wider range of thoughts and actions. Research has shown that positive emotions induce people to be more flexible, integrative and creative in their thinking (Isen, 2000) and more approach-oriented and proactive in their behaviors (Lazarus and Folkman, 1984; Tomaka et al., 1993).

The expression of positive emotions both at work and at home seems to be a powerful strategy to reduce WFC and enhance the positive impact of work into the home domain (Sanz-Vergel et al, 2010). In related research, Rotondo and Kincaid (2008) found that positive thinking was associated with higher work-family facilitation. They suggest that positive thinking may have a role in achieving work-family balance as positive thinking may not lower conflict, but it may increase facilitation and positive spillover. They also indicated that when work demands increase, the family can change, adapt and absorb the resulting conflict more readily than work adapts to family. In one four week experimental study, Sheldon and Lyubormirsky (2006) found that three positive thinking mental exercises produced reductions in negative affect and one of these (visualizing best possible selves) also increased positive affect in participants.

Moreno-Jiménez et al (2009:435), describe the strategy of psychological detachment from work (Etzion et al, 1998), which “effectively mitigates some of the negative effects of WFC on employees well-being”, with psychological detachment from work moderating the relationship between WFC and psychological strain. Sanz-Vergel et al (2011) found that detaching from work increased evening cognitive liveliness and reduced work-home interference. Similar findings were made by Sonnentag et al (2008) and Park et al (2011:464) found that “creating a sense of segmentation can help people mentally detach from work and recover from work stress”. Sonnentag and Bayer (2005) found that people who detached psychologically from work during leisure time reported more positive mood and less fatigue.

To make a difference with working people in reducing conflict and stress after work, some form of work group intervention or training may be necessary (Allen et al, 2012). Sanz-Vergel et al (2011) call for training programs to teach employees about detaching work and home, and Sonnentag and Grant (2012) call for coaching programs that teach employees how to build daily routines in positive thinking. Hammer et al (2011) conducted experimental research using a training intervention

which included instructions for behavioural self-monitoring and observed positive effects for employees with high family-work conflict. Training may also need support once new behaviours are practiced either in the workplace or at home to be able to successfully transfer the new learning (e.g. Burke and Day, 1986; Ford et al 1997). However, individuals need to choose the recovery experiences that may be most relevant and beneficial for their specific needs and context (Sanz-Vergel et al, 2011).

In relation to these ideas, we would argue that training in positive psychological techniques in group situations (Hammer et al, 2011) should enable better awareness for people in understanding how their thinking can impact on aspects of their lives, if they are sufficiently motivated to do so. It may result in decisions by individuals to change behavior, particularly impacting on their transition from work to home through tangible measures such as clarifying boundaries between roles (Kossek et al, 1999) and using transitions between roles (Ashforth et al, 2000) to enter subsequent roles in a positive psychological state. This would be indicated by their entry into the home environment from work through more focused mind state and improved mood, thus improving their work-life balance and reducing conflict (Frone et al, 1992). Given this understanding of the likelihood that positive psychology and training may help to make a difference in work-family conflicts, the following research questions were used to explore this relationship:

H6: That workers exposed to workshops based on positive psychology concepts learn techniques that affect the following factors:

- (a) Work stress (decrease)*
- (b) Boundary strength (increase)*
- (c) Work-life balance (increase)*
- (d) Journey quality (increased)*
- (e) Journey interrupted (a greater proportion of workers interrupt their journey)*

H7: That workers participating in workshops based on positive psychology learn techniques that:

- (a) Improve mind state on arrival at home*
- (b) Improve mood on arrival at home*

Figure 1 shows the research model and the hypotheses developed above.

METHODOLOGY

An experimental approach was used in this project, based on a test-intervention-retest method. Intervention workshops were undertaken for four different groups of participants. In each case, prior to the workshop participants were informed about the project and ethics requirements and those consenting to participate in the research completed a questionnaire about their current work-life transitions, stress levels and feelings in relation to returning home from work. For the first and third groups of participants the questionnaire was paper-based and completed just prior to the workshop;

the second and fourth groups of participants completed the questionnaire online in the week before the workshop. Participants then attended the workshop. Two or three weeks later participants were sent an email with a link to an on-line questionnaire. Reminders were sent approximately 5 weeks later to all bar the last group. The second questionnaire asked participants the same questions as in the first questionnaire with a few additional open-ended questions asking them to describe any changes they felt had taken place since the workshop. This second questionnaire was completed anonymously, so no matching of data pre- and post-intervention for individual participants was possible.

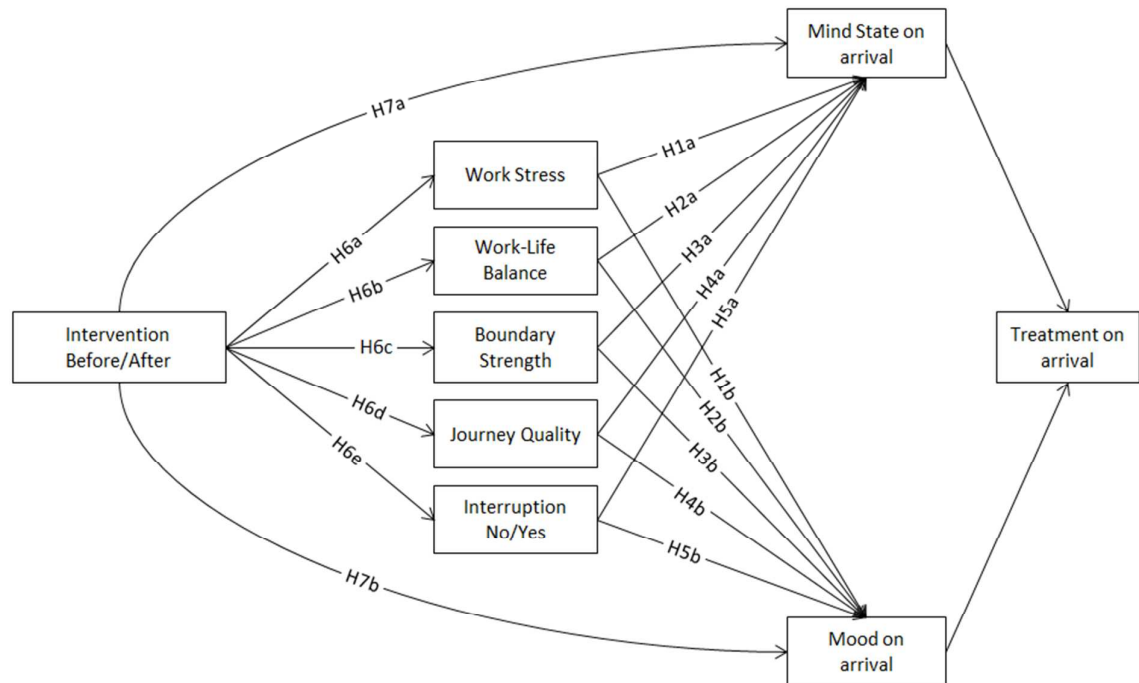


Figure 1: Research model

Table 1 summarises information for the four groups of participants and Table 2 summarises demographic information for the actual participants. The sample is clearly not representative of the general population, however, previous research in this area has found that demographics such as age and gender often have little or mixed impact (e.g. see Byron, 2005; Allen et al, 2012).

A summary of the variables in the research model (Figure 1) and how they were measured is presented in Table 3.

The use of words as suggestions to the questions relating to *Mind state* and *Mood* were adapted from those tested in the COPAS scale by Gilbert et al (2008) and from words assessed by Strauss and Allen (2008) as negative, neutral or positive. Sheldon and Lyubormirsky (2006) also suggest the use of quieter positive emotion words, such as ‘content’, ‘satisfied’ and ‘serene’, and a selection of these words were added to the options. Whilst moods and emotions can be transient states and vary in relation to work and home situations (Xanthopoulou et al, 2012) the questions were framed around participant’s perceived normal mood and mind state.

Table 1: Summary of groups participating in the research

	Description	Number completing the pre-workshop questionnaire	Number contacted for participation in post-intervention survey	Emails sent by	Number completing the post-workshop questionnaire
Group 1	Small business owners and employees across Australia from a small business franchising organisation.	97	88	Research team	28 (32%)
Group 2	Managers and senior employees from a large retail organisation based in New Zealand.	82	82	Employer	53 (65%)
Group 3 (two workshops)	Administration and school support staff from a public education department based in Australia.	414	414	Employer	146 (35%)
Group 4	Professional people belonging to an association based in Australia.	36	36	The association	8 (22%)
All		638	620		235 (38%)

Table 2: Summary of demographic variables

Variable	Category	Pre-test	Post-test
Age	18-29 years	3.9%	5.0%
	30-39 years	12.4%	12.0%
	40-49 years	32.3%	29.0%
	50-59 years	40.6%	44.8%
	60 years or more	10.7%	9.1%
Sex	Female	83.0%	82.3%
	Male	17.0%	17.7%
Family status	Living with family or partner	92.0%	94.2%
	Not living with family or partner	8.0%	5.8%
Work status	Full-time	78.1%	82.7%
	Part-time	21.9%	17.3%

RESULTS

A path model was used to test the hypotheses developed in section 2 above, with variables measured as in Table 3. Figure 2 presents the estimated beta coefficients for the regressions with an indication of their significance obtained assuming the sample was random. The correlation matrix for the model is shown in Table 4.

Table 3: Summary of research model variables

Variable	Description/measurement	Measurement for analysis
Intervention (Before/After)	A categorical variable indicating when the questions were answered: before the workshop intervention or after.	Dummy variable: 0 = Before and 1 = After.
Mind State upon arriving home	Participants described their normal state of mind upon arriving home. These were classified as Positive (e.g. happy, enthusiastic and relaxed), Neutral (e.g. talkative, focused and indifferent) or Negative (e.g. anxious, agitated and tense)	Recoded with Positive = 3, Neutral = 2, Negative = 1.
Mood upon arriving home	Participants described their normal mood upon arriving home. These were classified as Positive (e.g. Happy, Calm), Neutral (e.g. Talkative) or Negative (e.g. Sad or depressed, Tense).	Recoded with Positive = 3, Neutral = 2, Negative = 1.
Treatment upon arriving home	Participants described the way they felt they were treated by others in their household (left blank if no others in the household). These were coded into Very welcoming (e.g. "I am welcomed with love and care"), Welcomed (e.g. "I am welcomed") or Not welcoming (e.g. "They avoid contact", "They are likely to engage in argument")	Recoded with Very welcoming = 3, Welcoming = 2, Not welcoming = 1.
Work Stress	Based on questions adapted from Cohen et al (1983) This comprises 5 questions all measured on 5 point scales.	Average of scores obtained after assigning 5 = highest stress to 1 = lowest stress, provided the participant responded to more than half of the component questions.
Work-Life Balance	The Work-Family Balance scale of Carlson et al (2009). This comprises 6 questions all measured on a 5 point scale from Always to Never.	Average of scores obtained after assigning 5 = Always to 1 = Never, provided the participant responded to more than half of the component questions.
Boundary Strength	The Work-Nonwork Boundary Strength Scale "Boundary strength at home" by Hecht and Allen (2009). This comprises 8 questions all measured on a 5 point scale from Strongly agree to Strongly disagree.	Average of scores obtained after assigning 5 = Strongly disagree to 1 = Strongly disagree (recoded for negatively worded questions), provided the participant responded to more than half of the component questions.
Journey Quality	Participants indicated activities in which they were normally engaged on their journey home. These included: working or concentrating on driving, or a leisure activity such as playing games, listening to music or radio, accessing social media, talking to others, and reading.	If a participant engaged in a leisure activity without working or driving <i>Journey Quality</i> was assigned the value 1. If they engaged in a leisure activity while working or driving <i>Journey Quality</i> was assigned the value 0. If they worked or drove without engaging in a leisure activity <i>Journey Quality</i> was assigned the value -1.

Interruption (No/Yes)	A categorical variable indicating if the journey home was usually interrupted or not by one or more of the following: exercise, shopping, dinner out, socialising.	0 = No, 1 = Yes
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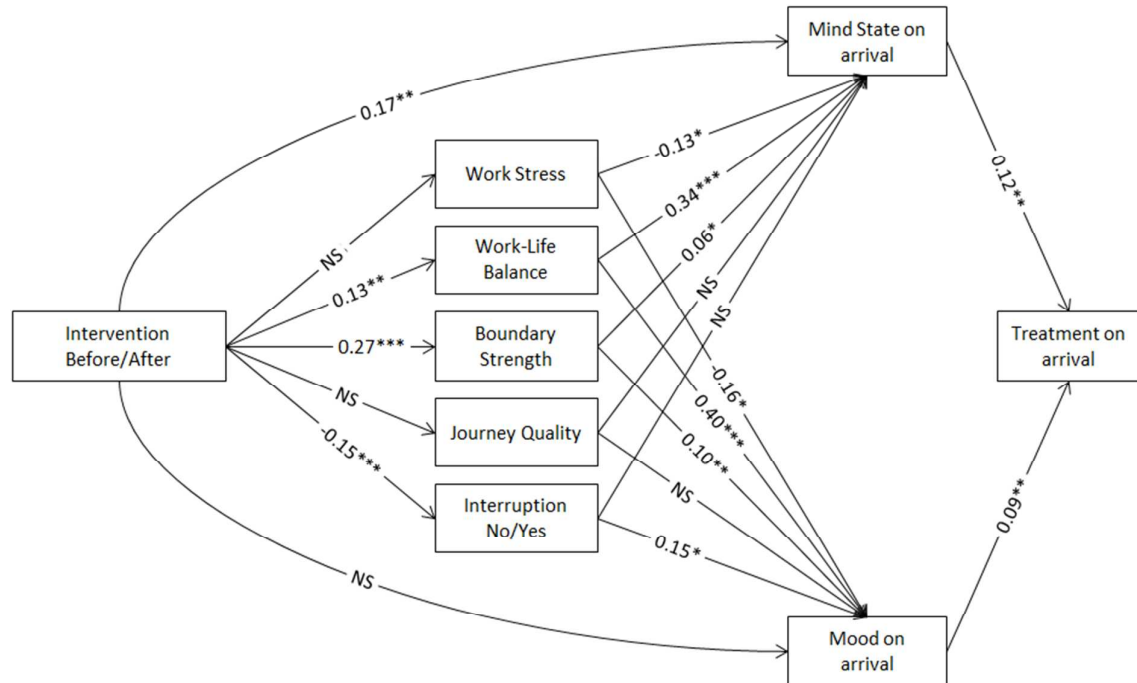


Figure 2: Model showing results of regression of various home arrival variables onto work and journey variables. NS = $p \geq 0.05$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5 shows the direct effects of the intervention on the variables. The table also indicates the significance of the corresponding independent two-sample t-tests. Cohen's d is provided as a measure of the effect size.

The results summarized in Figure 2 show that the workshop intervention has a direct effect on *Mind state* on arrival, supporting hypothesis H7a. The direct effect accounts for an increase in the *Mind state* score of 0.17, where the *Mind state* variable itself has a range from 1 to 3. The intervention also has significant indirect effects on *Mind state* via *Work-Life Balance* and *Boundary Strength*, these being the only mediating variables having significant paths from *Intervention* and to *Mind state*. The total effect (direct + indirect) of the intervention on *Mind state* is shown in Table 5; the effect is to increase the *Mind state* score by 0.22, from 1.72 to 1.94. While significant ($p < 0.001$), Cohen's d is only 0.29, so the effect size is small according to the rules of thumb noted by Cohen (1988).

The results summarized in Figure 2 show that the workshop intervention has a no significant direct effect on the *Mood* on arrival, so hypothesis H7b is not supported. However, there are indirect effects via *Interruption*, *Boundary Strength* and *Work-Family Balance*. However, the effect on

Interruption is negative (see below). The total effect (direct + indirect) of the intervention on *Mood* is shown in Table 5; the effect is to increase the *Mood* score by 0.12, from 2.10 to 2.22. While significant ($p = 0.04$), Cohen's d is only 0.13, so the effect size is small according to the rules of thumb noted by Cohen (1988).

Table 4: Variance-covariance matrix

	Intervention	Mind State on arrival	Mood on arrival	Treatment on arrival	Work Stress	Work-Life Balance	Boundary Strength	Journey Quality	Journey Interruption
Intervention	1.00	0.13	0.06	0.07	0.00	0.11	0.13	0.08	-0.12
Mind State on arrival	0.13	1.00	0.51	0.19	0.00	0.25	0.18	0.06	0.04
Mood on arrival	0.06	0.51	1.00	0.22	0.00	0.26	0.18	0.03	0.11
Treatment on arrival	0.07	0.19	0.22	1.00	-0.22	0.17	-0.03	-0.06	-0.06
Work Stress	0.00	0.00	0.00	-0.22	1.00	0.19	0.24	0.00	0.06
Work-Life balance	0.11	0.25	0.26	0.17	0.19	1.00	0.35	-0.01	0.08
Boundary Strength	0.13	0.18	0.18	-0.03	0.24	0.35	1.00	0.05	0.10
Journey Quality	0.08	0.06	0.03	-0.06	0.00	-0.01	0.05	1.00	0.04
Journey interruption	-0.12	0.04	0.11	-0.06	0.06	0.08	0.10	0.04	1.00

Table 5: Effect of the intervention on the journey and work-related variables

	Mean score		Pooled standard deviation	Significance	Cohen's d
	Before intervention	After intervention			
Mind State	1.72 (n=637)	1.94 (n=241)	0.78	$p < 0.001$	0.29
Mood	2.10 (n=625)	2.22 (n=240)	0.87	$p = 0.04$	0.13
Work Stress	2.77 (n=637)	2.76 (n=241)	0.48	$p > 0.05$	0
Work-Life Balance	3.92 (n=633)	4.05 (n=238)	0.52	$p < 0.001$	0.24
Boundary Strength	3.08 (n=635)	3.34 (n=238)	0.87	$p < 0.001$	0.30
Journey Quality	0.37 (n=626)	0.48 (n=239)	0.61	$p = 0.01$	0.19
	Percentage of participants				
	Before intervention	After intervention			
Journey Interruption	70.4% (n=638)	57.3% (n=241)		$p > 0.05$	

The effect of the workshop intervention on each of the mediating variables is shown in Table 5. It had significant positive effects on *Work-Life Balance* and *Boundary Strength*, supporting

hypotheses H6b and H6c. However the effect of the intervention on *Interruption* was negative; a larger proportion of participants interrupted their journey before the workshop intervention. Hypothesis H6e is therefore not supported. The intervention also had non-significant effect on work stress (H6a) and a positive effect on Journey Quality (H6d), but this variable was found to have non-significant effects on both *Mind State* and *Mood*

The effect of the mediating variables on the indicators *Mind State* and *Mood* is summarised in Figure 2. Work Stress, *Work-Life Balance* and *Boundary Strength* had significant effects on *Mind state* and *Mood*, supporting hypotheses H1a, H1b, H2a, H2b, H3a and H3b. However, on the whole, *Journey Quality* and *Interruption* were not found to affect *Mind State* and *Mood*, (H4a, H4b, H5a) with the exception of H5b *Interruption* on *Mood* (but, as noted previously, the effect of the *Intervention* on *Interruption* was the reverse of what was expected).

Analysis of qualitative comments

Descriptive comments were optional in the post-workshop survey, however 58 participants responded, with 40 indicating that had made a positive change, 13 indicating no change and 5 indicating a negative change. All of the participants who indicated a negative change also mentioned changed family situations, such as illness or some crisis. Examples of positive change comments listed against the types of techniques participants had implemented are outlined in Table 6.

The demographics outlined in Table 1 show that the majority of participants were female, were older than 50 years, were employed full-time, were married or living with a partner and children, and were employed as an office or service worker. Due to the large number of participants in the education support groups, the demographics are weighted towards outcomes with that group. However, there were a much higher percentage of qualitative comments received from participants from the other three groups.

Descriptive comments indicate that many participants have initiated changes in their transition states, consistent with Rotondo and Kincaid's (2008) findings about the influence of positive thinking. Other comments indicate that a number of participants are experiencing improved home arrangements and reduced work-life interference, consistent with Byron (2005) and Kreiner et al's (2009) recommendations relating to various coping mechanisms.

DISCUSSION AND CONCLUSION

This study has found that an intervention using positive psychology can make a difference for workshop participants in making improvements in their transition from work to home that has an effect on their mood and normal mind-state when arriving home from work. Also, their perceptions of work-life balance and boundary strength improved from the first survey to the second.

Table 6: Analysis of qualitative comments from participants

Category of transition technique	Participants	Examples of comments
Being 'present' for partner	23	<i>Trying to be more focused on greeting with love and care when I get home When I am with my family I am much more present with them</i>
Relaxation	8	<i>Used to feel drained but now am relaxing more</i>
Reflection / self-awareness	12	<i>When I am on the bus, I picture that I am leaving work at work I try to switch off from work a lot more now and concentrate on home</i>
Read / play music on journey	4	<i>Put music on more often than news talk</i>
Reduce work interruptions	12	<i>I rarely take work home. It helps me to keep these boundaries I turn off the phone and just spend time with them</i>
Sport or exercise	5	<i>After exercising I feel much more relaxed</i>

The results indicate that the strongest impact of the workshop is on the normal mind-state of people arriving at home after work. This is not surprising, as the workshops concentrated on teaching positive psychological techniques which would affect the mind-state of participants, if tried by those participants. It appears that many participants decided to try these techniques and that they worked in general to improve their mind-states and mood on arrival from home.

An interesting finding was that the mind-state variable showed a stronger outcome than the mood variable. This could be due to the fact that the workshops concentrated on helping people use positive psychological techniques to change their mind states on arrival at home. Participants' moods may have been more influenced by work stress and work events and had not dissipated enough on arrival at home. In practicing the mental blocking, and particularly in being 'present' for their family, there would have been less negative spillover of work stress into home. This is particularly likely given that the work stress variable hardly changed at all between the two surveys. Sanz-Vergel et al (2012) refer to this in relation to workers 'faking' emotions or 'surface acting' at home to cope with transitions from work to home. In our research, the participants were taught how to attain a different mind state in relation to arriving at home, so for those individuals it was a deliberate decision to repress work stress or mood so that it would not spill over into the home domain.

There was a clear finding that people with strong work boundaries have a more positive mind state and mood on arrival home from work. Whilst other research has found similar findings (e.g. Kossek et al, 2012), it confirms the view that people who segment these roles experience less conflict and therefore have a better sense of balance in their lives.

The finding that improved mood results from an effective transition in the journey from work to home by forms of interruption such as social activity, shopping, or exercise, and by relaxation, is not surprising. Researchers (Wiersma, 1994; Kreiner et al, 2009) have previously found that engaging

in other activity that stimulates the brain tends to diminish feelings of stress or anxiety held over from the work day.

There are some limitations to this research. Due to the anonymous nature of the responses, the research was not able to track the changes to individual's responses, but instead relied on overall improvements, plus additional qualitative comments from participants who indicated that there had been a change. Although the demographics of the two groups were quite similar, it is recognized that people who responded to the second questionnaire may have been more motivated to take action on their work-life issues. The workshops were instigated by organisations, so for some participants, there may have been no incentive, motivation or reason to take 'on board' any suggestions. It is also recognized that participants who completed the second survey may have been more interested in taking on changes and therefore more likely to respond in the second survey than others. This is similar to limitations reported by Giannopoulos and Vella-Brodrick (2011) where their results also supported the effectiveness of positive interventions. Also, the short period of time between the intervention workshop and the time of the follow-up survey would not indicate whether new behaviours tried by participants would be sustained over the long-term.

Further research is required to build up a more substantial base of participants in different industries and occupations to understand how this may apply to other situations and work-life contexts. More qualitative comments through interviews would be useful in understanding some of the strategies people have implemented after attending the workshops.

In summary, this experimental research has shown that there is a link between training people using positive psychology and improving their transitions from work to home, impacting on their perceptions of work-life balance, boundary strength, and mood and mind state on arrival at home. Results from the study indicate that a number of research participants have successfully attempted to change their approach in transitioning from work to home.

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