

EVALUATION OF THE TREATMENT UTILITY OF A JOBSEEKER SEGMENTATION
AND INTERVENTION PROGRAM

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Abstract

To what extent does a psychosocial intervention (PSI) improve employment rates for welfare-receiving jobseekers who differ in ethnicity, length of unemployment, physical location, gender, and readiness for change? Two large-scale studies (Study 1: 2,459 jobseekers, Study 2: 20,057 jobseekers) across a diverse Australian sample sought to assess factors that moderated the efficacy on return-to-work outcomes of a PSI program (comprising 31 evidence-based exercises that are purported to build psychological states such as self-efficacy, resilience, and well-being) when compared to a government-funded treatment as usual (TAU) re-employment service. Study 1 showed that the PSI was much more effective than TAU (20.4% increase in job placements), but only for jobseekers who were not already proactively engaged in seeking a job. Study 2 added a one-to-one intervention to the original group PSI workshop, informed by the *transtheoretical* (or *stage of change*) model and was shown to improve job placement rates regardless of stage of jobseeking readiness, gender, age and ethnicity (41.9% increase in job placements overall). However, the intervention was not effective for those living in remote areas. The results have implications for employment services aiming to deliver better return-to-work outcomes by segmenting and personalizing support for unemployed citizens.

Keywords: unemployment, resilience, segmentation, psychosocial interventions.

Highlights

- A psychosocial intervention improved return-to-work outcomes for unemployed citizens.
- The intervention did not work for those in the *action* stage of change.
- Assessing jobseekers' stage of change informed stage-matched interventions.
- These increased return-to-work outcomes across all stages by an average of 42%.
- Model works across gender, age, ethnicity, stage of change, but not remote areas.

Introduction

Unemployment has a detrimental and long-lasting impact upon citizens' mental health and well-being. Specifically, well-being, self-esteem, general health, and life satisfaction have been shown to decrease when citizens are unemployed (Lucas, Clark, Georgellis, & Diener, 2004; McKee-Ryan, Song, Wanberg, & Kinicki, 2005; Paul, Vastamäki, & Moser, 2016; Schmitz, 2011; Waters & Moore, 2002). There is also evidence that unemployment is linked to increases in stress, feelings of helplessness, depression, anxiety, marital dissatisfaction, and even death (Jefferis et al., 2011; McKee-Ryan et al., 2005; Roelfs, Shor, Davidson, & Schwartz, 2011; Stankunas, Kalediene, Starkuviene, & Kapustinskiene, 2006). The impact of unemployment upon individuals' mental health can limit their chances of regaining employment. Indeed, unemployed people are likely to isolate themselves (Elliott, 1999; Manni & Barton, 2012), which is counterproductive because many jobs are attained through word-of-mouth (Granovetter, 1973, 1995; Wandemo, 2014).

Most government-funded interventions that aim to support unemployed citizens into employment focus on practical, action-focused elements of job seeking such as résumé writing, interview skills, application letter writing, access to the internet, and job-search skills. Developing such practical job-search skills is considered Treatment as Usual (TAU) in employment services and has been shown to have a positive impact upon return-to-work outcomes, although with less success for those with more complex issues, such as those who may suffer from mental health issues, are middle-aged, or are long-term unemployed (Liu, Huang, & Wang, 2014; Ugland, 1977; Van Hooft, Wanberg, & Van Hoyer, 2012; Vinokur, van Ryn, Gramlich, & Price, 1991).

There is a contradictory body of evidence concerning whether mental health-focused interventions have a positive effect upon return-to-work outcomes. Although some studies suggest that interventions to improve mental health in the unemployed have little if any impact upon return-to-work rates (Paul & Moser, 2009), there is increasing evidence that the provision of psycho-social interventions (PSI) for the unemployed has a positive impact upon mental health and return-to-work rates (Challen, Noden, West, & Machin, 2011; Henderson, 2012; Liu et al., 2014; Nigatu et al., 2016).

The present study seeks to build on existing studies by evaluating the extent to which a PSI adds value to TAU. In other words, does an intervention that builds “soft skills” (such as resilience, well-being, self-efficacy, mindset, conversation skills, strengths, goal-setting, and other elements of psychological capital etc.) deliver “hard outcomes” in terms of higher return-to-work rates. This paper also examines potential moderators of the PSI outcome (as measured by jobseeker return-to-work rates) such as length of unemployment, jobseeker location (i.e. metropolitan or remote), cultural identity, and stage of change (readiness for re-employment) status. It is worth stating that whilst the PSI we implemented drew largely from interventions that purport to build psychological capital such as resilience, well-being and self-efficacy in individuals, we were unable to measure the program’s impact upon those specific psychological capacities. The studies in this paper were applied, real-world studies involving many thousands of jobseekers with the co-operation of employment service agencies. The agencies are contracted by the government to assist jobseekers to return to work. Return-to-work is the primary measure by which such agencies are judged (which includes first job outcomes which strictly are not a “return”). Participating employment agencies were reluctant to subject their caseload of jobseekers to extensive surveys that included resilience, well-being and self-efficacy before and after intervention. The agencies

did, however, provide longitudinal data from the Australian government's ESS system to enable the researchers to track whether participants achieved a return-to-work outcome.

In Study 1, we tested the hypothesis that a PSI would have a greater positive impact on return-to-work outcomes, relative to TAU. The PSI comprised of 31 exercises packaged into a 15-hour workshop. The exercises were collated from a literature review into interventions that improved proactivity through well-being, self-efficacy, resilience, mindset, conversation skills and so on (Appendix I). A fundamental component of this first study was to test the hypothesis that jobseekers would respond to the PSI differently according to their *stage of change*. It has been established that discrete stages of change relating to re-employment exist. An Assessment of Work Readiness (AWR) measured 1,213 jobseekers' responses to three types of questions that were action, contemplative or precontemplative in nature. The relative weightings of response to these questions placed a jobseeker into one of five clusters of change, which in this context relates to jobseeking readiness and proactivity. For example, if a jobseeker scored highly on the four *action* questions, lowly on the four *contemplative* questions and highly on the four *precontemplative* questions, they would be placed into the *unauthentic action* stage of change. The five stages are: *action* (actively seeking a job), *preparation* (wanting a job, but lacking in confidence), *unauthentic action* (going through the motions of seeking a job without genuine commitment or confidence in gaining one), *contemplation* (not yet trying to get a job), or *precontemplation* (belligerently not thinking about getting a job). The 3-factor solution of the AWR proved to be a good fit of the data ($\chi^2(51)=246.01$, $p<.001$, CFI=0.96, GFI=0.97, TLI= 0.95, RMSEA=0.06, $pclose=.058$) (Coppin, 2017). The variables measured by the AWR may have an impact on return-to-work rates as they may predict greater readiness, proactivity and motivation to participate in job search behavior.

Having aimed to establish that different stages of change relating to return-to-work do respond differently to the PSI, Study 2 aimed to test the hypothesis that “stage-matching” the PSI interventions for each jobseeker would improve their proactivity and readiness and deliver a secondary result, return-to-work outcomes. Matching interventions to an individual’s stage of change is in accordance with the *transtheoretical model of change* (Prochaska & DiClemente, 1982). Study 2 also allowed us to test whether the intervention-related effect on return-to-work rates was moderated by factors such as gender, jobseeker classification, or “Stream”, ethnicity and mature age. It included a larger, and more diverse sample than Study 1 (20,057 participants across Australia vs 2,459 from South East Queensland), and allowed us to examine the extent that the intervention was equally effective for participants living in different locations (urban, regional, rural, and remote).

Compiling the Psychosocial Intervention - Psychological Drivers of Re-employment

Unemployment has been linked to stress, anxiety and depression, decreased well-being, suicide, financial strain, lower self-esteem, and disruption to people’s significant relationships (Bolton & Oatley, 1987; Borg & Kristiansen, 2008). Low well-being, in turn, has been linked to lower proactivity, interest, performance, social functioning, and the ability to return-to-work (APA, 2013; Hayashi et al., 2016; Mani, Mullainathan, Shafir, & Zhao, 2013), and a heightened sense of helplessness and inadequacy (Hirschfeld et al., 2000; Lerner & Henke, 2008). As such, low well-being may drive poor re-employment rates.

In recent years, many well-being interventions have been discussed in the psychology literature. A meta-analysis of 51 published psychological interventions found that such interventions enhanced well-being and decreased depressive symptoms, but their effectiveness varied according to several factors, such as, the participants’ age and depression status (Sin & Lyubomirsky, 2009). Recent studies have confirmed a number of psychological interventions that may successfully increase well-being in participants

suffering from disability, chronic pain (Müller et al., 2016), and mature age (Proyer, Gander, Wellenzohn, & Ruch, 2014). Additional interventions have been demonstrated to promote engagement, resilience and social connectedness (Kashdan & Ciarrochi, 2013; Parks & Biswas-Diener, 2013).

Self-efficacy has been identified as a significant factor in improving the likelihood of jobseekers obtaining employment (Kanfer, Wanberg, & Kantrowitz, 2001; Nigatu et al., 2017). It is a prominent construct in well-being- and positive-psychology-related papers (Rusk & Waters, 2013). Self-efficacy refers to the belief in one's own capacity to undertake the behaviors required to produce specific goals (Bandura, 1977; Bandura, 1997; Bandura & Dweck, 1985). Self-efficacy training for unemployed people has been shown to increase the likelihood of reemployment in randomized trials such as the JOBS program (N=1,087) in Michigan (Vinokur & Schul, 1997), replicated in the JOBS II (N=3,402) (Vinokur & Price, 1999) and Finnish Työhön Job Search programs (N= 1,261) (Vuori, Silvonen, Vinokur, & Price, 2002). A recent study involving 168 participants who were off work due to common mental disorders indicated that building self-efficacy delivered faster return to work (Lagerveld, 2017).

Resilient individuals have been shown to “bounce back” from unemployment faster and in a more sustained manner than individuals displaying depressive symptoms (Stolove, Galatzer-Levy, & Bonanno, 2017). Although resilience is believed to be “fundamental to fight unemployment,” (Silva, 2016), it remains an often-overlooked element in interventions for the unemployed (Liem & Liem, 1988; Liem & Rayman, 1982). Resilience, whilst sometimes considered a composite personality trait rather than a specific psychological construct, has been shown to be malleable and impacted by identified interventions (Gillham et al., 2007; Reivich, Gillham, Chaplin, & Seligman, 2013; Reivich & Shatté, 2002; Reivich, Seligman, & McBride, 2011; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). The

components of resilience include emotional regulation, impulse control, causal analysis, realistic optimism, empathy, and reaching out. For example, specific interventions to help to build impulse control and emotional regulation include cognitive behavioral therapy activities (Ellis, 1991). Resilience has been demonstrated to be an influential moderator in job search success (Moorhouse & Caltabiano, 2007), a protective factor against depression, and a mediator between length of unemployment, stress, and well-being (Sojo & Guarino, 2011). Of 500 individuals who had lost their jobs, 60.4% of resilient individuals were reemployed four years after losing their job, compared to 33.3% of those with emergent depression (Stolove et al., 2017). The over-riding evidence from literature suggests that heightened well-being, self-efficacy and resilience increase a jobseeker's job search proactivity and confidence, resulting in higher return-to-work outcomes. Few studies have specifically evaluated the impact of resilience-building interventions among unemployed citizens. This study seeks to address this gap in the literature. Whilst the researchers would not be in a position to measure the impact of the PSI upon core psychological states such as well-being, resilience or self-efficacy, we would be able to track the impact upon the secondary measure of return-to-work rates.

Are Psychosocial Interventions Universally Effective for Re-employment?

Ciarrochi, Atkins, Hayes, Sahdra, and Parker (2016) have argued that psychosocial interventions should not be assumed to work equally well across different contexts. Almost all PSIs target internal attributes such as self-efficacy, resilience, and well-being. The implicit assumption in these interventions is that internal attributes cause external outcomes (Ciarrochi, Zettle, et al., 2016). The natural solution is to change those internal attributes. Such a decontextualized view can underestimate the extent that context might be driving both unemployment and internal attributes. For example, returning to work may be more difficult for workers who are older (Commission, 2016; Sargeant, 2016; Wanberg, Kanfer, Hamann,

& Zhang, 2016), female (Cancelliere et al., 2016; Popescu, 2016), live in more rural and remote areas (Dockery & Lovell, 2016; Li & Peng, 2015; Park, 2017), are Indigenous (Hunter, 2000; Hunter & Gray, 2016), have low commitment to re-employment (Coppin, 2017), and have been unemployed for a substantial amount of time (Ghayad & Dickens, 2012). If it is difficult for an individual to return to work due to contextual factors, this might lower their well-being and self-efficacy. Further, if there are substantial external barriers to getting a job, then psychosocial interventions focused on internal attributes alone may have little benefit. We explored this possibility in the present study by examining the extent to which demographic variables moderated the efficacy of our PSI program.

Both theoretical and practical considerations informed the selection of the PSI workshop content. Over a period of 12 months, a review of the literature on interventions covering positive psychology, resilience, self-efficacy, re-employment and well-being, 31 exercises were selected to form the content of the psychosocial workshop intervention, as they were evidenced to build at least one of those three constructs in group intervention settings. The workshops were ordered into five sections of Strengths, Positivity, Mental Toughness, Mindset and Character and Goals (summarized in Appendix I, with full supplementary details available from the corresponding author). The workshops were piloted with a cohort of young jobseekers to ensure flow and engagement were achieved, with PowerPoint slides, exercise handouts and full scripts provided to trained employment service deliverers of the PSI.

Study 1: Efficacy of a Psychosocial Intervention

Study 1 aimed to test Hypothesis 1 (H1), that unemployed citizens receiving a PSI would be more likely to enter employment than those in the TAU condition. Hypothesis 2 (H2) posits that individuals in different stages of change (*action, preparation, unauthentic action, contemplation* and *precontemplation*) will have different levels of response (in terms

of job outcomes) to the PSI. We also explored whether demographic factors such as location, age, length of unemployment, and gender moderated the effect of the PSI on successful job and education placements.

Method

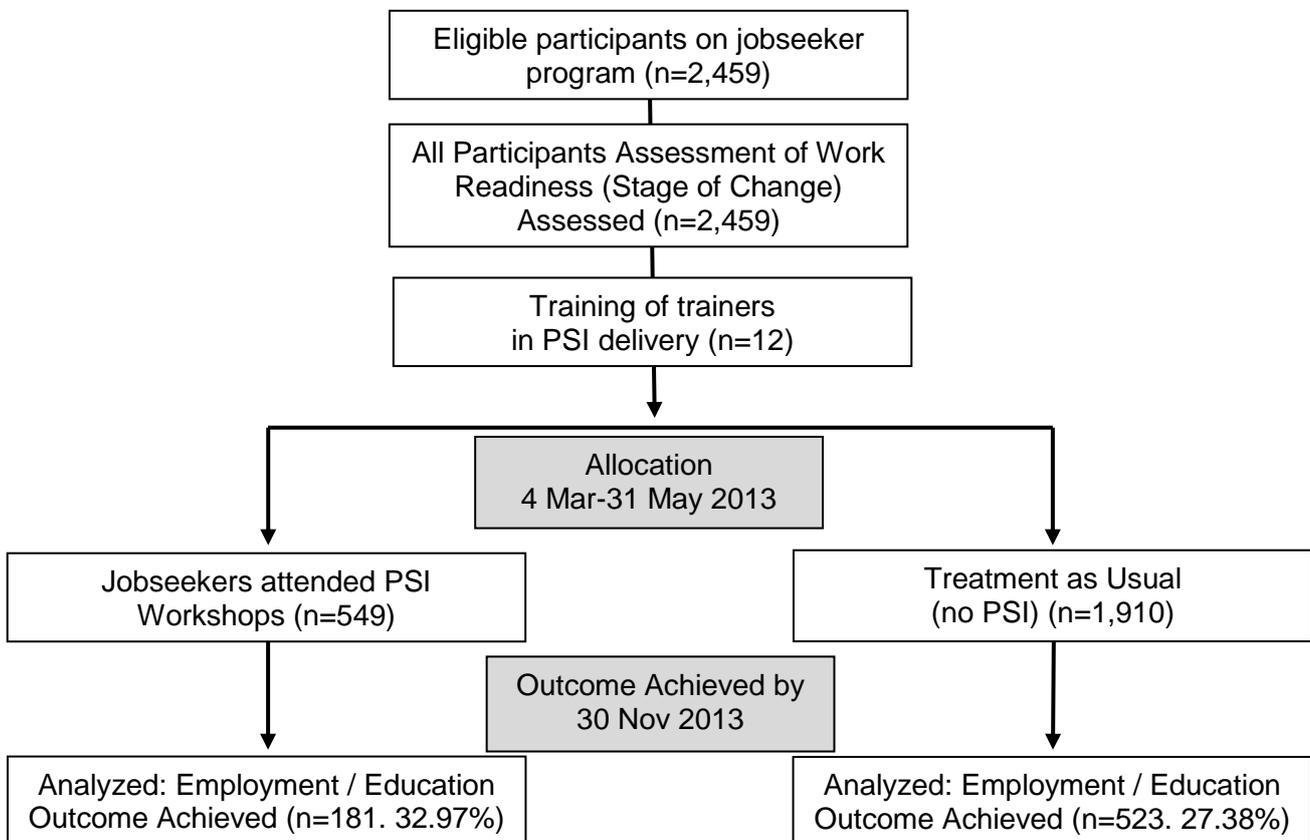
Participants. All participants in this study were originally referred to Employment Services Queensland (ESQ) as part of the government's Job Services Australia (JSA) program to help jobseekers (eligible Australian adults on government income support payments) find a job, and help employers find staff to meet their recruitment needs. All participants met the criteria of not being in full-time work or education, being over 15 years old, and having the right to work in Australia. In total, 2,459 jobseekers were enrolled into the study with 549 randomly selected for the PSI treatment and the other 1,910 allocated to the TAU comparison group (i.e. using regular job search support services).

Procedure. The study set out to measure employment and education outcomes achieved by jobseekers undertaking a group PSI, labelled the "Resilience Workshop" (the treatment), in addition to TAU employment service (résumé writing, interview skills, job-search skills, etc.) compared to outcomes achieved by jobseekers undertaking only TAU. Trained case managers from ESQ's 22 offices across South East Queensland asked all jobseekers, during their regular appointments with their case manager, to complete the online AWR that measures job readiness for re-entering employment, an adapted *stage of change* measure (Coppin, 2017). The survey was administered in accordance with ethics approval obtained for this study (Assessing Unemployed Adults' Stage of Change, approval XXXX, Human Research Ethics Committee of the University of the XXXXX [blinded content for review]). The jobseekers' AWR stage was recorded online and case managers then randomly invited jobseekers to participate in the PSI, a series of five 3-hour sessions (the treatment condition) which were delivered by twelve trainers, trained in the workshops by the

researchers. If jobseekers declined to attend, they were informed that participation was mandatory. Those jobseekers not in the PSI undertook the usual employment support activities.

In total, 549 jobseekers attended the 60 workshops that were set up, averaging just over 9 attendees per workshop. During the same period, 1,910 other jobseekers from the same employment offices were assigned to the control group who undertook TAU.

Figure 1. Research design of Study 1.



Measures and primary outcome. The key outcome measure was termed “return-to-work”, which includes the placement of a participant into employment or education by November 30, 2013, following participation in the PSI or TAU group between March 4 and May 30, 2013. In addition, the Assessment of Work Readiness (AWR) was used to measure the stage of change of participants to ascertain whether the PSI had the same impact across all stages of jobseeking readiness. The AWR comprises 12-items relating to readiness to

achieving an employment or education outcome, comprised of four *action*-oriented, four *contemplative* and four *precontemplative* questions. Questions included “I am really working hard to find a job” (*action*-oriented) and “If I were to find a job, it would disrupt my family life and I can’t let that happen” (*precontemplative*). The questions reflect the drivers of job search proactivity and constraints which impact upon readiness to genuinely commit to finding and entering employment. They are based upon the question set established in the University of Rhode Island Change Assessment for Vocational Counseling (URICA-VC) and contextualized (with the input of the University of Rhode Island’s Professors Prochaska and Levesque) to Australian unemployed citizens (Coppin, 2017; Gervery, 2010). The Cronbach alpha reliability of the AWR was established as 0.85 (Coppin, 2017). The outcome of an employment or education placement was tracked from government reporting data used by employment services (“ESS”) and a single point in time (November 30, 2013). The mean time elapsed between undertaking the AWR assessment and establishing at 30th November 2013 whether an employment/education outcome had been achieved was 228 days (32.5 weeks/7.56 months).

Results

Sample characteristics. As shown in Table 1 (below), of the 2,459 jobseekers included in this analysis, 1,273 (52%) were male and 1,186 (48%) were female. Among all the participants, 43.9% were from major cities, 55.7% were from inner regional areas, and 0.4% were from outer regional areas. The participants were aged between 15 and 71 years old, with the 31–44 age category representing 27% of all participants, and the average age was 35 years with a standard deviation of 13.2 years. Total time unemployed ranged from 1 month to 312 months, with under 5 months representing the largest percentage of the participants at 33%. A total of 549 (22%) participants were randomly allocated to the PSI group.

The mean age of the participants in the treatment group was 35.5 years, compared to the comparison group participants' mean age of 34.5 years. There were, however, some notable differences between the treatment and comparison group (Table 1). The treatment group was comprised of 56.6% male participants, versus the TAU group's 52.8%. The average length of unemployment was 25.1 months in the PSI group and 19.8 months in the TAU comparison. This suggests that, despite randomization, the groups were not perfectly matched, and covariation for pre-existing differences was required.

Table 1.

Characteristics of Participants in Study 1 (N = 2,459)

Characteristic	TAU Group (N = 1,910)				PSI Group (N = 549)				Total
	RTW		Not RTW		RTW		Not RTW		
	N	%	N	%	N	%	N	%	
All	523	27%	1387	73%	181	33%	368	67%	2459
Gender									
Male	279	28%	729	72%	104	39%	161	61%	1273
Female	244	27%	658	73%	77	27%	207	73%	1186
Stage of Change									
Action	227	33%	455	67%	18	32%	39	68%	739
Preparation	118	29%	295	71%	29	36%	51	64%	493
Unauthentic Action	92	25%	274	75%	74	38%	119	62%	559
Contemplation	48	23%	161	77%	34	39%	53	61%	296
Precontemplation	38	16%	202	84%	26	20%	106	80%	372
Age									
15-21	125	31%	275	69%	50	45%	60	55%	510
22-30	145	29%	350	71%	41	31%	92	69%	628
31-44	141	27%	391	73%	45	31%	99	69%	676
45-54	69	24%	224	76%	33	32%	69	68%	395
55+	43	23%	147	77%	12	20%	48	80%	250
Location (ASCG Class'n)									
Major Cities	232	29%	573	71%	89	32%	185	68%	1079
Inner Regional	290	26%	805	74%	92	33%	183	67%	1370
Outer Regional	1	10%	9	90%	0	0%	0	0%	10
Time Unemployed									
0-5 months	216	32%	449	68%	67	45%	81	55%	813
6-11 months	75	27%	198	73%	28	39%	43	61%	344
12-23 months	106	25%	319	75%	33	29%	82	71%	540
24-47 months	92	25%	272	75%	34	26%	97	74%	495
48+ months	34	19%	149	81%	19	23%	65	77%	267

Note. PSI: Psychosocial Intervention. TAU: Treatment as Usual RTW: returned to work. Not RTW: did not return to work.

We utilized logistic regression using return-to-work as the dependent variable and participants' demographics, stage of change, and intervention program participation as the predictors. Table 2 (below) shows the results of the logistic regression, controlling for covariates (participants' gender, age, location, length of unemployment, and stage of change). Consistent with H1, the PSI led to increased return-to-work. In general, there was a 20.42% increase in job placements for the PSI group over the TAU job placement (see Table 1), or a 60% increase when correcting for covariates (OR = 1.6). We found no evidence that location, time unemployed, age, and gender moderated the intervention effects (Table 2, Step 4).

Table 2.

Summary of Hierarchical Logistic Regression Analyses for Predicting Return to Work from Demographic Variables and PSI Treatment vs Treatment as Usual in Study 1

Step	Variables added at each step	Statistical Summary					
		Deviance	Δ Deviance	df	AIC	OR	95%CI
0	Null Model	2944.5		2458	2946.9		
1	Demographic	2899.4	45.1*	2447	2923		
	Gender Male					1.04	0.88-1.25
	Age 22-20					0.87	0.67-1.13
	Age 31-44					0.82	0.64-1.06
	Age 45-54					0.73*	0.54-0.97
	Age 55+					0.59*	0.41-0.84
	Location Inner Regional					0.89	0.74-1.07
	Location Outer Reigional					0.22	.012-1.18
	Unemployed 6 - 11 months					0.80	0.61-1.05
	Unemployed 12 - 23 months					0.65*	0.51-0.83
	Unemployed 24 - 47 months					0.66*	0.51-0.84
	Unemployed 48+ months					0.48*	0.34-0.67
2	Stage of Change (vs Action)	2870.9	28.5*	2443	2902.9		
	Precontemplation					0.45*	0.32-0.61
	Unauthentic Action					0.89	0.70-1.13
	Contemplation					0.75	0.55-1.02
	Preparation					0.83	0.64-1.07
3	PSI vs Treatment as Usual	2853.9	17*	2442	2887.9	1.60*	1.23-1.99
4	Potential moderators of the Intervention						
	Treatment X Stage of Change	2846.5	7.4	2438	2888.5		
	Treatment X Location	2853.4	0.5	2441	2889.4		
	Treatment X Time Unemployed	2849.4	4.5	2438	2891.4		

Treatment X Age	2848.5	5.4	2438	2890.5
Treatment X Gender	2853.9	0	2441	2889.9

* Denotes significant result.

Note. Contrast for Age is group aged 15–21; contrast group for Location is "Major City"; contrast group for Time Unemployed is <6 months; contrast for Stage of Change is Action. To reduce issues of collinearity, interaction tests were performed one at a time, rather than entered simultaneously. AIC = Akaike Information Criterion. OR – Odds Ratio. CI = Confidence Interval. df = Degrees of Freedom.

Our second hypothesis (H2), that the intervention effect would differ by stage of change, was borne out. We anticipated that the PSI would be of little added benefit over TAU for those who were already actively seeking a job (*action* stage). As can be seen in Table 1 under “Stage of Change”, those in the *action* stage were the only participants who did not experience greater success following the PSI (32% return to work) compared to the TAU cohort (33% return to work). Those in the *preparation*, *unauthentic action*, *contemplation*, and *precontemplation* stage all experienced significantly higher return-to-work in the PS intervention treatment group than in TAU. An omnibus test of the interaction between treatment and stage was not statistically significant (Table 2, Step 4). To directly test the hypothesis, we contrasted return-to-work rates of each stage of change relative to the *action* group. We found that the PSI was less beneficial for the *action* group compared to the *unauthentic action* group (OR = 2.27, 95% CI [1.13,4.64] and the *contemplation* group (OR = 2.45, 95% CI [1.10,5.52]), but not significantly worse than the *preparation* group (OR = 1.6, 95% CI [.73,3.63]) or the *precontemplation* group (OR = 0.45, 1.44, CI [.64, .3.25]). As can be seen in Table 1, all effects were in the direction of the non-*action* stages receiving more benefit from treatment than the other groups.

Discussion

Study 1 suggested that the PSI was more effective than TAU across diverse demographic backgrounds, and especially so when people were not already highly committed to return-to-work. In other words, the intervention worked best for those who needed the most help. However, there were limitations. The characteristics of the return-to-work

outcome and employment “quality” was not measured (match to values, previous experience, salary etc.). Whilst there appears a lack of response to the PSI from *action* jobseekers, they may have achieved a “better” job. Similarly, other participants may have accepted a lower quality job due to increased motivation to enter any employment. In addition, Study 1 included participants from a limited range of locations (major city and inner regional, but no remote locations). We do not know the extent to which the results of Study 1 generalize to rural and remote communities. There are differences in unemployment rates and labor force profiles between urban, regional and remote locations, with higher unemployment and labor markets with fewer employers in more remote locations (ABS, 2014, 2018), so it would be important to sample from rural and remote locations in a second study (Study 2, below).

Study 1 did not allow us to examine if intervention effects were moderated by Indigenous and non-Indigenous status. Prior evidence suggests that employment dynamics and characteristics differ across the two groups (Dockery & Lovell, 2016) with Indigenous Australians experiencing higher levels of unemployment, and potentially engaging less in generic interventions (Procter, 2005). Study 2 would utilize a significantly larger and more diverse sample (N = 20,057) to better examine the extent to which these variables moderate the relationship between the PSI and job placements. The added variables included remote locations, ethnicity and job-readiness as determined by the Australian government’s “Stream” classification of jobseekers. The Australian government utilizes a largely demographic assessment of 18 to 49 questions (the Jobseeker Classification Instrument (JSCI)) , through which jobseekers are referred to one of four “Streams” of support. Those jobseekers identified as most “job-ready” are allocated into Stream 1 or Stream 1 (Limited), while jobseekers with increasing needs (such as lower levels of literacy, education, limited employment history, no driving license and other personal factors) are allocated to Streams 2, 3, and 4. Stream 4 refers to those jobseekers with the greatest need for assistance.

Study 2 would also seek to improve on the PSI by “stage-matching” interventions. The *transtheoretical model of change* (TTM) conjectures that different stages of participant readiness for change require different interventions matched to the individual’s stage of change (Prochaska & DiClemente, 1982). The stage-matched intervention method has since shown promise by outperforming standard interventions for changing behaviors, including anti-bullying (Evers, Prochaska, Van Marter, Johnson, & Prochaska, 2007), weight management (Johnson et al., 2008), adherence to lipid-lowering drugs (Johnson et al., 2006), reducing depression (Landback et al., 2009; Levesque et al., 2011), and stress management (Evers et al., 2006). In Study 2, all participants were given stage-matched coaching interventions (averaging four 40-minute sessions, supplementary materials available from the corresponding author). Given the PSI had little effect on re-employment for people in the *action* stage in Study 1, participating employment service providers justifiably decided that it was not cost-effective to offer the 15-hour PSI intervention to the participants in the *action* stage in Study 2. Thus, *action* stage participants received only the stage-matched one-to-one coaching intervention in Study 2, whilst all other stages received 15-hour PSI workshop plus stage-matched one-to-one coaching.

Study 2: Stage-Matched Intervention vs Comparison

Method

Participants. All participants were claimants on the Australian government’s JSA support program, which screens for eligibility for government welfare benefits (age, right to work and study in Australia, hours of work). In all, 20,057 claimants took part in the study between January 2, 2014 and December 24, 2014 (11,068 men, 8,134 women, and 855 of unknown gender. Assignment details below). Of these, 12,037 were randomly assigned to TAU comparison group and 8,020 to the PS intervention group (participation was mandatory). There were fewer numbers in the intervention group due to financial and

practical limitations on the number of managers that could be trained in time to administer the intervention (see below). Of the total participants, 2,887 identified as Aboriginal or Torres Strait Islander, while 2,451 were Non-Indigenous but Culturally and Linguistically Diverse (CALD, described by the Ethnic Communities Council of Victoria as “a broad and inclusive descriptor for communities with diverse language, ethnic background, nationality, dress, traditions, food, societal structures, art and religion characteristics”). Ethics approval was amended and extended for this study from the initial approval obtained for this study from the Human Research Ethics Committee of the [masked for blind review] before data collection.

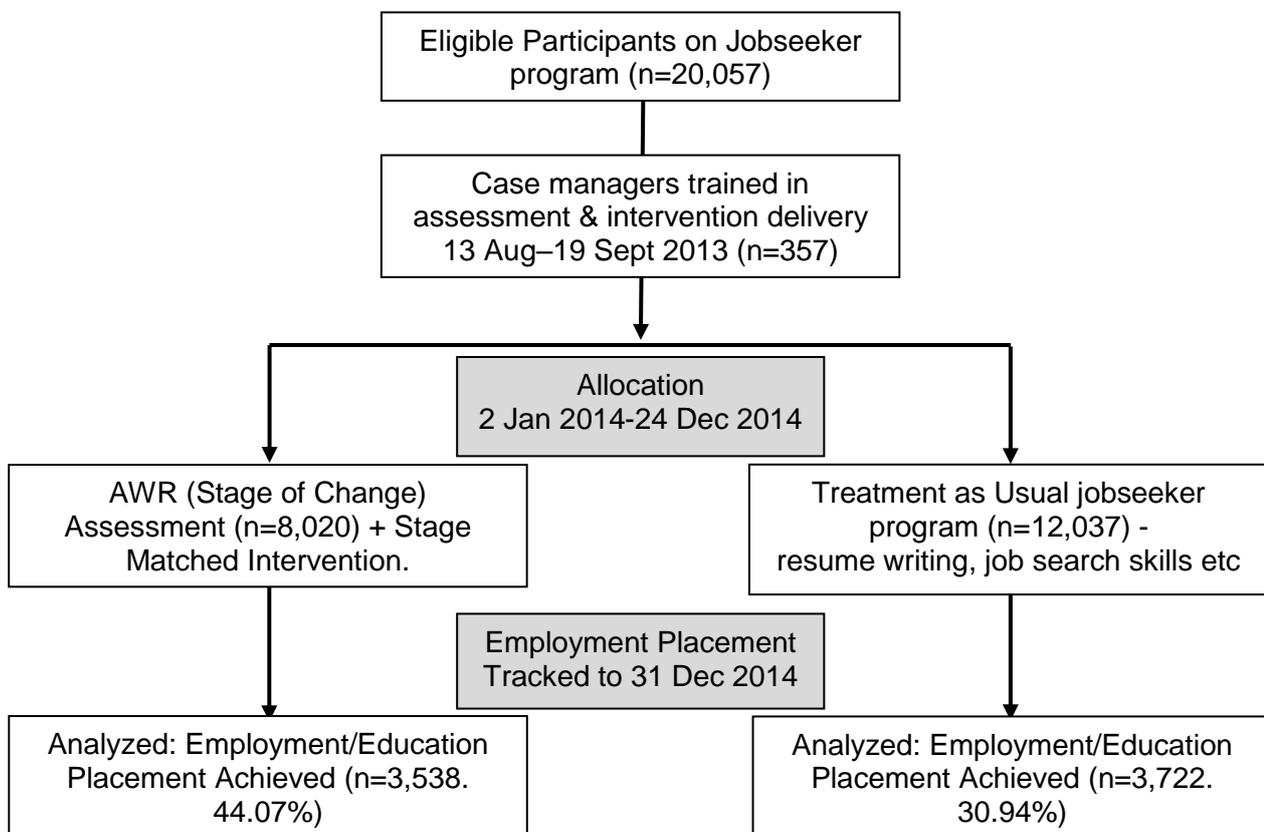
Measures and primary outcome. Each participant was identifiable via a unique Jobseeker Identification number. This enabled tracking to establish the primary outcome measure of whether each participant had achieved a job placement by December 31, 2014. The AWR-measured stage of change of each treatment participant informed the stage-matched one-to-one coaching and whether the participant should be referred to the PSI group or not (i.e., those in the *action* stage were excluded). The jobseeker’s “Stream,” as assigned by the JSA, was also recorded. The outcome of an employment or education placement was tracked from government reporting data used by employment services (“ESS”) at a single point in time (December 31, 2014). The mean time elapsed between undertaking the AWR assessment and establishing at 31st December 2014 whether an employment/education outcome had been achieved was 178 days (25.5 weeks/5.93 months).

Procedure. All 20,057 participants attended appointments with their JSA employment service case managers (who regularly meet with unemployed citizens on the program) throughout 2014. Of these, 8,024 were randomly asked to undertake the online AWR survey. While most participants were compliant with this request (it is common to ask employment service support participants to complete surveys), four participants declined to

undertake the survey and were not included in the study. Data were collected via the ethically approved, secure, online Assessment of Work Readiness (AWR) survey and stored in password-protected spreadsheets on secure servers.

A total of 357 employment service case managers, trainers, and their managers from across Australia were trained in delivering the AWR assessment, one-to-one coaching, and PSI by the lead researchers between August and September 2013. They were asked to undertake assessments with all jobseekers, implement stage-matched one-to-one coaching (informed by a coaching guide for each stage of change), and refer all participants except those in the *action* stage of change to the PSI arm of the study. A total of 12,037 jobseekers during the study period were not AWR-assessed and thereby comprised the TAU comparison group. These comparison jobseekers were from case managers who, at random and on a first come first served basis, did not receive training in delivering the model.

Figure 2. Research design of stage-matched interventions for jobseekers in Study 2.



Results

Sample characteristics. As shown in Table 3 (below), among the total 20,057 jobseekers included in this analysis, 11,068 (55%) were male and 8,134 (41%) were female (a small proportion, 4%, could not be categorized into gender groups). In total, 8,020 participants (39.99%) were referred to the treatment (stage-matched one-to-one coaching and PS workshops) and 12,037 (60.01%) formed the TAU comparison. Study 2's sample included Aboriginal or Torres Strait Islanders, representing 14% of the total sample, with 12% of participants indicating they came from a CALD background. Among all the participants, 39% were from major cities, 34% from inner regional areas, and 21% were from outer regional areas.

Participants undertook the government's JSCI which allocated them into jobseeking streams, from Stream 1 (most job ready) to Stream 4 (those needing the greatest assistance). Among the jobseekers, 29% were categorized into Stream 1, 27% into Stream 2, 19% into Stream 3, and 23% into Stream 4. As can be seen in Table 3, Study 2's treatment group contained a more difficult cohort of unemployed citizens (76.2% in streams 2, 3 and 4) than the comparison group (64.0% in streams 2, 3 and 4), as measured by the Australian government's job seeker classification.

Table 3.

Characteristics of Participants in Study 2 (N = 20,057)

Characteristic	Treatment as Usual (N = 12,037)				Stage-Matched Intervention Treatment (N = 8,020)				Total
	RTW		Not RTW		RTW		Not RTW		
	N	%	N	%	N	%	N	%	
All	3722	31%	8315	69%	3538	44%	4482	56%	20057
Gender									
Male	2123	33%	4385	67%	2111	46%	2449	54%	11068
Female	1439	29%	3546	71%	1292	41%	1857	59%	8134
Unknown	160	29%	384	71%	135	43%	176	57%	855
Stage of Change									
Action	NA	NA	NA	NA	1560	55%	1281	45%	2841
Preparation	NA	NA	NA	NA	782	45%	951	55%	1733
Unauthentic Action	NA	NA	NA	NA	584	42%	822	58%	1406

Contemplation	NA	NA	NA	NA	377	37%	653	63%	1030
Precontemplation	NA	NA	NA	NA	235	23%	775	77%	1010
Age 55+	268	24%	864	76%	339	38%	561	62%	2032
Aboriginal/Torres St Islander Culturally & Linguistically Diverse	437	31%	980	69%	600	41%	870	59%	2887
Location (ASCG Class'n)									
Major Cities	1954	30%	4474	70%	680	51%	658	49%	7766
Inner Regional	877	34%	1708	66%	1799	43%	2421	57%	6805
Outer Regional	573	26%	1621	74%	956	46%	1129	54%	4279
Remote	200	44%	257	56%	90	28%	235	72%	782
Very Remote	118	32%	255	68%	13	27%	36	73%	422
Stream (Jobseeker Classification)									
Stream 1	907	22%	3270	78%	733	39%	1151	61%	6061
Stream 2	1271	41%	1811	59%	1240	52%	1136	48%	5458
Stream 3	723	37%	1242	63%	814	44%	1042	56%	3821
Stream 4	810	30%	184.7	70%	741	39%	1140	61%	4538

Note. RTW: returned to work. Not RTW: did not return to work. NA: not assessed. Those in TAU comparison group did not receive PS intervention nor stage-matched coaching.

A considerably larger proportion of participants in the treatment group, relative to TAU, identified themselves as of Aboriginal or Torres Strait Islander ethnicity (28.3% versus 11.8% in the comparison group). This might be attributed to the PSI group featuring disproportionate numbers of participants from regional and remote locations, including 1,204 participants from remote and very remote areas, a considerable increase on Study 1 which had no participants from remote areas. The PSI group consisted of 17% from inner cities, compared to 53% in the TAU group, which is reflected in a larger proportion of the TAU group being CALD participants (16.4% versus 6% in the TAU group). As in Study 1, pre-existing differences between groups were controlled for in all analyses.

Treatment outcome. Using return-to-work as the dependent variable, a series of logistic regressions were carried out with participants' demographics and intervention program participation entered as the predictors. Table 4, step 1 shows that some of the demographic variables impacted a jobseeker's ability to return to work. For those jobseekers

aged over 55, their chances of returning to work were on average 28% less than those from other age groups, but they indicated an improvement in return-to-work rates over both TAU and Study 1 (PSI only). The jobseekers residing within inner regional areas were 25% more likely to return to work when compared to other jobseekers from other regions. Those indicating they belonged to a CALD ethnic group were 11% more likely to return to work.

Table 4 (step 2) shows that even after controlling for covariates (gender, age, location, length of unemployment, and stage of change), receiving the treatment was a significant predictor for a participant returning to the workforce. Step 3 tested for moderators. The results suggest that the treatment was most successful for the Major City group (the comparison group in Table 4, step 4), and especially ineffective for those living in remote or very remote areas. We also found a significant interaction involving Stream. These results can be understood by examining percentages under Stream in Table 3. The extent that the intervention improved job placement in Stream 1 ($.39/.22 = 1.77$) was greater than the improvement observed in Stream 2 ($.52/.41=1.26$), Stream 3 ($.44/.37=1.18$), and Stream 4 ($.39/.30 =1.3$). Table 3 data indicates that the PSI effect was larger for Stream 1 (the most “job ready”) participants than other groups (increasing from 22% return-to-work to 39%), but also that overall, Stream 1 job seekers were less likely to be reemployed (Stream 1: 22%, Stream 4: 30% etc.). This is the opposite to what we would expect. Upon investigation with the employment service companies, this anomaly was explained by their tracking behavior for Stream 1 return-to-work outcomes. They do not proactively track and chase for return-to-work evidence for Stream 1s, compared to the other Streams, as there is very little financial incentive for claiming such outcomes. In other words, the cost of chasing evidence for a return-to-work outcome outweighs the financial return for claiming that outcome. As such, the Stream 1 results were distorted.

Table 4.

Summary of Hierarchical Logistic Regression Analyses for Predicting Return to Work from Demographic Variables and Stage-Matched Treatment (the Intervention) vs Treatment as Usual

Step	Variables added at each step	Statistical Summary					
		Deviance	Δ Deviance	df	AIC	OR	95%CI
0	Null Model	26256		20056	26258		
1	Demographic	26157	99.0*	20049	26173		
	Age 55+: (Mature)					0.72*	0.65-0.80
	Location: Inner Regional					1.25*	1.16-.134
	Location: Outer Regional					1.07	0.99-1.16
	Location: Remote					1.14	0.98-1.33
	Location: Very Remote					0.87	0.70-1.08
	Aboriginal/Torres St Islander					0.97	0.88-1.06
	Culturally & Linguistically Diverse					1.11*	1.01-1.21
2	Stream (Jobseeker Classification)	25602	555.0*	20046	25624		
	Stream 2: 2nd most job ready					2.44*	2.26-2.64
	Stream 3: 3rd most job ready					2.00*	1.83-2.19
	Stream 4: least job ready					1.48*	1.37-1.62
3	Intervention vs TAU	25349	1253.0*	20045	25373	1.71*	1.60-1.83
4	Potential Moderators of the Intervention						
	Intervention x Stream	25302	47*	20042	25332		
	Stream 2 x Intervention					0.68*	0.58-0.80
	Stream 3 x Intervention					0.57*	0.48-0.68
	Stream 4 x Intervention					0.63*	0.53-0.75
	Intervention x Indigenous	25347	2	20044	25373		
	Intervention x Mature Age	25349	0	20044	25375		
	Intervention x CALD	25348	1	20044	25374		
	Intervention x Location	25217	132*	20041	25249		
	Inner Regional x Intervention					0.58*	0.49-0.68
	Outer Regional x Intervention					0.83*	0.70-.998
	Remote x Intervention					0.18*	0.13-0.25
	Very Remote x Intervention					0.31*	0.16-0.62

* Denotes significant result. Intervention means stage-matched interventions: PSI for all stages except *action* plus staged-matched one-to-one coaching.

We next examined effects across studies, to evaluate the hypotheses that outcomes would be improved in Study 2 (PSI plus stage-matching) compared to Study 1 (PSI only). We predicted job placement using logistic regression, and condition, study, and the interaction between these variables as predictors. There was a significant treatment by study interaction ($Z = 2.78, p < .001$) ($\beta = .30, SE = .11, Z = 2.78$), suggesting that the effect of treatment was different in the two studies. As can be seen in Table 5, the effects were generally stronger in

Study 2 compared to Study 1. The interaction effects held even after controlling for gender and age ($Z = 2.82, p < .001$ ($\beta = .31, SE=.11, Z=2.82$)). Table 5 compares the difference between the results shown in Study 1 (PSI-only across all participants) and Study 2 (stage-matched interventions). Return-to-work rates from stage-matching interventions improved by a greater extent than providing the PSI across all stages. The largest gain was for the *action* stage, and the least improvement was for the *contemplation* and *precontemplation* stages.

Table 5.

Comparison of Return to Work Outcomes: Treatment as Usual vs Study 1 PS Intervention vs Study 2 Stage-Matched Interventions

Stage	Study 1 Treatment as Usual	Study 1 PS Treatment	Change	Increase vs TAU	Study 2 Stage-Matched Treatment	Change	Increase vs TAU
Action	33.3%	31.6%	-1.7%	-5.1%	54.9%	21.6%	60.6%
Preparation	28.6%	36.3%	7.7%	26.9%	45.1%	16.6%	63.3%
Unauthentic Action	25.1%	38.3%	13.2%	52.5%	41.5%	16.4%	60.5%
Contemplation	23.0%	39.1%	16.1%	70.2%	36.6%	13.6%	62.7%
Precontemplation	15.8%	19.7%	3.9%	24.4%	23.3%	7.4%	68.0%

Discussion

This study has shown that a psychosocial intervention can increase job placements among the unemployed, with an overall increase in job placements of 71% (Table 4, OR 1.71-1*100), when allowing for the bias of receiving a harder caseload in the treatment group, or a higher job placement rate of 41.9% in general terms (from 31% TAU, to 44%, PSI plus stage matched coaching). However, participants' distinct stages of change (in other words, their jobseeking readiness) respond to the intervention at different rates, with the least job-ready jobseekers benefitting most, and those already in the *action* stage of change not experiencing higher job placement rates as a result of attending the PSI. Stage-matched, individualized, one-to-one coaching improved job placement rates significantly across all stages of change.

There were some important moderators of the key intervention effects. Region of unemployment moderated the intervention benefits, with PSI + stage-matched intervention doing worse than treatment as usual in remote and very remote regions. The literature suggests that this lack of response from remote residents may be due to at least two factors. First, remote participants may already possess high levels of self-reliance and less connectedness (Collins, Ward, Snow, Kippen, & Judd, 2017; Fennell, Hull, Jones, & Dollman, 2018), and may not engage with the group workshop element of the PSI exercises. Rural citizens, compared to their urban counterparts, tend to engage less with support and mental health services (Caldwell, Jorm, & Dear, 2004; von Schuckmann et al., 2017). Second, the lack of employment opportunity for jobseekers in very remote areas may temper psychosocial and stage-matched interventions that aim to build proactivity in seeking employment opportunities that simply may not exist (ABS, 2018). At the time of data collection for our studies, a significant reduction in investment in mining was reducing job opportunities in remote Australia, which may have disproportionately dampened jobseeker's optimism and response to our intervention.

This study's focus has been on the "supply side" of jobseeker attitudes, whilst the "demand side" of economic opportunity must also be considered. Remote participants were less likely to be employed if they were in the intervention group compared to the treatment as usual group. It may be that an individual's response to the PSI was that they would be more selective of job opportunities that fit with their own identified values and goals, making it more difficult to find a suitable occupation in a remote area with fewer job opportunities. A careful examination of the context of job availability in the geographical region of intervention may help in this regard.

The intervention worked equally well for Indigenous and non-Indigenous Australians. There was no moderation in Indigenous participants with the intervention being equally

effective. There have been studies suggesting that the engagement of Indigenous Australians by government-funded programs is less effective, particularly when “imposed” (Parnell, Morris, & Jacobs, 2017). The holistic, well-being approach of our PSI workshops may have facilitated engagement of Aboriginal and Torres Strait Islander jobseekers (Kingsley, Townsend, Henderson-Wilson, & Bolam, 2013). The PSI workshops were deliberately non-coercive by not overtly stating that their objective was to increase a desire to work. The PSI took a strengths-based approach, rather than the often deficits-focused, pathological approach to exploring why jobseekers are not achieving success in their re-employment efforts.

As hypothesized, Study 1 indicated that a PSI increases return-to-work rates over TAU. But individuals responded at different rates to the intervention, depending on how ready they were to change. This encouraged us to implement stage-matched coaching interventions in Study 2 and measure re-employment success. Job placement was indeed significantly higher still in Study 2. This is highly novel contribution to the literature on re-employment strategies for jobseekers in particular and psychosocial interventions in general. The strategy of combining attitudinal assessment with stage matching could have high practical utility. It may help inform and assign individualized, stage-matched interventions to improve job placements. The effect of the treatment on re-employment was not moderated by gender, age, or ethnicity, but was moderated by remoteness. To the best our knowledge, our study is the first in the literature to document such effects.

Limitations and Further Study

The data suggest that a PSI may be futile if the jobseeker is in a remote area with limited employment opportunities. Clearly, macro- and local economic considerations are also important. Caution is also required in interpreting job placement results at a single point in time as jobseekers may have only remained in employment for a brief period before dropping out of employment. Tracking sustained employment rates would enhance further

studies. This would also allow for analysis of moderators such as stage of change. For example, do jobseekers in the *unauthentic action* stage drop-out of employment early?

The treatment condition in both studies was more likely to have jobseekers in Streams 3 and 4 (jobseekers with greatest barriers to employment). The data suggests a bias of case managers to refer their more difficult jobseekers to the treatment and that assignment was not, in fact, completely random. This should have worked against the intervention effects, but an intervention effect was still clearly observed. Further research could aim to ensure that the participant allocation procedure is less biased, although there are ethical considerations in applied studies dealing with real unemployed citizens. In other words, this allocation of participant bias highlights the strength and limitation of this paper. There was a lack of true randomization as it was applied, at scale, in a real-world scenario.

Additionally, the stage-matching of interventions facilitates a person-centered approach and higher job placement rate. But this study does not definitively address whether the stage-matching coaching, on its own, would have produced the same results as stage-matched coaching on top of the PSI, nor whether participants stage of jobseeking readiness improved following treatment. A third control group would be recommended for further study in which only stage-matched one-to-one interventions are undertaken across all stages of job-readiness, with no PSI workshop. Also, to assess the value of stage-matching, a randomized-control design is needed in which people are either assigned to a stage-specific intervention based on their readiness to change score or random assignment.

A key weakness is the lack of measurement of the psychological state of jobseekers' well-being, self-efficacy and resilience before and after intervention, and whether such variables moderate return-to-work outcomes. This is certainly an area for further study that the researchers are pursuing, which may help to evidence whether return-to-work effects are

due to the PSI, and not just due to more intense and targeted counselling, coaching, and attention.

Our results offer hope that even those unemployed citizens who may have lost belief that they make positive change to their future, can still return to work if provided with the right psychosocial and individualized interventions and there are job opportunities available. The data facilitates early and targeted intervention for those who need support the most, while providing case managers with tools to support jobseekers who may not initially have a genuine commitment to employment. The results suggest a return of investment for government expenditure of 14:1 (Appendix II). This paper makes a moral, empirical and financial case for not giving up on even long-term unemployed citizens.

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Appendix I

Psychosocial Intervention Content

Strengths Workshop	Learning Outcomes
Introduction to resilience & workshop overview	<ul style="list-style-type: none"> Define and understand the concept of resilience in terms of benefits to wellbeing & control over life
Sticky Strengths - participants identify their top 3 strengths using the VIA character survey	<ul style="list-style-type: none"> Raise self-awareness of the characteristics that make participants feel unique, engaged & energised
Strengths spotting	<ul style="list-style-type: none"> Learn to identify & communicate the strengths that one sees in another Discover how people's behaviour and choices are often a reflection of their own personal strengths Develop & practice empathy for others
Strengths shadow sides & buttons Shona & Vicky Scenario	<ul style="list-style-type: none"> Recognise how strengths can be overplayed or underplayed Build awareness of our reactions to events where strengths are challenged (buttons pushed) Learn to respond calmly & appropriately to everyday situations Use strengths to problem solve/ diffuse conflict
Heroes & Heroines	<ul style="list-style-type: none"> Understand why people admire those who reflect their own strengths & virtues creating an upward cycle
Applying Character Strengths	<ul style="list-style-type: none"> Discover how to address tricky situations using top strengths Ability to identify opportunities to develop strengths and use in new ways Utilise strengths in simple, everyday ways to improve self-esteem, self-efficacy and wellbeing Learn how to use strengths at work Practice matching strengths to occupations.
Positivity Workshop	Learning Outcomes
Famous Failures	<ul style="list-style-type: none"> Discover 'successful people' who've overcome adversity and negativity Learn how failure makes you more resilient
The Hero's journey	<ul style="list-style-type: none"> Understand how perseverance, new approaches and reaching out contribute to resilience Identify mentors in life to help succeed
Positivity Ratio	<ul style="list-style-type: none"> Determine current positivity ratio Learn the optimal ratio of positivity for flourishing Explore evidence – based psychological tools & techniques that improve one's positivity ratio score
Today's good bits	<ul style="list-style-type: none"> Heightened awareness & practice in identifying positive day to day things that happen in one's life Understand the negativity bias Learn how this simple exercise benefits wellbeing, resilience & success in life
Where does wellbeing & happiness come from	<ul style="list-style-type: none"> Insight into 'factors that make one happy' poll (Gallup) Build positivity by identification and improvement of happiness factors in one's life
Turning negatives into positives	<ul style="list-style-type: none"> Learn to change behaviour by turning negative thoughts & responses into more positive ones Knowledge of scientifically proven solution – focused approaches to building positivity & positive relationships Understand the brain functions and patterns behind negativity & positivity Learn to use labelling to one's advantage

Mental Toughness Workshop	Learning Outcomes
Gone in 60 seconds	<ul style="list-style-type: none"> • Build empathy through body language (mirroring/active listening) during conversations with participants • Awareness of one's own mental toughness through identification of previous obstacles and adversities overcome
The resilience survey	<ul style="list-style-type: none"> • Knowledge (Inc. examples) of the '7 pillars of resilience' • Identify one's own resilience score • Discover & practice evidence-based tools that improve one's resilience skills and s surveycore
Anagrams	<ul style="list-style-type: none"> • Discover how one's past experiences can shape one's current thoughts/beliefs • Master challenging one's false beliefs • Knowledge of different Thinking traps' (cognitive distortions)
ABCDs – Dispute for resilience	<ul style="list-style-type: none"> • Application of thinking traps to real life scenarios • Knowledge & practice of the cognitive behavioural therapy technique (ABCD) • Discover how to dispute distorted beliefs that lead to negative thinking • Explore counter thoughts which are realistic and grounded by evidence.
PiiP Put it into perspective	<ul style="list-style-type: none"> • Awareness of the irrational thought -catastrophising • Practice the skill of putting situations into perspective through worst/best case scenarios/likely alternative examples.
ABCDs & PiiP at work	<ul style="list-style-type: none"> • Application of CBT and perspective taking tools to work scenarios • Solution – focused problem solving • Awareness of why people drop out of work early (according to research)
Mindset Workshop	Learning Outcomes
Are we born smart?	<ul style="list-style-type: none"> • Discover examples of one's own previous growth mindset usage • Application of strengths to 'things one is good at' • Understand that effort and practice largely contribute to improving one's ability to do something
Word Pairs	<ul style="list-style-type: none"> • Knowledge of the effects of myelin & system 1 and 2 (brain) using examples • Understand how neurological pathways are formed & how this relates to memory and practice
Building myelin	<ul style="list-style-type: none"> • Insight into ways to build myelin • Discover scientifically evidenced examples of 'brain food' • Knowledge of myelination process • Understand find examples of 'deep practice' in one's own life
Expressive writing	<ul style="list-style-type: none"> • Explore the exercise that is the single most effective intervention in the world for reemployment • Learn how to express thoughts/feelings and experiences into words/pictures through practicing one's own piece
Growth Mindset at work	<ul style="list-style-type: none"> • Distinguish between growth and fixed mindset • Practice responding to difficult work situations with a growth mindset • Develop one's growth mindset to enhance likelihood of success and happiness, including in jobs
Gratitude	<ul style="list-style-type: none"> • Discover and practice an evidence-based gratitude exercise • Learn how giving thanks can contribute to greater life satisfaction, reduced depression and resilience
Character Workshop	Learning Outcomes
Timelining	<ul style="list-style-type: none"> • Work out and develop one's own heroic character • Practice imagining the future best version of one's self (detailed/creative/ideal) • Discover why this activity contributes to realising one's potential

An outrageous B-HAG	<ul style="list-style-type: none"> • Explore the concept behind Big hairy audacious goals • Practice breaking goals down into footsteps
The circle of life	<ul style="list-style-type: none"> • Ability to assess different areas of one's life & use goal setting to make improvements to those highlighted • Learn and identify the 6 key areas in life to consider when setting goals • Application of the PREP principle to one's goals for greatest chance of success
Pros and Cons	<ul style="list-style-type: none"> • Identify positives and negatives of taking a job • Understand pros and cons are generally always equal in all situations • Explore Marie Jahoda's research on the pros and cons of working
Conversational skills	<ul style="list-style-type: none"> • Improved positive relationships with people on all levels • Rapport building techniques • Distinguish between conversations where active listening and mirroring is used • Apply effective mirroring skills to conversations • Create good first impressions through role play
Active constructive conversations	<ul style="list-style-type: none"> • Distinguish between 4 types of conversations according to research • Learn which conversational style is the most likely to lead to success • Apply active constructive responding to various good news scenarios • Discover where 90% of jobs come from • Improved relationships from family to employers alike • Identify weak ties

Appendix II

Return-on-Investment Calculation

Unemployment benefit payments in Australia differ according to age, dependents and so on. If the Newstart payment of \$538.80 every two weeks (Department of Social Services, 2018) is taken as an average sum, a jobseeker receives \$14,008.80 a year. There are over two dozen other payments and allowances (such as rent assistance, parenting payments and so on), but we will only use the Newstart sum to establish a conservative estimate of return-on-investment. Study 2 improved job placement outcomes by 13% in the treatment group (N=8,020), or 1,044 individuals over TAU. Assuming each jobseeker sustained their employment, the financial welfare savings totaled \$14,625,187. There will have been additional tax revenues from those new employees. The project was estimated by the employment service providers to have cost the equivalent of a maximum of 29,879 delivery and training hours. With staff working an average of 38 hours a week at an average salary \$52,000 plus 9% on-costs, and \$176,440 in IT/assessment costs, the cost of implementing the model was \$1,033,442.