

How Australia's employment services system fails jobseekers: Insights from self-determination theory

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Abstract

The implicit motivational assumptions of active labour market policies/programs (ALMPs) are that human behaviour can be predicted and controlled using positive and negative reinforcers such as rewards and incentives, and sanctions and punishments respectively. More contemporary psychological perspectives, however, propose that motivation does not emanate solely from the individual but is inextricably linked to the social context, with consequences for mental health. Little, if any, research in labour markets has considered the degree to which the motivation and mental health of unemployed people might be impacted by ALMPs more generally, and in particular, the Australian employment services system. In this paper a self-determination theory perspective is adopted, with analysis of longitudinal survey data of a sample of jobseekers in the 'jobactive' program examining how mental health was impacted as a consequence of their mandatory engagement with the frontline employees of employment services providers. The study concludes that unemployed people experience the employment services system as unhelpful and ineffective in assisting them to secure employment, and that engagement with the system is more likely than not to have an adverse effect on their mental health, primarily through the psychological need for relatedness and competence. The results have important implications for policy given the significant economic and human cost of diminished mental health and provide a constructive yardstick for the evaluation of alternative systems.

JEL Codes: J08, J64

Keywords: Active labour market programs (ALMPs), intervention, welfare conditionality, mutual obligation requirements, employment services, unemployment, mental health, well-being, basic psychological needs, self-determination theory

This paper is based on a broader research study for a PhD thesis (Sykes, 2022).

Introduction



Unemployment is viewed as a significant problem for many western societies and the cost of providing income support to unemployed people considered an economic burden to be minimised wherever possible. Consequently, governments have developed policies and reemployment intervention programs to improve both the unemployed person's capacity and their motivation to participate in the workforce. The policies, known as active labour market policies (ALMPs), have increasingly adopted requirements for receipt of payments. Known in Australia as *mutual obligation requirements*, these include mandatory participation in employment services programs, prescribed job application numbers, active monitoring of job search behaviour, and sanctions (including withdrawal of income support) for non-compliance with program requirements.

In Australia, whilst the Commonwealth government sets welfare policy and manages income support payments to unemployed people via its agency Centrelink, the provision of employment services intended to assist people to find and sustain employment is undertaken by contracted providers. The face-to-face services are delivered to unemployed people by the frontline workers, or Employment Consultants (ECs), of a range of for-profit and mission-based organisations referred to as Employment Services Providers (ESPs). These organisations are remunerated based on 'outcomes', that is, they are paid a fee by the government when they place the individual jobseeker into paid employment (if that employment is sustained for a prescribed period of time) or when the jobseeker is placed into an approved activity, such as a training course. It might be noted that ESPs, and by extension their ECs, are also contractually obligated to monitor the jobseeker's compliance with their mutual obligation requirements and to apply financial sanctions for any non-compliance.

The foundational assumptions of the employment services system

In the context of Australia's active labour market policy/programs (ALMPs), the employment services system that has been designed to solve the problem of unemployment is founded upon a particular set of assumptions about human motivation more generally, and the behaviour of unemployed people more specifically.

One key assumption is that is, in the absence of conditions which compel unemployed people to participate in the workforce, the incentive to work, or search for work, will be eroded. In other words, people will not be 'motivated' to search for work and must, therefore, be 'activated'. This activation is achieved primarily via a framework of mandatory job search and participation requirements and subsequent sanctions for non-compliance with the requirements, and, as measured by increased employment exits from the system, these policies largely appear to work (Filges *et al.*, 2015). The positive effects are explained through the economic assumption of moral hazard; that is, having access to the 'insurance' of unemployment benefits decreases a person's

incentive to search for work. Having constraints on the availability of income support benefits is argued to lead to a reduction in 'moral hazard' and consequentially, increased effort to search and exits from benefits (for example, see (Black *et al.*, 2003)

In addition, mandatory participation in programs has been shown to increase the job finding rate (for example, see Graversen and van Ours, 2008), and that an activation program which was both mandatory and difficult for the unemployed person to attend (geographically distant) was considered to be effective as 'a stick to job finding' (Graversen and van Ours, 2011). A number of studies have also found mandatory work search verification and minimum search requirements reduce the likelihood of continuing on income support payments (for example, see Borland and Tseng, 2007; McVicar, 2008, 2010), thus presenting a cogent case for their use. Research has also found that delivering both warnings about payment suspensions and enforcing suspensions can influence behaviour for both those who are being sanctioned and those who were being threatened with a sanction. This effect is referred to as the 'threat effect' and a systematic review of ALMPs by (Filges and Hansen, 2017) found a significant positive effect from the use of threats in these programs.

The other side of sanctions

However, whilst sanctions are promoted as offering a cost-effective means of activating unemployed workers to accept jobs more quickly, a further, and concerning, ex-post threat effect of the withdrawal of benefits for non-compliance has been found to predict a significant reduction in earnings from work, and reduced stability in ongoing employment. One study found that people who accepted lower paid jobs were more likely to leave those jobs and return to unemployment, and that the negative effects on earnings could be seen up to two years after unemployment had ceased (Arni *et al.*, 2013). Consequently, rather than offering a solution to the problem of unemployment, this approach appears to create another problem; that is, a cycle of unemployment. These cycles, and perhaps the inevitable resignation to a state of long-term unemployment, has been explained in terms of a process of psychological adaptation that occurs over periods of unemployment (De Witte *et al.*, 2010).

A more recent study in the Australian context by Gerards and Welters (2021) has also revealed some support for the argument against the rationale for mutual obligations. Using the Australian Household, Income and Labour Dynamics in Australia (HILDA) data, the study examined the extent to which being subject to mutual obligations affected job search intensity, time to reemployment, time in new employment, and job quality, measured in terms of hourly and weekly gross wage and hours worked. In contrast to what might be expected, the study found that whilst those who are subject to mutual obligations sustain their job search intensity, they take longer to secure employment and spend less time in employment when they do find work, then, when compared with other similar unemployed people, if they do find a job, it will be in comparatively lower quality jobs.

It has been further shown that the coercive nature of the programs' requirements framework are experienced as demeaning to participants (Peterie *et al.*, 2019). Moreover, some scholars have argued that the requirement to train for and accept any job offered represents a human rights violation of the basic liberty of 'free choice of employment', as set out in Article 23 of the Universal Declaration of Human Rights (Raffass, 2014; United Nations General Assembly, 1948).

Recent research has also suggested that beyond the counter view of their prospective lack of efficacy and their legitimacy, there is the prospect that these programs have the potential to do harm to the mental health of participants. Examining how welfare conditionality impacts those who identify as having existing mental health impairments, researchers in the UK have found that welfare-to-work interventions in this cohort may in fact trigger negative responses, exacerbating the problem of gaining employment (Dwyer *et al.*, 2020). Moreover, in another recent study in the UK, the application of sanctions on recipients of income support during periods of unemployment have been found to be associated with poor mental health outcomes, with increases in anxiety and/or depression (Williams, 2021).

Taking a different perspective

It can be argued that the implicit motivational assumptions of ALMPs reflect the psychological model of *behaviourism*, which posits that human behaviour can be predicted and controlled using positive and negative reinforcers such as rewards and incentives, and sanctions and punishments respectively (Delprato and Midgley, 1992; Skinner, 1953). Yet more contemporary psychological perspectives argue that rewards and punishments are not the only way people are motivated; that people can pursue activities for the sake of enjoyment, and that they can also internalise reasons why they might undertake activities they find less enjoyable (Deci *et al.*, 1994). Furthermore, it has been proposed that motivation does not emanate solely from the individual but is inextricably linked to an individual's perceptions and experience of their social environment (Heider, 2013; Ryan and Deci, 2017), and that more optimal motivational and well-being outcomes can be achieved when the social context supports a person's psychological needs. Of equal importance, studies have also shown that there are '*dark side*' consequences for both motivation and mental health for social context in which attempts are made to influence others into action via coercive, controlling means (Ryan and Deci, 2000a).

Yet the notion that human motivation emerges as a consequence of interactions in a particular social context, such as an unemployed person's engagement with the employment services system, stands in stark contrast to assumptions upon which it is argued, the system is predicated upon. As we will describe below, the notion that human motivation and mental health impacts emerge as a consequence of interactions in a particular social context will be central to this study.

Self-determination theory

The purpose of this study is to understand the psychological processes that affect the mental health of unemployed people and therefore requires a robust theoretical framework upon which to build. In contrast to the behaviourist paradigm, one body of psychological research that views human motivation as an emergent of the social context is self-determination theory (SDT). Described as a meta-theory, and a comprehensive model of motivation, development and wellness (Ryan and Deci, 2017), SDT has been used in motivational research for more than 40 years (Gagné, 2018) across a number of life domains, including education, sport, health, and work, and also across cultures (Chen *et al.*, 2014; Chirkov *et al.*, 2003). It thus provides an appropriate foundation for this study.

SDT posits that humans have three psychological needs which are universal and persistent across the life span (Ryan and Deci, 2000b). The first of the psychological needs is autonomy, defined as the need to act with a sense of volition and self-endorsement over one's behaviour (Trépanier *et al.*, 2013). It should be understood, however, that autonomy is not synonymous with independence or individualism as some scholars have assumed and that, importantly, people can autonomously choose to do something required by others or willingly relinquish their choice to others (Van den Broeck *et al.*, 2016). The second of the basic psychological needs is competence and relates to a person's ability to master one's own environment and to feel effective (Baard *et al.*, 2004). The third need, relatedness, is defined as the extent to which a person feels a sense of belonging or connection to others in their social environment (Bartholomew *et al.*, 2011).

The importance of social context in SDT

The relationship between the individual and the social context in terms of basic need satisfaction is a central tenet of SDT as the three psychological needs are said to influence motivation to the extent that they are either supported, or thwarted, by the social context (Ryan and Deci, 2017). Before discussing social contexts further, it is useful to consider them as existing at three different levels (Klein and Kozlowski, 2000), and to explicate the relevance of these levels to this study. First, social contexts can be described at the macro level; as a set of conditions which collectively constitute cultures, and political and economic systems which are simultaneously manifestations of, and influencers of, human behaviour (Ryan and Deci, 2017). Second, a social context can be described at the meso level, for example, a school, family, sports team, or a work organisation. At this level, conditions are created by humans to influence behaviour within, and external to, an organisational unit. Finally, social contexts can be considered at the micro, or interpersonal, level; for example, in the dyadic relationships between, for instance, the teacher/student, coach/athlete, parent/child, and the supervisor/employee. At this level, the social context is personal (Deci and Ryan, 1987); that is, one party in the dyad is a socialising agent for the other (Ryan and Deci, 2000b). An analysis of each level and their interacting nature is necessary to understand how the broader system can impact the individual's experience.

In the context of the present study, at the macro level, societies, and the governments they form create the social (welfare) policy and the consequential employment services and income support systems. At the meso level, ESPs respond to that macro level context (the tenders/contracts for services and policy requirements) by developing organisational strategies, goals and objectives which seek to influence organisational behaviour within the meso level (the various strata of the organisation). Below, at the micro level (Gagné, 2018; Kanfer, 2008; Vansteenkiste and Van den Broeck, 2017) exist the interpersonal interactions between the ECs and the jobseekers, a significant component of which is to motivate jobseekers and to get job outcomes. Therefore, whether by design, intent, or through unintended consequences, it is clear that each of these distinct levels influences human behaviour at the level below, a downstream effect (Ryan and Deci, 2017; Sheldon *et al.*, 2003) that has motivational consequences.

At this juncture it is also important to clarify the terms used in the SDT literature referring to social contexts and the outcomes of interactions within them. More generally, social environments are characterised in terms of the extent to which they are a) autonomy supportive (versus demanding and controlling); b) effectance/competence supportive (versus inconsistent, overly challenging, or discouraging); and c) relationally/relatedness supportive (versus impersonal or rejecting) (Ryan and Deci, 2017). At the interpersonal (micro) level, ECs would be described as socialising agents who express particular motivating styles that influence behaviour in both positive and negative downstream effects (Reeve *et al.*, 1999; Reeve and Jang, 2006; Reeve *et al.*, 2018). This exchange at the interpersonal level is the focus of the present study as it is the influence most salient to jobseekers. Following the education literature (where SDT has been extensively applied), the ECs' interactions with jobseekers will be described through the lens of motivating styles, defined as the way a person communicates and acts in order to influence the behaviour of another (Reeve *et al.*, 2018). Accordingly, motivating styles are similarly described as being either need supportive or need thwarting/controlling.

A further clarification is also instructive; that is, while psychological need support or thwarting will collectively describe the set of conditions and motivating styles that facilitate psychological need support or need thwarting in others, the experience of the social context and motivating style for individuals is described in terms of need satisfaction or need frustration. The present study intends to use both constructs when examining the possible impacts of the employment services system on the mental health of jobseekers in Australia. That is, it looks at both the degree to which jobseekers perceive the employment services context as need supportive and need thwarting and how that experience influences the satisfaction and frustration of their needs for autonomy, competence and relatedness.

Significance of the study

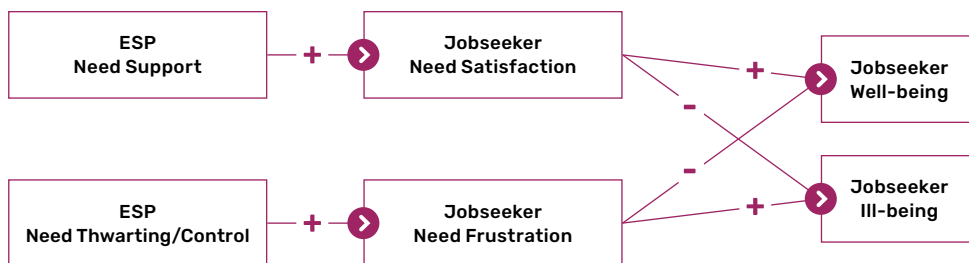
From a SDT perspective, the interpersonal interactions between ECs and unemployed people represent a distinct social context, one that is aimed at influencing or modifying the job search behaviour of unemployed people, and where necessary, achieving this objective through the enforcement of mutual obligation requirements. Yet whilst contemporary psychological research shows that a person's perception of their social environment will influence their subsequent behaviour and actions (Heider, 2013), there is little to suggest consideration has been given to how the coercive and punitive nature of the system might create a social context which could act to undermine the mental health of unemployed people, which may, in turn, adversely impact the very activities these programs are intended to produce.

It is therefore of importance to examine the degree to which programs of assistance are not only effective in delivering practical services to unemployed people but also that they are not, in fact, actively harming them. For, beyond the intention to increase job search outcomes and to reduce the economic cost of income support, it will be argued that the guiding principle of what is, after all, a human services system, must surely be to ensure the psychological safety of its beneficiaries.

Research aim and design

The study addresses the research questions primarily through a quantitative analysis of data collected in a series of five online surveys with unemployed people who were receiving income support and were thus mandatorily required to engage with the employment services system, known then as 'jobactive'. The conceptual framework for the hypothesised model is shown at Figure 1. Arrows indicating the expected relationships, that is, need support and need thwarting would affect (respectively) jobseeker well-being and ill-being as a consequence of the experience of psychological need satisfaction and need frustration.

Figure 1: Conceptual framework for the mental health outcome variables



Method



Data were collected via five online surveys using the Qualtrics (2020) platform. Distribution of the first survey began in mid-October 2020 and subsequent surveys were delivered to participants 14 days after the completion of the previous survey. Participants were recruited via invitations from a large employment services provider to their client base as well as from posts to job-related Facebook groups by the researcher.

The demographic composition of the final sample ($n = 422$) was compared with the population of interest. The range of ages of the sample was between 18 and 65 years, with an average age of 44.8 years ($SD 12.9$). Participants over the age of 60 were slightly over-represented in the sample (17 per cent) compared with 7.6 per cent in the population. There were fewer male participants, with 57.7 per cent females in the sample and women were slightly over-represented (48.7 per cent in the population). Participants with lower levels of education, for example, those who did not go beyond a Year 10 education (18.5 per cent) were under-represented in the sample, and those with tertiary qualifications over-represented (31.3 per cent).

Some states are over-represented in the sample. For example, Queensland (52.7 per cent) is a result of the ESP that sent the electronic invitations to participate being predominantly Queensland-based. Of the sample, 29.9 per cent ($n = 123$) reported they resided in a rural or remote area. In terms of ethnicity, a large majority of the sample identified as 'white Caucasian' (73.6 per cent), with a minority of participants identifying as First Nations People (8.6 per cent), which is representative of the population of interest.

Measures

Need Support and Need Thwarting at Time 1

As no scales had been developed to measure need support and thwarting in this particular context, 34 items representing the 6 sub-scales of autonomy support, competence support, relatedness support, autonomy thwarting, competence thwarting and relatedness thwarting were developed. Need supportive items were guided by cross-domain studies and validated scales including the Need-Supportive Management Scales (Parfyonova *et al.*, 2019), Managerial Need Support Scale (Paiement, 2019), and the teaching styles and approaches studies of (Aelterman *et al.*, 2018), whilst need thwarting items were similarly guided by scales including the Coaches' Controlling Interpersonal Style (Bartholomew *et al.*, 2010).

In survey 1, the items measured the perceived need supportive and thwarting behaviours of ECs toward jobseekers. To ensure that what was measured was specific to the context, the stem of the items referenced the mandatory engagements specifically: that is, "In your meetings with your Employment Services Provider, you will have had discussions about your job search activities, your Job Plan and your mutual obligation requirements. Thinking now about your meetings, please indicate the extent to which

you agree with the following statements". The items then measured each of the three basic psychological needs in terms of support and thwarting. For example: 'They give me choices about how to develop my Job Plan, such as training/education activities, work experience, job search assistance' measured *autonomy support*; 'They give me help that is practical and useful to me', measured *competence support*; and 'They are available to help me when I need them', measured *relatedness support*. Items measuring need thwarting behaviours by the ESPs were, for example, items such as 'They try to make me feel bad when they are not satisfied with my job search activities' measure *autonomy thwarting*; 'They recommend that I apply for jobs I know I am not qualified for', measured *competence thwarting*; and *relatedness thwarting* was measured by items such as 'They don't try to understand what life is like for me'. Responses were given on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Need Satisfaction and Need Frustration at Time

The 18-item validated Need Satisfaction and Frustration Scale (Longo *et al.*, 2016) was adapted to this context by changing the stem to reflect job search activities and the specific context of employment services, that is, 'thinking about your job search activities' and to align with the need support and thwarting scales. The scale was delivered at Time 2, and to align with the need support and thwarting scale, no time period reference was specified. The scale measures the 6 sub-scales of autonomy satisfaction, competence satisfaction and relatedness satisfaction, and autonomy frustration, competence frustration and relatedness frustration. For example, *autonomy satisfaction* was measured by items such as 'I feel free to conduct job search activities in my own way'; *competence satisfaction* with 'I feel confident that I can do well in all activities needed to secure a job'; and *relatedness satisfaction* measured with 'I feel understood by my Employment Consultant'. Items measuring the three frustration scales included, for example, 'I feel pressured to follow the advice of my Employment Consultant' for *autonomy frustration*; 'I don't feel competent to do what needs to be done to get a job' for *competence frustration*, and for *relatedness frustration*, 'I feel misunderstood by my Employment Consultant'. Responses were scored on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Well-being at Time 2

A 3-item scale was used to measure *well-being*. Two items were taken from the vitality scale of Ryan and Frederick (1997), and participants asked to indicate the extent to which they agreed with the following two statements over the past two weeks; 'I felt alive and vital' and 'I felt alert and awake', and one item from the Satisfaction with Life item (Diener *et al.*, 2013), 'Taking everything into account, I am satisfied with my life as a whole'. Responses were scored on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Ill-being at Time 2

The 5-item Kessler Psychological Distress scale was used to measure *ill-being*. This scale has been found to be valid and reliable for both First Nations and non-Indigenous people (Brinckley *et al.*, 2021). The question stem was with reference to time spent feeling this

way during the last two weeks: 'about how often did you feel nervous; about how often did you feel without hope; about how often did you feel restless or jumpy; about how often did you feel everything was an effort; about how often did you feel so sad that nothing could cheer you up? Responses were on a 5-point Likert scale: 1 (none of the time), 2 (a little of the time), 3 (some of the time), 4 (most of the time), 5 (all of the time).

Control variables

Many unemployment and reemployment studies have examined the numerous antecedents of mental health. Given the number of variables that have been associated with these outcomes, it was considered important that the findings of the SDT-based model proposed in this study were able to distinguish between those variables which might additionally or separately contribute to the study's outcome variables.

Two variables were determined to be of relevance. First, was *perceived future job prospects* (or reemployment expectations), which following Vansteenkiste et al. (2005) were measured by asking survey participants at Survey 1 the following two questions: 'Within the next 4 weeks, how likely do you think it is that you will find a job that is a good fit with the type of work you want?' To gauge the participants' expectancy of gaining any form of employment, the second question then asked 'Within the next 4 weeks, how likely do you think it is that you will find any job, regardless of whether it is a good fit?' Responses to both questions were given on a 5-point Likert scale: 1 (extremely unlikely), 2 (somewhat unlikely), 3 (neither likely or unlikely), 4 (somewhat likely) and 5 (extremely likely). The responses for the two items were combined to create an average score for perceived future job prospects.

Following Warr and Jackson (1984), the second control variable, *perceived financial strain* was measured by a single item, 'Thinking back over the past 4 weeks, how often have you had serious financial worries?'. Responses were scored on a 5-point Likert scale: 1 (never), 2 (hardly ever), 3 (frequently), 4 (nearly all the time), and 5 (all the time).

Results

Preliminary analyses

As assessed by the Shapiro-Wilk test, data for all variables in the study were found to be non-normally distributed and accordingly, as recommended, all measurement models were estimated using robust maximum-likelihood estimation (MLR) procedures (Kline, 2016). To assess construct validity, confirmatory factor analysis (CFA) using Mplus 8.6 (Muthen and Muthen, 1998-2021), were conducted for all measurement models. As Mplus does not allow MLR to be used with bootstrapping (which is necessary for assessing direct and indirect effects), maximum-likelihood (ML) was used in the mediation analysis.

Need Support and Thwarting at Time 1

As the scales for need support and need thwarting had been developed for use in this new context, data collected in Survey 1 ($n = 304$) for the measurement model were examined with confirmatory factor analysis (CFA), a method that is recommended for explicitly testing a priori relationships between observed variables (Jackson *et al.*, 2009).

The 34 items of this scale were expected to load onto two factors, need support and need thwarting, however, the model fit for a two-factor solution was poor, a number of items had poor factor loadings, and there was a high correlation between the two factors ($r = -.80$). Consequently, alternative models were explored which sought to meet the three attributes suggested by Kline (2016); that is, the respecified model makes theoretical sense, is relatively parsimonious, and has an acceptable fit with the data. Two items were removed due to poor factor loading and an additional four items which, upon examination of face validity, indicated some duplication with other items that could be removed for parsimony. The retained items had factors loadings $>.7$ and the 11-item sub-scales for need support and need thwarting determined to have internal reliability, with Cronbach's alphas of .95 and .93 respectively. The goodness-of-fit statistics¹ (GOF) for a respecified model are as follows: $SBS-\chi^2(df = 208) = 606.429, p = .0000, CFI = 0.901, RMSEA = 0.079, SRMR = 0.074$.

Need Satisfaction and Need Frustration at Time 2

A CFA was conducted on the sample from Survey 2 ($n = 227$). The 18 items used in this measure were expected to load onto two factors: satisfaction and frustration. However, the GOF statistics for a two-factor model were unacceptable, factor loadings were poor (12 items $< .7$), there was a very high correlation between satisfaction and frustration ($r = -.921$) and therefore the model was rejected. Guided again by a priori theory, alternative models were specified and the GOF statistics for the final measurement model (4-factor) are as follows: $SBS-\chi^2(df = 84) = 160.566, p = .0000, CFI = 0.949, RMSEA = 0.063, SRMR = 0.051$. Factors loadings were $> .70$ with the exception of one item (.44). Internal reliability was assessed for each of the four factors and Cronbach's alpha determined as follows: autonomy satisfaction (.66), autonomy frustration (.82), competence need (.80) and relatedness need (.93).

Mental health outcome variables

Although the 5-item Kessler Ill-being scale remained unchanged from the previously validated scale, a CFA was also conducted to validate items loaded to a single factor ($n = 224$). A one-factor model showed a reasonable fit to the data, $SBS-\chi^2(df = 10) = 418.263, p = 0.000, CFI = .958, RMSEA = .124, SRMR = .030$. Factor loadings were all $>.75$. Internal reliability was also confirmed ($\alpha = .89$). For the well-being measure, the three-item well-being scale showed good internal reliability ($\alpha = .84$).

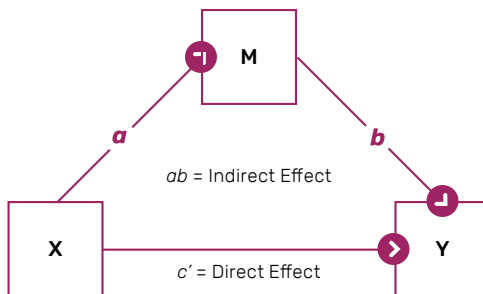
1 SBS = Satorra-Bentler scaled chi-square. CFI = Comparative fit index. RMSEA = Root mean square error of approximation. SRMR = Standardised root mean residual.

Mediation analysis approach

Before presenting the study's results, it may be helpful to review the concept of mediation analysis, and to explicate the position that will be taken with regard to the analysis in this study, with particular regard to the role of direct effects, the relevance of total indirect effects, tests of the significance of indirect effects, and the inference of mediation.

In simple mediation analysis, the independent (X) variable exerts an effect on an outcome variable (Y) directly and/or indirectly through M (Hayes, 2017). That is, as shown in Figure 2, the *direct effect* (c') estimates the effect of X on Y with the mediators being held constant, whereas the *indirect effect* of X on Y goes *through* the mediator variable (M) and is a product of the two path coefficients (a) and (b). The *total effect* of a simple mediation model is then the sum of the direct effect of X on Y and the indirect effect of X on Y.

Figure 2: Direct, Indirect and Specific Indirect Effect Paths



While it would once have been considered critical for the direct effect of an independent variable on an outcome variable to be significant (Baron and Kenny, 1986), more recently, methodologists have shown that a non-significant test of the direct effect does not preclude a finding of mediation (Hayes, 2017; Hayes and Scharkow, 2013), and in particular, where the effect being studied is distal to the 'cause' (Shrout and Bolger, 2002), as is the case in this research. Moreover, it has also been argued that an overemphasis on the independent to dependent variable relationship can lead to incorrect conclusions (Rucker *et al.*, 2011).

In addition, it has also been argued that when the stated hypotheses are specifically testing for indirect effects, as is the case in this study, the test for total effects (which includes the direct effect as well as the indirect effects) is not relevant to the analysis, particularly where data are collected over time (Aglar and De Boeck, 2017) as is also the case in this study. Accordingly, to answer the research questions and test the hypotheses of whether need support and need thwarting exert an effect on jobseeker mental health indirectly through psychological need satisfaction and/or need frustration, while the direct effects will be reported, the analysis will focus on the specific indirect effects.

Specifying the hypothesised structural model

Based on a priori theory, the hypotheses in this study were premised on the indirect effects of the two independent variables (ESP need support and ESP need thwarting) on the two mental health outcome variables (jobseeker well-being and ill-being) being transmitted through the satisfaction of the three psychological needs (autonomy, competence, and relatedness) and the frustration of the same three needs. In other words, the indirect effect of ESP need support on jobseeker mental health would be through need satisfaction, whilst the indirect effect of ESP need thwarting would be through need frustration.

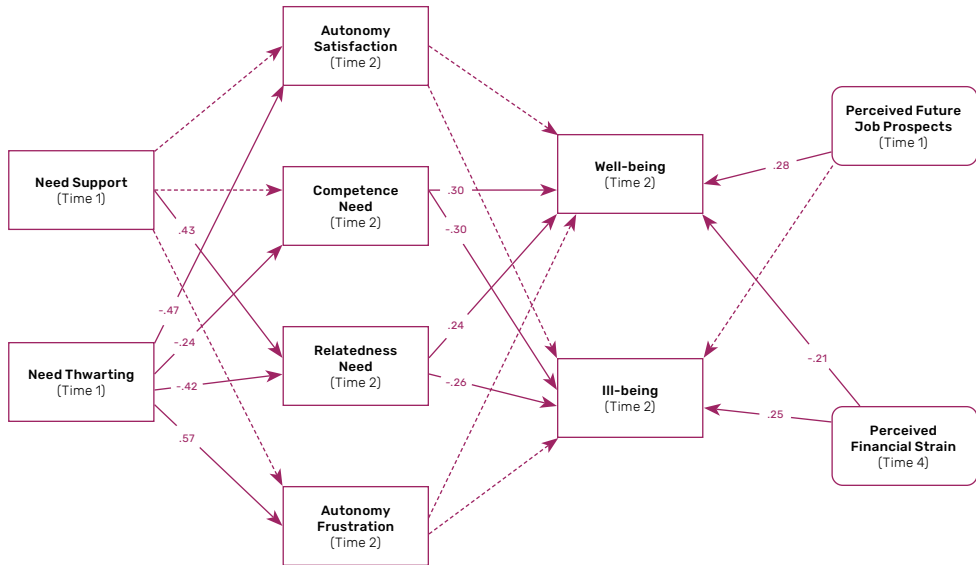
It may be recalled, however, that the expected two-factor measurement model for the (T2) mediating variables was rejected, and that a four-factor model was determined to have the best fit for the data, having lower inter-variable correlation, yet still being theoretically plausible. Two of the mediators for the path model then represent the parallel paths of satisfaction and frustration, namely, autonomy satisfaction and autonomy frustration, whereas competence is a composite factor representing competence satisfaction and frustration, and relatedness is a composite factor representing relatedness satisfaction and frustration. For clarity, when referring to results for competence and relatedness, we will refer to each as being the extent to which the need is satisfied, acknowledging that the composite factor includes reverse-scored frustration items.

The hypothesised mediation model showed a marginally acceptable fit to the data: $SBS-\chi^2(df = 10) = 37.701$, $p = .000$, CFI = 0.940, TLI = 0.738, RMSEA = 0.095, SRMR = 0.057. Again, following (Kline, 2016), it was considered valid to explore the respecification of the model based on theory or prior empirical results. Accordingly, the modification indices produced by the Mplus statistical analysis software were consulted as a means of determining what changes (if any) could be made which met these criterion and improved model fit. Guided by both the original hypothesised paths, SDT, and the modification indices, it was determined that the model could be respecified so that the two paths that had not been included (previously described) were added to the model. That is, T1 need thwarting (T1NDTHW) was regressed on T2 autonomy satisfaction (T2AUTSAT), and for theoretical consistency, T1 need support (T1NDSUP) was also regressed on T2 autonomy frustration (T2AUTFRU) so that all possible mediated paths were examined in the model. The GOF statistics of the respecified model were reassessed and yielded a very good fit with the data: $SBS-\chi^2(df = 8) = 14.919$, $p = .061$, CFI = 0.987, TLI = 0.927, RMSEA = 0.053, SRMR = 0.026. Finally, the two control variables were added to the model, and examination of the GOF statistics again found to be satisfactory, $SBS-\chi^2(df = 16) = 26.352$, $p = .049$, CFI = 0.982, TLI = 0.934, RMSEA = 0.046, SRMR = 0.049. Although there was a non-trivial change in SRMR (.023), the overall model fit was assessed as very good.

Analysis of paths between hypothesised model variables

The final structural model, including the two control variables is presented in Figure 3, with the statistically significant path coefficients (those where 95 per cent confidence interval did not include zero) indicated in bold. Full details of all paths are shown in Table 1, including the r-squared statistics for the variables in the model.

Figure 3: Final Respecified Hypothesised Structural Model with Standardised Path Coefficients



Note: Statistical significance based on 95 per cent confidence intervals where the interval did not include zero. Bold lines denote significant path coefficients. Dotted lines denote non-significant path coefficients. Control variables are shown in rounded corner boxes.

Table 1: Standardised path coefficients for hypothesised model with r-squared statistic

	T2 Autonomy Satisfaction		T2 Autonomy Frustration		T2 Competence		T2 Relatedness	
	β	95% CI	β	95% CI	β	95% CI	β	95% CI
<i>a</i> Paths								
T1 Need Support	.03	[-.156, .248]	-.06	[-.255, .147]	.01	[-.197, .226]	.43	[.241, .593]
T1 Need Thwarting	-.47	[-.642, -.0271]	.57	[.402, .714]	-.24	[-.438, -.029]	-.42	[-.567, -.252]
R ²	.24		.37		.06		.60	
	T2 Well-being		T2 Ill-being					
	β	95% CI	β	95% CI				
<i>b</i> Paths								
T2 Autonomy Satisfaction	.16	[-.016, 0.324]	.04	[-.138, .241]				
T2 Autonomy Frustration	-.10	[-.283, 0.081]	-.06	[-.249, .132]				
T2 Competence	.30	[.136, 0.457]	-.30	[-.460, -.144]				
T2 Relatedness	.24	[.003, 0.504]	-.26	[-.484, -.036]				
T1 Perc. Future Job Prospects	.28	[.134, 0.438]	.07	[-.085, .215]				
T4 Financial Strain	-.21	[-.385, -.025]	.25	[.044, .457]				
R ²	.38		.33					

Mediation analysis results for hypothesised model with control variables*Esp Need Support to Jobseeker Well-being*

Need support was found to exert an effect on well-being indirectly through relatedness satisfaction $\beta = .10$, CI [.007, .269] but not through autonomy satisfaction, autonomy frustration or competence satisfaction. The direct effect of ESP need support on jobseeker well-being was not significant and was of the opposite sign, $\beta = -.14$, CI [-.379, .086] to the indirect effect through relatedness. It may be also noted that there was a positive zero-order correlation between need support and well-being, $r = .24$, $p < .001$ indicating the presence of a suppression effect.

ESP Need Support to Jobseeker Ill-being

The hypothesis that a negative relationship between ESP need support and ill-being would be mediated by psychological needs was also partially supported, with evidence found for a medium, negative indirect effect through relatedness need, $\beta = -.11$, CI [-.251, -.023]. Again, ESP need support was not found to be transmitted through any of the other three mediators via specific indirect (autonomy satisfaction, autonomy frustration, and competence).

The direct effect of ESP need support on jobseeker ill-being was significant, and as in the case of need support on well-being was of the opposite sign, $\beta = .23$, CI [.004, .449], to the indirect effect through relatedness. Again, there is evidence of a suppression effect with a negative zero-order correlation between need support and ill-being, $r = -.18$, $p < .05$.

ESP Need Thwarting to Jobseeker Well-being

As hypothesised, the influence of ESP need thwarting on jobseeker well-being was transmitted negatively through the indirect effects of psychological need support. Results showed small, negative effects via competence need, $\beta = -.07$, CI [-.168, -.013], and a medium effect through relatedness need, $\beta = -.10$, CI [-.224, -.007]. The pathways through autonomy satisfaction and autonomy frustration were not statistically significant. The total indirect effect of need thwarting on well-being was large and negative, $\beta = -.30$, CI [-.466, -.157]. The direct effect of ESP need thwarting on jobseeker well-being was positive, $\beta = .15$, CI [-.005, .354] but was not statistically significant.

ESP Need Thwarting to Jobseeker Ill-being

Need thwarting was hypothesised to influence ill-being through either a reduction in need satisfaction or increase in need frustration. Evidence was found of a small, positive indirect effect through jobseekers' competence needs, $\beta = .07$, CI [.016, .164], and a medium positive effect through relatedness need, $\beta = .11$, CI [.019, .234]. The pathways through autonomy satisfaction and frustration were not statistically significant. There was a large, positive direct effect of need thwarting on jobseeker ill-being, which was significant, $\beta = .29$, CI [.028, .535].

Table 2: Effects of Need Support and Need Thwarting at Time 1 on Well-being and Ill-being at Time 2 with control variables

	β	SE	p-value	Lower CI 95%	Upper CI 95%
<i>T1 Need Support on T2 Well-being through</i>					
T2 Autonomy Satisfaction	.01	.02	.774	-.021	.061
T2 Autonomy Frustration	.01	.02	.696	-.012	.059
T2 Competence Need	.00	.03	.900	-.065	.070
T2 Relatedness Need	.10	.07	.120	.007	.269
Total Indirect Effect	.12	.08	.149	-.024	.300
Direct Effect	-.14	.12	.233	-.379	.086
<i>T1 Need Support on T2 Ill-being through</i>					
T2 Autonomy Satisfaction	.00	.01	.894	-.011	.046
T2 Autonomy Frustration	.00	.01	.791	-.011	.054
T2 Competence Need	.00	.03	.900	-.074	.060
T2 Relatedness Need	-.11	.06	.049	-.251	-.023
Total Indirect Effect	-.11	.07	.094	-.256	.004
Direct Effect	.23	.12	.047	.004	.459
<i>T1 Need Thwarting on T2 Well-being through</i>					
T2 Autonomy Satisfaction	-.07	.04	.098	-.173	.002
T2 Autonomy Frustration	-.06	.05	.292	-.168	.044
T2 Competence Need	-.07	.04	.061	-.168	-.013
T2 Relatedness Need	-.10	.06	.065	-.224	-.007
Total Indirect Effect	-.30	.08	.000	-.466	-.157
Direct Effect	.15	.10	.153	-.050	.354
<i>T1 Need Thwarting on T2 Ill-being through</i>					
T2 Autonomy Satisfaction	-.02	.05	.656	-.121	.067
T2 Autonomy Frustration	-.03	.06	.545	-.144	.074
T2 Competence Need	.07	.04	.042	.016	.164
T2 Relatedness Need	.11	.05	.047	.019	.234
Total Indirect Effect	.13	.07	.090	-.016	.274
Direct Effect	.29	.13	.027	.028	.535

Note: Significant effects are denoted in bold type.

The impact of control variables

As recommended by (Bernierth and Aguinis, 2015), a comparison between the hypothesised model with and without the inclusion of control variables was also conducted. The inclusion of the control variables was found to reduce the size of effects

of the mediators on the outcome variables but did not materially influence the pattern of effects. That is, the indirect effects that were significant without controls remained so when the control variables were added to the model, and those effects that were non-significant remained so. The direct effects also decreased once the control variables were added to the model.

Discussion



Recall that, from the perspective of SDT, in the hypothesised model of this study, the employment services environment could be considered either psychologically need supportive or need thwarting. A need supportive social context, or at the micro/interpersonal level, the need supportive motivating style of the ECs, would be one in which the EC's behaviour addressed the unemployed person's psychological need for autonomy, competence, and relatedness. That is, for example: ECs who provide options and choices for the jobseeker, perhaps in the types of jobs they might refer to the unemployed person and give rationales for tasks that must be undertaken, such as the value of a training initiative, would be supportive of the individual's need for autonomy. To support competence, ECs would provide helpful feedback and assistance that is practical and useful, for example, how a resumé might be improved for a particular job type, whilst ensuring that goals and tasks are agreed to be within the individual's capability. To support relatedness, the ECs would enact behaviours such as taking the time to get to know the individual in their meeting, and allowing them to express themselves, including the expression of negative emotions.

By contrast, a need thwarting social context would be one in which autonomy would be not supported (thwarted) through behaviours such as the use of guilt and threats, for example, as might occur in the context of compliance sanctions, and where the EC's communication style is authoritarian and directive in tone and content. Competence would be thwarted by, for example, the recommendation of job and skills training that are unsuitable, or beyond the perceived capability of the individual, and the need for relatedness thwarted through interactions which are impersonal and rejecting, failing to acknowledge the difficulty of the experience of the unemployed person.

Also, in SDT, the experience of the environment by the individual is referred to in terms of either the satisfaction of the three needs for autonomy, competence, and relatedness or the frustration of same. These are the mediators in the hypothesised model, that is, the variables which are proposed to explain the relationship between the effect of need support and need thwarting on the mental health outcomes of well-being and ill-being. Taking a SDT perspective, the study's aim was to identify the extent to which jobseekers experience the employment services system in Australia as need supportive or thwarting, and the effect of that experience on jobseeker well-being and ill-being via the three psychological needs.

The role of autonomy in unemployment studies

From an SDT perspective, the three psychological needs are proposed to be interrelated in that social contexts which support (or thwart) one need are likely to support (or thwart) the other needs. For example, a need supportive motivating style would be characterised by ECs conveying to jobseekers that they understood a jobseeker's goals about work, providing them with practical assistance to help them achieve their goals, and informational feedback on how they might improve their job search activities. ECs would also provide rationales for the job search requirements set for the jobseeker and acknowledge the feelings of the jobseekers, while being willing to accept jobseekers may express negative emotions as a consequence of their circumstances. Delivered in such a manner, this interaction would be predicted to be supportive of autonomy, competence and relatedness needs.

However, the present study found that both relatedness and competence predicted well-being and/or ill-being whereas autonomy, individually, did not. Given the predominance of autonomy satisfaction as a predictor of well-being, and autonomy frustration as a predictor of ill-being in extant SDT studies (see a review by Van den Broeck *et al.*, 2016), this is a somewhat unexpected finding. Noting the depth of past evidence on these pathways, these findings might suggest that there is something contextual at play; perhaps there are some circumstances in which one need is more (or less) salient than another, such as the need for relatedness during times of social exclusion when unemployed, and competence support when undertaking particularly challenging tasks such as searching for work in a difficult labour market, or the challenge of job loss and forced career changes.

The role of the control variables

Finally, it may be instructive to consider the role of the two control variables commonly included in the unemployment and related literature: perceived future job prospects and perceived financial strain. As previously discussed, based on prior research, these two variables would be expected to independently influence the study's outcome variables and therefore it was important to take into account (or control for) this influence so that the role of the SDT variables was identifiable.

It may be recalled that perceived future job prospects was a composite score that measured the jobseeker's perceived likelihood of securing a job that was a good fit with one they wanted, and perceived likelihood of securing any job, regardless of fit. Consistent with previous research (McKee-Ryan *et al.*, 2005), perceived future job prospects was a statistically significant predictor of jobseeker well-being ($r = .28$) but did not predict ill-being.

Consistent with previous research of the effects of economic hardship on psychological well-being (McKee-Ryan *et al.*, 2005), perceived financial strain negatively predicted well-being and positively predicted ill-being. Thus, taken together, it is evident

that the assessment an unemployed person makes of their likelihood of finding work, and the financial strain under which they live, are important factors for the mental health of unemployed people engaged in the mandatory employment services system. Consequently, the evidence offered by this study that interactions between the unemployed person and the employment services system itself additionally influence the mental health of unemployed people should be of concern to policy makers and ESPs alike.

Mental health as an outcome

To our knowledge, this is the first Australian study, and one of only a few internationally, that has used a contemporary psychological theory to examine the impacts of mandatory reemployment interventions on the mental health of program participants. Historically, research on these types of programs is typically focused on the assessment of their effectiveness, and, in particular, the effectiveness of sanctions to increase exits from the system and reduce the unemployment period. In examining the experience of jobseekers in the context of a system in which a rigorous sanctions regime is embedded, this study provides an alternative outcome variable worthy of consideration in these research domains, namely the human – and consequential economic – cost of adverse mental health impacts which appear to emanate from these types of programs.

Implications for employment services delivery

The aim of this study was to examine the Australian employment services system through a new lens: a contemporary psychological perspective which, we argue, stands in contrast to the 'carrots and sticks' approach that underpins the current system. Using SDT as a theoretical framework, we investigated how engagement with the system impacts the mental health of the unemployed people who are required to participate in it.

The role of relatedness on mental health

Although the study did not intend to examine whether need support and need thwarting were transmitted through one psychological need more than another, a critical finding is the important role the need for relatedness played in explaining the effects of both a need supportive and a need thwarting social context on the well-being and ill-being of unemployed people. Better mental health outcomes (higher reported levels of well-being and lower levels of ill-being) were achieved when jobseekers' psychological need for relatedness was satisfied in their interactions with ECs; in other words, when jobseekers reported feeling supported, cared about, and understood by ECs. In parallel, there was an adverse effect on jobseeker mental health (higher ill-being and lower well-being) when the social context was experienced as need thwarting and frustrating of their need for

relatedness. As was presented in Table 1, together, need support and thwarting explained 60 per cent of the variance in relatedness need at Time 2, an effect size that can quite reasonably be described as large.

From a practical perspective, whilst it is disturbing to find such compelling evidence that the interactions between ECs and their vulnerable jobseeker clients have the capacity to adversely affect the mental health of jobseekers, the results also suggest that when ECs are supportive of jobseekers psychological need for relatedness, mental health outcomes might be somewhat improved, or at the very least, not exacerbated. For ESPs, this could be regarded as encouraging news, an opportunity to improve the experience of employment services and the consequential mental health of their unemployed clients by implementing practices at the front-line which reflect a more need supportive engagement with jobseekers.

Implications for policy



The present study found jobseekers were adversely affected by the experience of a need thwarting environment via the frustration of the individual's psychological need for competence. That is, jobseekers' well-being was diminished, and ill-being increased, when they felt ineffective or less than capable of navigating their current world, more particularly, to successfully search for, and find, suitable employment. Based on the assumptions proposed to underpin this system which focus on the attributes of the individual, it might be argued this effect is more a reflection of 'employability' deficits of unemployed people themselves; mismatches between the skills and attributes of the individual and the available job market of the day, a conclusion which would naturally align with the implementation of training/retraining programs and/or 'activation' measures.

However, the reality is that many of the mismatches are not readily or easily solved. One cannot make oneself younger, gain five years' experience overnight, or find an affordable carer for small children, and physical or mental health challenges cannot be wished away. For some people, the reality is that the labour market simply does not, or will not, see their value as an employee, highlighting an inherent conflict in the design of the employment services system; that is, whether it is indeed possible for ESPs to help those on income support to actually secure a job at all, and in particular, one they can sustain – a question that is even more salient in times of full employment.

It is worth noting that, irrespective of the labour market conditions of the day, due to the competitive environment in which they operate, ESPs often publicly claim that jobseekers can expect to find meaningful and sustainable employment when engaging with their services, despite this being often not the case. In any other commercial environment, when a business makes promises about services which it fails to deliver, the customer can draw upon the protections of consumer law concerning refunds and reparation, or even complain in order to correct false and misleading advertising.

Of course, the nature of this quasi-market means that jobseekers have no similar right to complain about the services that are advertised but not delivered, a situation which in itself would be likely to add to their frustration with the employment services system.

While we expected to find evidence that the controlling nature of the system and its mutual obligation requirements would thwart jobseekers' need for autonomy, it was, instead, the needs for relatedness and competence of jobseekers that were the more salient of the three psychological needs affected. We found that when jobseekers felt that no one in the system cared about them or their personal situation, or they were left to their own devices with little practical assistance, their mental health was adversely affected: well-being was diminished and ill-being increased. Conversely, when relatedness was supported, that is, when jobseekers' felt understood by their EC and that they mattered, well-being increased and ill-being decreased. Given the context of this study was the interpersonal engagement between the representatives of the system (the ECs) and the jobseeker, it is tempting to conclude that a focus on the nature of service delivery to unemployed people should be central to any proposed changes.

However, as many critics of the employment services system have concluded (for example, see Considine, 2000; Dunleavy and Hood, 1994; Dunleavy *et al.*, 2006), the employment services system operates as a quasi-market whereby the government purports to purchase services from ESPs 'on behalf of' the unemployed person, and stands in stark contrast with a traditional (or true) market arrangement in which the jobseeker's wants and needs (as the customer) would determine what services were of value to them and for what they would pay. In reality, the client or customer of the ESP is the government, not the unemployed person, and the government's wants and needs as a customer are to have unemployed people exit the income support system as quickly as possible.

Consequently, the policy that manifests as the contract for services between the government and ESPs is itself also an example of behaviourist assumptions, designed to reward (and punish) the organisational behaviours of ESPs which achieve (or fail to achieve) this objective. ESPs are remunerated based on how quickly they can place an unemployed person into a job, any job, and whilst the structure attempts to reward ESPs if a jobseeker sustains that employment, the initial placement is the priority. In other words, ESPs are not remunerated by the government according to how well, or poorly, jobseekers fare in their engagement with any ESP, nor are they rewarded for placing an unemployed person into a role in which they are well-suited and hopeful of being able to sustain. In practice, this means that there are inherent disincentives (or at least an absence of positive incentives) for ESPs to allocate their organisational resources (both financial and human) to processes or activities not aligned to fulfilling their contractual obligations even though for many ESPs, the results of our study provide evidence of their awareness that the mental health of their clients is being adversely affected.

For example, from our study's findings, we would be justified in arguing that the mental health of unemployed people would be better served if ESPs sought to improve the nature of the interpersonal relationships ECs had with jobseekers. Based on SDT

research in education, for example, by Aelterman *et al.*, (2018) and Cheon *et al.*, (2018), this might be achieved by way of a professional development program to train ECs in how they could interact with jobseekers using a need supportive motivating style and/or reducing or eliminating ECs need thwarting behaviours. It would also be suggested that the potential for positive results from this training would be enhanced through an aligned recruitment strategy which selected ECs who were more likely to have the capacity (and beliefs) to be need supportive in their engagements.

Of course, other organisational drivers must also be taken into account when considering the likely success of such an approach. For example, ECs have reported that they are heavily influenced by 'numerical targets', and by the attention paid by their employer to the income they generate through job placements (Lewis *et al.*, 2016; O'Sullivan *et al.*, 2021). In addition, anecdotal evidence suggests that the remuneration package of ECs in some ESPs includes financial incentives for ECs based on a jobseeker gaining and sustaining a job over a 4, 8 or 12 week period, and the employability level (the 'stream') of the unemployed person. Thus, taking these drivers of organisational behaviour into account, one might expect that recruitment and training initiatives alone may be insufficient to change the behaviour of ECs.

Despite many ESPs in the sector being mission-based not-for-profits, they are nevertheless still corporate entities which must maintain a level of viability and sustainability. Likewise, for the increasing number of large, for-profit ESPs, the financial imperative is strong and they are accordingly unlikely to modify these organisational drivers without a change to the outcomes upon which they are not only remunerated but by which their performance is assessed, the latter having implications for the renewal of their contracts for service with the government.

Taken together, these findings lead inexorably to a recommendation for policy change; the incorporation of a mental health outcome in the design and delivery of employment services. The measure should distinguish between the acknowledged effects of unemployment on mental health and, as we have done, identify the degree to which jobseekers are being additionally adversely impacted by engagement with the system itself. It is also recommended that the design of employment services considers the downstream effects of behaviourist-based 'carrot and stick' models and acknowledges the potential unintended consequences these systems may have for all stakeholders involved.

Conclusion



In this study, we have examined the employment services system in Australia from the perspective of unemployed people who are mandatorily required to engage in it. Although we found evidence that when unemployed people felt cared for as an individual, their

mental health benefitted, it was more likely than not that engagement with the system would have adverse negative effects on their mental health, a finding which is of grave concern.

As it is inconceivable that a social support system could knowingly be allowed to continue to adversely impact the mental health of unemployed people, policy change must therefore be a priority. For whether a person does or does not find a job, and for however long it takes, the guiding principle of the system must surely be to first, do no harm. In providing this research, we hope it may inform future policy direction and thus ensure that unemployed people truly can be assisted in a journey toward meaningful and sustainable employment.

A number of limitations must be taken into account when considering the overall findings of the study and further research could aim to address these limitations. First, is the sample size in relation to the total population. From approximately 16,000 emails and several posts to numerous Facebook groups, our final merged dataset contained 422 participant responses, which was disappointingly low. As a longitudinal study, it was also expected that attrition rates would be reasonably high and they were (although it was interesting to note that the level of attrition declined over the course of the study, for example, between survey one and two the attrition rates was 47 per cent whereas between surveys four and five it had reduced to 8 per cent). Consequently, missing data across the surveys is also a limitation of the study.

Based on their own communications with jobseekers, staff from the ESP who had sent out the email containing the invitation to participate in the research had warned that response rates would likely be low, a fact that was (perhaps unsurprisingly) attributed to general jobseeker disengagement with the job search process. If that assessment has validity, then it could be argued that our sample represents people who are more engaged in the job search process than those who did not participate. That might mean that the responses in our sample reflected those of individuals who were more frustrated by the system than those who did not participate, thereby representing selection bias. In other words, it may be the case that those who chose not to participate are highly satisfied, and not frustrated, in their engagement with the employment services system. It may also be the case, however, that the low engagement with the survey was a consequence of being so adversely affected by the system that participation was just not possible. We do know, however, that participant demographics indicated that the sample was broadly representative of the population of interest.

This study also sought to test a causal model, that is, that the experience of need support and need thwarting would predict mental health via the satisfaction or frustration of psychological needs. Ideally claims of causal explanations are best supported by experimental designs in which random assignment and manipulation of the variables of interest are possible. We might also have better tested the degree to which the motivating styles of ECs impact the mental health of jobseekers using matched data (EC and jobseekers) which was observational rather than self-reported survey data. However, in this field of research, such a study design would be both practically difficult to accomplish and, most importantly, would be considered to be highly unethical.

We submit that this study makes a contribution within the constraints inherent in this particular context.

Another limitation of the study were some issues concerning the construct validity tests of some of the measurement scale for need satisfaction and frustration, which, as was described in detail, did not load onto the two factors as expected. However, good fit was achieved for the alternative four-factor model, and the rationale for the decision to adapt the model accordingly was provided. There were also high correlations between need support and thwarting (and to a lesser extent) between need satisfaction and frustration, and future SDT research could examine the degree to which models can accommodate both constructs.

Future studies might also take into account the perspective of ECs, although it was noted in some initial attempts in this study to do so, that this might be difficult to achieve with several ECs reporting their employment contract prevented them from commenting (even anonymously) on their work.

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