From efficacy to effectiveness: case studies in unemployment research
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Abstract
There have been few attempts to implement and disseminate programmes to address the psychological health impact of unemployment despite the burden of this problem upon public health and health services. One approach that has demonstrated efficacy in promoting both psychological health and employment for this group is based upon the principles of cognitive behavioural therapy (CBT). We have been involved in three interventions based upon CBT to improve the psychological health of people who are unemployed, delivered through existing service structures in Australia: employment support agencies, general practice and mental health services. In this paper, we examine our experiences in conducting research within these service organizations using a framework for collaboration between researchers and services based upon intersectoral action. While effective collaboration can facilitate the implementation of research within systems, poor collaboration can impact upon the integrity of research designs. In our experience, it was the capacity of service organizations to address the psychological health impact of unemployment in particular that had a significant effect upon adoption of the intervention. Service organizations did not have structures to support the rigorous evaluation of interventions nor did they have funding arrangements that facilitated effective collaboration on research to address psychological issues. The dissemination of evidence-based interventions like CBT to populations of people who are unemployed in Australia is hindered by the absence of an accessible and appropriate system through which to address the psychological health impact of unemployment.

Keywords: health services research, psychology, unemployment

Introduction
Unemployment is a public health issue. People who are unemployed have significantly poorer psychological health and well-being than people who are in the workforce.1–4 and use health services in an attempt to address these problems at a rate approximately twice that of their employed peers.5–7 Poor psychological health acts as a barrier to people returning to work through decreased motivation, lowered expectations in finding employment, and ineffective job seeking.8–10 Despite this, there are few interventions to improve the psychological health of people who are unemployed. One of the most promising interventions is based upon the principles of cognitive behavioural therapy (CBT). CBT is a psychological intervention that promotes the development of coping resources by challenging negative and unhelpful beliefs about a specific issue or situation.8 A major benefit of CBT is that it has demonstrated long-term treatment effects, including the prevention of relapse after the termination of therapy and the prevention of the development of depression and anxiety.11,12 The CBT approach has been shown to be effective in improving psychological health when administered individually or in a group format,13,14 and has been successfully applied in clinical and non-clinical settings.15–17

Two studies have demonstrated the efficacy of group-training in CBT on improving the psychological health of people who are unemployed.15,18 Additionally, one study found clear evidence of a beneficial effect of CBT on employment with 34 per cent of CBT participants achieving full-time employment compared with 13 per cent of control group participants.15 Given that employment itself has been shown to improve psychological health,2,19 broad-level CBT interventions such as these may be of public health benefit. How can successful psychological interventions, such as CBT, be disseminated to populations of people who are unemployed?

The effective and efficient transfer of evidence-based interventions from research settings to populations is a key challenge for public health. One method of facilitating this transfer is to demonstrate that interventions with efficacy in controlled environments, such as CBT, are also effective in real-world environments. Implementation research involves evaluating the effectiveness of an evidence-based intervention within the social or service structure through which it is most likely to be disseminated. This approach differs from evaluation in research settings not in terms of methodological rigor but in the degree of regulation over intervention. That is, research settings reflect the conditions necessary to demonstrate or refute efficacy while
real-world settings require collaboration between the research team and social or service structure to facilitate implementation and demonstrate effectiveness. This process of collaboration is complex and can require change in interventions, settings and services at the level of practitioner, client and organization. In this paper, we describe our experience in implementing three CBT-based interventions to promote psychological health within organizations that deliver services to people who are unemployed in Australia. We examine these experiences using a framework for collaboration adapted from the intersectoral action for health framework to identify factors that are important to the effective administration of implementation research. The CBT interventions were implemented within employment support agencies, general practice and mental health services. We do not intend to present the results of the effectiveness of these interventions in promoting health or practice because this is published elsewhere. Our intention is to use these interventions as examples in identifying barriers and facilitators to effective collaboration that may prove useful to other implementation researchers.

**A framework for collaboration in implementation research**

Understanding how research teams and service organizations work together to implement research is integral to identifying mechanisms for effective dissemination. The intersectoral action for health framework identifies mechanisms that facilitate the ability of the Australian health sector to work with other sectors in addressing health issues in a way that is more effective and efficient than working alone. This framework can be meaningfully applied to implementation research because of its focus upon addressing issues of collaboration between organizations or service structures that have different visions, priorities and structures than researchers. Additionally, the components for effective collaboration are practical and action-oriented. That is, each component can be changed to better meet the needs of the intervention and enhance the potential effectiveness of implementation. The six components of effective collaboration in implementation research are necessity, opportunity, capacity, relationship, action and sustainability (Table 1).

**Case studies of collaboration in implementation research**

**Case study 1: collaborating with employment support agencies**

In Australia, employment support agencies are administered through the federal government’s Job Network system. This system consists of different agencies and organizations that have been funded through a competitive tendering process to provide: job search; job matching; and intensive assistance employment support services to people receiving unemployment benefits. Funding for these agencies was outcomes based, meaning that it was contingent upon unemployed individuals regaining and maintaining employment for a specified period of time.

The aim of this research was to evaluate the impact of a CBT-based group training programme in promoting psychological health and employment for people who were unemployed. The research team conducted the evaluation and delivered the training programme. Employment support agencies provided a site for training and screened clients for recruitment according to study selection criteria. Five separate employment agencies participated in this implementation research.

**Necessity**

There was low perceived necessity for the intervention amongst employment support agency staff because training was seen to be incompatible with funding arrangements and the core business of securing employment for people who were unemployed. Training, particularly training focussing upon the development of skills to improve psychological health was not perceived to have a tangible benefit in terms of immediate employment outcome.

**Table 1 Conditions for effective collaboration in implementation research**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
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<tr>
<td>Necessity</td>
<td>The perceived value of the intervention in assisting the service delivery structures to achieve their goals or ‘core business’</td>
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<tr>
<td>Opportunity</td>
<td>The potential of the intervention to build on existing policy or support within the service delivery structures to facilitate implementation</td>
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<tr>
<td>Capacity</td>
<td>Factors, such as provider knowledge and resources, that impact upon the ability of the service delivery structures to disseminate interventions</td>
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<tr>
<td>Relationship</td>
<td>How the service delivery structures and research team work together to implement the intervention and promote sustainability</td>
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<tr>
<td>Action</td>
<td>The perceived appropriateness of the research design for both evaluating and implementing the intervention within the service delivery structure</td>
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<tr>
<td>Sustainability</td>
<td>The likelihood that the intervention will continue to be supported and disseminated within the service delivery structure</td>
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Adapted from Harris et al.21
Opportunity
There was limited opportunity to draw upon employment sector policy and support to implement the intervention. Training-based employment structures were dismantled under the outcomes-based funding scheme, meaning that employment support agencies were unable to secure funding for clients to attend training that did not lead to vocational qualifications.

Capacity
Employment support agencies had limited capacity to disseminate the CBT intervention. First, the de-emphasis of training as a route to employment meant that many agencies no longer had appropriate training facilities and the intervention had to be delivered in areas not conducive to training; in one instance in the space provided by a walkway. Secondly, employment support agencies were only 6 months into the establishment of the new national outcomes-based employment network when this study began and were struggling to come to terms with their new role and funding arrangements. This meant that there was very little opportunity for effective collaboration between the research team and employment support agency because the vast majority of resources were directed towards achieving stability and security within the employment sector. Thirdly, there was little incentive for agency staff to be trained in delivering the intervention because the impact of unemployment upon psychological health was perceived to be of little concern for employability.

Relationship
This research was driven by the research team with little support from employment support agencies. Essentially, agencies were prepared to support the research if it did not interfere with priorities dictated by funding and required few if any resources. This imbalance in commitment to the intervention led to a difficult relationship between the research team and agency staff that affected recruitment of participants to the intervention; including the persistent referral of clients with characteristics that met study exclusion criteria.

Action
Using a randomized controlled trial design to evaluate the effectiveness of the intervention posed a significant problem for employment support agencies. Agency staff perceived that they acted as advocates for their unemployed clients and were unwilling to commit their clients to a process with an uncertain outcome. Some agency staff attempted to refer clients to the programme that they believed would be of most benefit and withdrew clients from participation when this could not be guaranteed. This action had a significant impact upon the representativeness of the study sample.

Sustainability
The sustainability of CBT interventions within employment support agencies is unlikely given current funding arrangements and the de-emphasis upon training to improve psychological health within the employment sector.

Implications for future research with employment support agencies
Research with Australian employment support agencies must focus upon achieving recognition of the psychological health impact of unemployment; and the negative effect that unemployment, and long-term unemployment in particular, has upon subsequent re-employment and job-search activity. The greatest gains by researchers in this respect may be made by collaborating with the institutions that determine organizational priority through funding and the development of employment support agency policy.

Case study 2: collaborating with general practice organizations and general practitioners
The majority of Australian general practitioners (GPs) are private medical practitioners funded through the federal government programme Medicare, a universal system of health insurance that provides rebates on a fee-for-service basis. General practice organizations are funded by the federal government to support the delivery of primary care by GPs practising in a defined area. These organizations have many roles including: disseminating and supporting federal government primary care initiatives; providing training; supporting GPs in practice management and organization; advocating for GP interests; and delivering programmes to improve the health of particular groups in the community.

The aim of this research was to train GPs in brief and practical CBT techniques to use with their unemployed patients who were experiencing psychological health problems. The research team delivered the training programme and evaluated the impact of training upon GP skills. The general practice organization recruited GPs and provided catering and a training venue.

Necessity
There was a high level of perceived necessity for the intervention amongst GPs and the general practice organization because of the high rate of unemployment within the surrounding region and GPs’ sustained exposure to the health problems of people who were unemployed.

Opportunity
There was opportunity to build upon training structures within general practice to collaborate with the general practice organization in implementing the intervention. The Royal Australian College of General Practitioners (RACGP) continuing professional development (CPD) programme requires GPs to regularly register and update their skills through training administered by general practice organizations.
Capacity
There was limited ongoing capacity to disseminate this intervention within general practice. The general practice organization did not have a mechanism or structure for the continued support of training programmes or skill development for GPs who participated in them. This meant that reported difficulties with administering CBT and negative attitudes toward people who were unemployed amongst GPs could not be addressed. Another limitation to capacity involved the financing of general practice. Under Medicare financing arrangements, GPs can claim reimbursement for identified services or time in consultation; however, CBT is not an identified Medicare service nor can it be reliably administered within the time-frame of a standard consultation. Further, GPs practising in areas of high unemployment and disadvantage spend less time on average in consultation with patients than GPs practising in advantaged areas; suggesting that there is little opportunity for this intervention to be disseminated within general practice in the areas that need it most.

Relationship
This intervention was driven by both the research team and general practice organization, although we tended to work in tandem rather than in collaboration. There was a real need for the general practice organization to be involved in the training to engender commitment to the intervention and address issues of capacity. The RACGP training structures are both a facilitator and a barrier to this; while general practice organizations are interested in developing relationships with researchers to deliver training that attracts CPD points for their GP members there is little incentive for this relationship to continue.

Action
The RACGP CPD programme requires an evaluation of GP learning as a result of training; making this mechanism useful for researchers interested in impacting upon the delivery of primary care to particular groups of patients. However, the training structures do not necessarily support rigorous research designs that incorporate the randomization of participants or inclusion of control groups. A significant concern for general practice researchers in Australia is the potential for sample bias. GPs are regularly reimbursed for their participation in research through CPD incentives or financial remuneration. This can have a substantial impact upon who participates in what research.

Sustainability
It is likely that some GPs will continue to use CBT techniques with their unemployed patients at their discretion; although these applications will likely be non-systematic, unsupported and show limited reach in addressing the psychological health impact of unemployment.

Implications for future research within general practice
Research activity should focus upon demonstrating the effectiveness of general practice based CBT interventions in improving the psychological health of people who are unemployed. Any such trial will need to address the issue of consultation length, perhaps through demonstration projects of extended CBT sessions or lobbying for the introduction of Medicare items specific to psychological intervention. Alternatively, research may best focus upon workforce substitution, such as evaluating interventions where psychologists are employed to address the psychological effects of unemployment in disadvantaged regions.

Case study 3: collaborating with mental health services
In Australia, people with chronic and severe mental illness receive free mental health care from regionally organized mental health services administered by state government health departments. Mental health services provide clinical treatment and rehabilitation services centred upon a client case management system. Vocational rehabilitation is not identified as a core goal of treatment or rehabilitation and is provided to mental health services clients on an ad-hoc basis. Where they exist, vocational rehabilitation services are small units or programmes within regional divisions of mental health services that provide pre-vocational skills training. Vocational rehabilitation units are reliant upon the larger mental health services structure for budget allocation, approval of activities and the referral of clients.

The aim of this research was to pilot-test the utility of a CBT group training programme in promoting the psychological resources of people with chronic and severe mental illness who intended to re-enter the workforce. In this research, we collaborated with a vocational rehabilitation unit in planning and implementing the intervention.

Necessity
This pilot research was initiated by occupational therapists (OT) within the vocational rehabilitation unit, demonstrating a high level of perceived necessity for the intervention. The OTs perceived that existing vocational rehabilitation programmes were unable to impact upon major psychological barriers to gaining and maintaining employment: that is, a lack of confidence in looking for work, poor problem solving ability, and a lack of appropriate psychological skills to manage stress.

Opportunity
We had the opportunity to build upon a number of policy and support structures within the vocational rehabilitation unit to implement this intervention. First, structures for training were well established with mechanisms for recruitment, organization, access to training facilities and transport of clients to and from the training venue. Additionally, the manager of the vocational
rehabilitation unit allocated staff time and resources to support the intervention.

Capacity
The capacity of the vocational rehabilitation unit to disseminate the intervention was enhanced by involving OTs in the research planning and delivery of training; these measures ensured that the intervention could be accommodated and supported within training structures. However, there was a high turnover of OTs during the intervention and capacity in terms of staff knowledge in the goals and administration of the programme was lost each time. Further limitations to capacity included the small client pool of the vocational rehabilitation unit from which to draw recruits for the intervention. Accessing clients for vocational rehabilitation within mental health services was difficult, even for the OTs who were well connected within the system. Essentially, vocational rehabilitation was seen to be peripheral to the core functions of symptom management and treatment and general mental health staff tended to perceive employment as a stressor that could induce relapse amongst people with chronic and severe mental illness.

Relationship
This research was driven by the vocational rehabilitation unit who identified the need for client training in psychological skills and allocated resources to supporting the intervention. This demonstrated a shared commitment to the goals of the intervention and enabled the research team and vocational rehabilitation unit to collaborate effectively in piloting the training programme.

Action
Despite this high level of commitment from the vocational rehabilitation unit, we had some difficulty convincing staff of the necessity for an evaluation of CBT training upon the psychological health of people with chronic and severe mental illness. It was not standard practice within the unit to systematically evaluate programmes in terms of their effectiveness in achieving health or employment for participating clients. In general, there appeared to be a poor understanding of the process and utility of evaluation within mental health services.

Sustainability
The potential sustainability of this programme within the vocational rehabilitation unit was encouraging, although access to the intervention for people with chronic and severe mental illnesses would likely be limited by a lack of structural support from the wider mental health system.

Implications for future research with mental health services
This pilot project needs to be extended into a larger study to assess the effectiveness of CBT in improving the psychological health of unemployed mental health services clients. It may be useful to approach this research in two stages. First, by demonstrating the efficacy of CBT in a methodologically rigorous study that has the support of mental health services staff but not their involvement in recruitment. Secondly, by collaborating with mental health services staff in implementing and evaluating a system to support the referral of clients to vocational rehabilitation programmes.

Conclusion
Unemployment remains a significant public health problem. We have demonstrated some of the challenges in implementing interventions to address the psychological health impact of unemployment within organizations that provide services to people who are unemployed in Australia. Some of these challenges can be overcome through focussed intervention arising from an analysis of organizational priorities and capacity to support the delivery of psychological services. Other challenges will require researchers to adopt different approaches to improving the health of people who are unemployed, including advocating for structural changes within services that better meet the needs of the unemployed population.

Psychological interventions can be notoriously difficult to implement in non-research settings.26 Even though CBT is one of the most prolific therapies in psychological intervention and is increasingly being promoted as the preferred treatment for depression, both in terms of efficacy and cost-effectiveness,27,28 we were unable to demonstrate sustainability of CBT unemployment interventions in practice. Simply having the evidence for the efficacy of an intervention does not guarantee its effective dissemination to people who are unemployed.

In Australia, there are currently few mechanisms to support the delivery of psychological services to disadvantaged populations who are unemployed. While there are structures for disseminating interventions for general health, physical health and mental health, there is currently no structure through which we can promote psychological health and well-being. Where do you develop a psychological health delivery system, especially for people who are unemployed? In other words, whose core business is it to address the psychological effects of unemployment? This presents a challenge to public health researchers and practitioners in collaborating with service organizations to reduce the psychological health impact of unemployment.

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