Abstract

Introduction: Current literature suggests that unemployment can have a negative effect on mental health and well being, affecting an individual’s ability to become reemployed. There is limited research in the area of interventions which target people who are unemployed. This study aims to investigate the effectiveness of an 8 week Work Ready occupational therapy program, on mental health and well being in unemployed people.

Method: Quantitative measures were administered before and after the 8 eight week program to assess for changes in depressive symptoms, anxiety, self-esteem and coping. Four participants completed the pre and post measures.

Results: The findings of the study suggest some positive trends in relation to mental health improvements following participation in the Work Ready Program. 75% of the sample group decreased in levels of depression and 100% of the sample group decreased in negative coping. These findings should be interpreted with caution considering the limitations of this study.

Conclusion: This study highlights the importance of the role which occupational therapists can play in reducing the negative effects of unemployment. There is a need for further research into effective occupational therapy programs with people who are unemployed to provide stronger evidence based practice in the area.
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</table>
Introduction

The national unemployment rate is high, currently at 14.4% (CSO, 2012). It is therefore essential to evaluate the impact which unemployment can have on health and well-being and investigate possible strategies to counteract any potential negative effects. Unemployed people have been found to have significantly poorer health, with more visits to their doctors, taking more medication (Linn et al, 1985) and report more medical symptoms and illness (Jin et al, 1995). Rates of suicide and parasuicide have also been noted to be higher in unemployed when compared to employed people (Platt and Kreitman 1984; Preti and Miotto 1999). Unfortunately, there is little health professionals can do to have a dramatic effect on the current economic crisis but perhaps occupational therapists can help to protect the unemployed population and support them through this “occupational disruption” which is impacting negatively on their health.

The Work Ready occupational therapy program was established as a pilot project ran by the Department of Occupational Therapy in the University of Limerick. This project involved a large scale study to investigate the effectiveness of the program and the suitability of occupational therapy interventions unemployed people. This research focuses on examining changes which occur in anxiety, depressive symptoms, self esteem and coping abilities using quantitative pre and post measures.

The research objectives for this study include the following:

1. To contribute findings to the overall research study on work ready program.
2. To examine changes which occur in depressive symptoms, anxiety, self esteem and coping abilities before and after the 8 week occupational therapy program.
3. To investigate the suitability of occupational therapy interventions for unemployed people.
4. To provide recommendations for further research and practice.
Literature Review

Unemployment, Mental Health and Well-Being

Current literature suggests that unemployment has a negative impact on mental health and well being. Unemployment can lead to both physical and psychological symptoms (Hammarstram, 1994; Winkelmann, 1998). Paul and Moser (2009) found that there was a significant difference in the mental health of unemployed people compared to employed people, identifying the main symptoms as depression, anxiety, psychosomatic symptoms and low self esteem. Feather and Bond (1983) also highlighted depression and low self esteem as symptoms or common factors associated with unemployment. Experiencing unemployment can reduce one’s level of life satisfaction (Bockerman & Imakunnas, 2006).

The duration of unemployment is one of the main indicators to how much a person’s mental health will be affected. (Bjorklund & Eriksson, 1998). Long-term unemployment leads to lower self-esteem and belief in self for reemployment (Creed, 1998; Mastekaasa, 1996). Hanisch (1999) recommends more research in the area of health and unemployment to develop successful interventions for unemployed individuals.

Occupation, health and well being

From an occupational science perspective, we can explore the positive effects of engaging in occupation and also understand the key concepts relevant to unemployment, “occupational disruption”, “occupational adaption” and occupational balance (Whiteford, 2000; Schkade & Schlutz, 1992; Scanlon, 2011). The understanding of these concepts and how they impact on health and well being is one of the core reasons occupational therapy practitioners are suited to working with the unemployed population. “Occupational disruption occurs when a person’s normal pattern of occupational engagement is disrupted due to significant life events or changes”, it is not “a prolonged state but a temporary one which given supportive conditions, resolves itself” (Whiteford, 2000) p201. Unemployed people are going through a stage of
occupational disruption and occupational therapy intervention may support people through this. The aim of occupational therapy practice is to “engage in practical approaches which enable people to develop their occupational potential” (Townsand, 1993 p175)

The positive relationship between occupation and health has long been researched in occupational science literature. Withdrawal or changes in occupational participation can have a significant impact on a person self-perceived health and well-being (Law et al, 1998). Unemployment is a withdrawal from occupational participation which may be out of the persons control and impact on many areas of their life. Piskur et al, (2002) found that occupation created a feeling of balance in life and also could lead to achieving of mastery and control and a method of encouraging social interaction and connection with family and society. Strong social networks and community participation have been suggested to reduce the negative effects of unemployment on mental health (Mathers & Scholfield, 1998). “Engagement in productive activities such as employment often represent our contribution to our home family, workplace, community and society, to validate our need to feel that we accomplish something within our sphere of influence”(McColl et al, 2003 p2). Maintaining a work role is an important element to a person’s self identity (Perrsson et al, 2001).

“Occupational Therapy practitioners recognise that health is supported and maintained when clients are able to engage in occupations and activities that allow desired or needed participation in home, workplace, and community life” (American Occupational Therapy Association, 2008) More research is needed to identify effective ways of restoring one’s self identity during unemployment as it is a key component of health.

**Methodology**

**Purpose of evaluation**

The purpose of this exploratory study was to test for changes in mental health among unemployed people who participated in an eight week occupational therapy Work
Ready programme. Quantitative measures were administered pre and post intervention. These measures assessed levels of depression, anxiety, self esteem and coping abilities of the population group in order to identify any change post intervention.

**Participants**

Permission was obtained to place a poster on the Tus Nua website and to recruit through the Dell Redundant Workers Association based in Limerick. As the response to this was low, posters were placed in community locations such as the post office, social welfare office and library. See table 2 for inclusion and exclusion criteria for the sample group.

**Table 1**

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults over age 18</td>
<td>People under age 18</td>
</tr>
<tr>
<td>Currently unemployed</td>
<td>People unemployed for longer than 2 years</td>
</tr>
<tr>
<td>Unemployed for less than 2 years</td>
<td>People who are unemployed and have not experienced employment</td>
</tr>
</tbody>
</table>

Ten participants in total took part in the Work Ready program. Nine of these participants consented to having the questionnaires which they completed to be part of the analysis. Four participants completed both the pre and post questionnaires, three female participants and one male participant.

**Intervention**

The Work Ready occupational therapy programme was implemented by six occupational therapists from the Occupational Therapy Department in the University of Limerick. The eight week program was made up of three hour sessions once a week (See table 2).
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Content</th>
</tr>
</thead>
</table>
| 1    | Welcome                           | • Welcome  
• Introductions  
• Ice breaker  
• Group rules  
• Clarify expectations  
• Present draft plan for next 7 weeks, discuss participant session ideas  
• Measures at start and end of session.  
• Discussion/lecture on relationship between work and health.  
• Use ESRI time use diary to discuss what people are currently doing. |
| 2    | Structure & Routine               | • Structure and routine  
• Role of leisure and self care in enacting structure  
• Exploration of interests and values  
• Reflection on previously enjoyed activities/abandoned activities  
• Sleep hygiene  
• Experiential component, |
| 3    | Career Exploration & CV prep      | • Career exploration activities  
• Connecting careers with values and interests.  
• Identifying transferrable skills.  
• C.V review activity  
• Pointers on C.V. preparation.  
• Creative activity. |
| 4    | Stress Management                 | • Stress management,  
• Understanding stress – cognitive behavioural approach,  
• Relaxation/calm breathing activities  
• Activity based stress management techniques  
• Restorative occupations  
• Physical activity |
| 5    | Volunteering & Community exploration | • Benefits of volunteering  
• Identifying informal/formal social connections  
• Creating social networks habits/routine |
| 6    | Interview Skills                  | • Interview skills  
• Give feedback  
• Creative activity/physical activity |
| 7    |                                   | Session based on client needs  
Preparation for group closing, discussion re: ongoing peer support. |
| 8    | Meal Closing session              | • Meal  
• Closing activity  
• Reflective activity  
• Goal setting for the future  
• Problem solving: Identifying barriers to change and enablers of change  
• Repeat of assessments, |
**Instrumentation**

Quantitative measures were self administered by the participants in the form of questionnaires (see appendix A). These measures have been used in other research and clinical practice and have been proven as valid and reliable outcome measures. The measures will test depressive symptoms, anxiety, self esteem and coping abilities.

The Beck Depression Inventory II was used to test depressive symptoms. Beck Depression Inventory-II is a multiple choice self-report inventory of 21 questions relating to the symptoms of Depression. This measure has been proven to be a reliable and valid screening tool for use in a number of different settings and population groups (Osman et al, 2006; Segal et al, 2008; Yin et al, 2000). The Inventory provides a score which represents a level of depressive symptoms.

- 0–9: indicates minimal depression
- 10–18: indicates mild depression
- 19–29: indicates moderate depression
- 30–63: indicates severe depression.

(Beck et al, 1996)

The Beck Anxiety Inventory was used to test anxiety in the participants. This Inventory consists of 21 questions about how the person has been feeling in the past week. This inventory is one of the best tools for assessing anxiety symptoms (Leyfer et al, 2006). Its reliability and validity was been demonstrated in previous research (Osman et al, 2002; Kabacoff et al, 1997; Piotrowski, (1999). The scores represent levels of anxiety as follows:

- 0-7: minimal level of anxiety
- 8-15: mild anxiety
- 16-25: moderate anxiety
- 26-63: severe anxiety

(Beck & Steer, 1993)

The Rosenberg Self-Esteem scale is a self administered ten-item scale which examines the participants’ thoughts and feelings about themselves and their self- value or worth.
It is a commonly used scale in health and social sciences and has proven reliability and validity (Robins et al, 2001; Fleming and Courtney, 1984).

The Brief COPE inventory is a shortened version of the original COPE inventory and was designed to assess coping abilities and methods among adults. The coping methods in this include 1) active coping, 2) planning, 3) using instrumental support, 4) using emotional support, 5) venting, 6) behavioural disengagement, 7) self-distraction, 8) self-blame, 9) positive reframing, 10) humour, 11) denial, 12) acceptance, 13) religion, and 14) substance use. It has been used for many health-related studies across different settings (Cooper et al, 2008; Carver, 1997; Muller & Spitz, 2003). For this study, the results for the COPE inventory were divided into positive and negative coping abilities for easier interpretation of results.

**Data analysis**

The data collected was intended to be entered into Statistical Package for Social Sciences (SPSS) for analysis and interpretation of results. Due to the restricted number of participants, the results were analysed using excel worksheets, tables and graphs. The sample size would not have been suitable for SPSS statistical tests. The scoring system for each of the quantitative measures was used to give an individual score for depression, anxiety, self esteem and coping abilities. These scores were then entered in excel for descriptive statistical analysis.

**Ethics**

Ethical clearance was sought and approved through the Faculty of Education and Health Sciences Research Ethics Committee in the University of Limerick. There were no foreseen risks to participants from this intervention. The main issues highlighted in the ethical clearance application were potential issues of sensitivity and confidentiality. The pre and post measures contained questions which covered some sensitive areas which may have provoked feelings of discomfort. To minimise these risks an information and consent form was given to each participant at the beginning of the study, to ensure the client’s consent and to inform them of the content of the questionnaire. If it was seen that participants were being affected by the questions, contact details for support were made available. To ensure confidentiality, no personal details were required for these
questions so the answers were completely anonymous. Only the researchers of this study had access to any data collected in the study.

**Results**

The results were obtained from the four participants who completed the pre and post measures.

**Depression**

Participants 1, 2 and 3 showed a decrease in the Beck Depression score after the eight weeks Work Ready Program (See table 3). Participant 2 did not complete the post measure questions fully, leaving some of the questions unanswered. The Beck depression score for participant 1 (score=21) indicates a moderate depression pre intervention. The score for participant 2 (score=15) indicates mild depression and participants 3 and 4 showed minimal depression (score=7 and score=2 respectively). Figure 1 illustrates the Beck Depression scale score changes from pre to post intervention. Participant 1 decreased from moderate depression (score=21) to minimal depression (score=8) showing a 61.9% reduction in level of depression. Participant 2 went from mild depression (score=15) to minimal depression (score=6), representing a 60% reduction. Participant 3 remained in the minimal depression range throughout the eight weeks, showing a 14.2% reduction from pre measure (score=7) post measure (score=6). Participant 4 was the only participant to increase in depression, developing from minimal (score=2) to mild depression (score=12).

**Table 3: Beck Depression Inventory II scores**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>6*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Some questions not completed</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>12</td>
</tr>
</tbody>
</table>
Anxiety

The Beck anxiety scores for the four participants are represented in table 4. Participant 3 did not complete the pre measure for anxiety.

Table 4 Beck Anxiety Inventory Scores

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>*Not completed</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

In figure 2, the differences in anxiety levels from before to after the programme are presented. Participant 1 presented with a minimal level of anxiety both at pre and post measures. A slight difference was shown in a decrease from (score=6) to (score=5) in Beck Anxiety scores, a 16.6% reduction. Participant 2 showed a moderate level of anxiety at the beginning and end of the program. Again a slight difference was found, in this case an increase from (score=19) to (score=20), a 5.3% increase in anxiety level. Participant 4 showed the same score pre and post intervention (score=10), which showed a mild level of anxiety.
The Rosenberg Self Esteem Scale scores are presented in table 5. Both pre and post measures are presented. Participant 1 and 2 showed an increase in self esteem following participation in the Work Ready program and participant 3 and 4 showed a decrease in Rosenberg Self Esteem Scale scores.

Table 5 Rosenberg Self Esteem Scores

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>21</td>
</tr>
</tbody>
</table>

In figure 3 the differences in levels of self esteem from the initial measurements at the beginning of the program to the end of the program are illustrated. All four participants showed scores which are within the normal range of self esteem, both before and after the program. Participant 1 showed an increase of 5%, increasing from (score=20) to (score=21). Participant 2 showed a 5% increase from (score=19) to (score=21). Participant 3 decreased by 10% and participant 4 decreased by 8.7%.
Figure 3 Rosenberg Self Esteem pre and post comparison

Self esteem levels increased for participant 1 and 2 but decreased for 3 and 4 post intervention.

Negative Coping

The Brief COPE inventory was divided into positive and negative coping methods used by participants. Scores in the Brief COPE are presented in Table 6. All four participants showed a decrease in negative coping scores. Participant 2 and 4 had unanswered questions in this measure.

Table 6 Brief COPE inventory negative coping pre and post scores

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>2</td>
<td>26</td>
<td>15*</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>21</td>
<td>16*</td>
</tr>
</tbody>
</table>

Some questions unanswered

Figure 4 illustrates the changes which occurred in negative coping methods. Participant 1 showed a decrease of 8.7%, from (score=23) to (score=21). Participant 2 decreased by 42%, from (score=26) to (score=15*). Participant 3 also reduced in score by 29%, from (score=17) to (score=12). Participant 4 decreased by 24%, from (score=21) to (score=16).
As with the negative coping scores, the positive coping scores included questions which were unanswered for participant 2 and 4. Table 7 shows the positive coping scores for the four participants. All participants showed a reduction in scores.

**Table 7 - Brief COPE inventory pre and post measures for positive coping**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>28*Some questions unanswered</td>
</tr>
<tr>
<td>3</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>47</td>
<td>22*Some questions unanswered</td>
</tr>
</tbody>
</table>

Differences which occurred in positive coping scores pre and post the Work Ready program are displayed in figure 5. Participant 1 showed a decrease of 25%, from (score=35) to (score=26). Participant 2 showed a decrease of 36.4%, from (score=44) to (score=28). Participant 3 lowered from (score=43) to (score=40), by 7%. Participant 4 reduced by 53%, from (score=47) to (score=22).
Discussion

Effectiveness of the Work Ready Program

The findings from this study are somewhat inconclusive as to the effectiveness of the Work Ready Program in improving levels of anxiety, depression, self esteem and coping. The paper does however provide some key points for discussion and future investigation. From the Literature discussed earlier it is evident that unemployment does impact on these areas of mental health. Fifty percent of the sample group showed mild to moderate levels of depression. Research has shown that unemployed people have significantly higher levels of depression when compared to employed people (Feather and Bond, 1983; Paul and Moser, 2009). It is difficult to identify the reasons for 50% of the sample experiencing depressive symptoms but from the literature the reason may be the influence of being unemployed. Some findings from this study suggest a positive effect of this occupational therapy program on mental health. 75% of the sample group decreased in levels of depression and 100% of the sample group decreased in negative coping. This trend may indicate that the program was effective in these particular areas which have been highlighted in research to date, indicating the importance of addressing these issues. Langens and Mose (2006) found that
unemployment caused a decrease in productive coping and an increase in non productive coping in their daily lives. This study has shown non productive coping did decrease after the program. However some limitations which are mentioned later in the paper may reduce the significance of these findings. Only one of the four participants presented with reduced anxiety at the end of the program. This was surprising as stress management was a topic within the program. Interestingly, this participant (participant 2) showed the most positive effects from the eight week program. Participant 2 showed a decrease in depressive symptoms, increase in self esteem, reduced anxiety and a reduction in negative coping. This may indicate that a decrease in anxiety levels is achieved if the other symptoms have improved.

Research has shown that unemployment may interfere with life satisfaction. Low level of satisfaction in life can be the foundation to somatic symptoms, depression and anxiety experienced by unemployed people (Linn et al, 1985). This may be a possible indicator as to why unemployment programs may not be shown to be effective and are difficult to measure. If a person's satisfaction is low then there are many elements which need to be addressed making the approach very complex. Addressing unemployment as a whole requires broader thinking as it is not just one or two areas to be targeted but a whole person's life satisfaction and all the elements which surround it. The whole importance of understanding human complexity has been debated and discussed in occupational science research. “The whole is much, much greater than the sum of its parts” (Whiteford, & Wright-St Clair 2005, p.4). This paper demonstrates the possible complexity of the group. The four participants presented differently in levels of depression, anxiety, self-esteem and coping in pre and post comparisons. It was difficult to observe a common trend for some of the measures, for example with self esteem, half of the sample group reduced in levels of self esteem and the other half of the group improved in self esteem after the program. Reasons as to why some participants improved in mental health and some participants showed increased symptoms are difficult to find from this study. Schuring et al (2009) investigated the effectiveness of a health promotion program on health and well being among unemployed people, which found no benefits for participants in the program. This current study also showed an unexpected trend in the findings which is the decrease in positive coping for all four participants. These findings suggest that a program for an unemployed population
needs to be multifaceted to be successful and target the implications of unemployment. The diversity of the findings in this study informs us of the complex nature of this population group. Creek and Hughes (2008) found that engagement in occupations improves elements of a person’s life including survival, managing chronic illness or disability; disease and disability prevention and improvement in life-satisfaction and self-concept. Therefore the loss of engagement in occupation may have dramatic effects for an individual. The complexity of this population group should not be underestimated and understanding this is key to successful interventions.

Audhoe et al (2010) carried out a systematic review to determine the effectiveness of vocational interventions for unemployed people. The authors concluded that there is weak evidence to support the use of vocational interventions for unemployed people. Two of the studies reviewed did show that there was a short term improvement in mental health status for people with poor mental health. Similar to this study it was difficult to find significant results to demonstrate the effectiveness of interventions for unemployed people.

Studies have shown that psychosocial well-being can be achieved through occupation based interventions. An occupation based mental health program which ran in Canada for people with mental illness, achieved positive effects on mental health status (Rebeiro et al, 2001). At the end of this program participants reported higher levels of self esteem, increased levels of social interaction and a greater sense of belonging in the community (Rebeiro et al, 2001). In this current study, the findings suggest that the Work Ready program facilitated an increase in self esteem for two out of the four participants. One of the most effective large scale occupational therapy programs to date was the Well Elder Study conducted by Clarke et al (1997). In this study a lifestyle redesign program was introduced for older adults. Significant benefits were found for the participants in mental health, quality of life and functional ability (Clarke et al, 1997). Some of the findings from the Work Ready program may suggest similar benefits such as decrease in depression and decrease in negative coping. The Well Elder program was also formed on the occupational science theory that engagement in occupations can enhance health and well-being (Jackson et al, 1998). Outcomes which resulted from the Well Elder study included improved mental and physical health and increased life satisfaction. The success of these particular studies highlights the
potential of occupational therapists’ role in mediating the negative mental health consequences of unemployment. This may be a possible reason behind the trends of positive mental health effects which were found in this study.

**Implications for Occupational Therapy**

One of the key themes which evolved from this paper is the role which occupational therapy can play in supporting individuals through unemployment. Although the findings from this paper do not give concrete evidence to what areas of mental health were improved by the program, there is still the outcome from the literature explored that occupational therapy interventions should be regarded as suitable and appropriate to working with the unemployed population. The whole ethos of occupational therapy is around occupation and its influence on health and well being. Spending time engaging in personally meaningful occupations can help to increase a person’s “sense of value and purpose to life” (Hammell, 2004 p300). Occupational therapy should be utilised to assist individuals in achieving or regaining this sense of value and purpose to life. We know from the literature mentioned earlier that unemployment impact’s on a person’s life satisfaction and self esteem. Occupational therapy has the potential to improve on these areas and use the knowledge of occupational science to guide practice. Law (2002) suggests that it is through active participation in occupations people engage with their communities and value their lives more. Occupational therapy recognises the importance of the work role for the person’s experience of identity (Persson et al, 2001). Occupational therapists understand the impact occupational disruption can have on health and wellbeing and the importance of productive activities and occupational balance in one’s daily life.

Using occupational science, occupational therapists can look at unemployment as a stage of ‘occupational disruption’. As this is only a temporary stage of disruption (Whiteford, 2000), occupational therapists have a part to play in assisting people to adapt to this stage to protect their mental health and well being. Occupational adaptation can be explained as “a normative process, internal to the person, by which competence in occupational functioning develops” (Schkade & Schultz, 1992 p836) Occupational therapists can assist in this process to help develop or restore
occupational functioning and balance. Facilitating occupational balance in daily lives was a main aim of the Work Ready program. Although in this study it was difficult to identify if the participants achieved better occupational balance, it is evident from other research that this is a key area for intervention in unemployed people. It was difficult from the measures used in this study to identify occupational balance changes and how these would influence mental health. Scanlan et al (2011) investigated into time use and unemployment and found that individuals who are able to establish balance between productivity and leisure activities appeared to cope better with unemployment (Scanlan et al, 2011). Many of the participants of the study expressed the importance of finding meaningful work during unemployment including in education, volunteer work or helping friends and relatives (Scanlan et al, 2011). These are the areas in which occupational therapy can assist. It is evident that occupational therapy as a discipline has the tools and skill base to provide interventions which are relevant and effective to unemployed people but it is trying to get evidence based behind it to ensure that interventions are effective is important.

**Limitations**

There were a few limitations to this study which need to be highlighted for interpretation of results and also for future research. Firstly the sample size was small with only four participants in total completed the pre and post measures. This resulted in difficulty drawing conclusions regarding overall effectiveness of the program and application of these results to the general unemployed population. As the sample size was small it was hard to compare with the current literature in the area as common themes in the findings were not arising in analysis. The data from this research paper was intended to be analysed using the statistical packages for the social sciences (SPSS). As mentioned in the methodology, the data was analysed using Microsoft excel as an alternative because the sample numbers were so limited. This restricted the depth of analysis which could have been studied, resulting in use of descriptive statistics only. Secondly, sections of the questionnaire which were part of the quantitative measures were unanswered. This again reduces the significance of the findings. This study is part of an overall study investigating the effectiveness of an occupational therapy program for an unemployed population group. This part of the study concentrates on
quantitative measures of mental health. The researcher would advise that the other parts of the study which look at qualitative data, time use and engagement in meaningful activity should be examined with this study as they may shine more light on the possible reasons behind the findings in this study. Although this is not a limitation to the study it is important to highlight the importance of combining all elements of the overall study to increase understanding.

**Recommendations for future research**

From the limitations and the outcomes of this study, recommendations for future research in the area can be drawn.

1. Further research into the effectiveness of occupational therapy programs and unemployment is needed. From this study, we can see how it could work effectively. Before occupational therapists can delve into working with people to support them through unemployment, it is essential that there is research to provide evidence based practice to guide intervention.

2. To ensure this evidence based practice, perhaps randomised control trial studies might provide a more detailed look at particular elements of the programs and illustrate what is effective.

3. From this study it is evident that quantitative measures alone restrict the level of understanding gained from the sample group and the effectiveness of the program. It would be recommended that similar to the overall study on this Work Ready program, both qualitative and quantitative measures used together provide a more in depth analysis.

4. Quantitative measures such as the Life satisfaction scale, quality of life or occupational measures may provide a broader picture of the individuals’ rather than specific symptoms measures such as the Beck Depression Inventory.

5. In future research, more detail could be given to the program itself and what elements would be included to ensure it meets the needs of the participants. The introduction of a more comprehensive needs assessment strategy would ensure needs are met. Todorova (2008) illustrated how the Model of Human Occupation provided a suitable framework for a needs assessment for a work
related program. A framework similar may be used as a suitable needs analysis tool.

6. Larger scale research is needed in the area with a greater number of participants to present findings which are applicable to the general population of unemployed people.

**Conclusion**

Unemployment is a growing problem worldwide. It is found to have serious health consequences for individuals and their families. This study has highlighted the negative impact which unemployment can have on mental health and well-being. There is limited research identifying possible methods of counteracting this problem. This exploratory study aimed at evaluating a Work Ready occupational therapy eight week program and its effectiveness in improving mental health. Depression, anxiety, coping and self esteem were all measured to try to achieve this. The findings of this study suggest some trends in relation the effectiveness of the Work Ready program in improving mental health and well being. The majority of the sample group showed a reduction in levels of depression and negative coping. This may be difficult to generalise to the unemployed population as a whole but it is however a key finding and should be investigated further in future research in this area. Although limitations in methodology and sample size made it difficult to draw precise conclusions, there are some clear consistencies with regards to the role of Occupational therapy with an unemployed population group. Occupational science provides a suitable framework for understanding unemployment. Unemployment can be seen as a stage of occupational disruption. Occupational therapists can assist and support unemployed groups through this disruption and help them to achieve occupational balance and adaption. From this study it is evident that this is a very complex group as unemployment can effect life satisfaction and many areas of mental health which will have an impact on occupational functioning. The positive relationship between occupation, health and well being is the foundation to occupational therapy, suggesting its relevance for application to unemployed groups. Meaning, purpose, and choice in occupation may improve quality of life (Hammell, 2004). Limitations were identified in this study which would have implications for
future research and interpretation of results. Recommendations have derived from this paper for future research in this area with regards to mixed methodologies and need for larger scale research projects to ensure that evidence can be generalised to the unemployed population. There is a need for further research into occupational therapy programs for unemployed people and areas that should be addressed in these programs. This is essential to provide an evidence base for occupational practice in this area and support the role which occupational therapists can play in addressing unemployment.
References


Inventory with older adult psychiatric outpatients’. Journal of Anxiety Disorders, 11 (1), 33–47.


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All the help and support received during this project is much appreciated.
Appendix A

Quantitative Measures

These measures will be in the form of questionnaires which will be self-administered by the participants. The questions will cover areas of mental health, self-esteem, physical health and well-being and coping abilities and will take 30 minutes to complete.

Rosenberg Self Esteem Scale

Answer the statements with one of the following answers:

- Strongly Agree
- Agree
- Disagree
- Strongly disagree

0  I feel that I am a person of worth, at least on an equal plane with others.
1  I feel that I have a number of good qualities.
2  All in all, I am inclined to feel that I am a failure
3  I am able to do things as well as most other people
4  I feel I do not have much to be proud of.
5  I take a positive attitude toward myself
6  On the whole, I am satisfied with myself
7  I wish I could have more respect for myself
8  I certainly feel useless at times
9  At times I think I am no good at all

Brief COPE Inventory

Answer one of the following:

1 = I haven't been doing this at all
2 = I've been doing this a little bit
3 = I've been doing this a medium amount
4 = I've been doing this a lot

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.
25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Beck Anxiety Inventory

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.

1) Not At All
2) Mildly but it didn’t bother me much.
3) Moderately - it wasn’t pleasant at times
4) Severely – it bothered me a lot

<table>
<thead>
<tr>
<th>Symptom</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>Numbness or tingling</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Feeling hot</td>
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<tr>
<td>Wobbliness in legs</td>
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<tr>
<td>Unable to relax</td>
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<tr>
<td>Fear of worst happening</td>
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<tr>
<td>Dizzy or lightheaded</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart pounding/racing</td>
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Beck Depression Inventory II

1) Sadness
   0  I do not feel sad.
   1  I feel sad.
   2  I am sad all the time.
   3  I am so sad or unhappy that I can’t stand it.

2) Pessimism
   0  I am not discouraged about the future.
   1  I feel more discouraged about my future than I used to be.
   2  I do not expect things to work out for me.
   3  I feel my future is hopeless.

3) Past Failure
   0  I do not feel like a failure.
   1  I have failed more than I should have.
   2  As I look back, I see a lot of failures.
   3  I feel I am a total failure as a person.

4) Loss of Pleasure
   0  I get as much pleasure as I ever did from the things I enjoy.
   1  I don’t enjoy things as much as I used to.
   2  I get very little pleasure from the things I used to enjoy.
   3  I can’t get pleasure in the things I used to enjoy.

5) Guilty Feelings
   0  I don’t feel particularly guilty.
   1  I feel guilty over many things I have done or should have done.
   2  I feel quite guilty most of the time.
   3  I feel guilty all of the time.

6) Punishment
   0  I don’t feel I am being punished.
   1  I feel I may be punished.
   2  I expect to be punished.
   3  I feel I am being punished.
7) Self Dislike
   0 I feel the same about myself than ever.
   1 I have lost confidence in myself.
   2 I am disappointed in myself.
   3 I dislike myself.

8) Self Criticism
   0 I don’t criticise or blame myself more than usual.
   1 I am more critical of myself than I used to be.
   2 I criticise myself for all my faults.
   3 I blame myself for everything bad that happens.

9) Suicidal Thoughts or Wishes
   0 I don’t have any thoughts about killing myself.
   1 I have thoughts of killing myself, but I would not carry them out.
   2 I would like to kill myself.
   3 I would kill myself if I had the chance.

10) Crying
    0 I don’t cry anymore than I used to.
    1 I cry more than I used to.
    2 I cry over every little thing.
    3 I feel like crying, but I can’t.

11) Agitation
     0 I am no more restless or wound up than usual.
     1 I feel more restless and wound up than usual.
     2 I am so restless or agitated that it’s hard to stay still.
     3 I am so restless or agitated that I have to keep moving or doing something.

12) Loss of Interest
     0 I have not lost interest in other people or activities.
     1 I am less interested in other people or things than before.
     2 I have lost more of my interest in other people or other things.
     3 It’s hard to get interested in anything.

13) Indecisiveness
     0 I make decisions about as well as ever.
     1 I find it more difficult to make decisions than usual.
     2 I have much greater difficulty in making decisions than I used to.
     3 I have trouble making any decisions.

14) Worthlessness
     0 I do not feel I am worthless.
     1 I don’t consider myself as worthwhile and useful as I used to be.
     2 I feel more worthless as compared to other people.
     3 I feel utterly worthless.

15) Loss of Energy
     0 I have as much energy as ever.
     1 I have less energy than I used to.
     2 I don’t have enough energy to do very much.
     3 I don’t have enough energy to do anything.

16) Changes in Sleep Patterns
     0 I have not experienced any change in my sleeping pattern.
     1 (a) I sleep somewhat more than usual.
        (b) I sleep somewhat less than usual.
     2 (a) I sleep a lot more than usual.
        (b) I sleep a lot less than usual.
3  (a) I sleep most of the day.
   (b) I wake up 1-2 hours early and can’t get back to sleep.

17) Irritability
0   I am no more irritable than usual.
1   I am more irritable than usual.
2   I am much more irritable than usual.
3   I am irritable all the time.

18) Changes in appetite
0   I have not experienced any change in my appetite.
1   (a) My appetite is somewhat less than usual.
    (b) My appetite is somewhat greater than usual.
2   (a) My appetite is much less than before.
    (b) My appetite is much greater than before.
3   (a) I have no appetite at all.
    (b) I crave food all the time.

19) Concentration Difficulty
0   I can concentrate as well as ever.
1   I can’t concentrate as well as usual.
2   It’s hard to keep my mind on anything for very long.
3   I find I can’t concentrate on anything.

20) Tiredness
0   I am no more tired than usual.
1   I get more tired more easily than usual.
2   I am too tired to do alot of the things I used to do.
3   I am too tired to do most of the things I used to do.

21) Loss of interest in sex
0   I have not noticed any recent changes in my interest in sex.
1   I am less interested in sex than I used to be.
2   I am much less interested in sex now.
3   I have lost interest in sex completely.