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JOURNAL: **The Journal of Mental Health Training, Education and Practice**
VOL/ISSUE NO: **10/1**
ARTICLE NO: **565809**
ARTICLE TITLE: **An evaluation of peer-led self-management training for people with severe psychiatric diagnoses**
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An evaluation of peer-led self-management training for people with severe psychiatric diagnoses

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This project was funded by the Big Lottery Fund, Wales. The authors are grateful to Jo Ackerman and Alyson Hammonds for their assistance on the project, and to Dr Helen Parsons for her advice. The authors also thank Bipolar UK for supporting the data collection.

Abstract

Purpose – *The purpose of this paper is to establish the effectiveness of self-management training as an intervention for people using secondary mental health services.*
Design/methodology/approach – *A self-management and peer support intervention was developed and delivered by secondary mental health service users to 262 people with psychiatric diagnoses living in the community. Data on wellbeing and health-promoting behaviour were collected at three time points (baseline, six, and 12 months).*
Findings – *Participants reported significant improvements in wellbeing and health-promoting lifestyle six and 12 months after self-management training. Peer-led self-management shows potential to improve long-term health outcomes for people with psychiatric diagnoses.*
Research limitations/implications – *Due to the lack of a control group, the positive changes cannot definitively be attributed to the intervention. Other limitations were reliance on self-report measures, and the varying numbers of completers at three time points. These issues will be addressed in future studies.*
Practical implications – *The evaluation demonstrated the effectiveness of self-management training for people with psychiatric diagnoses, suggesting self-management training may bring significant wellbeing gains for this group.*
Social implications – *This study represents a first step in the implementation of self-management approaches into mental health services. It demonstrates the feasibility of people with psychiatric diagnoses developing and delivering an effective intervention that complements existing services.*
Originality/value – *This is the first study to investigate the effectiveness of a self-management training programme developed and delivered by mental health service users in the UK.*

Keywords *Service users, Peer support, Self-management, Mental health services, Recovery, Mental ill-health*

Paper type *Research paper*

Introduction

Mental ill-health is one of the most widespread health problems in the UK. According to recent statistics, nearly 1.6 million people in England were in contact with specialist mental health services in the year to March 2013 (HSCIC, 2013a). Mental ill-health also has significant economic costs. In England, mental health conditions cost approximately £105 billion a year in treatment, welfare costs, and loss of earnings (Centre For Mental Health, 2010). People who use mental health services have a mortality rate 3.6 times higher than that of the general population (HSCIC, 2013b), and they also have poorer physical health (De Hert *et al.*, 2011). There are also significant differences in death rates from lifestyle-related health conditions: the mortality rate for people with mental health problems is approximately four times higher for

respiratory diseases and diseases of the digestive system, and 2.5 times higher for diseases of the circulatory system (HSCIC, 2013b).

Health behaviours are among the factors likely to contribute to the high morbidity and mortality rates consistently seen in psychiatric populations. People with long-term psychiatric diagnoses report lower scores on health-promoting behaviours, such as eating a healthy diet, taking regular exercise, and not smoking, compared with the general population, and it has been suggested that health behaviours are likely to contribute to higher morbidity and mortality in this group (Greenall, 2006; Holmberg and Kane, 1999). Understanding the behaviours that enhance health and wellbeing is an important factor in improving the management of long-term mental health conditions.

Mental health services in the UK are now predominantly delivered in the community. In the year to March 2012, the number of people spending time an NHS hospital (99,098) was the lowest ever recorded in the Mental Health Minimum Data Set. Although this increased slightly in the following year (to 105,224), it still represents only 6.6 per cent of people using mental health services in all settings (HSCIC, 2013a). The vast majority of people are therefore receiving most, if not all, of their services in community settings (HSCIC, 2013a, b).

Increasing and improving service user and carer involvement has been a prominent feature of UK government health and social care policy since the 1990 NHS and Community Care Act (Department of Health, 1990). This policy includes the increasing personalisation of mental health services and increasing people's involvement in making decisions about how their own care is organised and delivered (Department of Health, 2014).

In health care, self-management refers to the interventions, training, and skills by which individuals with a long-term condition can effectively take care of themselves, and are in direct control of the management of their condition. Self-management includes goal setting, problem solving, planning, decision making, and self-intervention (Crepaz-Keay and Cyhlarova, 2012). Over the last two decades, self-management programmes have been developed to assist individuals with mental health problems. There has been very little research about self-management for people with long-term mental health problems, and programmes developed by service users have not been widely investigated (Lorig *et al.*, 2013).

There is evidence of effective self-management for physical health conditions. However, until recently there has been little research into self-management for people who experience long-term mental ill-health. A number of self-management approaches have been developed specifically for people who experience mental ill-health, and research has suggested positive impact. The Wellness Recovery Action Planning (WRAP) was developed in the USA by consumers (the US term for people with direct personal experience of mental ill-health) and focuses on personal plans for recovery through: increasing awareness of triggers that may affect health, general ways of ensuring good health through lifestyle, understanding signs of deterioration, letting other people know how to respond, being specific about interventions and treatments, and use of legal advanced directives (Davidson, 2005). A randomised clinical trial of WRAP reported significant improvement in depression and anxiety subscales of the Brief Symptom Inventory, as well as increased hopefulness and enhanced quality of life (compared with usual care) (Cook *et al.*, 2012).

The Health and Recovery Peer (HARP) programme is an adaptation of the Stanford University Chronic Disease Self-Management Programme (CDSMP) initially developed for a range of long-term physical health problems in the USA jointly by consumer leaders, a professional educator, and a CDSMP developer (Druss *et al.*, 2010). A pilot of HARP programme (with random allocation to HARP or usual care) showed a significant improvement in patient activation, physical health, quality of life, physical activity, medication adherence, and use of physical health services (Druss *et al.*, 2010). Improvements in health indicators such as fatigue, quality of life, sleep, depression, and health distress have also been reported for the CDSMP used by patients with chronic mental illness (Lorig *et al.*, 2013). A modified version of the CDSMP (Living Well) has shown positive improvements in self-efficacy, patient activation, physical and emotional wellbeing, and health functioning in a sample of people with serious mental ill-health compared with usual care (Goldberg *et al.*, 2013).

A peer-led programme Building Recovery of Individual Dreams and Goals through Education and Support is a curriculum developed jointly by practitioners and service users in the USA. The programme offers information about mental ill-health, treatments, self-help, and independent living skills. Participants reported improvement in self-perceived recovery and hopefulness compared to controls over six months (Cook *et al.*, 2012).

Both WRAP and a mental health variant of the Stanford CDSMP have been used in the UK; the latter developed by a government-funded initiative, the Expert Patient Programme (EPP). In addition, Bipolar UK (formerly the Manic Depression Fellowship) have been delivering self-management training for people with bipolar disorder to their members. Until recently, however, there has not been a self-management programme for broader mental ill-health developed by mental health service users in the UK. The development of the new self-management training course was facilitated by the Mental Health Foundation (MHF) and is described elsewhere (Crepaz-Keay and Cyhlarova, 2012).

The aim of this study was to establish the effectiveness of this new self-management training course as an intervention for people with severe psychiatric diagnoses. The outcome measures were subjective wellbeing and health-promoting lifestyle, assessed at three points (baseline, six, and 12 months later).

Method

The self-management training course manual and participant materials were developed by people who had used secondary mental health services. The intervention was delivered by the MHF and Bipolar UK (Bipolar UK, 2014). Details of the course development are described elsewhere (Crepaz-Keay and Cyhlarova, 2012).

This project was a service evaluation, and according to the National Research Ethics Service (NRES) guidance, formal ethical approval was not required. No one particular person is identifiable in the paper, and NRES ethical practice was followed.

Recruitment of course participants

Course participants were people who used secondary mental health services in Wales and who had responded to a poster advertisement to attend a "self-management course", run by the MHF. Posters were displayed in a range of community and public settings and postcards and leaflets were distributed through voluntary sector networks. The materials included a telephone number that interested participants could call to find out more, and arrange to attend one of the courses.

Course facilitators

The courses were delivered by people who had previously been course participants. This is consistent with the peer-support approach and ensured that trainers had a good understanding of the course materials and that they had recent experience of learning self-management skills themselves. It also meant that participants could identify with the facilitators, rather than perceiving them as authority figures.

Course content

The number of participants per course varied between six and 15 with an average of 11. The course consisted of three parts, which would take approximately nine months to complete: two days of initial training with a focus on goal-setting and problem solving; six half-day follow-up sessions, usually fortnightly; and ongoing monthly peer support, over six months.

(1) Initial two-day training. The initial training almost always took place on two consecutive days, and was conducted by two facilitators. The training consisted of three elements:

- an explanation of the principles of self-management, the purpose and content of the training, and peer support;
- exercises with individuals, small groups, and the whole group to support goal-setting and problem solving; and
- support for participants to set their own first goals as part of a small group exercise.

(2) Six follow-up sessions. Approximately two weeks after the initial training, participants attended a half-day follow-up session, which was repeated five times at approximately fortnightly intervals. At these sessions, progress towards goals was reviewed and participants were encouraged to work together to help each other solve problems that arose. Some sessions were designed to focus on a specific theme and sometimes external contributors were invited. Themes included weight loss and healthy eating; managing money and dealing with debt; smoking cessation and relaxation; and stress management. One of the principles of these sessions was gradually to reduce the level of input from the facilitators, the aim being that participants would be more self-directed as the course progressed.

(3) Ongoing peer support. Financial and administrative support was available for the groups to meet for at least six months after the last follow-up session. When the follow-up sessions were completed, the course participants continued to meet regularly as a group. The frequency of meetings was determined by the group. The level of facilitation was minimal and ensured that group meetings took place, people were supported to attend, and that discussions focused on progress towards goals and problem solving.

Evaluation study

Recruitment of participants

Participants in the self-management training courses that took place between November 2010 and January 2012 were invited to take part in this study. On the second day of the initial training, course participants were told about the evaluation and were given an information sheet. If they agreed to participate, written consent was obtained for their participation and for the use of data provided.

Study design and data collection

Data were collected at three time points. At Time 1, when participants were first recruited, baseline data collected were demographics and mental health status, wellbeing, and health-promoting lifestyle. At Time 2 (6 months after baseline), and Time 3 (12 months after baseline), only data on wellbeing and health-promoting lifestyle were collected.

Measures

Demographics and mental health status. Participants were asked to complete a questionnaire, designed by the research team, about their demographic details and mental health (e.g. history, diagnoses, support, hospitalisation, use of services).

Wellbeing: the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). The WEMWBS was selected to measure wellbeing because it is positively worded, rather than focusing on symptoms such as depression (Tennant *et al.*, 2007). WEMWBS is a psychometrically robust scale; it has shown good content validity, and high correlations with other scales measuring different aspects of mental health and wellbeing (~0.7), shows good test-retest reliability after one week (0.83), and appears to be less prone to social desirability than other scales. The scale's sensitivity to change has been reported in one study of parenting early intervention (effect size 0.71; Lindsay *et al.*, 2008). Q1

The scale comprises 14 items, which responders were asked to self-complete using a five-point Likert-type scale. The total WEMWBS score is computed by summing the item scores, so scale scores range between 14 and 70. Missing data were imputed with the item mean for the study population for the relevant time point.

Lifestyle: the Health Promoting Lifestyle Profile II (HPLP II). The HPLP II was designed to measure health-promoting lifestyle activities, and is based on a health promotion model (Walker and Hill-Polerecly, 1996). The test-retest reliability after three weeks has been shown to be high (0.89) (Walker and Hill-Polerecly, 1996). The US-developed HPLP II has 52 items and is composed of six subscales designed to elicit information about interpersonal relations, nutrition, physical Q2

activity, health responsibility, stress management, and spiritual growth. Response options for each item are a four-point scale. A mean score is computed for each subscale and overall.

The HPLP II was adapted by MHF for use in the UK. Seven of the original items were omitted, as they were deemed unsuitable for our target group (e.g. Check my pulse rate when exercising; Touch and am touched by people I care about; Attend educational health programs on personal health care). Further seven items relating to dietary and exercise recommendations were adjusted according to UK recommendations and combined into three (e.g. Eat 2-3 servings of fruits each day and Eat 3-5 servings of vegetables each day were combined into I eat at least 5 portions of fruit and vegetables a day). One item relating to drinking water was added. Some items had to be reworded into UK context and language (e.g. *Expose myself to new experiences and challenges* was changed to *I look forward to new experiences and challenges).* The adapted HPLP II consisted of 42 items grouped in six subscales: general health (eight items), exercise (five items), food (seven items), social life (seven items), dealing with health professionals (five items), and finding meaning (ten items). The scale was tested with services users and showed good face validity.

Analysis

Data were analysed using SPSS 22. Demographic and mental health status characteristics were compared for the subgroups who completed only one, only two (baseline and six months) or all three phases of the study. Differences in outcomes (wellbeing and lifestyle profile) between baseline and six months and baseline and 12 months were described and compared statistically using paired samples *t*-tests. Multiple comparisons were adjusted by Bonferroni's correction. Missing data were imputed with the item mean for the study population for the relevant time point.

Results

Characteristics of the sample

At Time 1 (baseline), there were 262 volunteers taking part in the study, recruited from 31 courses. An individual was included in the analysis if they completed at least one of the wellbeing or health-promoting lifestyle measures at baseline ($n = 240$). Almost all participants completed both measures, but three participants only completed the WEMWBS and eight participants only completed the HPLP II. Ages ranged between 17 and 76 years (mean age 43), 60 per cent were female and 22 per cent were currently in paid employment. In total, 33 per cent said they had been admitted to hospital because of a mental health problem within the last year; 94 per cent said they had experienced episodes of depression in the last year; 72 per cent said they had experienced episodes of mania in the last year; 66 per cent reported that they were currently taking at least one psychiatric medication. The mean age of first becoming aware of their mental health problem was 25 years; mean age of being diagnosed with a mental health problem was 31 years; mean time since diagnosis was 13 years.

Numbers of participants and attrition

At Time 2 (six months), 132 (55 per cent) of the recruited participants remained in the study (defined by completing either the wellbeing at Times 1 and 2 or the health-promoting lifestyle measures at Times 1 and 2). At Time 3 (12 months), 73 people (30 per cent of the original sample) remained in the study. Table I compares the demographic and mental health status characteristics of those who completed only one, only two (baseline and six months), or all three phases of the study. The characteristics were all recorded at baseline, so would not have been affected by the intervention. One-way ANOVAs indicate that the three groups did not differ significantly in age ($F = 2.42$, df = 2,187, $p =$ not significant)[1], but they did differ by baseline scores on WEMWBS ($F = 11.26$, df = 2,229, $p < 0.001$), and Lifestyle Profile II ($F = 9.33$, df = 2,234, $p < 0.001$). Those who completed more stages of the study had higher baseline scores on both scales than those who completed fewer stages. Pearson χ^2 tests indicate that the three groups do not differ by sex ($\chi^2 = 2.8$, df = 2, $p =$ not significant) ($n = 197$); whether or not, in the last year, the participant had been admitted to hospital for a mental health reason ($\chi^2 = 7.8$, df = 2, $p =$ not significant) ($n = 186$); or had experienced episode(s) of depression ($\chi^2 = 0.54$, df = 2, $p =$ not significant) ($n = 187$). However, there were differences

Table I Characteristics of participants at each time point

Participant characteristic (recorded at baseline)	*Whole sample*	*Time 1 only*	*Times 1 and 2*	*Times 1-3*
Mean age at recruitment (SD)	43.5 (12.4)	42 (13.2)	45 (11.8)	46 (11.5)
Mean WEMWBS score (SD)	39.7 (10.4)	37.3 (10.1)	41.7 (10.2)	44.3 (10.2)
Mean Lifestyle Profile II score (SD)	2.42 (0.45)	2.33 (0.45)	2.49 (0.43)	2.60 (0.45)
Female (%)	60	55	64	60
In paid employment (%)	22	13	29	29
Mental health admission to hospital in last year (%)	33	35	32	35
Depression episode in last year (%)	94	92	95	94
Mania episode in last year (%)	72	58	81	82
Number of participants	240	108	132	73

among the groups in whether the participant was in paid employment ($\chi^2 = 7.8$, df $= 2$, $p < 0.05$) ($n = 192$) and whether they had experienced episode(s) of mania in the last year ($\chi^2 = 9.6$, df $= 2$, $p < 0.05$) ($n = 173$). Those who completed the evaluation at Time 1 only were less likely to be in paid employment and less likely to have experienced mania than those who completed the evaluation also at one or two follow-ups.

Wellbeing

The mean WEMWBS score of the sample prior to the course was 37.3, which is lower than the mean WEMWBS score of 49.9 reported in The Well? What Do You Think? Survey in 2011 and 2012 in Scotland (Scottish Health Survey, 2012), suggesting that mental health services users' self-reported wellbeing is worse than that of the general population (population WEMWBS data from Wales are not available.)

Changes in WEMWBS score following self-management training. The mean WEMWBS score for the 126 participants who completed it at both baseline and six months increased from 41.7 at baseline to 44.1 at six months, and a paired samples *t*-test indicates that this increase was significant ($t = 2.11$, $p < 0.05$).

The mean WEMWBS score for the 86 participants who completed it at both baseline and 12 months increased from 42.8 at baseline to 45.5 at 12 months, and a paired samples *t*-test indicates that this increase was significant: ($t = 2.12$, $p < 0.05$).

After 12 months, the mean WEMWBS score of the completers increased to 45.5, closer to the general population of 49.9 reported in Scotland. This result is consistent with improved wellbeing (measured by the Short-Form Health Survey, SF-12) reported after a CDSMP Living Well programme for people with serious mental illness in the USA (Goldberg *et al.*, 2013) and in a pilot EPP in Australia (Lawn *et al.*, 2007).

Changes in individual items from the WEMWBS. Between baseline and 12 months, there was an increase in 13 of the 14 items that comprised the WEMWBS, three of which were significant after performing paired samples *t*-tests. However, after applying the Bonferroni correction, the changes were not significant (Table II)[2].

Lifestyle

Changes in Lifestyle Profile II score following self-management training

Overall score. The mean Lifestyle Profile II score for the 128 participants who completed it at both baseline and six months increased from 2.49 at baseline to 2.63 at six months, and a paired samples *t*-test indicates that this increase was significant ($t = 4.15$, $p < 0.001$).

Table II Changes in individual items of the WEMWBS scale

	Baseline mean (SD)	*12 months mean (SD)*	*Mean difference*	*n*	*t*	*Sig. (two-tailed)*
Q13 I've been interested in new things	3.06 (1.00)	3.38 (1.05)	+0.33	86	2.62	0.010
Q3 I've been feeling relaxed	2.82 (0.88)	3.11 (0.98)	+0.28	85	2.62	0.011
Q7 I've been thinking clearly	3.10 (1.02)	3.37 (1.05)	+0.27	86	2.03	0.045
Q14 I've been feeling cheerful	3.06 (1.04)	3.29 (1.07)	+0.23	86	1.88	0.063
Q6 I've been dealing with problems well	3.01 (0.90)	3.23 (0.99)	+0.22	86	1.96	0.053
Q12 I've been feeling loved	3.23 (1.05)	3.44 (1.08)	+0.21	86	1.77	0.080
Q5 I've had energy to spare	2.74 (0.97)	2.94 (1.02)	+0.20	86	1.83	0.071
Q11 I've been able to make up my own mind about things	3.27 (0.95)	3.47 (1.10)	+0.20	86	1.61	0.110
Q4 I've been feeling interested in other people	3.35 (0.85)	3.52 (0.95)	+0.17	86	1.59	0.116
Q10 I've been feeling confident	2.85 (1.10)	3.02 (1.08)	+0.17	86	1.35	0.181
Q8 I've been feeling good about myself	2.91 (1.01)	3.06 (1.03)	+0.15	86	1.33	0.188
Q2 I've been feeling useful	3.12 (0.94)	3.26 (1.03)	+0.14	86	1.20	0.232
Q9 I've been feeling close to other people	3.20 (0.93)	3.29 (1.02)	+0.09	86	0.83	0.407
Q1 I've been feeling optimistic about the future	3.13 (0.97)	3.15 (1.07)	+0.02	86	0.17	0.864

The mean Lifestyle Profile II score for the 83 participants who completed it at both baseline and 12 months increased from 2.55 at baseline to 2.70 at 12 months, and a paired samples *t*-test indicates that this increase was significant ($t = 3.35$, $p < 0.005$).

Changes in subscales from the Lifestyle Profile II. Separate comparisons of baseline and 12-month scores for each of the six sub-scales from the Lifestyle Profile II show that scores on the general health subscale increased more than scores on the other five subscales (Table III), and this was the only statistically significant change[3]. After applying the Bonferroni correction, further two subscales showed only a trend (finding meaning and food).

Discussion

This is the first study to investigate the effectiveness of a self-management training programme developed and delivered by service users in the UK. The aim of the study was to test the effectiveness of a new self-management course, which was developed and delivered by service users. The study tested the impact of the self-management course on the wellbeing and lifestyles of people with severe psychiatric diagnoses. Participants reported significant improvements in wellbeing and health-promoting behaviours at both six and 12 months after the initial training course.

The mean WEMWBS score of our sample was lower than that of the general population (in Scotland) (Scottish Health Survey, 2012), but improved over time after the training. This is consistent with improved wellbeing reported after a CDSMP Living Well programme for people with serious mental illness in the USA (measured by the SF-12; Goldberg *et al.*, 2013).

Table III Comparison of Lifestyle Profile II baseline and 12-month subscale scores

Subscale	*Baseline mean (SD)*	*12 months mean (SD)*	*Mean difference*	*n*	*t*	*Sig. (two-tailed)*
General health	2.31 (0.49)	2.59 (0.59)	+0.28	82	4.67	<0.001
Finding meaning	2.49 (0.65)	2.64 (0.67)	+0.15	74	2.48	0.015
Exercise	2.41 (0.79)	2.51 (0.87)	+0.10	82	1.06	0.294
Food	2.71 (0.62)	2.82 (0.62)	+0.11	82	2.21	0.030
Social life	2.83 (0.53)	2.93 (0.64)	+0.10	74	1.62	0.110
Dealing with health professionals	2.74 (0.69)	2.82 (0.62)	+0.08	74	1.19	0.239

Some of the health-promoting lifestyle activities also significantly improved, especially those related to general health, which included managing one's day not to become overtired, managing physical health, taking time to relax and time for oneself, work – life balance, getting enough sleep, and seeking health information. This finding is consistent with other studies of self-management approaches reporting benefits to physical health (Goldberg *et al.*, 2013; Druss *et al.*, 2010; Cook *et al.*, 2009) and sleep (Lorig *et al.*, 2013).

After applying the somewhat conservative Bonferroni correction, General health still showed significant improvement, but further two of the Lifestyle subscales showed only a trend: Finding meaning (feeling that life has worth, accepting things that cannot be changed, awareness of what is most important, feeling content); and Food (minimise sugary foods, choose a low fat diet, eat breakfast, drink at least a litre of water a day). Significant improvements in healthy eating have been reported following a CDSMP Living Well programme (Goldberg *et al.*, 2013). Improvements in general health behaviours and diet can be very significant and life changing as there is substantial evidence supporting the relationship between healthy lifestyle and health outcomes (e.g. Peel *et al.*, 2005).

The long-term improvements in self-reported wellbeing and health-promoting lifestyle following the training suggest that this self-management course may be effective in changing people's behaviour. The emphasis on people supporting themselves and each other represents a different approach from the way mental health services have usually been delivered in the UK. Recent approaches to health and social care have promoted independence where people do more for themselves (Larsen *et al.*, 2013). Our approach to self-management and peer support promotes interdependence – the notion that people's relationships with others form an important part of managing their mental health.

A number of factors may have contributed to the positive impact of this self-management training course. The social activity of meeting together regularly may have been beneficial. The presence of former participants as facilitators may have had the effect of encouraging participants to believe that they could make similar progress as a result of the training, and that the facilitators understood their problems and challenges. The goal-setting approach may also have had an impact by giving participants a clear sense of purpose beyond the meetings. They were able to record and share progress, or receive focused support from their peers when they came across barriers to progress. Participants also had opportunities to contribute towards others' progress, which could have enhanced their own sense of efficacy and reinforced the focus on individuals' strengths rather than their deficits or needs. The courses did not explicitly focus on conditions or symptoms and this may have helped to support the message that the courses were intended to complement any mental health services people were receiving, rather than competing with them. It also made the courses more accessible to those who did not accept or agree with their diagnosis.

The main limitation of this study is that it did not include a control group, so we cannot definitively attribute the positive changes to the intervention. This could be addressed by conducting randomised controlled trials in future studies. The only outcome measures are self-reports, and it would have strengthened the validity of the findings if other types of outcome measures had been used as well. The high drop-out rate means that the results should be interpreted with caution. The Lifestyle Profile II has not been previously used in the UK, although further analysis of this measure is underway and will be reported elsewhere.

Recommendations

The results of this study suggest that self-management training can be beneficial to people using secondary mental health services, and improving their wellbeing and health-promoting lifestyle activities. In addition, an economic evaluation of this self-management training suggests potential savings in the long term (Iemmi *et al.*, 2014). The benefits of self-management training could be enhanced if courses were more widely available to mental health service users. It seems that mental health service users' potential for self-management is currently underutilised, and increasing the focus on support for self-management in their day-to-day mental health care could have a positive impact on their health.

Conclusions

This study represents a first step in the implementation of self-management approaches into mental health services demonstrating that self-management strategies can be used in mental health. Service user involvement, peer support and self-management remain important parts of mental health policy in Wales and across the UK (Welsh Government, 2012; DH, 2011). This research adds to the growing evidence to support the effectiveness of an approach based on rights and values and led by people with experience of mental ill-health.

Notes

1. Age at time of recruitment was used for these analyses, so it did not increase as the study progressed.
2. The Bonferroni's correction reduces test value for *p* to 0.004. However, Bonferroni is known to be an over-conservative correction.
3. Bonferroni's correction reduces test value for *p* to 0.008.

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