

School for Public Health Research

1.	Project reference:	Final report date:	
	SPHR-FUS-PES-WTW	31st May 2017	
2.	Project title:		
	Ways to Wellness: feasibility study of the impact of a social prescribing intervention		
3.	Lead investigators on project:		
	Dr Suzanne Moffatt, Senior Lecturer in Social Gerontology, Institute of Health and Society, Newcastle University		
	Other NIHR School collaborators (name, School for Primary Care/Social Care Research) on project:		
	N/A		
3.	Names and roles of others involved in project (e.g. include fixed term contract researchers and external collaborators / partners):		
	Dr Linda Penn, Newcastle University, Co-applicant Dr Nicola O'Brien, Newcastle University, Co-applicant Ms Tara Case, Chief Executive, Ways to Wellness, Co-applicant, Public Health Practitioner Partner Dr Mel Steer, Newcastle University, Research Associate, fieldwork and data collection Dr Josephine Wildman, Newcastle University, Research Associate, data analysis		
4.	Project start date:	Project end date:	Duration:
	13 th July, 2016	31 st March, 2017	8.5 months
5.	Project objectives originally outlined in proposal:		
	<p>Social prescribing is the use of non-medical interventions to achieve sustained lifestyle change and improved self-care among people with long-term health conditions (LTCs). It has been taking place on a small scale for a number of years, but there is an identified need for evidence of effectiveness using robust evaluative designs. Ways to Wellness (WtW, http://waystowellness.org.uk/) is one of the first UK organisation to deliver social prescribing at scale. Based in West Newcastle upon Tyne, an area with some of the most socio-economically deprived wards in England, 17 general practices are referring patients aged 40-74 with LTCs with or without anxiety or depression. WtW is delivered by four third-sector organisations and aims to support service users to live healthier and more fulfilling lives, learn to confidently manage their LTC and reduce their dependency on the NHS. The research team have been working with WtW and service users and have identified five key outcome measures and a practical method of data collection, enabling the applicants to undertake a feasibility study of the impact of WtW.</p> <p>Study design Feasibility study with before and after design and three month follow-up. Recruiting N=286 service users and administering a self-completion questionnaire prior to their first Link Worker meeting, with repeated data collection at three month follow-up. Questionnaire data will be analysed using SPSS software. Descriptive statistics on</p>		



completion rates at baseline and follow-up will be produced disaggregated by age, sex, ethnicity, long term condition and deprivation and the questionnaire data will be analysed for changes between baseline and follow-up.

Objectives

1. To collect baseline questionnaire data from 286 WtW service users
2. To collect follow-up questionnaire data three months post baseline
3. To ascertain response rates
4. To assess completion rates of the five selected questionnaire outcome measures
5. To assess feasibility and acceptability of this method of data collection
6. To measure change in outcome measures between baseline and three month follow-up

6. Briefly describe and explain the reason(s) for any changes to the project originally outlined in proposal:

As described in detail in the interim report, the method of recruitment and baseline questionnaire administration changed from that originally outlined in the proposal. In the study, recruitment and baseline questionnaire administration was not undertaken by Link Workers, as originally envisaged. The social prescribing intervention is being delivered, via Link Workers, by four voluntary sector providers reimbursed according to the numbers of primary care patients referred for social prescribing who are enrolled into their service. In preparation for our initial PHPES application, we worked with Ways to Wellness and service providers and established that baseline data collection would be undertaken immediately prior to the initial Link Worker consultation, and that service users would be invited to attend 15 minutes earlier to complete the baseline questionnaire. However, due to provider concerns about the impact of data collection on establishing rapport with services users (target group people aged 40-74 with long term conditions, multi-morbidity, mental health problems, experiencing social isolation and experiencing economic hardship), some personnel changes and concerns about data collection impinging on consultation time, we accommodated a change in the data collection procedure. The recruitment method was still based on Link Workers as gatekeepers, but no longer relied on Link Workers asking people to complete the questionnaires immediately prior to first consultation. Service users were sent a questionnaire following their referral from primary care and asked to complete their questionnaire before coming to their first consultation with their Link Worker. Close monitoring of this procedure over a three week period indicated that the response rate was low (20%). Working closely with our partner organisation, Ways to Wellness, five weeks into the recruitment period, we altered the method of baseline data collection such that, prior to the initial consultation, if service users had not completed and returned a questionnaire, Link Workers issued a duplicate questionnaire, and on completion, returned it to the research team. In this way, we maximised the response rate, but avoided impinging on the standard Link Worker practice in intervention delivery.

Exploring the feasibility of this method of data collection in the setting of a Link Worker social prescribing intervention targeting people with long term conditions in socioeconomically deprived areas has provided us with useful learning on appropriate fieldwork techniques.

7. Brief summary of methods, findings against objectives, and conclusions (2-4 pages max):

Methods:

The target sample comprised all people referred to WtW who attended a first appointment with a Link Worker between August 31 and Nov 30 2016. Data collection took the form of a self-completion questionnaire, which was pre-piloted with a group of WtW service users who had agreed to be interviewed in a qualitative study (N=20) (Moffatt et al BMJ Open, in press). Participants found the questionnaire acceptable and straightforward to complete (completion time ranged between 5 and 20 minutes, with an average completion time of 15 minutes). Prior to first appointment, and following consent, service users were asked to complete the

questionnaire and return it to the Link Worker in a sealed envelope. The questionnaire 'pack' contained information about the evaluation study, together with a request to complete and return the questionnaire to the research team. At three months, a follow-up postal questionnaire was posted to participants' homes and returned directly to the research team. Telephone reminders were provided after 10 days. Over the baseline study period, 336 patients were referred to the WtW programme. Of these referrals, 101 returned a baseline questionnaire (response rate 30.1%). The response rate for the follow-up questionnaire was 54% (55/101). The overall response rate at three-month follow-up was 16.4% (54/336).

Measures

Discussions with WtW and qualitative research conducted with Link Workers and participants identified five key outcomes for evaluating the impact of WtW that could be collected via a questionnaire: 1) Health-related quality of life (EQ-5D) measuring self-reported current health in five dimensions (mobility, self-care, usual activities, pain/discomfort and anxiety/depression) and a visual analogue scale (EQ-VAS) recording current self-rated health on a scale from 0 (worst) to 100 (best); 2) Long-term condition management (LTC6 Questionnaire) measuring patients' experiences and understanding of the healthcare they received over the last 12 months, with an emphasis on self-care 3) Current depression (Personal Health Questionnaire Depression Scale (PHQ-8)) where a score of 10 or more is considered indicative of current depression and a score of 20 or more indicates severe depression; 4) the presence and severity of generalised anxiety disorder (GAD-7) where scores range between 0 and 21, with scores of 5, 10 and 15 interpreted as cut-off points for mild, moderate or severe anxiety; and 5) Loneliness and social isolation (De Jong Gierveld Loneliness Scale), which was specifically developed for use with older adults and measures loneliness in two dimensions: emotional loneliness occurs when an individual lacks an intimate relationship (for example, with partner or family), while social loneliness occurs when a wider social network is missing. The two scales range from 0 (not emotionally/socially lonely) to 3 (intensely emotionally/socially lonely). At baseline, questionnaires also collected data on respondents' long-term condition(s), age and gender.

Statistical analysis

Changes in each outcome between baseline and follow-up were investigated using, as appropriate, paired t-tests and McNemar's chi-squared test. Age- and gender-related differences in outcomes at both baseline and follow-up were explored using independent t-tests and chi-squared test of independence.

Results (including findings in relation to the objectives):

Methodological findings: Feasibility of the questionnaire administration

This feasibility study generated methodological findings around the challenges of administering questionnaires, via Link Worker 'gatekeepers', to a hard-to-reach group. The original intention was to administer self-completion questionnaires via the four provider organisations (service users would be asked to attend their initial Link Worker meeting 15 minutes early to complete the questionnaire). However, once study funding had been secured, Link Workers expressed serious concerns about administering the self-completion questionnaire prior to the initial service-user interview as they felt it would negatively impact on the development of rapport and trust and on recruitment and retention. Other concerns were that service users would find completing the questionnaire physically and/or mentally tiring, thus reducing the time they would devote to their first consultation.

In the light of this feedback, it was agreed that questionnaires would be administered by post. Strategies shown to improve postal questionnaire response rates were used, including personalised invitation letters, a clear design and the inclusion of a stamped-addressed envelope. Respondents experiencing difficulties in answering the questions were invited to contact a named researcher for help with completion. Despite these measures, the response rate was still low. In total 336 questionnaires were distributed. At follow-up, 43 participants returned their questionnaires without prompting; a further 58 required a reminder phone call, resulting in 11 responses. A relatively large number (N=44) of baseline participants could not be contacted and three withdrew from the study.

Empirical findings: Changes in outcomes between baseline and follow-up

At baseline, large proportions of those who returned questionnaires reported problems across the health-related quality of life domains (ranging from 40 percent reporting self-care problems to 77 percent reporting problems with pain/discomfort). High levels of problems were reported in all long-term condition management domains. The average depression and anxiety scores for the sample at baseline indicated current depression (a score greater/equal to 10) and moderate generalised anxiety (a score of five or above). Scores on the De Jong Gierveld scale showed particularly high levels of emotional loneliness. Of those who completed a follow-up questionnaire the proportion reporting a problem in a health-related quality of life domain fell between baseline and follow-up in all domains except for usual activities, which remained the same. There were particularly large falls in rates of reporting problems with self-care and pain or discomfort. Among the six long-term condition management domains, there was a large and significant reduction between baseline and follow-up in the proportion of respondents reporting dissatisfaction with their level of involvement in decisions about their care. Scores for both current depression and generalised anxiety disorder improved between baseline and follow-up. Small improvements were also seen in levels of emotional and social loneliness.

Within age-group differences

Outcomes, in those who completed baseline and follow-up questionnaires, showed no significant gender differences; however, there were a number of significant outcome differences between younger (aged 47-59 years) and older (60-74 years) participants at both baseline and follow-up. In light of these age-related within-group differences, within-age group differences between baseline and follow-up were analysed for each outcome. Among the younger group (age 40-59), there were no significant improvements in any of the measures over the three months between baseline and follow-up. Indeed, for many measures this group worsened over time (for example, they rated their health significantly lower on the EQ5-D visual analogue scale at follow-up). However, the older group (age 60-74) of respondents made significant improvements on a number of outcomes. The proportion of 60-74 year olds reporting a problem with self-care fell by 22 percentage points over the three months between baseline and follow-up. Self-rated health (on the EQ5-D visual analogue scale) also improved within this older group. Significant reductions were seen in the proportion of 60-74 year-olds reporting dissatisfaction with their involvement in decisions about their care and in the proportion feeling unconfident about managing their own health. Average scores for current depression and generalised anxiety also fell significantly in the 60-74 age group. At baseline, 48 percent of this older group had current depression (a PHQ-8 score of 10 or over); by follow-up this had dropped to 27 percent. Similarly, at baseline 35 percent of the 60-74 age group had severe anxiety (defined as a GAD-7 score of 15 or over). By follow-up this proportion had fallen to 20 percent. Emotional loneliness scores also significantly reduced within the older age group.

Conclusions:

The challenges in obtaining, prior to initial consultation, self-completion questionnaire data from people with LTCs living in an area of high socioeconomic deprivation referred into a Link Worker social prescribing intervention indicate that such an approach is unlikely to yield a sufficiently large or representative sample to enable more conclusive findings.

In those people who returned questionnaires data analysis suggested that a social prescribing intervention may have benefits for older adults across a range of outcomes. Future evaluations of social prescribing require mixed-methods approaches in order to robustly capture the impact of such a complex intervention. As part of a wider mixed-methods investigation of the WtW programme, a quasi-experimental evaluation is planned using routinely-collected primary care data and Hospital Episode Statistics to evaluate the effect of the intervention on health and health-care utilisation.

8. **Plain English Summary (400 words max)**
Please provide a summary of the project, including background, findings and conclusions:

In the UK, there are approximately 15 million people with a long-term health problem such as diabetes or heart disease, and these conditions account for 70 percent of the total NHS budget. Helping people to manage their long term health problems cannot be done solely within the NHS. Social prescribing allows health care practitioners to refer patients to services in the community and voluntary sectors, for example, walking groups, art classes or welfare rights advice, and is regarded as an important way to help people to manage their health. Although social prescribing is supported by the 2014 NHS five year forward view and the 2015 New Deal for General Practice, there is a lack of evidence of the impact of social prescribing on health. There are various different types of social prescribing. The social prescribing service in this study is called Ways to Wellness and is linked to 17 general practices in the West End of Newcastle upon Tyne an area with high levels of poverty and ill-health. This study aimed to find out how possible it would be to collect self-completion questionnaire data from people referred into the social prescribing service, and whether there was any change in health outcomes after a three month period. The study participants were people referred to social prescribing by a member of the primary health care team between August and November 2016. Before going to Ways to Wellness for the first time, people were sent a questionnaire, asked to complete it and return it to the researchers. After three months, people were asked to fill in the questionnaire again to see whether there had been any changes. The questionnaire looked at quality of life, managing long term illness, depression, anxiety and loneliness and social isolation. One hundred and one people (30.1%) returned a completed questionnaire the first time and 55 people (16.4%) returned a questionnaire after 3 months. Well over half the participants reported problems with quality of life and managing their health, but after attending social prescribing, improvements were found across all measures, particularly with self-care, pain and discomfort. There were no differences between men and women, but those aged 60-74 reported much greater levels of improvements and those aged 40-59 showed no improvements over the three month period. We conclude that social prescribing has benefits for older adults, but that self-completion questionnaires are not the best approach to collecting evidence of effect. Further research is needed using a different range of methods.

9.

Keywords

Please provide up to 8 keywords that relate to the research undertaken in this study:

Link Worker social prescribing, feasibility study, health related quality of life, long term illness, health inequalities.

10.

Dissemination – please detail planned or published articles in peer-reviewed journals (including web links):

Academic dissemination

Wildman J, Moffatt S, Steer M, O'Brien N, Penn L, Laing K. Measuring the effects of a Link Worker social prescribing intervention on condition management, well-being and social isolation in a socio-economically deprived population: a feasibility study. Submitted to Journal of Public Health June 2nd 2017.

Wildman J, Laing K, Moffatt S, Steer M, Penn L, O'Brien N, Case T. Evaluating a Social Prescribing Scheme: Reaching a Hard-to-Reach Population. Poster presented at NIHR School for Public Health Research: Annual Scientific Meeting 'Maximising Impact: Strengthening research into practice interfaces' 23rd March 2017 The Royal Society, London.

Moffatt S, Wildman J, Steer M, Lawson S, Laing K, Penn L, O'Brien N. Linking the social and the health: how might social prescribing tackle health inequalities? Paper accepted at British Society of Gerontology annual conference, Swansea University, July 3-6 2017.

Moffatt S, Wildman J, Steer M, Lawson S, Penn L, O'Brien N Can 'Social Prescribing' Help Adults With Long Term Health Problems to Age Well? Poster accepted at International Association of Geriatrics and Gerontology, San Francisco, July 23-27 2017.

Practitioner dissemination

	<p>Drinkwater C, Moffatt S. Social prescribing to improve health and wellbeing among people with long term conditions: Ways to Wellness in West Newcastle. Fuse members meeting March 15th 2017, Durham University.</p> <p>Presentation of baseline findings to Ways to Wellness Steering Group, including four voluntary sector provider organisations, Institute of Health & Society, Newcastle University 14th February 2017.</p> <p>Presentation of follow-up findings to Ways to Wellness Steering Group, including four voluntary sector provider organisations, Institute of Health & Society, Newcastle University, June 5th 2017.</p> <p>Presentation of findings to all Link Workers at Collaborative Learning Event in September 2017.</p>
<p>11.</p>	<p>Public and practitioner involvement Please provide comment on your experiences, any changes made and lessons drawn:</p> <p>The contribution of our practice partner organisation, Ways to Wellness, which linked us to the four voluntary sector organisations delivering the intervention, was to facilitate access to participants receiving the intervention. We worked closely with the provider organisations in order to arrive at a mutually agreed recruitment strategy that did not negatively impact on referral to and retention into the intervention. The benefit of our partnership was therefore recruitment of participants, the problem was that recruitment levels were not sufficient to ensure generalisability. Part way through the study, the provider organisations modified the recruitment strategy in order to maximise baseline recruitment for this study, but it was agreed that such a method of recruitment would not be appropriate for a larger scale study, due to the potential impact on intervention delivery. Our partnership has therefore generated learning for both researchers and practitioners and has led us to develop different methods for evaluating the impact of Link Worker social prescribing in a future larger scale evaluation.</p> <p>Practitioner involvement was essential for enabling access to study participants and the valuable lessons learned in doing so. Further practitioner engagement via two meetings to share findings was invaluable for researchers, as this provided validation of the quantitative data obtained; practitioners valued the opportunity to view quantitative data and discuss the strengths and weaknesses of the outcome measures in capturing the impact of the intervention. Our involvement with practitioners via PHPES strengthened our existing collaboration and helped secure practitioner support for (i) a successful Economic and Social Research Council (ESRC) Doctoral Training Programme PhD studentship, to commence in October 2017, and (ii) an outline proposal to the National Institute for Health Research Public Health Research Board's (NIHR-PHR) call for proposals on community based interventions to reduce health inequalities, which has been shortlisted and a full application will be submitted on August 18th 2017.</p>
<p>12.</p>	<p>What impact has the research already achieved or what might it achieve? (i.e. policy, practice, academic):</p> <p>The baseline findings of this study were used to inform a successful PhD studentship application to ESRC Doctoral Training Programme, which will start in October 2017. The PhD will involve an ethnography of Link Worker social prescribing.</p> <p>The results of this research have been used to underpin our outline application to NIHR PHR call for proposals on community based interventions to reduce health inequalities submitted in April 2017.</p>

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Department of Health Disclaimer:

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