

Brief Evaluation Report on the Social Prescribing Reducing Isolation in Gedling (SPRIING) Pilot Programme

Executive Summary

- The Gedling SPRIING Pilot Programme is aimed at tackling loneliness and social isolation in the Gedling Borough of Nottinghamshire using a community navigator model of social prescribing.
- The SPRIING Pilot Programme involves both community development work in partnership with local third sector organisations and voluntary community navigators who signpost and support residents into community groups and health and well-being opportunities.
- The SPRIING project has registered approximately 140 older residents of Gedling Borough, for whom they have provided guidance and signposting to a range of community activity groups, and health and well-being/preventative health opportunities with the help of 35 volunteer community navigators.
- The NTU brief evaluation of the programme aimed to explore the demographics of service beneficiaries, as well as their self-reported quality of life, well-being, loneliness, community belonging and health service use at the start of their involvement with the programme and at follow-up to explore the impact of involvement.
- Baseline survey data were collected by members of the SPRIING team from forty-one service beneficiaries between December 2018 and March 2020 (average age 73 years) and follow-up (T1) data from nineteen of the original forty-one beneficiaries (average age 71 years) was collected between September 2019 and March 2020. Approximately three quarters of participants were retired and lived alone.
- Baseline data showed significant relationships between health-related quality of life and mental
 well-being and between loneliness and mental well-being. Community belonging was not
 significantly correlated with health-related quality of life, well-being, or loneliness.
- Follow-up data showed that scores on the key health and well-being measures were similar at
 follow up. Loneliness and mental well-being were significantly negatively associated, as at
 baseline. However, at follow-up community belonging was significantly positively associated
 with health-related quality of life and mental well-being, suggesting the importance of
 community belonging following involvement with the pilot programme.
- Although sample sizes did not allow for statistical analyses, there were promising reductions in health service usage between baseline and follow-up, including reductions in GP appointments and calls to GPS, ambulance call outs, A and E visits and hospital visits/appointments.
- These results provide tentative initial indications that engagement with the SPRIING Pilot
 Programme has benefits in terms of changed health service usage and the role of community
 belonging in predicting well-being and health outcomes. Larger scale longitudinal evaluations of
 the programme are recommended to provide more robust findings and help guide the
 implementation of social prescribing in Gedling Borough.



Section 1: Introduction

1.1 Introduction to the report

The SPRIING (Social Prescribing Reducing Isolation in Gedling) project was established in response to growing recognition of loneliness and isolation amongst the elderly in the Gedling Borough of Nottinghamshire. The aim was to deliver a pilot scheme to help shape and build learning around the emerging Social Prescribing agenda, whereby it is recognised that many of the causes of ill health can be found in people's lack of connectivity to their community. The pilot, which is now in its second year of operation, adopts a community navigator signposting model of social prescribing to connect residents with local community groups, whilst also working with third sector services to promote community development. This brief evaluation has been conducted to explore the early impact of involvement with the pilot for beneficiaries in terms of: a) their health and well-being; b) their connection with the community, and; c) their use of health service resources.

1.2 Key Policy Initiatives

Population trends in the UK have indicated increases in both the average age of residents and increasing levels of loneliness and isolation, such that tackling the 'loneliness epidemic' (King, 2018) has been identified as a primary public health concern (ONS, 2018). Combined with the impact of recent increases in poverty and austerity, these changes place cumulative demands on primary and secondary health care systems and have made the development of cost-effective health care reforms critical for optimising health service delivery (Coles, 2016). The drive towards holistic models of service delivery that are sensitive to both the physical and psychological needs of patients has resulted from recognition of the social determinants of health. Social isolation, and the sense of loneliness that often accompanies it, have been identified as key risk factors linked with increasing morbidity of health conditions, such as cardiovascular disease and reduced mortality (Holt-Lunstad et al, 2015; Holt-Lunstad & Smith, 2016), particularly for older individuals (Steptoe, Shankar, Demakakos & Wardle, 2013).



Social relationships are therefore critical to good health and have been found to improve mental and physical health in a range of practice, applied, and community settings (Haslam et al, 2018). In addition, an increase in social connection can reduce frequent attendance in primary care settings suggesting that inappropriate health care usage may be linked with unmet social needs (Cruwys, Wakefield, Sani, Dingle & Jetten, 2018; Kellezi et al., 2019). Whilst the UK government has recognised the risks associated with loneliness and has developed a clear loneliness agenda reflected in their 2018 Loneliness Strategy policy paper (UK GOV, 2018), GPs remain ill-equipped to deal with these issues within the confines of short appointments and without appropriate training (Howie et al, 1999). The community and voluntary sector have been identified as one way of supplementing care to support vulnerable individuals within their communities (Chaterjee, Camic, Lockyer, & Thomson, 2017). This move was reflected in the NHS's Five Year Forward View (NHS England, 2014) and echoed in the NHS Long Term Plan (NHS England, 2019b), which committed to an integrated and personalised mode of health care delivery, based in the community and with a focus on illness prevention and self-care.

1.3 Development of Social Prescribing

Social prescribing (SP) is a model of healthcare delivery aimed at moving away from traditional healthcare models to holistically address the needs and agendas described above. Social Prescribing has been developed for several years in various forms. Before recent moves to mainstream the Link Worker model of SP, initiatives tended to vary in form, for example, in terms of their focus on community development, simple signposting to services, one-to-one support from health coaches, and/or referral to link workers who support the service-user's connection with community groups (Kimberlee, 2015). However, the move towards national roll out of SP across the NHS and support for the development of 'Social Prescribing Link Workers' as part of GP Contract



Reform means that Link Workers will be at the heart of SP delivery. Link Workers will provide patients with connections into the community to develop their social relationships, support health, and reduce loneliness (DCMS, 2018). Evidence from a growing collection of large and smaller scale service evaluations (e.g., Bertotti, Frostick, Hutt, Sohanpal, & Carnes, 2018; Brandling & House, 2007; Dayson & Bashir, 2014; Kimberlee, 2019) has demonstrated SP's effectiveness measured by outcomes such as reduced loneliness, quality of life, patient activation, increased well-being, and reduced health-service usage. Although these evaluations have been able to demonstrate positive returns on investment, SP models have been critiqued for both a lack of rigorous evaluation and theoretical explanation of their successes (Stevenson et al, 2019). However, recent work has suggested that social connection, particularly connection within community groups and the community as a whole help reveal the mechanisms through which social prescribing exerts its impact on quality of life, well-being, and reductions in health care usage (Kellezi et al., 2019; Wakefield et al., 2020).

Section 2: The Gedling SPRIING Pilot Programme and Evaluation

2.1 The Gedling SPRIING Pilot

The SPRIING project was established in 2018 through a partnership approach between

Jigsaw Homes (Gedling Homes) and Gedling Borough Council. The award enabled the establishment

of two half time posts, one within Gedling Homes and one within Gedling Borough Council, to deliver
the project. This delivery involved a multi-faceted approach that included one to one casework with
older residents, a series of social events and meetings, and the provision of grants to build the
number and capacity of community groups operating within Gedling Borough. In addition, the pilot
involved the creation of volunteering opportunities for more confident and connected members of
the older community to support fellow residents into more social activities. Due to a successful first



year, the pilot was extended by another year, with one full time post based at Gedling Borough Council Co-ordinating the project.

The SPRIING Pilot Programme has registered a caseload of approximately 140 individual older residents of Gedling, providing guidance and signposting to a range of community activity groups, health and well-being/preventative health opportunities, and social networking sessions. The project has recruited 35 volunteer 'Community Navigators'. These community navigators have provided support to member residents in sustaining their attendance at community-based activities. Currently, fifteen local community groups have benefited from grants, with five new groups being established as result of the scheme. It is anticipated that by the end of the project twenty groups will have benefitted. Over 1000 individuals have directly engaged with the SPRIING Pilot Programme, encompassing caseload registrations, members of grass roots community groups, Seniors Council members, Navigators and frontline VCS/Charity sector service providers. A Social Prescribing Management Group was also established at the start of the project to support with the project management of SPRIING, supported by key partners including GBC and Jigsaw Homes Staff, Nottingham North and East Clinical Commissioning Group representatives, Age UK, and other stakeholders.

The project has been inputting into the wider Nottingham and Nottinghamshire Integrated Care System Social Prescribing Network. The success of the community development element of this project, has enabled Gedling Borough Council to secure external funding to host a Community Development Coordinator to support the new NHS Social Prescribing Link Workers across the South Nottinghamshire Integrated Care Partnership (Gedling, Broxtowe, Rushcliffe and Ashfield).

2.2 The NTU Evaluation

Nottingham Trent University has been commissioned to provide an initial small-scale evaluation of the community sign-posting element of the Gedling SPRIING Pilot. The Department of



Psychology's Groups, Identities and Health Research Group has extensive experience of research into the impact of social factors on health and well-being and they have been involved in the evaluation of different models of NHS-based and community-based forms of SP within Nottinghamshire. This evaluation was designed as an initial brief test of the impact of the evaluation. Early stages of the evaluation involved the training of SPRIING team members by two members of the NTU team in the psychology of social prescribing and how to gather and store survey data securely and ethically. A short questionnaire survey was then designed to capture key variables relating to experiences within the programme, community groups, and health and well-being and the study was granted NTU ethical approval. This survey was designed to be short enough to be collected over the telephone with SPRIING participants and minimally burdensome for the Gedling SPRIING employees who were collecting data with the beneficiaries of the programme. However, in the earlier stages of data collection a mutual decision was made to reduce the length of the survey by removing questions relating to measures such as sense of belonging and experiences with sign-posted community groups and reported attendance at community groups. This was because SPRIING team members reported that the survey was proving too difficult and long for participants to complete. The survey was delivered at two time points (baseline and follow-up) in order to address the following aims:

- To assess the demographic profiles of individuals taking part in the Gedling SPRIING Pilot Programme.
- 2. To identify self-reported levels of community belonging, mental well-being, health-related quality of life, health service usage and loneliness at baseline.
- To identify self-reported levels of community belonging, mental well-being, healthrelated quality of life, health service usage and loneliness at follow-up to assess any changes brought about by participating in the SPRIING Pilot Programme.
- 4. To explore the associations between these measures at baseline and follow-up.



2.3 Methods

Participants and Procedure

Baseline (T0) survey data were collected by members of the SPRIING team from forty-one service-users between December 2018 and March 2020 (13 males, 28 females; *Mean age* = 73.62 years, *Standard deviation age* = 10.65, *Age range* = 47-90 years). These data were gathered over the telephone for all but one participant, who answered the questions in a face-to-face meeting. Informed consent was obtained from all participants before participation and after they were informed about the purpose of the evaluation study. Data were inputted into an online survey by members of the SPRIING team and analysed by the NTU team.

Follow-up (T1) data were collected by members of the SPRIING team from nineteen of the original forty-one service-users (46.34%) between September 2019 and March 2020 (6 males, 13 females; *Mean age* = 71.33 years, *Standard deviation age* = 11.09, *Age range* = 47-85 years). These data were gathered over the telephone for all participants. Initial plans were to collect data at 3 months and at 6 months after baseline data collection for each participant. However, engagement with follow-up requests was poor, and thus the SPRIING team continued to collect T1 follow-up data for as long as possible in order to gain a meaningful sample size for analytical purposes. Therefore, T1 data were collected an average of 144.37 days after T0 (*Standard deviation* = 84.74, *Range* = 29-400 days), and further follow-up data collection points were not possible.

Measures

Health-related quality of life. Participants' self-reported health-related quality of life (QoL) was measured with the EQ5D (EuroQol Group, 1990). Five health dimensions (mobility, self-care, usual activities, pain, and anxiety/depression) are each assessed with a single item on a 1-3 point scale (e.g., mobility: "I have no problems walking about/I have some problems walking about/I am confined to bed"). Participants selected one option for each item. Calculations were conducted as



per the authors' instructions, leading to a score ranging between -0.59 and 1, with higher values indicating better QoL.

Mental well-being. Participants' mental well-being was measured with the five-item World Health Organisation- Five Well-Being Index (WHO-5). Participants were asked to think of how they have felt over the last two weeks, and then indicate their agreement with each item (e.g., "I have felt cheerful and in good spirits") on a 1 ('at no time') to 6 ('all of the time') scale. The mean of the items was found, with higher values indicating better mental well-being.

Loneliness. Participants' loneliness was measured with the eight-item ULS-8 (Hays & DiMatteo, 1987). Participants rated their agreement with each item (e.g., "I lack companionship") on a 1 (not at all) to 5 (completely) scale. The mean of the items was calculated, with higher values indicating greater loneliness.

Community belonging. Participants' community belonging was measured with a single item previously used in population surveys of social attitudes and behaviours, which is known to have good predictive ability (Hayward, Dowds, & Shaw, 2014), ("Thinking about this local community, the kind of place it is and the kind of people who live around here, would you say that you feel a sense of belonging to this local community?"). Participants rated their agreement on a 1 (definitely not) to 4 (yes definitely) scale and were asked to define 'local community' in any way that was meaningful to them.

Health-service use. Participants were asked to indicate their health-service use over the last three months. This included: *Primary care*: GP appointments, GP telephone calls, practice nurse appointments, other instances of primary care use; *Secondary care*: Accident and Emergency visits, ambulance call-outs, overnight hospital stays, hospital day visits, outpatient visits, other instances of secondary care use; *Community care*: local authority day care visits for mental health support,



overnight care-home visits, other instances of community care use; and *Social care*: uses of social care support, other instances of social care support.

Demographics. Finally, participants were asked to specify their age, gender, relationship status, whether they live with anybody else, whether they own their home, and their employment status.

Section 3: Evaluation Results

3.1 Baseline (T0) Data

Demographics

Please note that percentage values only take into account participants who provided information for that specific question. Of those who provided details about their living arrangements, six participants (19%) lived with at least one other family member, while 23 (73%) lived alone, and two (8%) lived in care-homes. In terms of home ownership, 18 (53%) owned their home, while 13 (38%) were in social housing, and three (9%) privately rented. In terms of relationship status, nine participants (25%) were single, nine (27%) were divorced or separated, nine (27%) were widowed, six (18%) were married, and 1 (3%) was in a long-term relationship. Finally, in terms of employment, 26 (77%) were retired and two (6%) were unemployed and looking for work. There was only one person in each of the remaining categories: employed full-time, employed part-time, unemployed and not looking for work, unemployed and volunteering, carer, and 'other'.

Relationships Between Variables

It is important to note that the sample size for this study is small, which means that the results reported from all analyses should be interpreted with caution. Table 1 shows the average (mean: M) score on each variable across the sample, the variance in scores around the mean across the sample (standard deviation: SD), and correlations between baseline variables. Correlations range



between 0 and 1/-1. The closer the value is to 1/-1, the stronger the relationship between the variables is. A positive correlation indicates that as one variable increases, the other also increases. A negative correlation indicates that as one variable increases, the other decreases.

Table 1

Baseline data: Variable means (M), standard deviations (SD), and correlations (N = 41)

Variable	1	2	3	4
1.Quality of Life (-0.59-1)	-			
M = 0.71, $SD = 0.10$				
2.Mental Well-being (1-6)	.45**	-		
M = 3.38, $SD = 0.82$				
3.Loneliness (1-5)	29	64***	-	
M = 2.30, $SD = 0.82$				
4.Community Belonging (1-4)	08	.17	07	-
M = 3.00, $SD = 1.23$				

Note ***p* < .01, *** *p* < .001

The mean scores on mental well-being and loneliness were around the mid-point of both scales, whilst scores for community belonging and quality of life were typically higher. There were two statistically significant correlations (meaning it is very unlikely that they are merely due to chance): between health-related quality of life and mental well-being, indicating that as health-related quality of life increased, so did mental well-being (r = .45, p = .003), and between loneliness and mental well-being, indicating that as loneliness increased, mental well-being decreased (r = -.64, p < .001). Community belonging was not significantly correlated with health-related quality of life, well-being, or loneliness.

Health-service Use

Table 2 shows the number of baseline participants who used each health-service in the previous three months.



Table 2

Baseline data: Number of participants who used health-services in previous 3 months (N = 41)

Health-service	Number Who Used Service in
	Previous 3 Months
GP appointment	24 (59%)
GP telephone call	15 (37%)
Practice nurse appointment	18 (44%)
Other primary care	11 (27%)
A&E visit	7 (17%)
Ambulance call-out	11 (27%)
Overnight in hospital	8 (20%)
Day in hospital	14 (34%)
Hospital outpatient	13 (32%)
Other secondary care	8 (20%)
Local authority day care visit for mental health	1 (2%)
Overnight care-home visit	0 (0%)
Other community care	1 (2%)
Social care support	3 (7%)
Other social care	0 (0%)

The majority of participants (59%) had attended at least one GP appointment, with 44% attending at least one practice nurse appointment. The other most common services were GP telephone calls (37%), spending a day in hospital (34%) and attending hospital as an outpatient (32%).

3.2 Follow-up (T1) Data

Demographics

Of those who provided details about their living arrangements, one participant (5%) lived with at least one other family member, 15 (90%) lived alone, and one (5%) lived in a care-home. In terms of home ownership, 13 (68%) owned their home, and 6 (32%) were in social housing. In terms of relationship status, seven participants (37%) were single, three (16%) were divorced or separated, five (26%) were widowed, three (16%) were married, and one (5%) was in a long-term relationship. Finally, in terms of employment, 15 (79%) were retired, while individual participants were employed full-time, employed part-time, unemployed and looking for work, and 'other,' respectively. It is notable that a greater proportion of individuals taking part in the follow-up lived alone.



Relationships Between Variables

Table 3 shows the correlations between follow-up variables.

Table 3

Follow-up data: Variable means (M), standard deviations (SD), and correlations (N = 19)

Variable	1	2	3	4
1.Quality of Life (-0.59-1)	-			
M = 0.71, $SD = 0.10$				
2.Mental Well-being (1-6)	.38	-		
M = 3.49, $SD = 1.20$				
3.Loneliness (1-5)	12	60***	-	
M = 2.22, $SD = 0.93$				
4.Community Belonging (1-4)	.66**	.48*	33	-
M = 2.72, $SD = 1.23$				

Note ***p* < .01, *** *p* < .001

The mean scores on all variables were similar at follow-up: mental well-being and loneliness were around the mid-point of both scales, whilst scores for community belonging and quality of life were typically higher. There were three statistically significant correlations, which is surprising with such a low number of participants included in the follow-up sample. This suggests these relationships are particularly strong. As was also observed at baseline, loneliness and mental well-being were significantly negatively associated, indicating that as loneliness increased, mental well-being decreased (r = -.60, p = .007). However, at follow-up, two new relationships emerged: first, community belonging, and health-related quality of life were positively correlated, indicating that as community belonging increased, so too did health-related quality of life (r = .66, p = .003). Second, community belonging and mental well-being were positively correlated, indicating that as community belonging increased, so too did mental well-being (r = .48, p = .04). This contrasts with the correlational relationships observed at baseline, where community belonging was not associated



with health-related quality of life or well-being. Whilst mental well-being and health-related quality of life appeared to be positively connected at follow-up (in line with baseline results) this correlation did not reach statistical significance. This is likely to be a result of the small sample size at follow-up.

Table 4 shows the correlations between the baseline (T0) and follow-up (T1) variables. These analyses were only conducted for participants who provided data at both baseline and follow-up (N = 19).

Table 4

Baseline and Follow-up data: Variable means (M), standard deviations (SD), and correlations (N = 19)

Variable	1	2	3	4	5	6	7	8
1.Quality of Life T0 (-0.59-1)	-							
M = 0.73, $SD = 0.11$								
2.Mental Well-being T0 (1-6)	.46*	-						
M = 3.74, $SD = 1.36$								
3.Loneliness T0 (1-5)	17	50*	-					
M = 2.03, $SD = 0.72$								
4.Community Belonging TO (1-4)	11	.30	14	-				
M = 3.11, $SD = 1.24$								
5.Quality of Life T1 (-0.59-1)	.65**	.63**	13	.01	-			
M = 0.71, $SD = 0.10$								
6.Mental Well-being T1(1-6)	.30	.60**	42	.03	.38	-		
M = 3.49, $SD = 1.20$								
7.Loneliness T1 (1-5)	13	19	.61**	.12	12	60**	-	
M = 2.22, $SD = 0.93$								
8.Community Belonging T1 (1-4)	.48*	.44	28	.13	.66**	.48*	33	-
M = 2.72, $SD = 1.23$								

Note * $p \le .05$, ** p < .01, *** p < .001

As hoped, the T0 and T1 versions of health-related quality of life (r = .65, p = .003), mental well-being (r = .60, p = .006), and loneliness (r = .61, p = .006) correlated with each other, indicating consistency in the variables over time. The T0 and T1 versions of community belonging did not correlate, however (r = .13, p = .60).

There was a statistically significant positive correlation between health-related quality of life T0 and mental well-being T0 (r =.46, p =.50), indicating that as health-related quality of life T0



between health-related quality of life T0 and community belonging T1 (r = .48, p = .04), indicating that as health-related quality of life T0 increased, so too did community belonging T1. There was a statistically significant positive correlation between mental well-being T0 and health-related quality of life T1 (r = .63, p = .004), indicating that as mental well-being T0 increased, so too did health-related quality of life T1. There was a statistically significant negative correlation between mental well-being T0 and loneliness T0 (r = -.50, p = .03), indicating that as loneliness T0 increased, mental well-being T0 decreased. There was a statistically significant positive correlation between health-related quality of life T1 and community belonging T1 (r = .66, p = .003), indicating that as health-related quality of life T1 increased, so too did community belonging T1. There was a statistically negative correlation between mental well-being T1 and loneliness T1 (p = -.60, p = .007), indicating that as loneliness T1 increased, mental well-being T1 and community belonging T1 (r = .48 p = .04), indicating that as mental well-being T1 increased, so too did community belonging T1 (r = .48 p = .04), indicating that as mental well-being T1 increased, so too did community belonging T1.

Health-service Use

Table 5 below shows the number of follow-up participants who used each health-service in the previous three months. Fewer than half of participants (47%) had attended at least one GP appointment (a reduction from baseline), with 42% attending at least one practice nurse appointment (about the same as baseline).



Table 5

Follow-up data: Number of participants who used health-services in previous 3 months (N = 19)

Health-service	Number Who Used Service in
	Previous 3 Months
GP appointment	9 (47%)
GP telephone call	3 (16%)
Practice nurse appointment	8 (42%)
Other primary care	3 (16%)
A&E visit	1 (5%)
Ambulance call-out	1 (5%)
Overnight in hospital	1 (5%)
Day in hospital	5 (28%)
Hospital outpatient	3 (16%)
Other secondary care	3 (16%)
Local authority day care visit for mental health	0 (0%)
Overnight care-home visit	0 (0%)
Other community care	0 (0%)
Social care support	1 (5%)
Other social care	1 (5%)

Table 6 allows for baseline and follow-up health-service usage to be compared. Compared to baseline, there were large reductions in the number of participants using various healthcare services at follow-up, including GP appointments (12% reduction); GP telephone calls (16% reduction), spending a day in hospital (28% reduction); A and E visits (12% reduction); ambulance call outs (22% reduction); overnight stays in hospital (15% reduction); and attending hospital as an outpatient (16% reduction).



Table 6

Baseline and Follow-up data: Number of participants who used health-services in previous 3 months.

Health-service	Baseline: Number Who	Follow-up: Number Who Used in Previous 3 Months		
	Used in Previous 3 Months			
	(N =41)	(N = 19)		
GP appointment	24 (59%)	9 (47%)		
GP telephone call	15 (37%)	3 (16%)		
Practice nurse appointment	18 (44%)	8 (42%)		
Other primary care	11 (27%)	3 (16%)		
A&E visit	7 (17%)	1 (5%)		
Ambulance call-out	11 (27%)	1 (5%)		
Overnight in hospital	8 (20%)	1 (5%)		
Day in hospital	14 (34%)	5 (28%)		
Hospital outpatient	13 (32%)	3 (16%)		
Other secondary care	8 (20%)	3 (16%)		
Local authority day care visit for mental health	1 (2%)	0 (0%)		
Overnight care-home visit	0 (0%)	0 (0%)		
Other community care	1 (2%)	0 (0%)		
Social care support	3 (7%)	1 (5%)		
Other social care	0 (0%)	1 (5%)		

Section 4: Discussion

The aim of this evaluation was to explore the demographic characteristics, well-being, health-related quality of life, loneliness, community belonging and health service use among SPRIING service beneficiaries, as well as changes in any of these measures between the time that they joined the programme (baseline) and when their follow-up data were collected. It should be remembered that a small proportion of individuals who are supported by the SPRIING Pilot Programme took part in the baseline section of the evaluation programme (29%), and an even smaller proportion took part in the follow-up (14%). While this does pose challenges for robust analysis of the data and may raise questions about potential differences in terms of experiences between those who took part in the evaluation and those who did not, the analysis of the data provides some promising preliminary insights.



First, it is important to note that the positive relationship between health-related quality of life and mental well-being (at baseline), and the negative relationship between loneliness and mental well-being (both at baseline and follow-up) support findings from previous research (e.g., Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Knowles, Lucas, Baumeister, & Gardner, 2015; Greaves & Farbus, 2006). Although these analyses do not allow conclusions to be drawn regarding the causal relationships between the variables, these findings highlight well-established and important relationships between health-related quality of life and mental well-being, and between loneliness and mental well-being.

Additional important relationships were observed in relation to community belonging, a primary concern of the pilot programme. A sense of community connection has long been known to be associated with the building of valuable social capital and positive well-being outcomes (Ehsan, Klaas, Bastianen, & Spini, 2019; Perkins & Long, 2002; Poortinga, 2012; Pretty, Bishop, Fisher & Sonn, 2007), including reductions in loneliness (Coll-Planas, del Valle Gómez, Bonila, Masat, Puig, & Monteserin, 2017; Prezza, Amici, Roberti, & Tedeschi, 2001). Recent research in social psychology has also demonstrated that local community belonging and belonging within community-based activity or social groups can also be predictive of a range of health and well-being outcomes (Dingle, Brander, Ballantyne, Baker, 2012; Fong, Cruwys, Haslam, & Haslam, 2019; Haslam et al., 2018; Cruwys et al, 2014). Thus, it is encouraging to find relationships between beneficiaries' sense of community belonging and their reported health and well-being at follow-up, that were not present at baseline. More specifically, at follow-up, results revealed that as community belonging increased, so too did mental well-being and health-related quality of life. This finding highlights the potential benefits of improving community belonging, which research has shown to be one of the core drivers of Social Prescribing's beneficial effects (Kellezi et al., 2019; Wakefield et al., 2020).



The health service use data also revealed some interesting findings and provided tentative indications of the SPRIING Pilot Programme's potential cost effectiveness. While the small sample size limited the analyses that could be legitimately conducted on the data (and also mean that all results must be treated with caution), it was the case that there were observable reductions in reported healthcare usage between baseline and follow-up of 12-28%, depending on the specific healthcare service in question (e.g., GP appointments, GP telephone calls, spending a day in hospital, A and E visits, ambulance call outs, overnight stays in hospital, and attending hospital as an outpatient). These are promising indications of the potential effectiveness of the SPRIING Pilot Programme in reducing inappropriate healthcare service use, and thus the potential economic benefits of this intervention. These initial findings could thus be fruitfully explored in more depth in the future with a larger scale evaluation study and extended periods of follow-up analysis.

Strengths

It is important to reflect on the strengths of this research, particularly the benefits of gathering data in this remote manner. The baseline sample was composed of men and women with an average age of 73 years, with the majority (T0 73%; T1 90%) living alone. Being able to reach members of this demographic (i.e., older people who live alone) is a positive step towards addressing current gaps in service access and provision, as this group (and other groups facing additional vulnerabilities) are particularly affected by these gaps (Milne, Hatzidimitriadou, & Wiseman, 2007). The effective use of remote data collection in this survey (i.e., over the telephone) is also promising, because such methods allow the needs of isolated or inaccessible populations to be assessed in a time- and resource-effective manner. Moreover, as SPRIING staff conducted the data collection, the results obtained from remote assessment have the potential to enable better-informed staff decisions to be made regarding those who should be prioritised and provided with urgent support in order to address their health, feelings of loneliness, and social isolation. In this



way, support and services can be targeted to where they are most needed (Fletcher et al., 2004).

Remote assessment is also an important way to address issues of social isolation in a manner that is consistent with Covid-19 distancing rules. The fact that Covid-19 has increased feelings of loneliness for many (Li & Wang, 2020) means that this is a particularly important benefit of remote assessment.

Limitations and Conclusions

The present study was not without limitations, and these should be acknowledged. Most notably, the present study was a small-scale pilot evaluation based on a small sample of participants. This means we cannot be confident that the sample is a good representation of those involved in the SPRIING Pilot Programme. It was also not possible to fully test the health and well-being benefits of the SPRIING Pilot Programme, again due to the small number of participants, as well as the high drop-out rate in the follow-up evaluation study, and the inconsistent timing of the follow-up imposed by constraints in staff data collection capabilities and participant engagement. These limitations notwithstanding, the results provide initial tentative evidence of the potential benefits of the SPRIING Pilot Programme, particularly in terms of the observable reductions in healthcare usage between baseline and follow-up. These findings are very promising and suggest that the current approach being employed by the SPRIING project has the potential to improve people's health and well-being and inform the future delivery of social prescribing in Gedling Borough.



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