



Appendix B

Aberdeen Links Service

Evaluation Report

July 2019

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Executive summary

Introduction

Epidemiological and financial challenges are placing unsustainable demand on health and social care services. It is well recognised that alternate models of care delivery should be sought, with one approach emphasising the targeting of upstream activity, such as prevention and self-management of health and wellbeing. Social prescribing, characterised by linking individuals to non-medical forms of support within a community setting, is one such approach which may facilitate reducing pressure on primary care.

The aim of this evaluation is to understand the implementation and impact of a social prescribing service in Aberdeen City.

Methods

The Aberdeen Links Service became operational in September 2018. The team consisted of nine Primary Care Link Practitioners (LPs, 5 x LPs located across the city based on perceived need, 4 x Senior LPs who line managed LPs and each based in one of the four localities). LPs were aligned to 18 General Practices across Aberdeen City. Service inclusion criteria was those requiring support for any of the nine social determinants of health.

The evaluation framework was co-created with the project team. Patient data collected at baseline and six months included: self-reported quality of life, happiness and loneliness. Additional patient data included: number of GP (General Practitioner) contacts, number of significant others and three patient case studies. Service level data collected included: referrals by practice / month, referral reason and number of LP contacts. Staff level data from LPs included: goal setting at baseline and six months, job satisfaction and in-depth interviews were carried out which explored barriers and facilitators to implementation (analysed thematically). Additional General Practice staff data collected at baseline and six month follow-up included: knowledge and awareness of the LP role, perceived value and openness to the links approach and knowledge and understanding of local community assets and signposting.

Results

Service Perspective: Results described are inclusive of the first six months of service operation (10/09/19 – 10/03/19). There were a total of 694 referrals to the service, most of which were received from a GP (82.4%). The most common reasons for referral to the service included mental health (24.8%), social isolation (17%) and benefits (8.8 %).



Patient perspective: Mean quality of life ($p=.009$, $N=37$), happiness ($p=.02$, $N=37$) and loneliness ($p=.001$, $N=36$) scores all significantly improved from baseline to six month follow-up. There was a trend towards a reduction in mean number of GP contacts (self-reported by patient) from baseline (mean = 1.7, $SD=1.1$) at follow-up (mean = 1.2, $SD=0.9$), $p=.1$.

Staff perspective: Staff interviews and questionnaire responses ($N=9$) identified high LP job satisfaction (average score 83%) and strong communication within the LP team (average score 96%). Positive team dynamic was facilitated by the intensive induction period, project enthusiasm and caring personalities, whilst maintained through extensive communication channels. Staff highlighted unmanageable workloads at times and utilised their extensive within team relationships as a support mechanism to cope with challenging patients. LP patient support style varied, with those more confident and knowledgeable within a subject area, more likely to attempt to solve more problems themselves rather than refer onwards. Staff described that flexibility to vary care provision, in the presence of clear boundaries, may have facilitated improvements in patient outcomes. Co-location, having a presence in practice and providing feedback on improved patient outcomes appeared to facilitate development of within practice relationships and links approach adoption. Third sector relationships appeared positive, however less developed (e.g. mainly email correspondence), which appeared to be due to a lack of LP capacity to develop relationships due to large caseloads.

General Practice staff questionnaire responses at baseline ($N=114$) and follow-up ($N=85$) demonstrated that GP Practice staff awareness of the LP role remained consistently high (92% baseline, 94% follow-up). Knowledge of the LP role (19% increase) and perceived value of link working (13% increase) both increased from baseline to six months, however confidence in signposting (44% baseline and follow-up), openness to the links approach (85% baseline, 83% follow-up) and confidence in knowledge of community assets (43% baseline, 48% follow-up) remained relatively constant.

Conclusions

The Aberdeen Links Service is acceptable to those delivering the service and may reduce pressure on primary care. The presence of an extensive within team support system and manageable workload is necessary to ensure LP wellbeing. Practitioner support style varied depending on expertise, and considering the breadth of knowledge LPs are required to have, developing specialised team members may create efficiencies. When co-location is not available within GP practices, additional efforts are necessary to build General Practice staff increase links approach adoption. Tailoring the service function to geographical needs may be a useful strategy in facilitating adoption of the links approach within General Practice. The provision of adequate time to engage with third sector organisations may strengthen relationships.



Key points

- Significant improvements in patient outcomes (improved quality of life, improved happiness and reduced loneliness) have been demonstrated.
- The Aberdeen Links Service is highly acceptable to those delivering the service due to strong, trusting relationships, a shared enthusiasm for the project and support systems developed within the LP team.
- The presence of a manageable workload (e.g. strategies in place to support workload management) and extensive support system appears to be necessary for practitioner wellbeing and staff retention.
- The Aberdeen Links Service appears to contribute to reducing the number of GP contacts, therefore has the potential alleviating pressure on primary care.
- Specialisation of practitioners may be a useful strategy to create efficiencies within the team.
- Factors that appear to facilitate development of General Practice staff relationships and adoption of the links approach are co-location, having a presence in practices and providing positive patient feedback to General Practice staff.
- A tailored approach to promoting service function may be a useful strategy in increasing practice engagement.
- Workload volume limits capacity to build relationships with community organisations, and dedicated time to develop these may strengthen relationships.
- Social prescribing requires abundant community assets, and gaps should be identified in order to promote funding or develop innovative solutions to address these.
- Bespoke IT systems leads to higher quality data and more robust findings.



1. Introduction

The increasing epidemiological and financial challenges placed on health and social care services are well documented. Based on current care delivery, hospital activity will have to increase by a projected 40% over the next 15 years to account for a growing and ageing population¹. These pressures will be augmented in General Practice, where 90% of all patient contacts are conducted², exacerbated by increasing vacancies in General Practitioners (GPs), with almost one quarter of Practices not being fully recruited to³. To improve wellbeing at a population level, an alternate approach to delivering care is championed, that may be achieved through increased upstream activity towards targeting prevention and self-management of health and wellbeing⁴.

One advocated approach towards achieving the required shift in care delivery is social prescribing. Despite varying definitions, social prescribing is typically characterised by linking individuals to non-medical sources of support, usually within a community setting⁵. Given the pre-established associations that exist between non-medical issues (such as social isolation) and frequency of General Practice attendance⁶, such an approach would appear to be a logical strategy to reducing pressure on Primary Care. However, notwithstanding the increasing implementation of social prescribing, there is currently limited evidence demonstrating its effectiveness and impact⁷. Therefore, further work needs to be done to rigorously evaluate the implementation of such initiatives to determine what effect, if any, they have.

The purpose of this evaluation is to understand the implementation and impact of a social prescribing service in primary care.

¹ Charlesworth et al. (2018). Securing the future: funding health and social care to the 2030s. London: Institute for Fiscal Studies

² Scottish Government. (2018). The 2018 general medical services contact in Scotland. Edinburgh: Scottish Government

³ Audit Scotland (2018). NHS in Scotland 2018. Edinburgh: Audit Scotland.

⁴ Audit Scotland (2018). NHS in Scotland 2018. Edinburgh: Audit Scotland.

⁵ ALLIANCE. The role of signposting and social prescribing in improving health and wellbeing. Available at: <https://www.alliance-scotland.org.uk/wp-content/uploads/2017/10/ALLIANCE-Developing-a-Culture-of-Health.pdf> [accessed 13/05/2019]

⁶ Cruwys et al. (2018). Social isolation predicts frequent attendance in primary care. *Ann Behav Med*, 52(10), 817-829.

⁷ Bickerdike et al (2017). Social prescribing: less rhetoric and more reality. A systematic review of the evidence. *BMJ Open*; 7:e013384.



2. Methods

2.1 Service design

The Aberdeen Links Service (ALS) went live in September 2018. This evaluation describes the implementation and impact of the first six months of delivery. This service was part of Aberdeen City Health & Social Care Partnership's (ACHSCP) programme of activity to integrate health and social care. Funding for the service was obtained through the ACHSCP Integration Joint Board.

As part of the first phase of implementation, nine Link Practitioners (LPs, 5 x Link Practitioners, 4 x Senior Link Practitioners who line managed the LPs) were aligned to 18 General Practices across Aberdeen City. Senior LPs were located in each of the four localities whilst LPs were located based on perceived need within the city. LPs received referrals via General Practice staff. The service did not utilise strict referral criteria, however eligibility were characterised by needs non-medical in nature and aligned to the nine social determinants of health: abuse; addictions; bereavement; anxiety & depression; benefits & finances; housing & homelessness; weight management & physical activity; relationships; social isolation⁸. LPs would work with individuals to identify person-centred priorities to address and subsequent refer / signpost that individual to appropriate community-based services as required. Prior to this service becoming operational, there was no standardised approach in primary care for individuals requiring this type of support.

⁸ The Health and Social Care Alliance (2016). Social Determinants in Primary Care, Scottish Government, Glasgow. [Available at: <https://www.alliance-scotland.org.uk/wp-content/uploads/2017/11/Social-Determinants-in-Primary-Care-Module-Final.pdf>]



2.2 Data collection and analysis

2.2.1 Evaluation framework development

The same co-creation methodology utilised for other large-scale pilots locally (for more detailed information, see ⁹ and ¹⁰), was implemented here, underpinned by co-creation principles described elsewhere ¹¹. Co-creation workshops were held with a variety of stakeholders (including but not limited to: LPs, General Practitioners, Public Health Researchers and Third Sector Partners) to achieve a collective perspective on locally-relevant metrics to assess and strategies to collate this information. The findings detailed in this report stem from a consensus across co-creators regarding the metrics of interest at a local level.

2.2.2 Service-level data

A variety of service-level data were collected, including: referrals per practice / per month; primary referral reasons; onward referral categories and number of LP contacts. Data regarding the number of unpaid carers that were supported through the service were also collected. To ensure the service was not increasing health inequalities, demographic information regarding employment status, SIMD and ethnicity were also collated. These were stored on a bespoke-designed section of SAMH.net (hosted on SAHMH servers), which has enabled case-load management.

A logic model was also co-created to describe how the model would theoretically work in the local context (Figure 1).

⁹ Leask, C. 2018. Integrated Neighbourhood Care Aberdeen (INCA) Test of Change – Evaluation Report. Available at: <https://committees.aberdeencity.gov.uk/documents/s93533/3.2%20Appendix%20B%20-%20INCA%20Evaluation%20Report%20Final.pdf?txtonly=1>

¹⁰ Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]

¹¹ Leask, CF. et al. 2019. Framework, principles and recommendations for utilising participatory methodologies in the co-creation and evaluation of public health interventions. *RIAE*, 5:2.



2.2.3 Patient measures

Whilst in this non-medical model, individuals whom LPs worked with were not defined as “patients”, within this report the term “patient” is used to provide a clear distinction between the variety of stakeholders who were either involved in the delivery or receipt of this service.

Outcomes collected included self-reported quality of life; happiness and loneliness (Appendix A). Patients also reported on: 1) the number of GP contacts in the previous four weeks; and 2) the number of contacts with significant others, both paid and unpaid, in the previous four weeks. This data was collected at baseline (i.e. the first appointment with a LP) and at six-month follow-up to assess any potential changes in outcomes. Case studies were also collected to describe the patient journey for a variety of different referral reasons to portray the diversity of the LP role.

2.2.4 Staff measures

2.2.4.1 Link Practitioner measures

LPs completed a goal-setting session for personal and professional goal development four weeks into their role (Appendix B). These were then reviewed six months post-implementation to ascertain whether the role was delivering on the person-centred aspirations of each LP (Appendix C).

LP satisfaction was measured at six months. Components were assessed using Likert scales and included: communication with General Practice staff; perceived training and development opportunities; and workload (Appendix D).

In-depth interviews were conducted with all LPs to understand barriers and facilitators to implementing the service (topic guide, Appendix E). Interviews lasted no more than 60 minutes



and were open ended. These were audio recorded, transcribed and analysed thematically, a process congruent with the large-scale evaluations conducted previously^{12, 13}.

2.2.4.2 General Practice staff measures

Outcomes assessed included understanding of local community assets and confidence in social prescribing. These were assessed at baseline and six months and administered using an online survey. Further constructs assessed were perceived value and openness of adopting a links approach within their practice.

As this was a service evaluation, ethical approval was not required.

¹² Leask, C. 2018. Integrated Neighbourhood Care Aberdeen (INCA) Test of Change – Evaluation Report. Available at: <https://committees.aberdeencity.gov.uk/documents/s93533/3.2%20Appendix%20B%20-%20INCA%20Evaluation%20Report%20Final.pdf?txtonly=1>

¹³ Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]

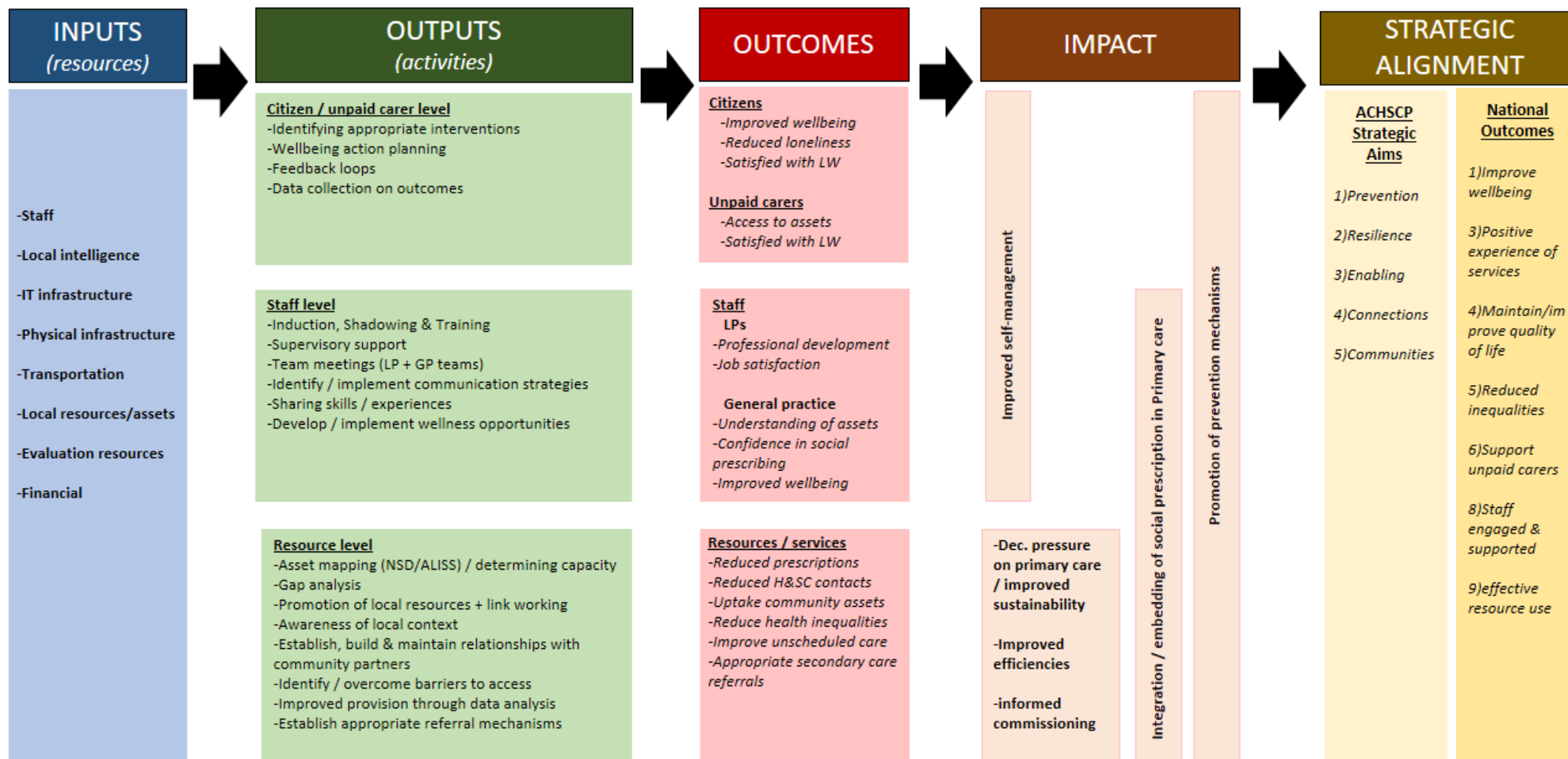


Figure 1. Aberdeen Links Service logic model



3. Results

3.1 Service overview

3.1.1 Caseload characteristics

To provide consistency, the results described were collected for the first six months of service operation (10/09/2018 - 10/03/19) unless otherwise stated. Table 1 displays characteristics of the LP caseload. There were more females than males entering the service, and spanning all adult age groups (16 – 98 years). There was a roughly even split of those entering the service from the most affluent (SIMD 4 & 5, 39.5%) and most deprived areas (SIMD 1 & 2, 38.4%), suggesting that the service does not increase health inequalities. The small proportion (6.1%) of missing SIMD postcode data was a consequence of the conversation algorithm unable to recognise newly built properties. When calculating ‘caseload days’, blank entries were assumed as still on the caseload.

Table 1. Characteristics of Link Practitioner caseload

Characteristic	Total
Caseload, N	694
Gender, N (%)	
Male	277 (39.9)
Female	415 (59.8)
Transgender	2 (0.3)
Age, mean (range)	54.4 (16-98)
SIMD Scores N (%)	
1	81 (11.7)
2	185 (26.7)
3	112 (16.1)
4	134 (19.3)
5	140 (20.2)
Not reported/N/A	42 (6.1)
Caseload days, mean (range)	75.08 (1-220)



Missing data was apparent for some LP caseload characteristics and are referred to in the graphs below as “not reported”. Practitioners often felt that the first meeting was not an appropriate time to ask for this information and that it would be more appropriate to collect at follow up. However, as our results only include a small cohort of patients at follow-up, results may appear skewed.

Employment status and those who reported disabilities in the LP caseload are displayed in Figure 2 & 3 respectively.

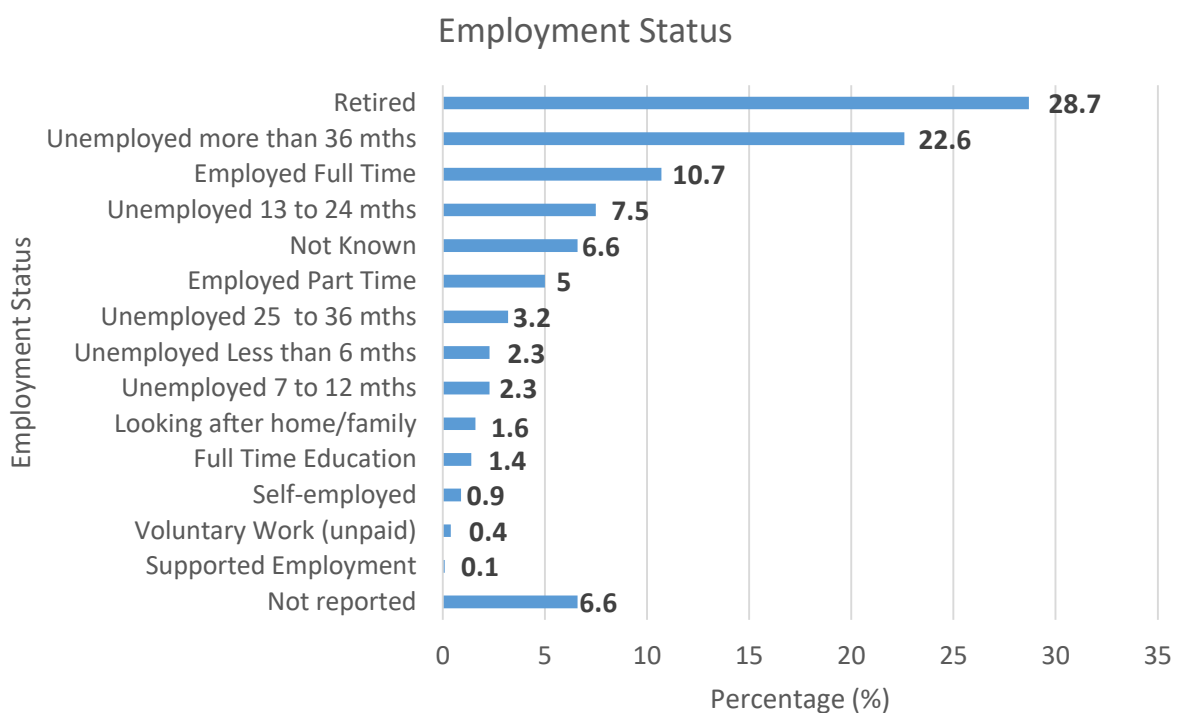


Figure 2. Reported employment status of the Link Practitioner caseload (N=694)

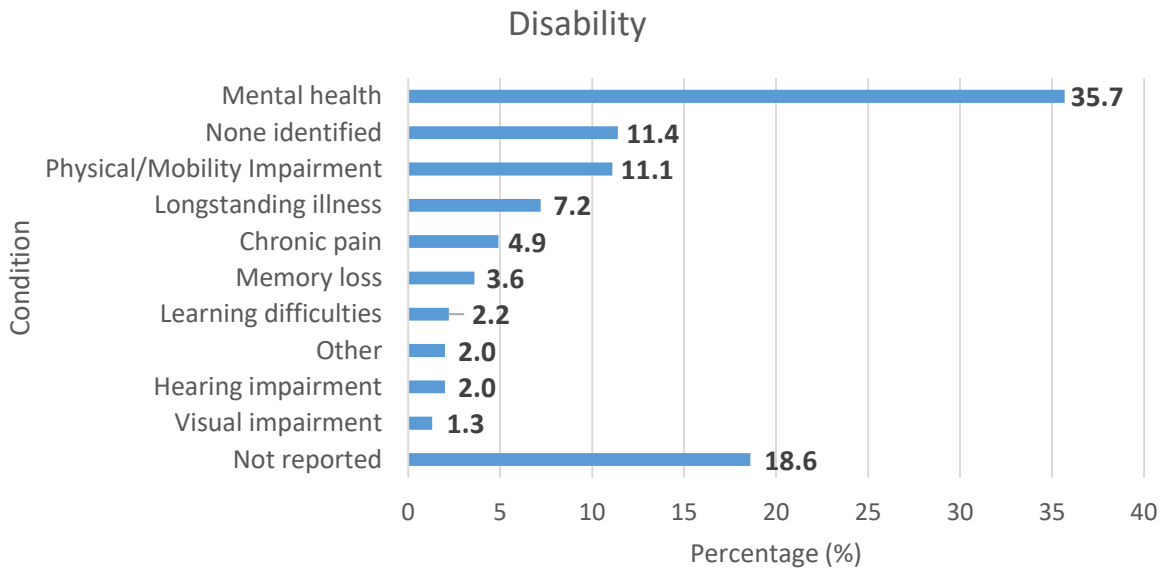


Figure 3. Reported disabilities in the Link Practitioner caseload (N=694)

Figure 4 displays the proportion of the LP caseload that identified as an unpaid carer. The proportion of the LP caseload who identified as receiving support from an unpaid carer is displayed in Figure 5.

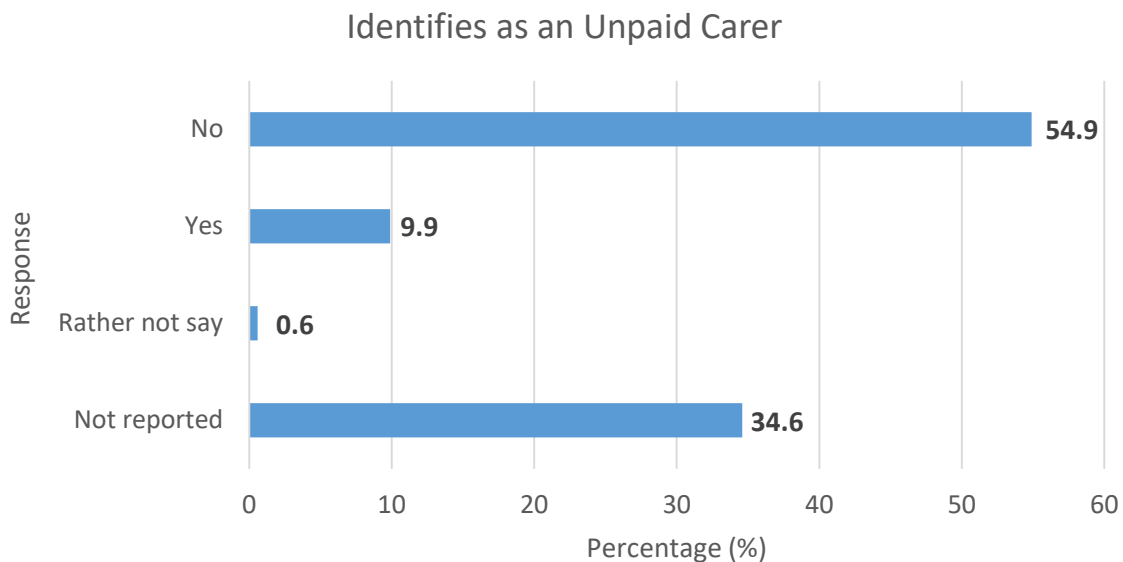


Figure 4. Percentage of the Link Practitioner caseload that identify as an unpaid carer (N=694)

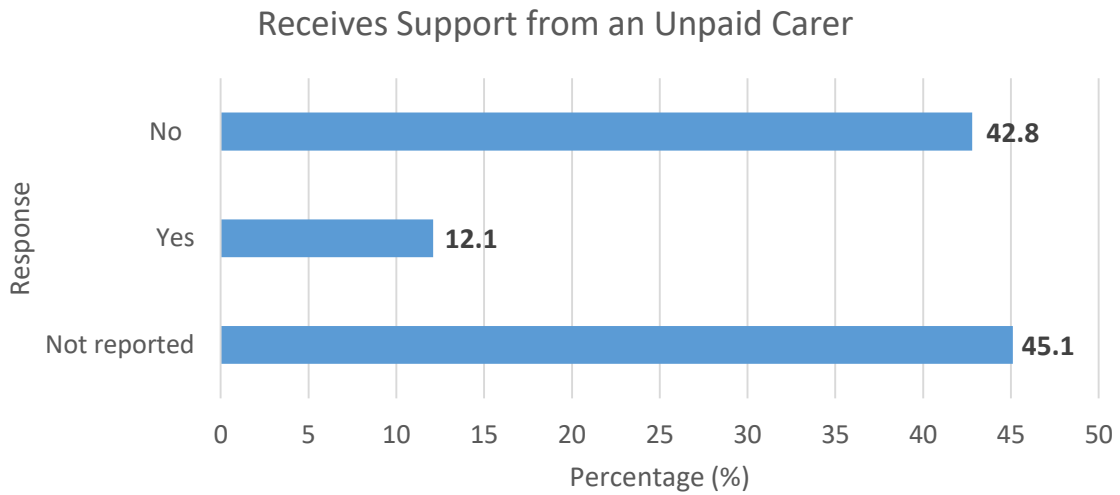


Figure 5. Link Practitioner caseload that receives support from an unpaid carer (N=694)

3.1.2 Referrals

Figure 6 reports the number of referrals the service received. Data is inclusive of 10/09/18 – 31/03/19 to display a full month of data for March 2019, however half a month of data is presented for September as the service became operational on 10/09/18. On average the service received 109 referrals per month, approximately 12 referrals per LP per month.

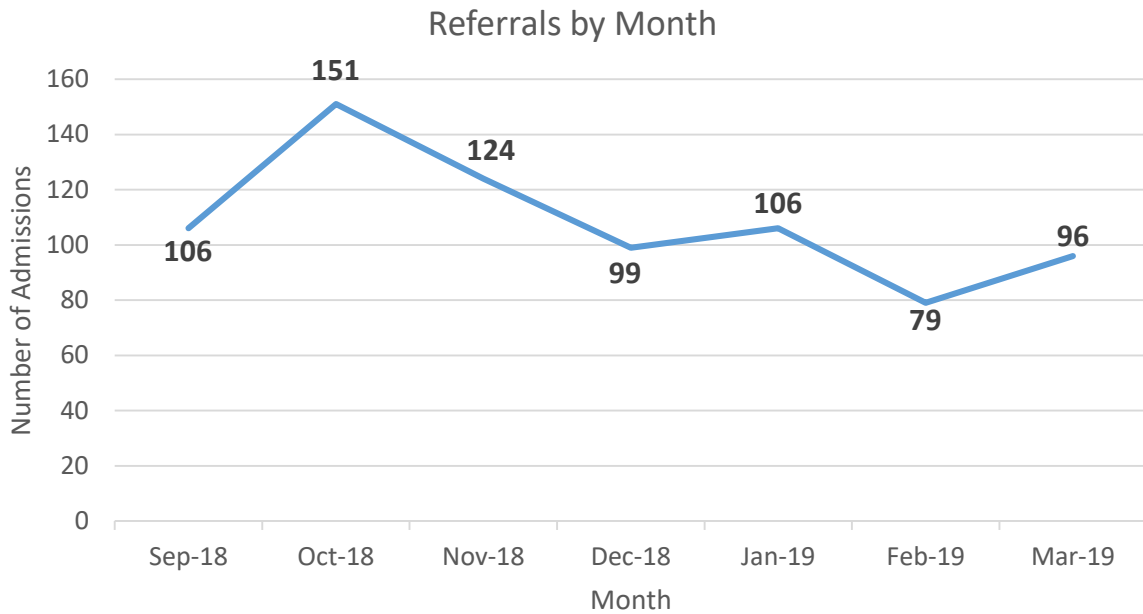


Figure 6. Referral rates to the Link Practitioner service (N=761)

Primary referral reason is shown in Figure 7. The priority referral reason agreed between the LP and the patient, where reported, is displayed in Figure 8. There was a large proportion not reported (67.7%) and these were excluded from the graph.

The majority of patients were referred from their GP (82.4%). Other most frequently reported referral sources included: Health Visitor (5.6%) and Advanced Nurse Practitioner (4.9%). Within the first month of service operation, only GPs could refer into the service whilst the systems were tested, which may have skewed results.



Primary Referral Reason

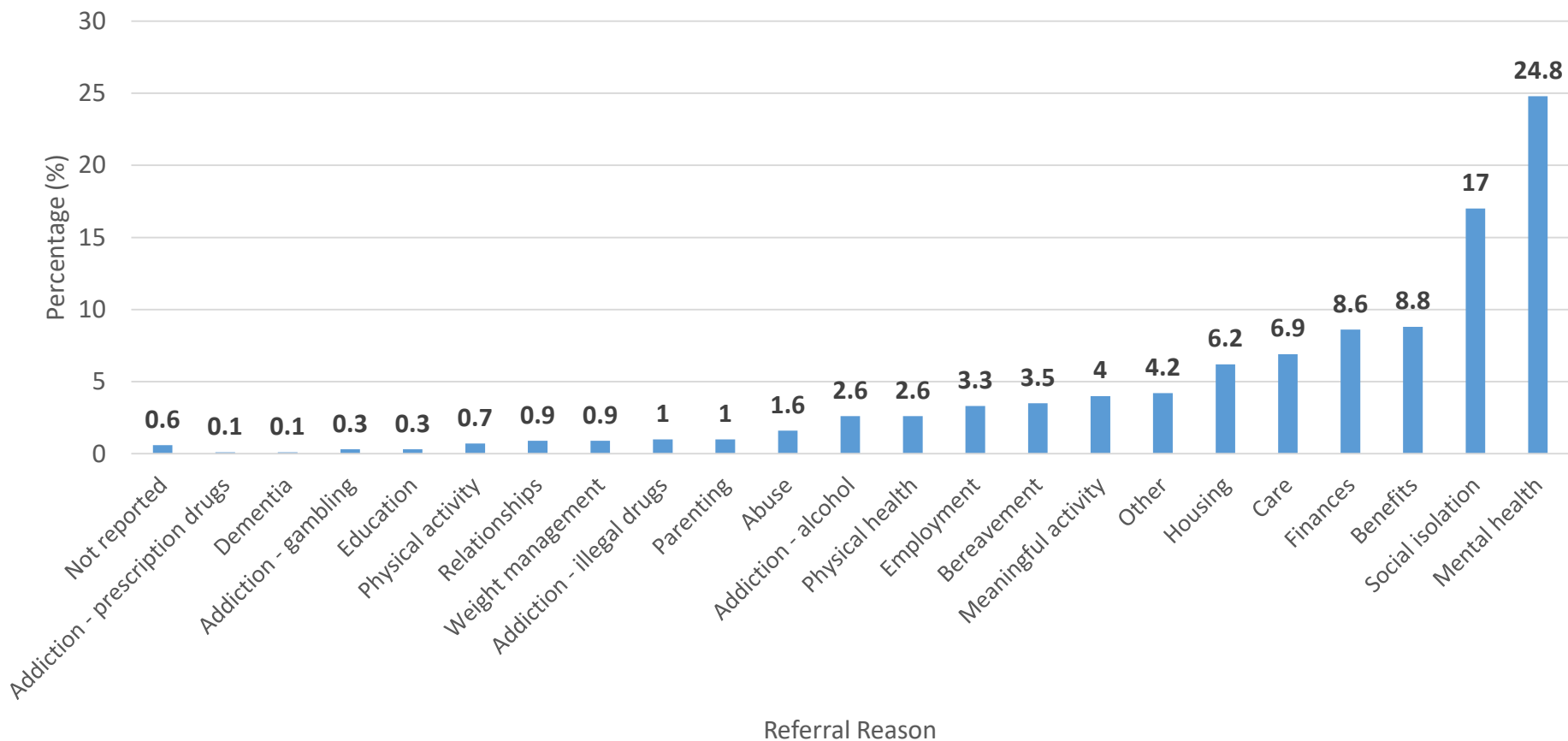


Figure 7. Primary reason for referral to the Link Practitioner service (N=694)

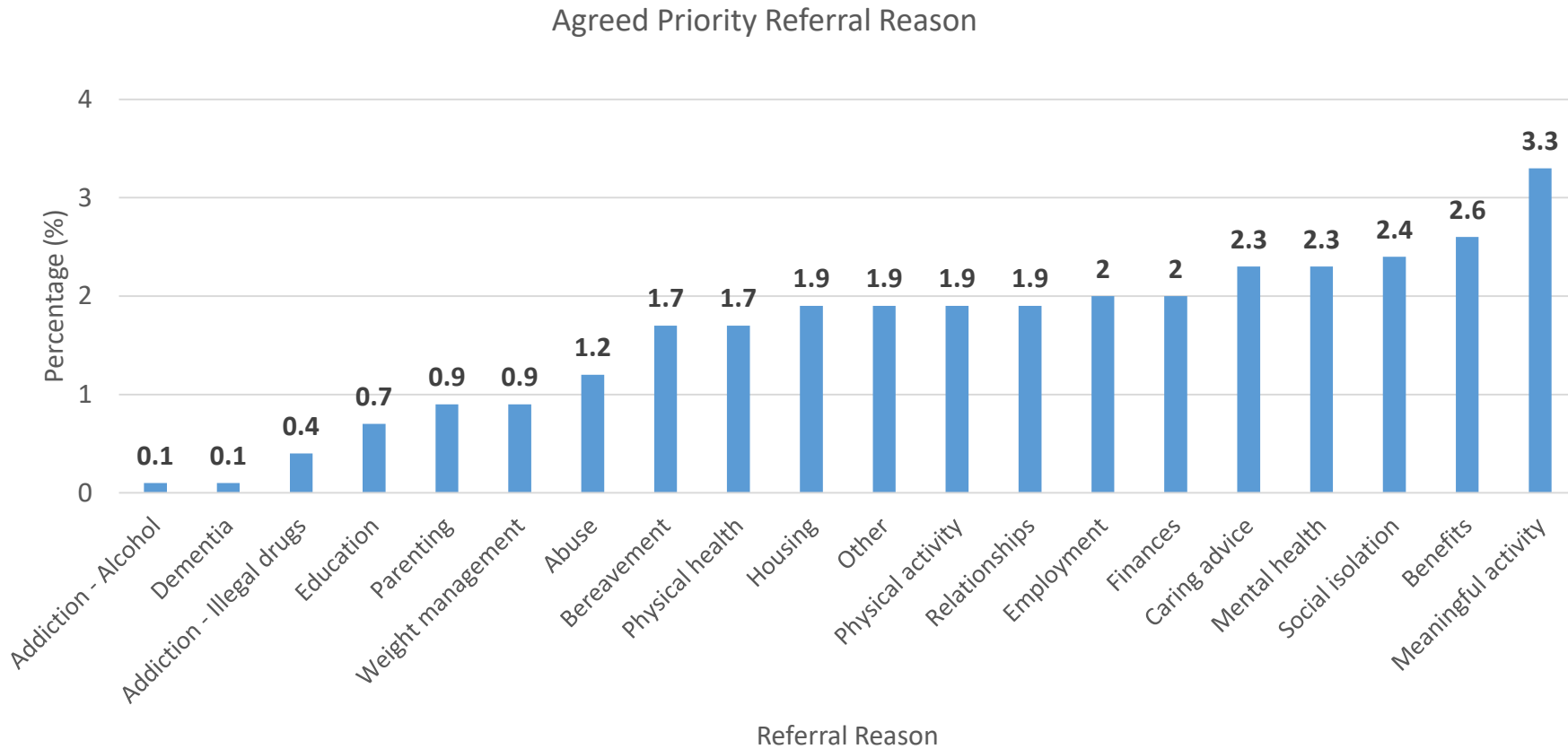


Figure 8. Priority referral reason agreed between the Link Practitioner and the patient (N=224)



The number of referrals received to the ALS by GP practice and referrals received per 1000 of the GP practice population are displayed in Figure 9 and 10 respectively. In Figure 10, not reported data (n=3) was excluded from the graph. Nineteen General Practices are displayed in these results despite LPs only being assigned to one of 18 practices. Rosemount medical practice was not allocated a LP as part of the initial roll-out of the programme. However, a LP provided support to a number of vulnerable patients when transferring to a new medical practice.

Figure 11 displays the categories of onward referrals made by LPs (N=734) and includes data up to 18/03/19.

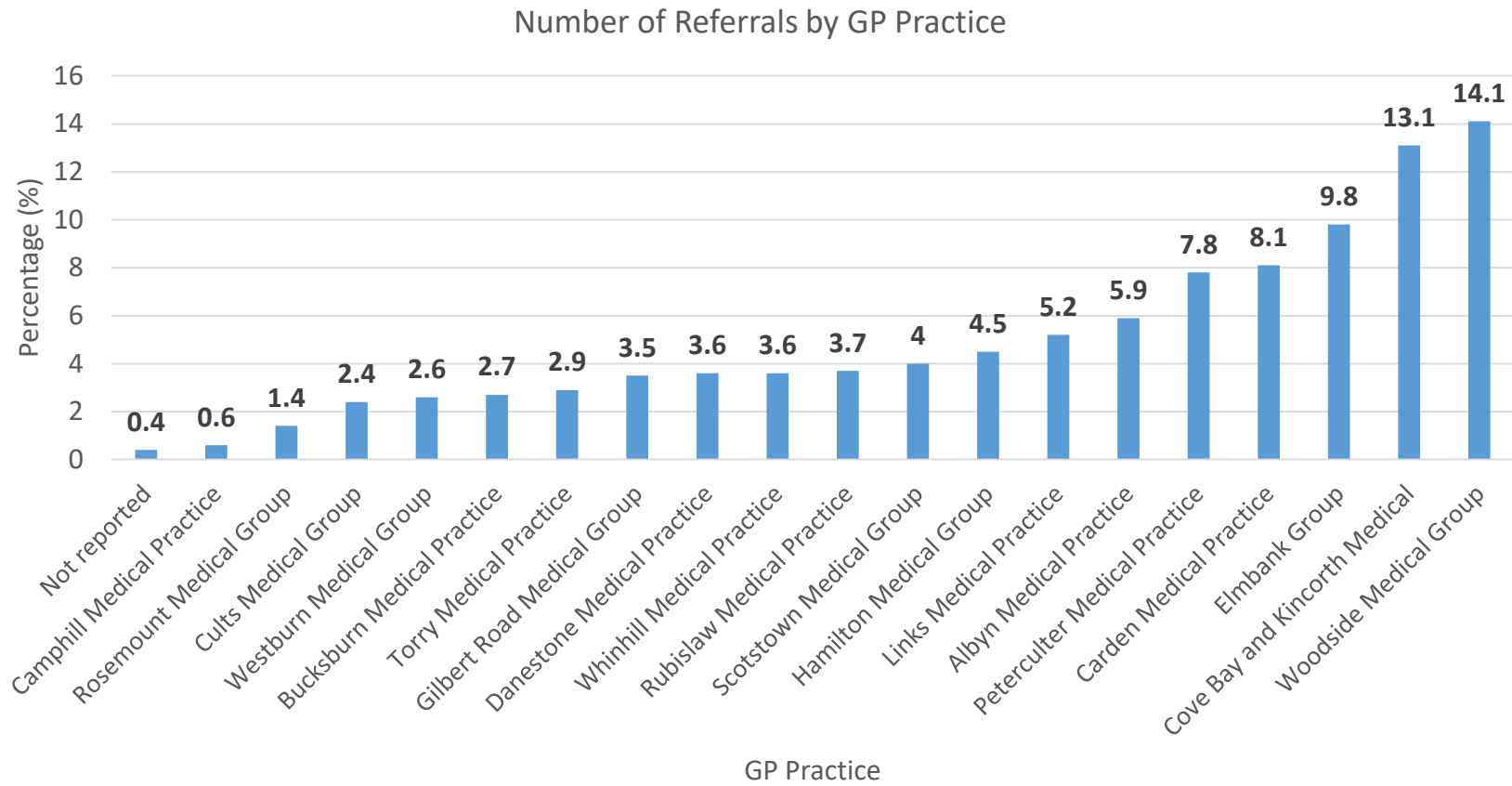


Figure 9. Referrals by GP practice (N=694)

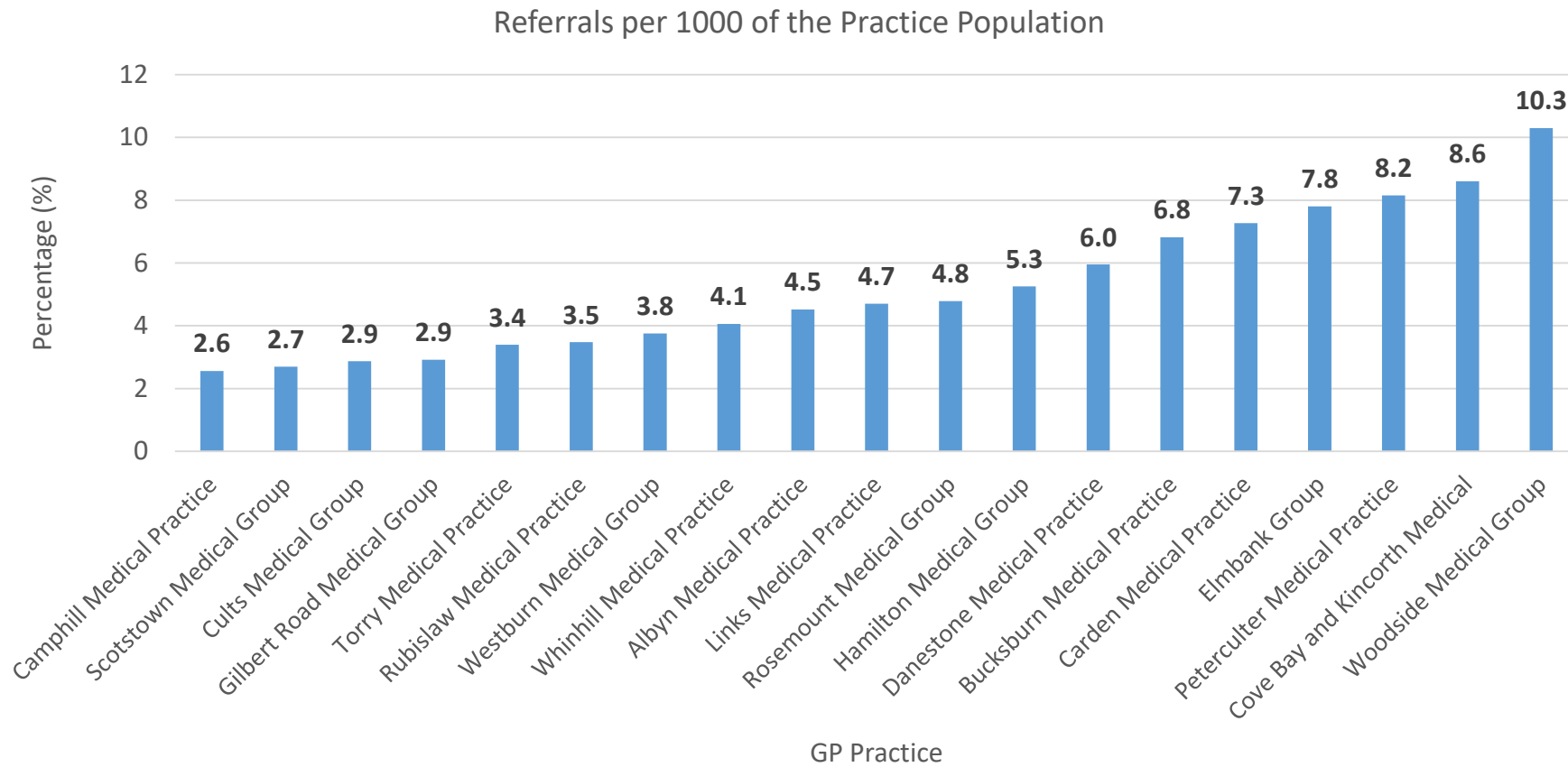


Figure 10. Referrals per 1000 of the Practice Population (N=691)

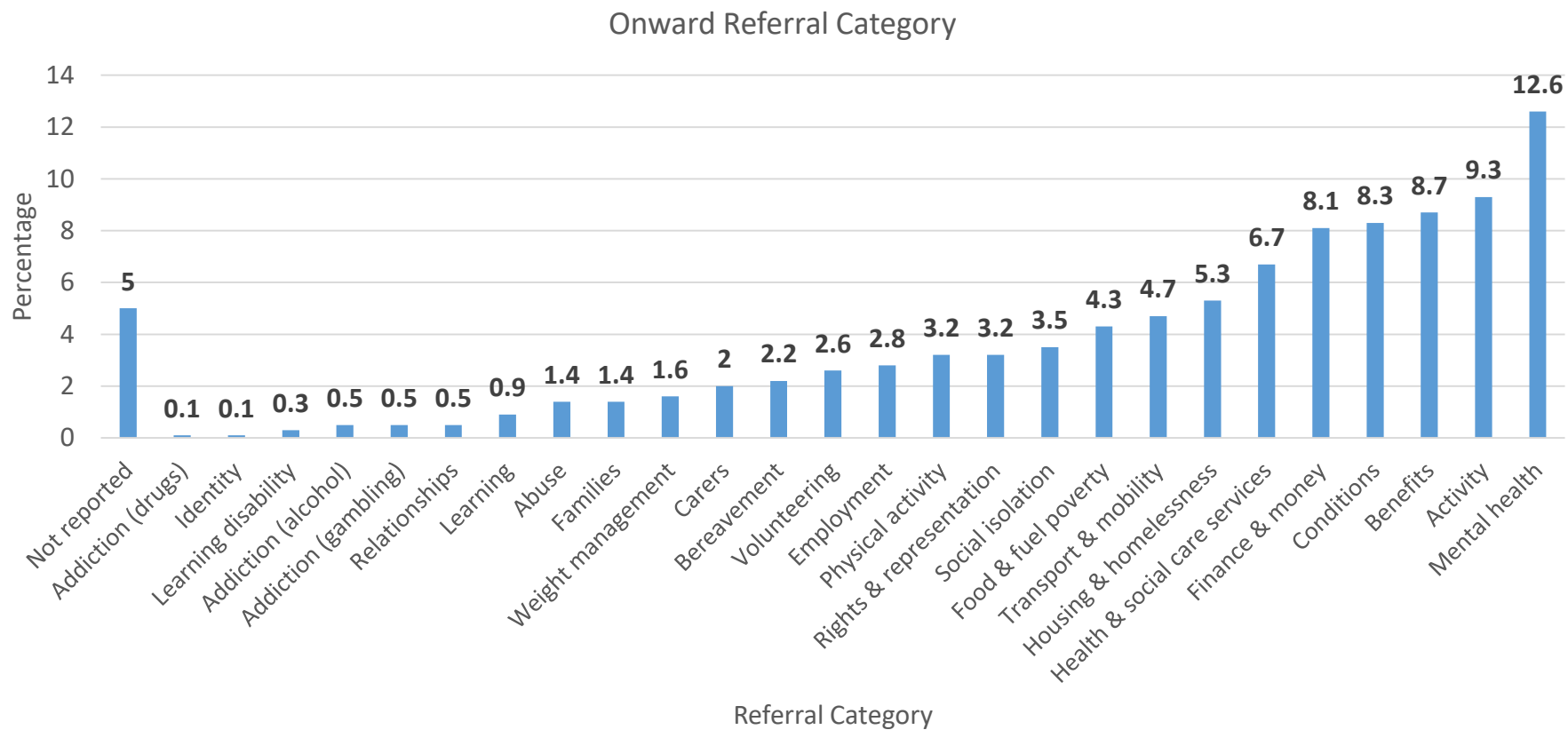


Figure 11. Categories of onward referrals made by Link Practitioners (N=734)



Figure 12 displays the number of LP organised contacts (face to face). Out of all appointments made with the LP service, 12.3% were not attended, a score higher than the average for General Medicine (most recent statistics 2002-12, Females 7%, Males 6%)¹⁴. There was an average of 619 total contacts per month, with each LP carrying out an average of 69 contacts per month. As described previously, each LP received approximately 12 referrals per month, therefore each referral required approximately six face to face contacts.

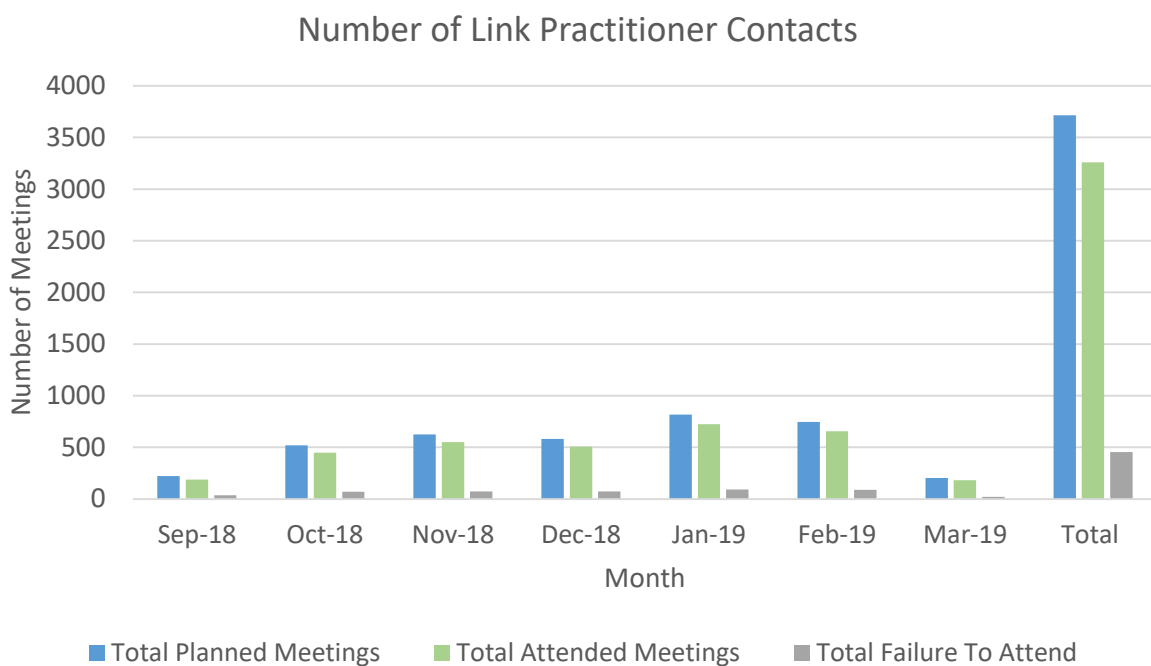


Figure 12. Number of Link Practitioner face to face contacts (N=3917)

3.2 Patient Outcomes

Patient outcomes for quality of life, happiness and loneliness are described below. Data collected for each of these outcomes did not meet normality assumptions (e.g. the data was not normally distributed), however for illustrative purposes, parametric tests were conducted

¹⁴ Campbell, K., Millard, A., McCartney, G. and McCullough, S. (2015). Who is least likely to attend? An analysis of outpatient appointment 'Did not Attend' (DNA) data in Scotland, NHS Health Scotland, Edinburgh, Available at: <https://www.scotpho.org.uk/media/1164/scotpho150319-dna-analysis-in-scotland.pdf>.



(and non-parametric results are also reported for reference). As follow-up data was collected at six months, and data collection was assigned a one month period, outcomes data is inclusive of 10/09/18 – 10/04/19.

3.2.1 Quality of life

Figure 13 displays mean self-reported quality of life scores (N=37). A paired t-test showed that mean quality of life scores significantly improved from baseline ($M=2.3$, $SD=1.1$) to six month follow-up ($M=2.9$, $SD=1.3$), $t(26) = -2.8$, $p=.009$ (95% CI of the difference -1.1 to $-.2$). This was also significant using non-parametric tests: Wilcoxon signed-rank test (baseline $Mdn=2$, follow-up $Mdn=3$), $Z=-2.5$, $p=.01$.

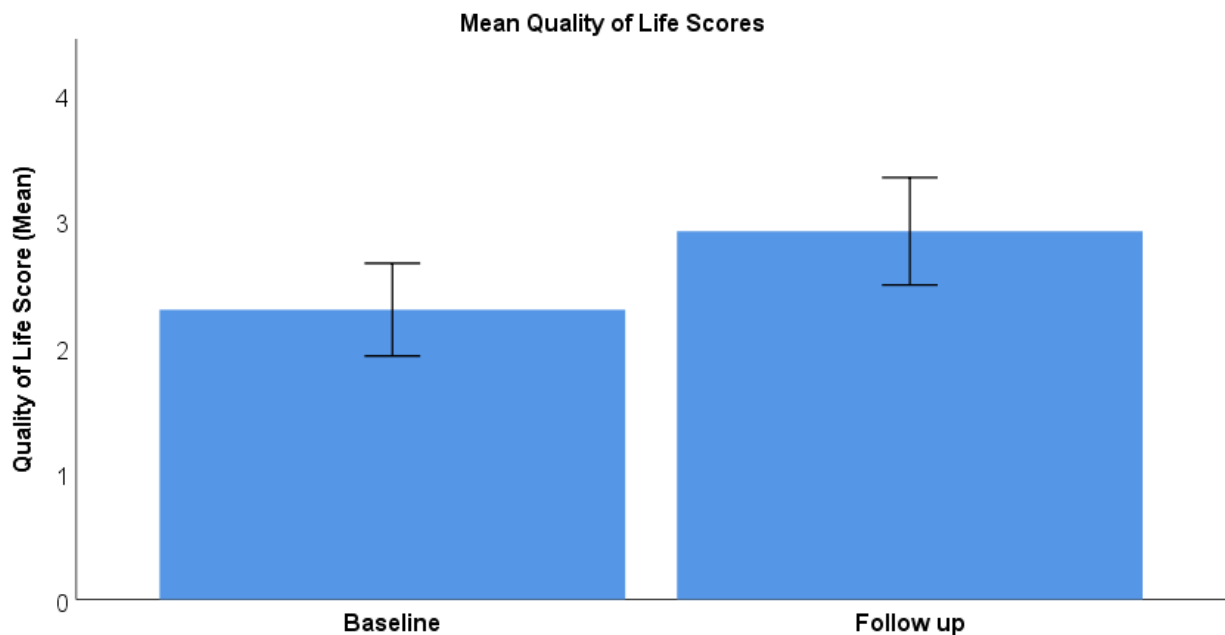


Figure 13. Mean quality of life scores (N=37)

3.2.2 Happiness

Figure 14 displays median self-report happiness scores (N=37). A paired t-test showed there was a significant improvement in happiness scores from baseline ($M=2.5$) to six month follow-up ($M=3.0$), $t(36) = -2.8$, $p=.02$ (95% CI of the difference $-.8$ to $-.1$). This was also significant



using non-parametric tests: Wilcoxon signed-rank test (baseline $Mdn=3$, follow-up $Mdn=3$), $Z=-2.2$, $p=.03$.

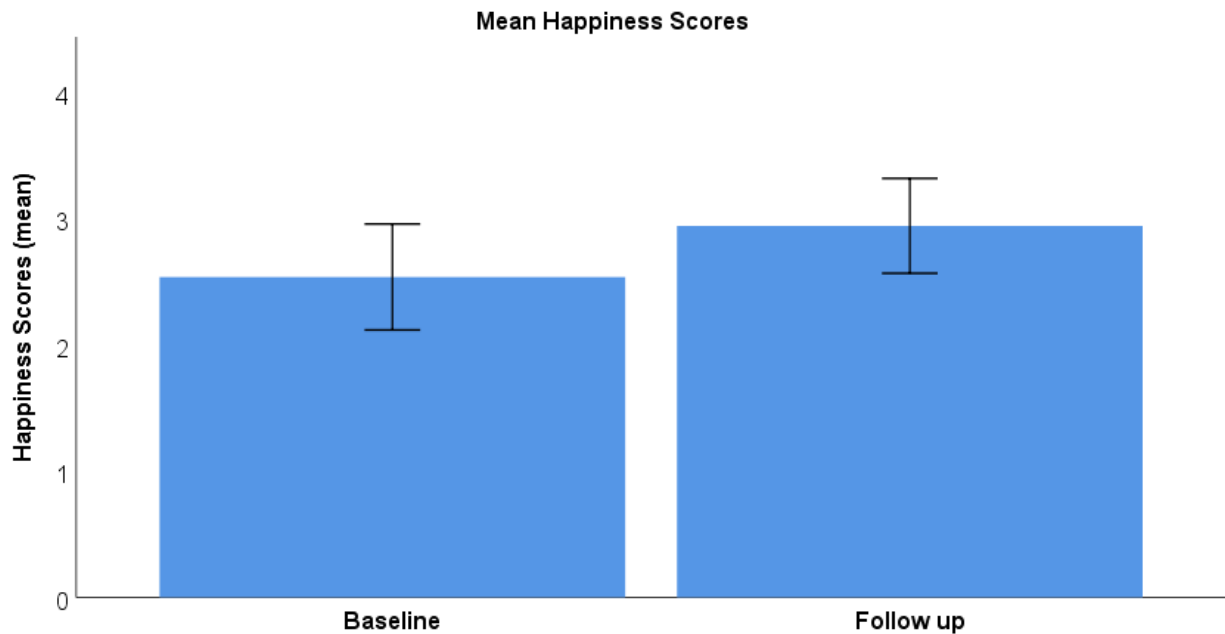


Figure 14. Mean happiness scores (N=37)

3.2.3 Loneliness

Mean self-reported loneliness scores are displayed in Figure 15 (N=36). A paired t-test showed there was a significant decrease in loneliness scores from baseline ($M=7$) to six month follow-up ($M=5.3$), $t(35)=3.7$, $p=.001$ (95% CI of the difference .8 to 2.7). This was also significant using non-parametric tests: Wilcoxon signed-rank test (baseline $Mdn=8$, follow-up $Mdn=3.5$), $Z=-3.2$, $p=.001$.

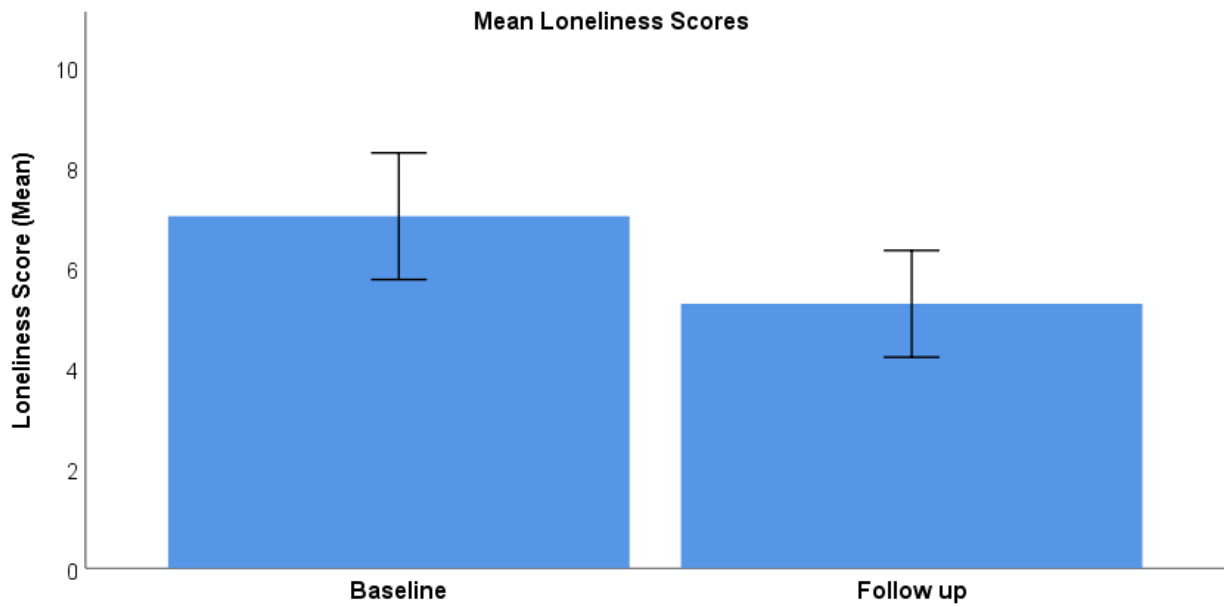


Figure 15. Mean loneliness scores (N=36)

The average number of patient's self-reported number of important people in their life at baseline and at six months is displayed in Figure 16 (N=34).

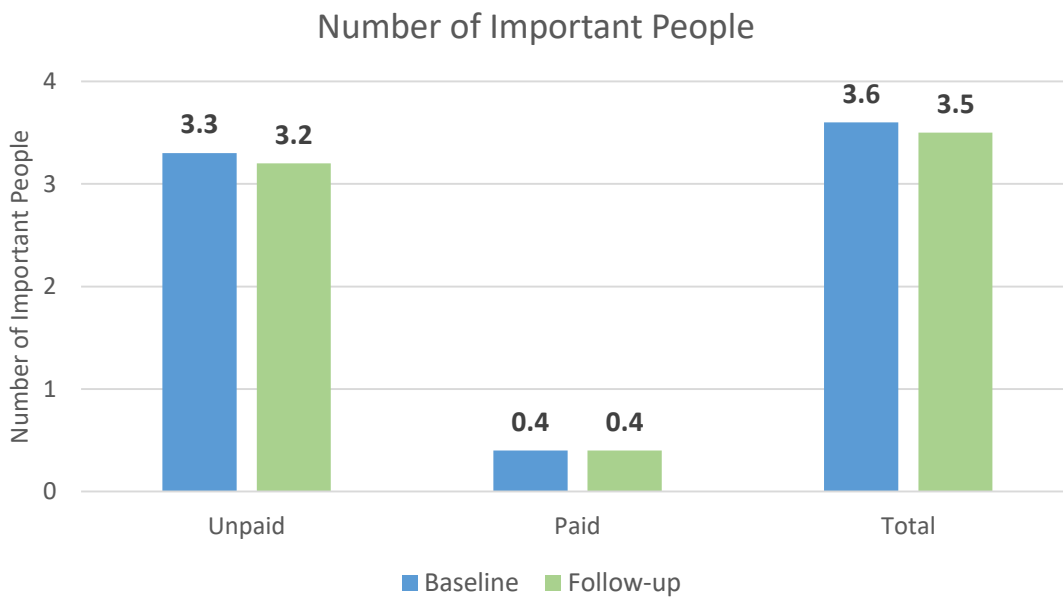


Figure 16. Number of reported important people



The mean number of self-reported GP contacts attended in practice per person from the LP caseload is displayed in Figure 17. Data is inclusive of 10/09/18-21/03/2019. Despite normality assumptions not being met, parametric tests were conducted for illustrative purposes. On average, patients reported attending 1.7 (SD=1.1) GP appointments in the practice in the previous four months at baseline and 1.2 (SD=0.9) appointments in the four weeks prior to follow-up (N=19) although this did not reach significance, $t(18)=1.8, p=.1$ (95% CI $-.1 - 1.0$). Projecting these findings would amount to 170 GP contacts at baseline and 120 contacts at follow-up per 100 people, a reduction of 50 GP contacts over a six month period. Over a one year period, this would result in each patient requiring one less GP appointment.

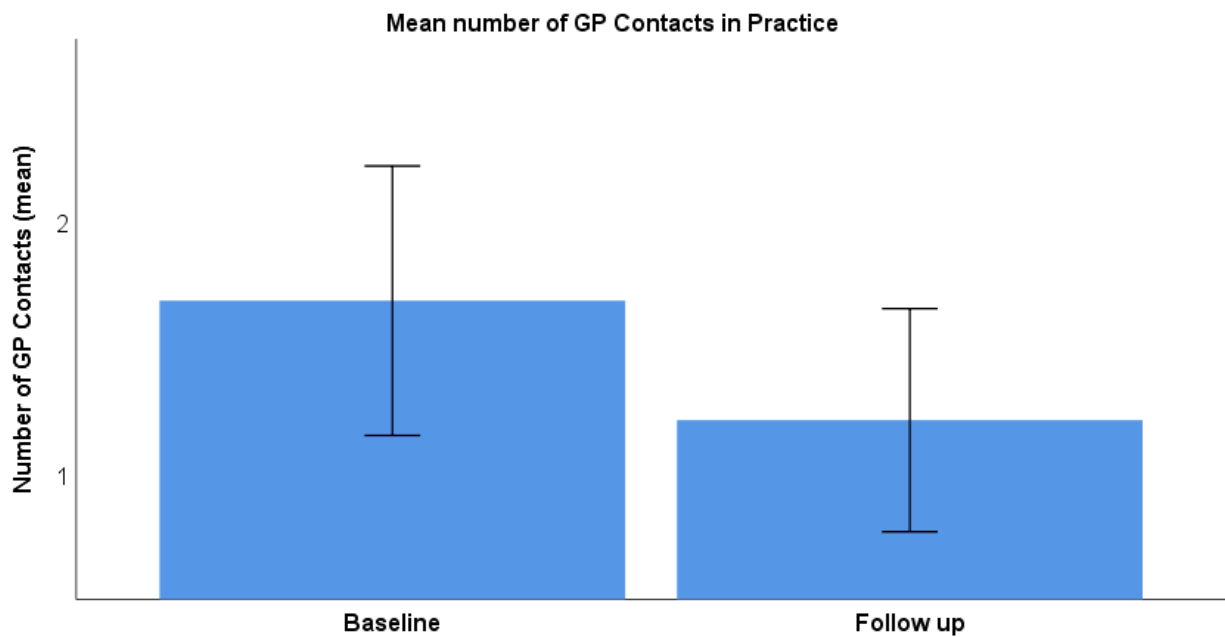


Figure 17. Mean number of GP contacts (per person)

3.3 Patient case studies

Three case studies described below, illustrate some of the challenges that the LP supported patients with. Demographic details of each case is described in Tables 2 – 4.



Table 2. Case study 1: Ms A's characteristics

Characteristic	Description
Age	88 Years
Sex	Female
Ethnicity	White Scottish
Patient location	Living alone in private sheltered housing
Past medical history	Epilepsy
Primary challenge	Social isolation
Referral source	GP

Ms A's Story

Ms A was referred to the ALS due to being socially isolated, which was primarily due to having epileptic fits. Her epilepsy was a new diagnosis in the last five years and struggled with this. This was impacting Ms A as she was feeling increasingly lonely, particularly as she had no family nearby. She felt being old was difficult and disliked being unable to carry out tasks. Ms A was not withdrawn and was very bubbly and talkative. She enjoyed social interaction and loved talking to people, even strangers, and missed this now she felt restricted to her house. Ms A struggled with other people's perceptions of her epilepsy seizures and felt that people were nervous to go places with her in case she had a seizure.

The main aim for Ms A was to try and get support for her to get out and about again, in particular going into Aberdeen to do some shopping. The LP referred Ms A to the Royal Voluntary Service (RVS) for help with shopping and to the epilepsy organisation in Aberdeen for support with her epilepsy diagnosis. RVS had not yet been in contact, however, Ms A was very thankful of being listened to. She said she really enjoyed the session and felt that she could relax and tell the LP all of her problems. The LP suggested the Chaplaincy Listening service (CLS) and Ms A felt this would be a good idea. The LP referred Ms A to the CLS service and she awaited further contact.



Key learning from this case was that social isolation happens to people who do not have the confidence to go out and the barrier sometimes is the person's disability. By removing this barrier and putting support in place for a disability, those can enable people to live how they desire and consequently improve their quality of life.

Table 3. Case study 2: Ms B's characteristics

Characteristic	Description
Age	60 years
Sex	Female
Ethnicity	White British
Patient location	Rented accommodation
Past medical history	Fibromyalgia, osteoarthritis, poor mental health
Primary challenge	Physical health
Referral source	GP

Ms B's Story

Ms B was living alone in rented accommodation and had been unemployed for a number of years. She had been diagnosed with fibromyalgia and osteoarthritis but also had poor mental health and a potentially undiagnosed eating disorder. Ms B was referred to the ALS by her GP due to her physical health as she struggled with longstanding illness. She also disclosed having previously been in an abusive relationship which had a significant impact on her general self-esteem and confidence. She presented as anxious during appointments and asked for the LPs support frequently when attempting to engage more in community resources.

The initial aim of the LP was to work with Ms B to identify what type of support she required. She was very weight orientated and expressed significant desire and motivation to lose weight, therefore, this became the primary focus. The LP sought advice from North East Eating Disorder Support (NEEDS) Scotland who advised of a monthly support group that Ms B could attend without formal diagnosis. The LP provided Ms B with information regarding a



monthly NEEDS support group and Ms B was interested in attending this with the LP's support. The LP also made a referral to Move More at Sport Aberdeen. Ms B attended an appointment to find out more about the types of low level activity that Sport Aberdeen provided and has since, with the LP support, attended an exercise class which she enjoyed and intended to go back regularly.

The key learning from this case included that the primary referral reasons were related to physical health (conditions), bereavement and finances but actually the person wanted support with weight management and physical activity to improve her physical and emotional wellbeing. It is important to ensure that the person is in control of what they do and don't want support with and this may differ from the referrer's perspective.

Table 4. Case study 3: Mr C's characteristics

Characteristic	Description
Age	27 years
Sex	Male
Ethnicity	British
Patient location	Homeless
Past medical history	Depression
Primary challenge	Addictions, anxiety & depression, housing & homelessness

Mr C's Story

Mr C had significant problems due to his gambling addiction. He was currently homeless and had been sleeping on a friend's sofa. Mr C had minimal food and had not eaten for a few days. He was feeling low and depressed and had started taking anti-depressants. Mr C's benefits have also been sanctioned as he did not turn up for his appointments at the job centre. Mr C was referred to the ALS due to his housing and food difficulties, caused by his gambling addiction. He has previously lived in council accommodation, however lost his accommodation



due to high levels of rent arrears. Mr C had a previous criminal conviction and has struggled to find a job. The primary aims identified by the LP and Mr C was support to find accommodation, support to deal with gambling addiction and to find some meaningful activity.

During the LP appointment, it became apparent that Mr C was suicidal and had made potential plans, stating he had come to the GP as a last resort. The main protective factor for Mr C not carrying out these plans was that he had two children with a previous partner. Mr C explained he had been sleeping on a friend's sofa but had overstayed his welcome as unable to contribute financially. The LP suggested presenting as homeless to the council however Mr C advised that he has used up these options and would not qualify for council support. The LP then called Cyrenians, a homeless charity, where a meeting was organised. At Cyrenians, Mr C was supported to contact his housing officer to help him fully understand his housing situation. He was supported to find a private flat with the organisation acting as a reference to maintain this flat and find a deposit. Mr C stayed in a Bed and Breakfast until all the paperwork arrived. Mr C was also supported to purchase a phone, as his had been stolen, and given food to last until his benefits come through.

Mr C was also referred, by the LP, onto APEX for support in developing employability skills and to develop his CV. The LP also signposted him to Skills Development Scotland for support to work towards developing undertaking some meaningful activity. In addition, Mr C was also encouraged to contact the Job centre to re-sign on for benefits. Where he was offered an appointment which he attended and his benefits were re-instated.

The LP then explored supporting Mr C with his Gambling addiction. Mr C had been to Gamblers Anonymous in the past, however did not want to participate in a group support. He had a desire to do something as felt he had lost a lot of friendships and relationships due to gambling. The LP referred Mr C onto the RCA trust, an organisation that supports those with gambling addictions, to speak to a gambling practitioner. Mr C met with the Gambling Practitioner and was offered 15 weeks CBT addictions counselling.



At a follow-up appointment, Mr C appeared in a brighter mood and stated he felt he had been given some hope. Unfortunately, the Service user disengaged from the Links Service at this point.

One learning point from this case is how effective it can be to work in partnership to help an individual during the difficulties they are experiencing, as this keeps the intervention person centred and not overwhelming.

3.4 Link Practitioner staff results

3.4.1 Link Practitioner goal setting

An overview of the goal setting results are visible in Table 5. Overall, the majority of LPs self-reported to fully achieve their personal goals for the first six months within their role, whilst one-quarter reported to fully achieve their professional goal. All responders (N=9) had reported making some progress towards their goals.

Table 5. Self-reported Link Practitioner goal attainment (N=9)

Degree of goal attainment	Type of goal	
	Personal goal	Professional goal
Fully achieved (%)	63	25
Partially achieved (%)	37	75
Not at all achieved (%)	0	0

Examples of fully achieved personal goals were predominantly behavioural traits, for example improvements in assertiveness, perceived competence and self-confidence. Through attaining these goals, LPs reported to be delivering a higher quality service to both patients and General Practice staff. The most commonly identified professional goal that was partially achieved was increasing awareness of the LP role, with responders describing varying degrees of success of embedding a links approach in Practices. However, one LP who identified the same goal reported to have fully achieved it, reporting to have scheduled dedicated time to building relationships with colleagues.



3.4.2. Link Practitioner staff satisfaction

Table 6 displays the LP staff questionnaire responses. Staff were highly satisfied with working in the ALS (average score 83%). In particular, staff reported that they strongly agreed there was good communication and team work within the LP team.

Table 6. Staff satisfaction questionnaire scores (N=9)

Questionnaire components	Mean Score (%)
Supported: SAMH	82
Supported: GP	80
Training	82
Development	91
Communication - LPs	96
Communication - GP	76
Workload	71
Progression	71
Recognition	82
Teamwork: LPs	93
Teamwork: GP	82
Systems	73
Satisfaction	83

3.4.3 Link Practitioner staff experience

Characteristics of the LP team, interviewed in March 2019, are displayed in Table 7. Where reported, the majority of the team had five years or less experience working in either health or social care (87.5%). To ensure anonymity with a small sample of interviewees, participant ID was removed from quotes provided in the interview analysis and referred to as “Responder x”. In this section, to distinguish between the two types of LP role, link practitioner and senior link practitioner are referred to as ‘LP’ and ‘SLP’ respectively. When both LPs and SLPs are described together, they are referred to as ‘practitioners’.



Table 7. Characteristics of interviewed Link Practitioner staff (N=9)

Participant ID	Sex (M/F)	Experience (yrs.)	Role
P1	F	2-5	Link Practitioner
P2	F	<2	Link Practitioner
P3	F	2-5	Senior Link Practitioner
P4	F		Senior Link Practitioner
P5	F	6-10	Senior Link Practitioner
P6	M	2-5	Senior Link Practitioner
P7	F	<2	Link Practitioner
P8	F	2-5	Link Practitioner
P9	F	2-5	Link Practitioner

3.4.3.1 Themes

Four key themes with corresponding subthemes emerged from the thematic analysis of the staff interviews; 1) Development and sustainability (the components required for a LP/SLP to thrive within the role), 2) Service provision (characteristics of the support LPs/SLPs provided), 3) Embedding the links approach (mechanisms that influenced attitudes to the approach) and 4) Community asset considerations (factors influencing interacting organisation utilisation) (Table 8).



Table 8. Themes and sub-themes derived from Link Practitioner interview analysis

Theme	Sub-theme
Development and sustainability	Support systems
	Work-life balance
	Training
	Autonomy
Service provision	Caseload
	Workload
	Support style
	Systems
Embedding the links approach	Co-location
	Practice staff relationships
	Awareness raising
Community asset considerations	Service quality
	Gaps in service provision
	Third sector relationships

3.4.3.1.1 Development and sustainability

Support systems – Staff consistently identified the induction process as a key period in which a strong team bond developed. This appeared to be influenced by no pre-existing relationships being evident in the team, in addition to all staff coming into a newly-developed service: “I think the fact we were all in the same position meant that we all put in the effort to get to know each other” (Responder x). Interviewees reported a positive group dynamic due to similar attitudes, such as project enthusiasm, and compatible qualities: “we all come from a kind of caring background. I think that has helped in building a team like this as well” (Responder



x). Consequently, trust developed which enabled practitioners to comfortably seek out peer support: *“I am not shy or scared to call anyone within the team to ask for help. We have a very strong relationship between all of us. I think team training really helped to develop that”* (Responder x).

Maintaining within team relationships was managed without difficulty, despite working remotely across different GP practices. Along with weekly team meetings, multiple communication pathways were regularly utilised including group emails, a WhatsApp group, work phones to call and texts throughout the day (including before and after a home visit or to gather information) and a group chat on their personal phones (e.g. to arrange social events). This enabled a strong peer support system within the team: *“we are all really good friends, which is really nice to have support there is needed, it is nice to know if you are struggling with something they are there and probably going through the same thing”* (Responder x). In addition, strong relationships allowed practitioners to share previously acquired knowledge and expertise and consequently upskill from each other: *“I think the fact we had all come from different areas was really good and the fact that we all have previous experience so we can all kind of learn from each other”* (Responder x).

Most LPs felt supported by their line manager, the SLP, who frequently checked in with them to ensure they were managing, particularly with difficult patients and as they were not co-located. LPs felt equally comfortable contacting their line manager for support: *“Whenever I have maybe had a tough person in...I know I can just phone her straight away”* (Responder x). One LP, however, felt they had not received adequate management support: *“I have been to different locality meetings and spoken to different seniors and it is not the same as what I am getting”* (Responder x). From the SLP perspective, it appeared that the heavy caseload, in addition to line management responsibilities, hindered the support they could provide LPs: *“I have not had the capacity to give as much support to [LPs name] as I would have liked”* (Responder x). SLPs reported receiving variable management support. Some described inadequate support due to sickness absence, and therefore a lack of regular supervision meetings which resulted in improvements to practice not picked up promptly: *“I got six months of stuff*



that they thought I could do better, getting thrown at me at once. Whereas if I had a standard monthly supervision, this would have been picked up a lot sooner” (Responder x).

Work-life balance - The difficult nature of some issues LPs were supporting patients with, made some struggle with switching off from work, feeling burnt out and emotionally drained: *“I have multiple dreams about working, I worry most nights. If I watch TV or read a book, anything can be related to what we do, it is really difficult...you cannot un-hear what you have heard from people” (Responder x).* Coping strategies were sought out by practitioners such as limiting undertaking additional work hours, keeping caseloads a manageable size, utilising stress management apps and seeking support from team members: *“debriefing with somebody...it does not necessarily have to be a line manager just somebody else within the team that you are close to and feel that you can speak to” (Responder x).* One patient was moved onto a manager’s caseload as they were emotionally burdensome on the LP: *“this person was taking up so much of her emotional energy that she was actually struggling in other parts of the jobs but taking that pressure off her and taking that persons onto my caseload really made a big difference” (Responder x).*

Training – Interviewees felt most information they received during their induction was useful in broadening knowledge of local services, however, some felt the amount of information provided was overwhelming and consequently difficult to absorb: *“There was a lot of information to take on within that time and some of the things just went straight over our heads” (Responder x).* Some practitioners felt the induction would have benefited from allocated time to look over policies and procedures, additional time to learn referral processes and the database and to have received ASIST training during this period: *“I did not work with people who were suicidal before and never worked with people with mental health, so that training would have been really useful for me to have earlier” (Responder x).* Feelings of uncertainty were raised about what the LP/SLP role would entail and many felt shadowing another LPs/SLPs would have been beneficial, however this was not possible as this was a new role: *“It is really great to be part of it from the start but also you are aware that you cannot really*



copy someone else, you're all trying to find that ground together as to what that role looks like" (Responder x).

Interviewees described variability in issues practitioners would support patients with dependent on allocated GP practice, resulting in team members requiring variable upskilling requirements: *"The people that I see in my area even my line manager who is also based in the [locality] is seeing completely different people because it is different geographical area, different economical situations and things like that. It would be so difficult to hone in on the exact things we need training on" (Responder x).* Practitioners were emailed about upcoming training courses, were able to seek out specific upskilling opportunities and where the team collectively identified a training need, practitioners sought out organisations to delivery training to the whole team: *"If we are seeing a pattern between the teams that are many lacking in some knowledge or lacking in some information of services, then we invite them to our team meeting to do a presentation on that service" (Responder x).* However, some training was not provided locally and for others, only limited numbers of staff were able to attend training: *"a lot of the training is that only a couple of people can go and maybe I have not jumped at the chance because I do not know how relevant it is...so I have not actually done that much continuous training" (Responder x).*

Autonomy – Staff felt empowered with the flexibility they possessed in how they provided patient care (including appointment structure, length of appointments, number of appointments, appointment location), which allowed practitioners to adapt the support required depending on the individual's needs: *"we do not have a limited amount of time that we can work with people, so it is not like a twelve weeks programme, so it is basically up to them how much they want to engage and it is up to them how often we see them...Similarly some people just want telephone contact rather than face to face appointments" (Responder x).* In addition, interviewees had the freedom to plan their working day to suit their preferences which was new to most and seen as particularly satisfactory: *"Previous roles you always had certain times where you were doing things, whereas we have the freedom to do that ourselves but also*



develop our own kind of ways of working. I have really enjoyed that you have the freedom to do that” (Responder x).

3.4.3.1.2 Service Provision

Caseload – The service provided support to a heterogeneous population, spanning all adult age groups, including those requiring support for all nine social determinants of health. Support provided ranged from those who required a single telephone call or appointment with some signposting, to those requiring more extensive support including multiple face to face appointments, home visits and support to attend community groups. It appeared those requiring longer ongoing support were generally those with more complex needs: *“Other people, who might be facing multiple challenges, need a lot more ongoing support to be able to work through those... it is more about that kind of hand holding through the process as well. So that can be empowering them to go on their own, giving them a follow-up phone call to see how they got on or a follow-up meeting to see how they got on with something”* (Responder x). Staff sought to promote independence and self-management, and avoid creating a dependency, through setting clear expectations and boundaries during the initial appointment of the support they were able to provide, and slowly reducing the level of input required as confidence increased: *“...some people need a lot more input and others will not and then gradually pulling that away. I think it is about being very clear at the beginning about what your role is that you are not a Support Worker, you are not a Social Worker”* (Responder x).

Workload – Large variability in caseload volumes was described, location dependent, with approximately half reported their caseload currently felt unmanageable. Some practices were slower to refer which some felt was due to perceived lack of service benefit or limited service knowledge, however referrals increased as both service awareness and patient improvements became apparent and trust was built: *“Once the GP’s start realising that we are actually there and what we can do, it kind of gets a bit more full on and then it got to a point where you get so many referrals that you feel like you cannot physically see any more people”* (Responder x). In addition, administrative tasks were described as labour intensive including in-



putting new referrals, sending out appointment letters, discharge letters, making appointments, writing up case notes, sending referrals, liaising with agencies, re-adding information to the developing database and the tasks involved with non-engagers: *“It is a relatively small proportion but at the same time those who do not engage, the time that is required to support them in their engagement significantly outweighs what I feel it should I guess”* (Responder x). Some SLPs found having a comparable workload to the LPs, coupled with current management responsibilities and anticipation of increased responsibilities, challenging and unsustainable: *“The workload is incredibly high...I am expected to manage three potentially four practitioners that workload definitely needs adjusted so I can cover both sides of my job”* (Responder x).

Interviewees described workload coping strategies such as dedicating one day a week to administration tasks, prioritising immediacy of appointments due to perceived complexity and the development of a caseload management tool: *“I have like a traffic light system, it is red it is discharged, amber they are waiting for next appointment and I do not necessarily have anything to do in the meantime and green if there is something. I can narrow things down in that way”* (Responder x). Planning appeared challenging to some due to the unpredictable nature of the caseload and it was felt that developing a consistent process to manage high referral rates would be beneficial: *“I would say that everyone in the current team is probably at capacity at the moment. I do not think there are consistent procedures for dealing with that”* (Responder x).

Support style – Despite being provided a ‘primary referral reason’ for new cases, practitioners described approaching the initial meeting without preconceived ideas of the patient’s needs: *“Not necessarily rushing to think of what organisations to refer people to, actually just taking the time to listen to peoples stories, listen to what has been going on for them.”* (Responder x). Patients could present with a multitude of differing issues, and some practitioners who were less knowledgeable in the presenting areas, found this challenging to manage and consequently more likely to refer onwards, as opposed to trying to solve the issue themselves: *“If they come to me with a completely new problem that I do not know anything about, I just*



do not like not knowing and it knocks my confidence...I like to refer to other services where maybe other people deal with things themselves” (Responder x). Those more experienced in a particular area would attempt to support the patient to solve the issue, rather than referring onward: *“if you can fix a problem for somebody with a bit of support rather than referring out, you are also going to get a better outcome, when you start putting extra layers to that persons work and bringing other people in, that person would not get the support that they need”* (Responder x). Practitioners had specific areas of expertise through previous experiences which others could gain support from when necessary. One interviewee felt that having an LP who possessed or acquired expertise in a particular area, could be utilised across several sites: *“I think having potentially someone within the team that specialises in that and can work across a number of practices to give that support to people would be a huge benefit”* (Responder x).

Systems – The ALS had a bespoke information system that was satisfactory to most in terms of usability and was able to record a variety of service user information: *“we can record meeting notes, we can record other information and it has been very valuable in terms of being able to be adapted to be use for our own data collection as well”* (Responder x). The system was independent of the GP practice system which created challenges including: considerable time to input new referrals, having to ask reception staff to contact practitioners when patients arrived for an appointment or for additional patient information (including changes of address, phone number) and being unaware if patient circumstances changed: *“I have had maybe three or four times going to doors and people are not there because they have been admitted to hospital and calling the next of kin and it is maybe a really sensitive time for them. One time I had gone to a person’s house for a visit, he was not in and I called his son and the man had just died. It was really insensitive of me but I did not know”* (Responder x). Stronger relationships between practitioners and General Practice staff facilitated increased awareness of patients changes: *“there is an advanced practitioner that I work quite closely with in the practice who I have a really good relationship with and she is very supportive, very communicative about her patients so if there is an update about any of them, she would let me know either by email or when I see her in the practice”* (Responder x).



3.4.3.1.3 Embedding the Links Approach

Co-location – Visibility within the GP practice was seen to influence success in developing relationships, with more positive experiences described when practitioners were based in close proximity to General Practice staff, and in turn service uptake increased: *“I get a room that is in the middle of the doctor’s rooms. I get to interact with the GP’s, Receptionist, Nurses, Midwives and the rest of the practice on a daily basis. I think this is one of the big reasons why I have had so many referrals from [practice name] because I do have that day to day contact”* (Responder x). Practitioners who were based in offices away from the practice team, due to availability of space, described building relationships more challenging due to its isolating nature: *“no one would speak to me if I did not open my door or if I did not walk through to reception. I need to make sure that I am really present otherwise I could just sit here all day and no one would know that I am here. It is difficult because everyone is busy”* (Responder x). These challenges were enhanced when practitioners were only present in their practice for a short periods each week: *“I am on my own in the room all the time...I don’t see GP’s, Health Visitors or Nurses, so it was difficult to build relationships and because I was only there a day and half a week, it was just a bit more difficult”* (Responder x).

Practice staff relationships – Differing levels of engagement and enthusiasm from practices was described, which seemed apparent as soon as practitioners entered the practice. Some described receiving shadowing opportunities and were more successfully able to build relationships during their practice induction whilst other practices were more resistant to the new service: *“[practice name] and the GP’s allowed me to and actually sit with them as an observer on all the consultation... as well as the midwife, as well as the nurse practitioners, as well as home visits, etc. At [practice name] this was not available and the GP’s did not buy into that at all”* (Responder x). Some practices in more affluent areas were less likely to see the service as valuable: *“one member of staff said to me, I do not know who you will be seeing unless it is people who are having problems with their cleaners...that is not the case at all. With money come so many problems...”* (Responder x). One practice had particular challenges



building relationships due to the large number of locum GPs and high turnover of administrative staff: *“The receptionists staff turnover rate here is enormous, so I do not really know any of them”* (Responder x).

Awareness raising – Having a presence in practice facilitated building practice relationships, particularly when practitioners were not in close proximity to other General Practice staff. Interviewees described seeking out opportunities to increase their visibility including leaving their room door open, having lunch with other staff, spending time with reception staff, leaving chocolates in the staff room and attending GP weekly meetings: *“At [practice name] it has worked really well because I was able to go to all the practice meetings. So all the GP’s and Nurses would go to the meetings, it would be most of the afternoon you would spend there, we would talk and chat, I found that helpful”* (Responder x). Some felt uncomfortable attending GP meetings in more practices who were less adopting of the links approach: *“I try to go to but a lot of the time if I am not feeling that confident I do not want to go because I feel, why am I there. They talk about a lot of medical things and at the end I can speak out things, if I want too. I went yesterday and it was good, some of the GP’s just do not speak to me”* (Responder x). Practice meetings were used as a platform to raise awareness of the service function and to share examples of success stories from input by a LP/SLP, with the aim of increasing practice engagement in the service: *“So being able to say, over in this practice we’ve had this feedback and allowing the practices to communicate that between each other as well, you know using case studies, sending them around using the evaluation data as well you know just being able to look at the in the future I’m sure will boost the buy in where there have been challenges”* (Responder x). Practitioners felt that once GPs could see patient improvements as a result of the LP/SLP, they then better see the service value and increase utilisation: *“we find that once some of the GPs start seeing the benefits of the referral they will generally talk between themselves and then the other GP’s kind of come on board a little bit”* (Responder x).



3.4.3.1.4 Community asset considerations

Service quality – Despite a range of potential organisations available for practitioners to refer or signpost patients onto, these varied widely in efficiency (including waiting list times, rate of picking up referrals) and perceived value (whether support provided suited the patient’s needs). When practitioners had a negative experience with an organisation, this knowledge was shared throughout the team and consequently they were unlikely to continue to utilise that service: *“if you refer onto something and they don’t pick up the referral for a long time or they are not really useful you just know that and next time you just refer somewhere else and you check with your team, where’s the best place to refer that person”* (Responder x). Practitioners developed a resource, available on their shared drive, with information about different organisations (including what service they provide and how to access these). Interviewees described further developing this resource to include service quality: *“We are actually going to start to look at the services we are continually referring to and actually say well go here and you will get a good service but if you send someone here they are not hearing from them for three months or whatever”* (Responder x).

Gaps in service provision – Interviewees described limited support available for patients in certain areas, with a frequently reported lack of service for addressing loneliness in younger adults: *“This gap at late 20s is really bad, there is a lot of people, social isolated. There is not a service for them. Even students at University feeling socially isolated and having issues with their mental health”* (Responder x). Limited service provision was cited due to budget cuts, and some practitioners described innovative solutions to address this challenge: *“Is it finding that maybe 3-4 patients are having the same issue they are facing in their day to day life, can we bring them together and get them, to help them to support, to make a group”* (Responder x). Limited service provision was also apparent in geographically remote locations, which posed additional barriers if patients had to travel to attend services: *“if that is there only mode of transport [bus] to get in for free counselling within the city or any mental health support services that are within the city, it is a huge barrier for them and a lot of the time, they do not have the money to get a taxi into the city so. There are no free counselling or support groups in [location], there’s no support groups anything like that”* (Responder x).



Third sector relationships – Practitioners felt that there was a general awareness across organisations of their role due wide promotion (including through newsletters, talks to organisations) prior to service start date, and consequently practitioners were warmly received by organisations: *“Building relationships in the community, like everyone has been welcoming of the project and everyone really wanted to know about it, it was easy because it was highly promoted project and everyone knew about us”* (Responder x). However, some were unclear of the specific remit of the LPs/SLPs: *“People had heard of us but were not really clear about what we do. I think we have all done that to be fair, anytime you’re going out your talking about the service and exactly what the service can do”* (Responder x). Interviewees approached interacting organisations to develop relationships, raising awareness and understanding of the LP role, in addition to upskilling themselves: *“I have also gone around a lot of different organisations just to again build up that kind of partnership network and getting to know local resources and some of the local forums”* (Responder x). In addition, some practitioners had already established relationships which facilitated both the development of relationships and awareness raising: *“I have obviously worked in the third sector a long time... I think it has helped the wider services and obviously to understand what it is about, you know what the LPs actually is about”* (Responder x).

Although most relationships were described as positive, and generally interacting organisations were helpful when practitioners contacted them, relationships were not well developed: *“...It was not difficult [referring to organisations] and I would not say I had the strongest relationship with them because you do not see them that often but usually with the organisations that you refer more often to, you keep in contact with people working there so you just like email them from time to time or see them in meetings and talk to them”* (Responder x). Staff described that a lack of capacity, due to heavy caseloads, hindered development of stronger relationships: *“Community wise, again I feel that recently I’ve not had that much opportunity to be able to build community relationships so that’s something that’s maybe slipped a little bit. On the whole, the community relationships that I’ve build to that point throughout this role have been positive ones, you know everyone’s quite time constrained, there’s not always*



the time to chit chat and meet up all the time but maintaining them is largely done through the referrals or through email and they've all been positive" (Responder x).

3.6 General Practice staff responses

Table 9 describes General Practice staff's self-reported knowledge and awareness of the LP role at baseline and six month follow-up. Awareness of the LP role remained approximately constant, however, knowledge of the LP role increased by 19% from baseline to six month follow-up.

Table 9. General Practice staff knowledge and awareness of the Link Practitioner role at baseline and follow-up

		Baseline	6 months
N		114	85
Job category, N(%)	Reception	15(13)	15(18)
	Administration	27(24)	18(21)
	GP	31(27)	26(31)
	Nurse	15(13)	5(6)
	Practice Manager	19(17)	12(14)
	Advanced Practitioner	3(3)	2(2)
	Health Care Assistant	2(2)	2(2)
	Other	2(2)	5(6)
Awareness of LP role, N(%)	Yes	92(92)	79(94)
	No	14(13)	5(6)
	Not sure	6(5)	0(0)
Knowledge of LP role, N(%)	Yes	80(70)	76(89)
	No	19(17)	5(6)
	Not sure	15(13)	4(5)



Table 10 describes General Practice staff’s self-reported perceived value of LPs and openness to adopting the links approach at baseline and six month follow-up. Practice staff’s perceived value of LPs increased by 13% whilst openness to the links approach remained constant across the six month period.

Table 10. General Practice staff perceived value and openness to the links approach

%	Perceived value of link working		Openness to adopt links approach	
	Baseline	Follow-up	Baseline	Follow-up
Strongly disagree	13	8	10	9
Disagree	3	0	0	0
Neither agree / disagree	6	5	3	7
Agree	39	40	45	41
Strongly agree	34	46	40	42
Don’t know	5	1	0	1
% agreement	73	86	85	83

Table 11 describes General Practice staff’s confidence in their knowledge of community assets and their confidence in signposting patients to community assets. Practice staff’s confidence in their knowledge of community assets increased by 5%, whilst confidence to signpost to community assets remained constant from baseline to six month follow-up.



Table 11. General Practice staff knowledge of community assets and signposting

%	Confidence in knowledge of community assets		Confidence in signposting to community assets	
	Baseline	Follow-up	Baseline	Follow-up
0	1	1	5	0
1	5	11	5	15
2	17	5	13	10
3	20	9	17	11
4	9	12	13	12
5	20	29	16	26
6	9	12	8	10
7	10	11	13	8
8	8	7	8	5
9	1	3	1	1
10	0	1	1	3
mean				
score(SD)	4.3(2.1)	4.8(2.4)	4.4(2.2)	4.4(2.3)



Discussion

This report describes the evaluation findings of the ALS, in particular the impact on patients, staff and resources. Results presented explore components of implementation that emerged as functioning sufficiently and recommendations to inform service development and direction, which is of particular importance due to the limited evidence at present on the effectiveness of social prescribing schemes¹⁵.

Patient perspective

Significant improvements in patient self-reported quality of life, happiness and loneliness scores were demonstrated at six month follow-up, utilising validated quantitative measures. Happiness appears not to have been previously measured, however improvements in mental wellbeing including loneliness and quality of life have been described predominantly through qualitative research^{16 17}. One study reported that when people have the opportunity to attend activities where they can socialise in the community, this reduced social isolation and improved self-confidence¹⁸. In contrast to our findings, one recent large scale study utilising validated quantitative methods to measure quality of life, found no significant improvement at nine month follow-up¹⁹. However, their patient cohort focused on more deprived areas (% SIMD 5: Deep end 79.3%, ALS 11%), contained a larger proportion of dis-engagers (Deep end 18.3%, ALS 12.3%) and had less face to face appointments with the LP (Deep end: mean 2.54

¹⁵ Bickerdike et al (2017). Social prescribing: less rhetoric and more reality. A systematic review of the evidence. *BMJ Open*; 7:e013384

¹⁶ Chatterjee, H. J., Camic, P. M., Lockyer, B., & Thomson, L. J. (2018). Non-clinical community interventions: a systematised review of social prescribing schemes. *Arts & Health*, 10(2), 97-123.

¹⁷ Mossabir, R., Morris, R., Kennedy, A., Blickem, C., & Rogers, A. (2015). A scoping review to understand the effectiveness of linking schemes from healthcare providers to community resources to improve the health and well-being of people with long-term conditions. *Health & Social Care in the Community*, 23(5), 467-484.

¹⁸ Moffatt, S., Steer, M., Lawson, S., Penn, L., & O'Brien, N. (2017). Link Worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. *BMJ open*, 7(7), e015203.

¹⁹ Mercer, S. et al. (2017). Evaluation of the Glasgow 'Deep End' Links Worker Programme. NHS Health Scotland, Edinburgh.



appointments per patient for those who engaged with the service²⁰, ALS: average 6 appointments per patient) which may in part explain discrepancies. Our findings appear novel in demonstrating improved happiness scores, aligning with previous research which has shown participation in group activities, a fundamental element of social prescribing, is associated with greater happiness²¹. Considering declining mental health (including loneliness, social isolation and happiness) is associated with both poorer health outcomes (such as all-cause mortality, cardiovascular disease and mental health)^{19 22} and increased utilisation of healthcare resources²³, this finding has implications at both patient and system levels.

A flexible approach to care provision appeared to facilitate improvements in patient outcomes including autonomy to vary the level (which ranged from 1 – 220 days) and location of support, approaching initial consultations without preconceived ideas and actively involving the patient in identifying and supporting their needs, with the aim of encouraging self-managing behaviours and avoiding dependency by setting boundaries. Practitioner autonomy has been cited previously as an enabling mechanism for the delivery of high quality patient care in the community due to staff flexibility to provide the level of support that person requires²⁴²⁵. However, setting clear boundaries and expectations along with utilising onward referrals and a multi-agency approach are necessary to mitigate against risks of developing a dependency²⁶. Our findings align with specific guidelines by The National Institute for Health and Care

²⁰ Mercer, S et al. (2017). Evaluation of the Glasgow 'Deep End' Links Worker Programme. Additional unpublished data. NHS Health Scotland, Edinburgh.

²¹ Liu, B., Floud, S., Pirie, K., Green, J., Peto, R., Beral, V., & Million Women Study Collaborators. (2016). Does happiness itself directly affect mortality? The prospective UK Million Women Study. *The Lancet*, 387(10021), 874-881.

²² Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*, 152, 157-171.

²³ Gerst-Emerson, K., & Jayawardhana, J. (2015). Loneliness as a public health issue: the impact of loneliness on health care utilization among older adults. *American journal of public health*, 105(5), 1013-1019.

²⁴ Leask, C. (2018). Integrated Neighbourhood Care Aberdeen (INCA) Test of Change: Evaluation Report. Aberdeen City Health & Social Care Partnership.

²⁵ Mercer, S. et al., (2017). Evaluation of the Glasgow 'Deep End' Links Worker Programme. NHS Health Scotland, Edinburgh.

²⁶ Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.



Excellence that care and support received by patients should be decided through active participation of patients²⁷. In addition, joint decision making has been shown to increase treatment adherence²⁸ and improve knowledge of options available²⁹. It appears practitioner flexibility and joint decision making, in the presence of clear boundaries, contributed to improvements in mental wellbeing in this context.

The type of support provided by practitioners varied, with those skilled and confident in a particular area more likely to work with the individual to help solve challenges, whilst others would likely refer onwards to organisations for them to provide support. It is well recognised that the LP is a highly skilled and demanding role, which requires sufficient bespoke training to both prepare and retain staff³⁰. One strategy to manage the breadth of knowledge required for the role and LP skillset variation was the development of specialised LPs, where those who had expert knowledge in a particular area, could be a resource for other staff if they required advice. This approach has been utilised successfully in other social prescribing models where LPs gained expertise in particular areas (known as champion leads) and the team could seek champion leads out for support if they were unsure how to support a patient³¹. Specialisation has been successful in other healthcare disciplines such as General Practitioners, and shown to be satisfactory to patients and reduce wait times³². Our findings suggest that practitioner specialisation may be a useful strategy to create efficiencies within the team.

²⁷ National Institute for Health and Care Excellence, *Patient experience in adult NHS 366 services: improving the experience of care for people using adult NHS services*. 367 London: NICE, 2012.

²⁸ Nunes, V et al. (2009). *Clinical guidelines and evidence review for medicines adherence*. London: National collaborating centre for primary care and royal college of general practitioners.

²⁹ Stacey, D et al. (2017). Decision aids for people facing health treatment or screening decisions. *Cochrane database of syst rev*.

³⁰ Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.

³¹ Woodall, J., Trigwell, J., Bunyan, A. M., Raine, G., Eaton, V., Davis, J., ... & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. *BMC health services research*, 18(1), 604.

³² Nocon, A., & Leese, B. (2004). The role of UK general practitioners with special clinical interests: implications for policy and service delivery. *Br J Gen Pract*, 54(498), 50-56.



Service perspective

There appeared to be a trend towards a reduction in self-reported GP contacts from baseline to six month follow up, which would amount to the equivalent of one less GP contact per person (who engaged in the ALS service) over a 12 month period in Aberdeen City. Previous research has been mixed in relation to utilisation of primary care resources, with reported reductions in demand for General Practice ranging from 2% - 70% (average 28%)³³. Some evidence suggests that social prescribing schemes may increase likelihood of patients utilising community assets as opposed to health systems to address their health and social care needs³⁴. In contrast, attending a social prescribing service has been shown to increase patient awareness of their health and as a result expose issues requiring primary care support³⁵. Subsequently, it is debated whether a reduction in healthcare utilisation is a useful measure of social prescribing effectiveness due to the complex nature of patients, and that improvements in mental health outcomes such as quality of life may be a more useful measure³⁶. From our results, it appears that the ALS has not increased pressures on GPs and instead may have alleviated some strain suggesting they are effectively treating underlying conditions, and considering the pressures placed on General Practice this is of particular importance³⁷. Our findings provide some evidence that General Practice pressures may be reduced by shifting appropriate, patients to the ALS for support.

Staff perspective

Practitioners reported high job satisfaction (average score 83%) and excellent within team communication (average score 96%) and team working (average score 93%), enabled by the

³³ Polley, M. J., & Pilkington, K. (2017). *A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications*. University of Westminster.

³⁴ YHCS, S. J. (2015). NHS Leeds West Clinical Commissioning Group Patient Empowerment Project (PEP) Final Year One Report.

³⁵ Loftus, A. M., McCauley, F., & McCarron, M. O. (2017). Impact of social prescribing on general practice workload and polypharmacy. *Public health, 148*, 96-101.

³⁶ Carnes, D., Sohanpal, R., Frostick, C., Hull, S., Mathur, R., Netuveli, G., ... & Bertotti, M. (2017). The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC health services research, 17*(1), 835.

³⁷ Scottish Government (2018). The GMS General Medical Services Contract in Scotland. Scottish Government, Edinburgh.



intensive induction which facilitated strong trusting relationships and the presence of compatible team qualities (including project enthusiasm, caring personalities). Bonds were maintained, despite dispersion across the city, through numerous communication methods resulting in strong peer support which helped practitioners to cope with challenging situations (such as difficult patients). This contrasts with a local community model (INCA, Integrated Neighbourhood Care Aberdeen), where colleagues were based in two separate locations (and worked in isolation frequently), who faced within team communication challenges, with contributing factors including a brief induction period, clashes in personality traits (including negative attitudes) and challenges with open and honest dialogue³⁸. A second local model of care (AC@H, Acute Care at Home), where the team was co-located, described a positive team dynamic due to compatible personality traits (caring personality, open-minded), inclusive decision making and management who were seen as approachable and supportive. Similar to our findings, the positive team dynamic enabled practitioners to gain expertise from each other, they could discuss patients from multiple perspectives and care coordination was more efficient³⁹. It appears that particularly when team members will not be co-located, an intensive induction process can facilitate positive team building, in addition to recruitment of those who are enthusiastic about the project and possess caring qualities. Consequently, this can allow the team to gain support opportunities from colleagues but does require extensive communication channels to maintain relationships.

What appeared to differ from local community models of care described (INCA, AC@H) was the levels of emotional strain many LPs reported, particularly those less experienced, due to the challenging patient cohort (e.g. including those who were suicidal) in which staff relied on the team support system to cope with this. In addition, approximately half of practitioners reported an unmanageable workload at times including some Senior LPs who identified that

³⁸ Leask, C. F., & Gilmartin, A. (2019). Implementation of a neighbourhood care model in a Scottish integrated context—views from patients.

³⁹ Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]



balancing their caseload and management responsibilities as challenging. Increased emotional strain may be partly due to the nature of the role⁴⁰, and partly due to comparably less experience in health and social care (87.5% of the team with five or less years' experience), and thus having limited exposure to managing complex needs^{41 42}. Indeed LPs are at risk of burnout due to the challenging nature of patients, unmanageable workload, and being undervalued⁴³. One study described, similar to our findings, LPs reporting difficulties in not becoming too emotionally involved with patients and they utilised strategies such as reinforcing boundaries, creating distance by doubling, swapping LPs and emphasising the importance of empowering behaviours⁴⁴. In addition, and in line with our findings, effective social support from supervisors and colleagues is associated with reduced emotional exhaustion and an increase in personal accomplishment⁴⁵. Recruitment and retention challenges are apparent locally (annual NHS staff turnover 10.3%)⁴⁶, and considering the relationships between low job satisfaction and increased turnover of staff⁴⁷, ensuring a manageable workload and an extensive support system is in place, particularly when the team consists of less experienced staff, appears to be a necessary for both retaining staff and supporting practitioner wellbeing.

LP experience building relationships within General Practice staff varied considerably across practices, with key facilitators including co-location, being present in practices and presenting LP data at practice meetings. Practitioners who were based in the same office space as other General Practice staff, as opposed to their own room, described more positive experiences of

⁴⁰ Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.

⁴¹ Leask, C. (2018). Integrated Neighbourhood Care Aberdeen (INCA) Test of Change: Evaluation Report. Aberdeen City Health & Social Care Partnership.

⁴² Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]

⁴³ University of Westminster (2017). Making sense of prescribing. University of Westminster, London.

⁴⁴ Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.

⁴⁵ Woodhead, E. L., Northrop, L., & Edelstein, B. (2016). Stress, social support, and burnout among long-term care nursing staff. *Journal of Applied Gerontology*, 35(1), 84-105.

⁴⁶ NHS Grampian (2018). Workforce plan 2018-2021.

⁴⁷ Greco, P., Laschinger, H. K. S., & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership*, 19(4), 41-56.



relationship building, whilst others had to make additional efforts for interaction opportunities. Co-location has been demonstrated in other local care community models to impact on General Practice staff rapport building, with those located within practices reporting stronger partnership working⁴⁸. Partnership working cannot be guaranteed along with co-location, but it does increase opportunity for informal interactions which can promote collaborative working⁴⁹. Sustained co-location benefits also require a satisfactory office environment which are not overcrowded and noisy⁵⁰. In addition, presenting positive case studies and statistics about the ALS at practice meetings facilitated practice 'buy-in'. Feedback by LPs to General Practice staff on patient progress during regular meetings or through letters has been shown previously to be an effective strategy to maintain and encourage referrals through acting as a service reminder and increasing perceived service value⁵¹. Our results suggest this strategy was successful General Practice staffs' both perceived knowledge of the LP role (19%) and perceived value of link working (13%) increased from baseline to six months. It appears that both co-location and providing staff feedback facilitates practice relationships and improves service perception, and when co-location is not available, additional efforts to be present in practice and provide regular positive feedback to staff is required.

Openness to the links approach varied across practices, with practitioners reporting varying attitudes to the ALS. In line with these findings, General Practice staff reported little improvement in openness to adopt links approach and confidence in signposting to community assets over the first six months of service operation. This is not surprising as this requires culture change in which substantial time is necessary for this to be demonstrated⁵². Practices that have little or no engagement with the service or adopting the links approach is a key barrier

⁴⁸ Leask, C. (2018). Integrated Neighbourhood Care Aberdeen (INCA) Test of Change: Evaluation Report. Aberdeen City Health & Social Care Partnership.

⁴⁹ Jong, J. D. (2008). *Explaining medical practice variation: Social organization and institutional mechanisms*. Utrecht: Utrecht University.

⁵⁰ Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]

⁵¹ Southby, K., & Gamsu, M. (2018). Factors affecting general practice collaboration with voluntary and community sector organisations. *Health & social care in the community*, 26(3), e360-e369.

⁵² Farenden C, Mitchell C, Feast S, Verdenicci S. Community navigation in Brighton & Hove. Evaluation of a social prescribing pilot. 2015.



to implementation⁵³. In contrast, when practice culture supports holistic and psychosocial approaches, GPs are more likely to refer onto a LP⁵⁴. Culture change was established within the project team as a longer term outcome, with the first stage focusing on feasibility and acceptability of the service⁵⁵. LPs described some General Practice staff in more affluent areas felt that the service was not required in their area and were less adopting of the approach. The service covered a broad spectrum of patients (e.g. covering all nine social determinants of health) from both deprived and affluent areas with presenting issues varying depending on practice location. Indeed, variability in challenges faced can vary depending on location within Aberdeen, with those in more deprived areas having a substantially lower total household income than those living in the most affluent areas (median household income; Cults: £60,250 SIMD 5, Middlefield: £17,442 SIMD 1)⁵⁶. In contrast, the highest prevalence of excess alcohol consumption (e.g. more than 14 units a week) was present in the most affluent areas (30% SIMD 5, 12% SIMD 1)⁵⁷. Framing interventions in the form of a ‘gain frame message’ (e.g. emphasising the benefits of uptake rather than the consequences of not utilising) has been shown to be more likely to increase engagement⁵⁸. A useful strategy may be framing the ALS to emphasise how it can best support the challenges specific to that geographical area to increase ALS value and ‘buy-in’. Adopting the links approach is a substantial, long term culture shift for practices and a tailored approach to promoting service function may be a useful strategy in increasing practice engagement.

Relationships between LPs and third sector appeared positive, with interacting organisations being generally aware of their posts, however not always clear on their specific remit. Despite

⁵³ Pescheny, J. V., Pappas, Y., & Randhawa, G. (2018). Facilitators and barriers of implementing and delivering social prescribing services: a systematic review. *BMC health services research*, 18(1), 86.

⁵⁴ Friedli L, Themessl-huber M, Butchart M. Evaluation of Dundee equally well sources of support: social prescribing in Maryfield. 2012.

⁵⁵ Bowen, D. J., et al. (2009). How we design feasibility studies. *American Journal of Preventative Medicine*. 36(5), 452-457.

⁵⁶ Aberdeen City Council (2017). Household income by neighbourhood. Aberdeen City Council, Aberdeen.

⁵⁷ Bardsley et al. (2018). Scottish Health Survey 2017 Edition, volume 1, main report. National Statistics for Scottish, Scottish Government, Scotland.

⁵⁸ Gallagher, K. M., & Updegraff, J. A. (2011). Health message framing effects on attitudes, intentions, and behavior: a meta-analytic review. *Annals of behavioral medicine*, 43(1), 101-116.



positive relationships, most were not well-developed particularly as practitioner caseload demands limited the time available to form and maintain these relationships. Having well established relationships with interacting organisations requires regular formal (e.g. meet teams, attend team meetings to raise service awareness) and informal communication methods^{59 60}, and when successful, facilitates practitioner good working knowledge of community assets⁶¹. In addition, providing feedback on patients can provide reassurance of productive collaboration and built relationship confidence⁶². Our findings demonstrate a tension between increasing referral numbers entering the service and staff capacity to build relationships with community organisations, and dedicated time would be beneficial to practitioners in order to strengthen these relationships.

Practitioners were limited by gaps in community assets, in particular a lack of social isolation resources for young adults, and raised concerns that lack of service funding limited potential services. This led to novel solutions utilised such as bringing together socially isolated patients where no services were available. Indeed social prescribing service success is heavily influenced by appropriate funding for a range of available services to signpost/refer patients to, and without this the service may not be able to address patient's needs⁶³. Previous studies have also reported service gaps as a barrier to social prescribing services, including affordable and accessible groups for those aged 40s-50s and service who accommodate drop-ins⁶⁴. Sus-

⁵⁹ Woodall, J., Trigwell, J., Bunyan, A. M., Raine, G., Eaton, V., Davis, J., ... & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. *BMC health services research*, 18(1), 604.

⁶⁰ Southby, K., & Gamsu, M. (2018). Factors affecting general practice collaboration with voluntary and community sector organisations. *Health & social care in the community*, 26(3), e360-e369.

⁶¹ Woodall, J., Trigwell, J., Bunyan, A. M., Raine, G., Eaton, V., Davis, J., ... & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. *BMC health services research*, 18(1), 604.

⁶² Southby, K., & Gamsu, M. (2018). Factors affecting general practice collaboration with voluntary and community sector organisations. *Health & social care in the community*, 26(3), e360-e369.

⁶³ Woodall, J., Trigwell, J., Bunyan, A. M., Raine, G., Eaton, V., Davis, J., ... & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. *BMC health services research*, 18(1), 604.

⁶⁴ Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.



tainability concerns have also been raised that social prescribing could overburden small organisations with increasing referrals⁶⁵. A wide range of community assets are critical for social prescribing success, and gaps should be identified to order to promote funding or develop innovative solutions to address these.

Systems perspective

Practitioners reported satisfaction with IT systems they used (average score 73%), which reflects findings that systems were made bespoke to service requirements and this allowed appropriate data to be collected. However a key concern was that the LP system did not communicate with the General Practice system, therefore practitioners did not have access to changes in patient circumstances (e.g. hospital admission, deceased). Issues in sharing information across healthcare systems has been reported previously locally⁶⁶, and can limited care coordination if effective health information exchanges are not utilised (including electronic summary transferred, information sharing incentives)⁶⁷. In the absence of communicating IT systems, solutions should be sought out to improve patient communication between LPs and General Practice staff.

Strengths and limitations

A key strength of this evaluation was the ability to build a bespoke caseload management and data extraction system prior to service go live. This contrasts with previous projects whereby the data collection was limited by using pre-existing systems that were not fit for purpose⁶⁸. The rigorous data the system enabled collection of, increased confidence in the ability to draw more definite conclusions about this new service. This partially demonstrates the effective

⁶⁵ South, J., Higgins, T. J., Woodall, J., & White, S. M. (2008). Can social prescribing provide the missing link?. *Primary Health Care Research & Development*, 9(4), 310-318.

⁶⁶ Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]

⁶⁷ Graetz, I., Reed, M. E., Shortell, S. M., Rundall, T. G., Bellows, J., & Hsu, J. (2014). The next step towards making use meaningful: electronic information exchange and care coordination across clinicians and delivery sites. *Medical care*, 52(12), 1037.

⁶⁸ Leask, C. (2018). Integrated Neighbourhood Care Aberdeen (INCA) Test of Change: Evaluation Report. Aberdeen City Health & Social Care Partnership.



collaboration between ACHSCP and the Third Sector in the development and implementation of this service.

There are some important limitations to consider in this evaluation. From a patient perspective, feedback on experience with the ALS was not collected, however this was not deemed appropriate due to the complexity and vulnerable nature of the majority of the caseload. Despite this, statistically significant improvements in patient outcomes suggests patients are likely to be satisfied with the service. Results did not explore whether specific cohorts of patients required particular levels of LP support, if outcome improvements were more apparent for certain groups of individuals, or require specific levels of input from LPs. At six months of service operation, the caseload size was too small to carry out this analysis, however this could be explored at 12 months. In addition, future research should explore whether these benefits are sustained longer term (e.g. at 12 month follow-up). Lastly, patient experience with signposted/referred services was not explored (e.g. did they attend, barriers and facilitators to attending, their experience with the service and what key components helped them the most), which should be considered in future research.

From a service perspective, the relationship between the quantity and frequency of LP contacts and type/number of issues patient's presented with was not explored. In addition, the impact of LPs on primary care workload (particularly GP workload) was not measured. However, self-reported GP contacts was collected as a proxy measure in this evaluation. These outcomes all required a larger caseload to be explored and should be considered at 12 month follow-up. From a staff perspective, barriers and facilitators to embedding the links approach were not gained from a General Practice staff perspective due to limited capacity.

Conclusions and recommendations

Significant improvements in the patient outcomes, happiness, loneliness and social isolation, were demonstrated at six month follow-up suggesting patients were satisfied with the service. Practitioner support flexibility and joint decision making with patients, in the presence of clear boundaries, appears to have contributed to improved outcomes. These mechanisms



should remain an integral system component of the social prescribing service when considering future scaling. In addition, the type of support provided by practitioners varied depending on LP confidence and skillset, and practitioner specialisation may be an effective solution in creating within team efficiencies.

A trend towards a reduction in GP contacts was demonstrated, however this did not reach statistical significance. Reduction in healthcare utilisation may not always a useful measure for social prescribing schemes, however as GP contacts did not increase, our findings provide some evidence that General Practice pressures may be reduced by shifting appropriate patients to social prescribing services for support.

From a staff perspective, practitioners described excellent communication and extensive social support system within the team, facilitated by an intensive induction process, LP project enthusiasm and caring personalities, whilst maintained through extensive communication channels. In addition, as practitioners are working with challenging and complex patients which can be emotionally challenging, an extensive support system is necessary for a LP well-being and a sustainable workforce.

Practitioner relationships with General Practice staff appeared to be facilitated by co-location, having a presence in practice and the provision of positive feedback about patient progress. Where co-location is not possible, additional efforts (including to be present in practice, service framing and providing positive service feedback) appear beneficial to relationship building and adoption of the links approach.

Relationships with community organisations were described as positive but underdeveloped (e.g. primarily through email communication) due to practitioners demanding workloads. Providing LPs with increased opportunity to interact with organisations may strengthen relationships. A wide range of community assets are required for social prescribing service success, therefore service gaps should be identified and innovative solutions sought out to address these.



Acknowledgments

The following are acknowledged for their contribution to this report: The Aberdeen Links Service team, General Practice staff and patients for engaging in the evaluation process and providing feedback on the service; John Stoner from SAMH for carried out data extraction; Jenny McCann (Transformation Programme Manager and previously Community Links Development Manager), Cliff Watt (Community Business Manager, SAMH) and Cat Anderson (Service Manager, SAMH) for leading the implementation of this project.



References

Aberdeen City Council (2017). Household income by neighbourhood. Aberdeen City Council, Aberdeen.

ALLIANCE. The role of signposting and social prescribing in improving health and wellbeing. Available at: <https://www.alliance-scotland.org.uk/wp-content/uploads/2017/10/ALLIANCE-Developing-a-Culture-of-Health.pdf> [accessed 13/05/2019]

Audit Scotland (2018). NHS in Scotland 2018. Edinburgh: Audit Scotland.

Bardsley et al. (2018). Scottish Health Survey 2017 Edition, volume 1, main report. National Statistics for Scottish, Scottish Government, Scotland.

Bickerdike et al (2017). Social prescribing: less rhetoric and more reality. A systematic review of the evidence. *BMJ Open*; 7:e013384.

Bowen, D. J., et al. (2009). How we design feasibility studies. *American Journal of Preventative Medicine*. 36(5), 452-457.

Campbell, K., Millard, A., McCartney, G. and McCullough, S. (2015). Who is least likely to attend? An analysis of outpatient appointment 'Did not Attend' (DNA) data in Scotland, NHS Health Scotland, Edinburgh, Available at: [<https://www.scotpho.org.uk/media/1164/scotpho150319-dna-analysis-in-scotland.pdf>].

Carnes, D., Sohanpal, R., Frostick, C., Hull, S., Mathur, R., Netuveli, G., ... & Bertotti, M. (2017). The impact of a social prescribing service on patients in primary care: a mixed methods evaluation. *BMC health services research*, 17(1), 835.

Charlesworth et al. (2018). Securing the future: funding health and social care to the 2030s. London: Institute for Fiscal Studies



Chatterjee, H. J., Camic, P. M., Lockyer, B., & Thomson, L. J. (2018). Non-clinical community interventions: a systematised review of social prescribing schemes. *Arts & Health, 10*(2), 97-123.

Cruwys et al. (2018). Social isolation predicts frequent attendance in primary care. *Ann Behav Med, 52*(10), 817-829.

Farenden C, Mitchell C, Feast S, Verdenicci S. Community navigation in Brighton & Hove. Evaluation of a social prescribing pilot. 2015.

Friedli L, Themessl-huber M, Butchart M. Evaluation of Dundee equally well sources of support: social prescribing in Maryfield. 2012.

Gallagher, K. M., & Updegraff, J. A. (2011). Health message framing effects on attitudes, intentions, and behavior: a meta-analytic review. *Annals of behavioral medicine, 43*(1), 101-116.

Gerst-Emerson, K., & Jayawardhana, J. (2015). Loneliness as a public health issue: the impact of loneliness on health care utilization among older adults. *American journal of public health, 105*(5), 1013-1019.

Graetz, I., Reed, M. E., Shortell, S. M., Rundall, T. G., Bellows, J., & Hsu, J. (2014). The next step towards making use meaningful: electronic information exchange and care coordination across clinicians and delivery sites. *Medical care, 52*(12), 1037.

Greco, P., Laschinger, H. K. S., & Wong, C. (2006). Leader empowering behaviours, staff nurse empowerment and work engagement/burnout. *Nursing Leadership, 19*(4), 41-56.

Jong, J. D. (2008). *Explaining medical practice variation: Social organization and institutional mechanisms*. Utrecht: Utrecht University.

Karacaoglu, K., & Leask, C. 2019. Acute Care @ Home (AC@H) Test of Change – Evaluation Report. [Under consultation]



Leask, C. F. et al. 2019. Framework, principles and recommendations for utilising participatory methodologies in the co-creation and evaluation of public health interventions. *RIAE*, 5:2.

Leask, C. 2018. Integrated Neighbourhood Care Aberdeen (INCA) Test of Change – Evaluation Report. Available at: <https://committees.aberdeencity.gov.uk/documents/s93533/3.2%20Appendix%20B%20-%20INCA%20Evaluation%20Report%20Final.pdf?txtonly=1>

Leask, C. F., & Gilmartin, A. (2019). Implementation of a neighbourhood care model in a Scottish integrated context—views from patients.

Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public Health*, 152, 157-171.

Liu, B., Floud, S., Pirie, K., Green, J., Peto, R., Beral, V., & Million Women Study Collaborators. (2016). Does happiness itself directly affect mortality? The prospective UK Million Women Study. *The Lancet*, 387(10021), 874-881.

Loftus, A. M., McCauley, F., & McCarron, M. O. (2017). Impact of social prescribing on general practice workload and polypharmacy. *Public health*, 148, 96-101.

Mercer, S. et al., (2017). Evaluation of the Glasgow ‘Deep End’ Links Worker Programme. NHS Health Scotland, Edinburgh.

Mercer, S et al. (2017). Evaluation of the Glasgow ‘Deep End’ Links Worker Programme. Additional unpublished data. NHS Health Scotland, Edinburgh.

Moffatt, S., Steer, M., Lawson, S., Penn, L., & O’Brien, N. (2017). Link Worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. *BMJ open*, 7(7), e015203.



Mossabir, R., Morris, R., Kennedy, A., Blickem, C., & Rogers, A. (2015). A scoping review to understand the effectiveness of linking schemes from healthcare providers to community resources to improve the health and well-being of people with long-term conditions. *Health & Social Care in the Community*, 23(5), 467-484.

National Institute for Health and Care Excellence, *Patient experience in adult NHS 366 services: improving the experience of care for people using adult NHS services*. 367 London: NICE, 2012.

Nocon, A., & Leese, B. (2004). The role of UK general practitioners with special clinical interests: implications for policy and service delivery. *Br J Gen Pract*, 54(498), 50-56.

Nunes, V et al. (2009). *Clinical guidelines and evidence review for medicines adherence*. London: National collaborating centre for primary care and royal college of general practitioners.

NHS Grampian (2018). Workforce plan 2018-2021.

Pescheny, J. V., Pappas, Y., & Randhawa, G. (2018). Facilitators and barriers of implementing and delivering social prescribing services: a systematic review. *BMC health services research*, 18(1), 86.

Polley, M. J., & Pilkington, K. (2017). *A review of the evidence assessing impact of social prescribing on healthcare demand and cost implications*. University of Westminster.

Scottish Government (2018). The GMS General Medical Services Contract in Scotland. Scottish Government, Edinburgh.

South, J., Higgins, T. J., Woodall, J., & White, S. M. (2008). Can social prescribing provide the missing link?. *Primary Health Care Research & Development*, 9(4), 310-318.

Southby, K., & Gamsu, M. (2018). Factors affecting general practice collaboration with voluntary and community sector organisations. *Health & social care in the community*, 26(3), e360-e369.

Stacey, D et al. (2017). Decision aids for people facing health treatment or screening decisions. *Cochrane database of syst rev*.



The Health and Social Care Alliance (2016). Social Determinants in Primary Care, Scottish Government, Glasgow. [Available at: <https://www.alliance-scotland.org.uk/wp-content/uploads/2017/11/Social-Determinants-in-Primary-Care-Module-Final.pdf>]

Wildman, J. M., Moffatt, S., Penn, L., O'Brien, N., Steer, M., & Hill, C. (2019). Link workers' perspectives on factors enabling and preventing client engagement with social prescribing. *Health & social care in the community*, 27(4), 991-998.

Woodall, J., Trigwell, J., Bunyan, A. M., Raine, G., Eaton, V., Davis, J., ... & Wilkinson, S. (2018). Understanding the effectiveness and mechanisms of a social prescribing service: a mixed method analysis. *BMC health services research*, 18(1), 604.

Woodhead, E. L., Northrop, L., & Edelstein, B. (2016). Stress, social support, and burnout among long-term care nursing staff. *Journal of Applied Gerontology*, 35(1), 84-105.

University of Westminster (2017). Making sense of prescribing. University of Westminster, London.

YHCS, S. J. (2015). NHS Leeds West Clinical Commissioning Group Patient Empowerment Project (PEP) Final Year One Report.



Appendix

Appendix A. Patient outcome questionnaire

About you

Q1 Assessment

Initial assessment 6 month assessment.. 12 month assessment

Q2 Employment status

Employed Full Time..... <input type="checkbox"/>	Employed Part Time..... <input type="checkbox"/>
Full Time Education..... <input type="checkbox"/>	Looking after home/family <input type="checkbox"/>
Retired <input type="checkbox"/>	Self-employed <input type="checkbox"/>
Supported employment..... <input type="checkbox"/>	Transitional employment <input type="checkbox"/>
Unemployed less than 6 months <input type="checkbox"/>	Unemployed 7 – 12 months <input type="checkbox"/>
Unemployed 13 – 24 months <input type="checkbox"/>	Unemployed 25 - 36 months <input type="checkbox"/>
Unemployed more than 36 months <input type="checkbox"/>	Voluntary work (unpaid) <input type="checkbox"/>

Q3 Ethnicity

Prefer not to say..... <input type="checkbox"/>	Not Known <input type="checkbox"/>
Any mixed background..... <input type="checkbox"/>	Asian Bangladeshi <input type="checkbox"/>
Asian Indian <input type="checkbox"/>	Asian Pakistani..... <input type="checkbox"/>
Any other Asian background <input type="checkbox"/>	Black African <input type="checkbox"/>
Black Caribbean..... <input type="checkbox"/>	Any other Black background <input type="checkbox"/>
Chinese <input type="checkbox"/>	White British..... <input type="checkbox"/>
White Irish <input type="checkbox"/>	White Other British..... <input type="checkbox"/>
White Scottish <input type="checkbox"/>	Any other White background..... <input type="checkbox"/>
Other ethnic background..... <input type="checkbox"/>	

Q4 Do you have a Major Health or Disability Issue? (tick all that apply)

Chronic pain <input type="checkbox"/>	Hearing impairment..... <input type="checkbox"/>
Learning difficulties <input type="checkbox"/>	Longstanding illness..... <input type="checkbox"/>
Memory loss..... <input type="checkbox"/>	Mental health..... <input type="checkbox"/>
None identified <input type="checkbox"/>	Physical/Mobility Impairment..... <input type="checkbox"/>
Visual Impairment <input type="checkbox"/>	Other..... <input type="checkbox"/>



Q5 How would you rate your quality of life during the past 4 weeks?
"Quality of life is made up of many different things, such as overall life satisfaction, physical and mental wellbeing, social support, education, employment and safety"

Very poor.....	<input type="checkbox"/>	Poor	<input type="checkbox"/>
Neither good or poor	<input type="checkbox"/>	Good	<input type="checkbox"/>
Very good.....	<input type="checkbox"/>		

Q6 In general, what sort of person do you consider yourself?

Very unhappy	<input type="checkbox"/>	Unhappy.....	<input type="checkbox"/>
Neither happy or unhappy.....	<input type="checkbox"/>	Happy.....	<input type="checkbox"/>
Very happy	<input type="checkbox"/>		

Q7 To what extent do you agree with the following statements?

	Stongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
"I am content with my friendships and relationships"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"I have enough people I feel comfortable asking for help at any time"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"My relationships are as satisfying as I would want them to be"	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Think of up to 5 important people in your life. For each, tell me if they are paid (such as a health or social care professional) or not paid (such as a friend or family member) to be in your life, and the number of contacts you've had with them in the last 4 weeks:

Q8 Important Person 1

Paid or Unpaid	<input type="text"/>
Number of face-to-face contacts	<input type="text"/>
Number of virtual contacts (e.g. over the phone / internet)	<input type="text"/>

Q9 Important Person 2

Paid or Unpaid	<input type="text"/>
Number of face-to-face contacts	<input type="text"/>
Number of virtual contacts (e.g. over the phone / internet)	<input type="text"/>

Q10 Important Person 3

Paid or Unpaid	<input type="text"/>
Number of face-to-face contacts	<input type="text"/>
Number of virtual contacts (e.g. over the phone / internet)	<input type="text"/>



Q11 Important Person 4

Paid or Unpaid	<input type="text"/>
Number of face-to-face contacts	<input type="text"/>
Number of virtual contacts (e.g. over the phone / internet)	<input type="text"/>

Q12 Important Person 5

Paid or Unpaid	<input type="text"/>
Number of face-to-face contacts	<input type="text"/>
Number of virtual contacts (e.g. over the phone / internet)	<input type="text"/>

Q13 How many contacts have you had with your GP in the last 4 weeks that were:

in the GP Practice?	<input type="text"/>
over the phone?	<input type="text"/>
home visits?	<input type="text"/>
other types of contact?	<input type="text"/>

Q14 What was the total number of contacts you had with your GP in the last 4 weeks?

Q15a Do you regularly participate in activities at different types of organisations? (tick all that apply)

No, I do not participate in any group activities.	<input type="checkbox"/>
Faith-based activities	<input type="checkbox"/>
Interest groups (e.g. art groups, music groups or evening classes).....	<input type="checkbox"/>
Social Clubs (e.g. rotary club, women's institute, working men's clubs etc).....	<input type="checkbox"/>
Physical activity Groups (e.g. sports club, gym or exercise classes).....	<input type="checkbox"/>
Volunteering.....	<input type="checkbox"/>
Other.....	<input type="checkbox"/>

Q15b If "Other" please give details of the group/s?



Appendix B. LP goal setting template (baseline)

Link Practitioners Evaluation - Goal Setting

Part of our anticipated staff benefits to the Link Working project is fulfilling your job aspirations. To understand whether we achieve this or not, we will be doing a goal setting exercise with each of you.

There are two types of goals that we would like you to think about: 1) **Professional goals** (for example, your training or delivery of care) and 2) **Personal goals** (for example, your traits and characteristics). For each of these, think about a goal you would like to achieve within the next 6 months and another goal you would like to achieve within the next 12 months. Think about the following when setting your goals:

- 1) Specific (not ambiguous)
- 2) Measurable (we can track the changes)
- 3) Achievable (i.e. it isn't impossible!)
- 4) Relevant (it's appropriate to your work)
- 5) Time-bound (achievable within the next 6/12 months)

Over the page, please complete the template provided.



Full name: _____

Type of goal	How will this benefit you? (eg. Better at your job, more confident etc).	How long do you think it will take you to complete this? (eg. 2 weeks / 3 months)	What do you need to complete this? (eg. Support, training, relationships etc.)	What might stop you completing this? (eg. Lack of time, not important enough)
Professional goals (for example, your training, supervisory support, your delivery of care)				
<i>My goal for the next 6 months is ...</i>				
<i>My goal for the next 12 months is ...</i>				
Personal goals (for example, your traits and characteristics)				
<i>My goal for the next 6 months is ...</i>				
<i>My goal for the next 12 months is ...</i>				



Appendix C. LP goal setting template (six months)

Link Practitioners Evaluation - Goal Setting Follow-up

Part of our anticipated staff benefits to the Link Working project is fulfilling your job aspirations. To understand whether this has been achieved or not, we will be reviewing the goal setting exercise each of you completed 6 months ago.

In the previous session you identified **Professional goals** (for example, your training or delivery of care) and **Personal goals** (for example, your traits and characteristics) that you would have liked to achieve over the next 6 and 12 months. We would now like to see if you have reached the goals you set out, if anything has helped you or stopped you achieving your goals and what impact achieving any goals has had.

Over the page, please complete the template provided.



Full name: _____

Goals that I have made	Have you achieved this goal? (delete all that are inappropriate)	If fully/partially, what helped you achieve this goal?	If not all/partially, what stopped you fully achieving this goal?	If fully/partially, what impact had this had?
Professional goals (for example, your training, supervisory support, your delivery of care)				
My goal for the next 6 months was ... <ul style="list-style-type: none">•	Fully Partially Not at all			
Personal goals (for example, your traits and characteristics)				
My goal for the next 6 months was ... <ul style="list-style-type: none">•	Fully Partially Not at all			



ID: (Research team use only)

Appendix D. Link Practitioner satisfaction questionnaire

How many years' experience do you have working in either health or social care (circle one option)?

<2 years 2-5 years 6-10 years >10 years

To what extent do you agree with the following statements (tick one box only):

Construct	Question	Strongly disagree	Disagree	Neither agree / disagree	Agree	Strongly agree
Supported - SAMH	<i>I feel supported by SAMH management staff</i>					
Supported – General Practice	<i>I feel supported by General Practice staff</i>					
Training	<i>I am provided with all necessary training to do my job</i>					
Development	<i>I have adequate opportunities to develop my professional skills</i>					
Communication – Link Practitioners	<i>I feel I can easily communicate with other Link Practitioners</i>					
Communication – General Practice	<i>I feel I can easily communicate with colleagues from all levels of General Practice</i>					
Workload	<i>The amount of work I am expected to finish each week is reasonable</i>					
Progression	<i>I am satisfied with my chances for promotion</i>					
Recognition	<i>I am appropriately recognised when I perform well at my regular work duties</i>					
Teamwork – Link Practitioners	<i>The Link Practitioners and I work well together</i>					
Teamwork – General Practice	<i>My colleagues in General Practice and I work well together</i>					
Systems	<i>The IT systems I use to do my job are fit for purpose</i>					



Satisfaction	<i>How would you rate a career as a Link Practitioner on a scale of 1 (the worst) to 10 (the best) (circle 1 option)?</i>	1 2 3 4 5 6 7 8 9 10 Worstbest
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Any additional comments?



Thank you for taking the time to complete this questionnaire



Appendix E. LP interview topic guide

Introductory Questions

1. Tell me about your experience of working as a Link Practitioner?
2. How have you found working as part of a newly formed team?
3. Tell me about the training you have received for this job?
 - a. Prompts: during induction and ongoing training. Have these met your needs?
4. Tell me about the caseload of patients that you have worked with?
 - a. Prompts: numbers; type
5. How have you got on interacting with colleagues outside of the team?
 - a. Prompts: General Practice; Third sector
6. How have you got on embedding a links approach within your General Practice?

Positives of working in this way/Enablers

7. What has worked well in the Aberdeen Links Service?
 - a. Prompts: team; within practice; working with individuals
8. Was there anything that helped to make this new way of working successful?
9. What have you enjoyed most about this way of working?
10. Were these positives common for all Link Practitioners?

Negatives of working in this way/Barriers

11. What have been the (biggest) challenges to this new way of working?
12. How did you try and overcome these? Was this successful?
 - a. Prompts: Has this learning be shared? If no, why not?
13. Were there any barriers that stopped you overcoming these challenges?
14. Did all Link Practitioners face different types of challenges?
 - a. Prompts: If so, what were they? Why were there differences?

Future considerations

15. If a new Link Practitioner started, what advice would you give them coming into this new way of working?
16. In what way do you think the Aberdeen Links Service could be improved in Aberdeen?
17. Is there anything else you would like to tell me about your experience working as a Link Practitioner