**Does social support affect older adults’ General Practitioner attendance rates? Findings from the North West Coast Household Health Survey**

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**Abstract**

**Objective** The aim of this study was to explore whether social support and socio-economic status have an effect on primary care attendance in older adults (aged 65+).

**Methods** This study used data from the longitudinal North West Coast (NWC) Household Health Survey (HHS) from across 20 disadvantaged and 8 less disadvantaged neighbourhoods.Data included the EQ-5D, social support, frailty-related measures, healthcare utilisation, and the Index of Multiple Deprivation (IMD). Principal component analysis was used to derive a factor for social support. Poisson regression analysis was employed to explore the effects of frailty, social support, General Practitioner (GP) distance, education, IMD, living situation, and depression on the number of GP attendances in the past 12 months.

**Results** 1,685 older adults were included in this analysis. Of those older adults who visited their GP (87.4%), most had visited their GP twice in the past 12 months. Having an educational qualification, higher levels of social support, and being physically fit reduced GP utilisation. Being moderately frail, depressed, and living further away from the nearest GP increased attendance. Older adults living in the most disadvantaged neighbourhoods were more likely to visit their GP.

**Conclusions** Increasing social support impacts to a small, but important, extent on reducing GP attendance in older adults. Future research needs to explore whether improving social support in old age can reduce GP utilisation.

**Clinical Implications:** Findings suggest a need for improving social prescribing in older adults to reduce some GP visits which could be avoided and might not be necessary.

**Keywords:** older adults; healthcare utilisation; health inequalities; social support; frailty; health economics

**Introduction**

With an ageing population, and over 12 million older adults living in the UK in 2018 (18% of the general population) (ONS, 2019), age-related causes of healthcare services attendance are increasing (Reeves et al., 2018). In particular, only half of older adults in England and Wales have reported very good or good health, compared to 88 percent of people aged under 65 (ONS, 2011).

Older adults (OAs) frequently experience a number of mental and physical health problems (Legramante et al., 2016), which result in higher healthcare service usage. Frailty is a particularly common health issue (Bandeen-Roche et al., 2015; Santos-Eggimann et al., 2009) among people with high levels of social deprivation (Herr et al., 2015) and is related to a higher risk of health service utilisation and institutionalisation overall (Bottle et al., 2019; McIsaac et al., 2016). Frail OAs experience difficulties in caring for themselves and performing everyday activities, such as shopping and managing finances (Shimada et al., 2016), which are exacerbated among OAs living with dementia (Giebel et al., 2017). Recent evidence from Australia suggests that there is a high risk of everyday functioning abilities declining further in the first 30 days after having attended an Emergency Department, if older adults had experienced difficulties with activities prior to attendance (Lowthian et al., 2017).

Due to the high prevalence of comorbidities and frailty in OAs, this population group needs more support to enable them living well in their own home and community for longer. However, many OAs in the UK living alone (approximately 32%), most of whom are female (66.5%) (ONS, 2018). Many OAs experience high levels of loneliness (Donovan et al., 2016), and are often not well socially connected (Grande & Boldy, 2008). This can lead to depression (Holt-Lunstad et al., 2015) and has also been linked to increased healthcare utilisation (Valtorta et al., 2018). In particular, reduced engagement in social activities among OAs has been linked to greater mobility decline (Buchman et al., 2009). However,recent research indicates that poor neighbourhood and social support are associated with lower health-seeking behaviour for medical care (Berglund et al., 2019). Therefore, raising social support appears to be an important avenue to pursue to improve health and reduce avoidable healthcare utilisation in OAs.

When older people do need to access their GP or hospitals however, they can face socio-economic barriers in accessing health care services. Nieman and colleagues (Nieman et al., 2015) for example reported that there are socio-economic disparities in accessing hearing healthcare. Variations in healthcare access due to social deprivation are not restricted to OAs, but affect the population at large (Giebel et al., 2019; Scantlebury et al., 2015). This is often linked to poor levels of health literacy, so that people are unaware of where to seek help for healthcare issues (Sudore et al., 2006). Although research has explored how demographic and socio-economic factors (education, income, gender, ethnicity, housing) predict healthcare utilisation, particularly emergency department attendance (Scantlebury et al., 2015; Saini et al., 2020), it appears that there is a paucity in the literature as to how socio-economic factors influence OAs attendance of primary care appointments and emergency departments. Considering the fact that over 1 million OAs in the UK are reported to be malnourished (Age UK, 2012), which might be down to financial restraints or educational reasons for example, socio-economic factors linked to health care utilisation are an important area which needs to receive further attention.

 Whilst literature has explored the effects of social relationships on healthcare utilisation in OAs (Dickens et al., 2011), to date it appears that no research has explored whether social support affects GP utilisation and how this may vary between people from different socio-economic backgrounds. Based on existing literature on the benefits of increased social support on mental and physical well-being, we hypothesised that improved social support in OAs would reduce GP attendance. Understanding the predictors of healthcare utilisation in OAs, depending on the SES, and how social support can potentially reduce age-related risk factors, is important to address health inequalities in OAs and supporting them to age better and avoid hospital stays, key priorities in the recently published NHS Long Term Plan (2019).

**Methods**

**The North West Coast Household Health Survey**

The NWC HHS (Giebel, Mcintyre, et al., under review) collected data on the socio-economic factors related to healthcare utilisation, with Wave 1 and 2 implemented in 2015 and 2018, respectively. In Wave 1, the survey collected data from residents of 20 disadvantaged and eight relatively advantaged neighbourhoods across the NWC, with Wave 2 only having collected data from residents living in disadvantaged neighbourhoods. An organisation was employed to conduct the survey, BMG Research, which took place during the daytime hours. Only one member per household could participate in the survey, and residents had to be aged 18 or over. Residents completed the survey, which lasted approximately 45 minutes, together with the BMG researcher on an IPad. Ethical approval prior to the study was obtained from the University of Liverpool (Ref: RETH000836).

**Variables**

For the purpose of this primary data analysis, a subset of variables from the HHS was analysed, including age, gender, ethnicity, living situation, healthcare utilisation in the past 12 months (GP and A&E attendance), comorbidities (including dementia), depression (PHQ-9), number of groups/clubs (Q36) engaged in, and physical activities from the Physical Activities Questionnaire (Booth, 2000). Index of Multiple Deprivation (IMD) Quintiles were used to establish each resident’s neighbourhood level of disadvantage, with ‘1’ indicating the 20% least disadvantaged neighbourhoods in England, and ‘5’ indicating the most disadvantaged neighbourhoods. The EQ-5D-3L (EuroQoL, 1990) was employed to collect data on a person’s self-care abilities, ability to do usual activities, and mobility. Scores from these three variables, which were rated as either ‘no problems’, ‘some problems’, or ‘unable to perform/walk’, were coded to align with the Clinical Frailty Scale (CFS) (Rockwood et al., 2005) and categorised into ‘no frailty’, ‘moderate frailty’, and ‘severe frailty’. Where participants rated ‘no problems’ across all three variables or up to two with ‘some problems’, participants were categorised as *not frail*. Participants rating all three with ‘some problems’ were categorised as *moderately frail,* and those rating at least one as ‘unable to do’ were categorised as *severely frail*. These codes were generated jointly with a consultant geriatrician and a senior GP.

Social support was measured using eight separate variables, which are listed in Table 1. Distance to nearest GP was measured in kilometres, with Lower Layer Super Output Area (LSOA) codes used to match each participant. LSOAs refer to small geographic areas across England and Wales to help with statistical reporting of the population.

***[Table 1]***

**Data analysis**

This analysis solely focused one data collection of older adults (aged 65 and above). Participants had either participated in both Wave 1 and Wave 2, or only in Wave 1 or Wave 2. Where participants had taken part in both waves, only data from Wave 1 was included. Considering that data between both waves were only three years apart, Wave 1 data were selected where participants had taken part in both waves. Data were analysed using SPSS 25. Demographic data were analysed using frequency analysis. Principal components analysis (PCA) was used to derive a factor of social support, by entering all questions on social support into a PCA with rotation varimax. This generated three factors with an Eigenvalue greater than 1, two of which were populated to a greater degree: One focusing on three variables of *personal social support*, and one focusing on three variables of *neighbourhood social support*. For the purpose of this analysis, we employed the personal social support variable, because we were interested in personal social relationships and networks and how they affect GP attendance. The following survey questions formed part of the personal social support variable: “How often do you meet up with family members or friends?”; “If I need help, there are people who would be there for me.”; and “If I wanted company or to socialise, there are people I can call on.” Independent t-tests were used to compare healthcare utilisation by high and low social support.

Outliers for the number of GP visits and number of hospital visits were identified and excluded via inter quartile range (IQR) analysis.

Poisson regression analysis was performed with GP attendance as the outcome variable. Independent variables included frailty, social support, IMD Quintile, education, distance to nearest GP, living situation, depression, age, gender, and ethnicity.

Costs were searched for from standard sources such as the NHS England reference cost website, and the annual Personal Social Services Research Unit (PSSRU) health and social care reference cost publications, where most recent relevant costs as of 2018 were used. Total GP costs included GP appointments (£39 per 9.22 minute appointment) and home visits (£129 per 23.4 minute visit, including travel time). Nurse costs included practice nurse appointments (£16 per 15.5 minute appointment) and any nurse home visits (£32 per visit). Accident & Emergency (A&E) costs (£157 per attendance) were a weighted average of majors and minors. Costs were inflated to 2019 prices using UK Treasury GDP Deflator and multiplied by the number of occasions reported by survey participants to calculate total costs.

**Results**

**Demographics**

Of 7,731 survey participants aged 18 years or older, 2,000 people were aged 65 or above according to the age band (Wave 1=1,129; Wave 2=871) (25.9%). More participants provided the age band than their actual age. Where a household completed the survey in both waves, only the first wave data were included, resulting in 1,771 OAs. Using IQR analysis, 84 OAs were removed for having had 26+ GP visits and/or 7+ A&E attendances in the past 12 months, resulting in a total of 1,685 people included in this analysis (Wave 1= 983; Wave 2= 702). Further details of the sample selection are detailed in Figure 1.

Of the 1,685 included OAs, people were on average aged 75 years (+/- 7) and primarily female (56.6%) and White British (95.4%) (see Table 2). Most OAs were living alone (55.4%). OAs lived in some of the most disadvantaged neighbourhoods of the country, based on the IMD quintile of residence. Just under half of the OAs experienced some problems with their mobility or were unable to walk. One quarter of OAs had an educational qualification with a certificate (26.1%), and a small proportion of OAs had a degree (7.7%). More than one third reported difficulties with performing their usual activities, and a minority experienced problems with washing and/or dressing themselves (17.0%). This resulted in frailty scores based on the CFS, whereby the majority of OAs was considered not frail (83.8%), with 11.3% being moderately frail and 4.9% severely frail. Regarding social support, the majority of OAs reported a strong social support network, by having people who would support them when needed help (95.5%) and by having people to call on if they wanted to socialise (93.5%). 26.1% of OAs have taken part in groups, clubs, or organisations in the past 12 months.

In the past 12 months, 25% of OAs had attended an A&E department (n=419) and 87.4% of OAs had either been to their GP surgery or have been visited by their GP or practice nurse in their own home (n=1,473).

***[Figure 1 and Table 2]***

**Variations in GP and A&E attendance by social support**

Figure 2 shows GP and A&E attendance by social support. Independent t-tests showed that there were no significant differences in healthcare utilisation between older adults with high and low social support [tGP(1683)=.343, p=.732; tA&E(416)=.291, p=.772].

***[Figure 2]***

**Poisson regression models on GP attendance**

Due to the non-normally distributed GP attendance count data, Poisson regression was used to explore the effects of social support, education, IMD quintile, frailty, depression, living situation, and distance to GP, whilst accounting for gender and ethnicity. The Omnibus test showed that the model as a whole was significant (p=.000). Education, personal social support, IMD quintile, frailty, distance to the nearest GP service, and depression were all significant parameters. OAs with an educational qualification were 7% less likely to attend their GP (p=.007), and those with higher levels of personal social support were 6% less likely to attend their GP (p=.008). OAs who were moderately frail were 69% more likely to attend their GP (p=.000), whilst severely frail OAs were 44% more likely to attend their GP than those who were not frail (p=.000). Depression was linked to a 3% increase in likelihood of attending the GP (p=.000). For every 1 km increase in distance to the nearest GP, the likelihood/incidence rate of GP attendance increased by 7% (p=.000). OAs from less disadvantaged neighbourhoods (quintile 2) were 13.1% less likely than those from the most disadvantaged neighbourhoods (quintile 5) to attend their GP (p=.023). Living in quintiles 1 and 4 were not significant (p=.095; p=.967), with quintile 3 approaching significance (p=.053). Living situation, ethnicity, and gender were not found to be significant predictors (p=.589, p=.228, p=.073). Table 2 reports detailed findings of the Poisson regression analysis. Figure 3 shows the variation in mean number of GP visits by IMD Quintile.

**Poisson regression model on Accident & Emergency attendance**

For A&E attendance, the Omnibus test showed that the model was not significant (p=.863). Therefore, no further tests were pursued.

***[Table 3 and Figure 3]***

**Costs of GP visits**

On average over the last 12 months recorded, GP visits per person were costed at £195.80 (+/-197.28) [Range £16-£1,932]. This included costs for visiting a nurse at the GP surgery (£47.44 +/- £41.47), visiting a GP at the surgery (£140.13 +/- £116.04), as well as receiving a nurse visit at home (£141.81 +/-£126.27) and a GP visit at home (£328.90 +/- £240.65).

**Discussion**

Findings from this longitudinal public health survey show that whilst higher levels of social support are associated with a reduced number of GP visits, there are various other factors that similarly contribute to the rate of GP visits. Higher levels of social support were associated with reduced GP attendance rates by 7%, which in terms of economic costings can have an effect of an average of a £13.71 cost reduction per OA. To our existing knowledge, this is the first study to show that social support is associated with reduced likelihood of GP attendance, whilst also accounting for the effects of socio-economic status, with OAs from the less disadvantaged neighbourhoods being 0.869 as likely to attend their GP than those from the most disadvantaged neighbourhoods.

There has been a lot of attention around social prescribing in the last three years, with it being recommended in governmental policies (Rockwood et al., 2005). Social prescribing is utilised by clinicians to prescribe engagement in community-based social activities. This is to try and increase social connectivity of potentially isolated individuals, with the aim of reducing loneliness and improving well-being – an alternative or addition to prescribing medication. With social prescribing ranking high on the UK governmental agenda, and being further facilitated by Primary Care Networks, GPs are asked to strongly utilise social prescribing particularly with OAs who are deeply socially isolated. However, there is a clear gap in the evidence around the potential effects of improved social support on healthcare utilisation. Higher levels of social support are linked to reduced rates of depression and loneliness and higher quality of life (Holt-Lunstad et al., 2015; Wedgeworth et al., 2017). A recent study by Sommerlad et al. (2019) based on longitudinal data on ageing also showed that increased social contact at age 60 was linked to reduced dementia risk for example (a 12% reduction per standard deviation of social contact), thereby supporting the implications of social support on healthcare. Walker et al. (2019) also utilised the English Longitudinal Study of Ageing to show improved health in socially well connected OAs. However, only a couple of studies have explored how higher levels of social support have a modifying effect on healthcare utilisation (Prang et al., 2016). Importantly, none have explored the effects that social support can have specifically on GP utilisation and in OAs, the population group which has the highest level of GP attendance rates (Information Centre for Health and Social Care Trends, 2009). The present study is therefore one of the first to suggest that whilst increasing social support in OAs contributes to health care utilisation, there are several other independent factors at play which equally need to be addressed in order to reduce the high levels of GP visits.

 Socio-economic background was also found to be linked to attendance rates, with people from the least disadvantaged neighbourhoods being more likely to consult their GP than those from the most disadvantaged neighbourhoods. This corroborates previous research reporting a negative association between deprivation and primary care utilisation in Germany (Greiner et al., 2018) and is in line with the inverse care law, stating that the availability of healthcare services varies inversely with the need of the population in the area (Hart, 1971). In this study, OAs living in quintiles 2 and 3 (less disadvantaged than quintile 5) had reduced likelihood of attending their GP, therefore indicating a slightly mixed picture of the effects of deprivation on primary care usage. One potential reason for higher levels of GP visits in less disadvantaged areas may be the closer proximity of GP surgeries, as these are less likely to be built in more disadvantaged areas (Greiner et al., 2018). It is unclear why those from the most affluent neighbourhoods (Quintile 1) were not found to have significantly higher GP usage, but may be explained by the relatively small sample size compared to those in the purposefully sampled most disadvantaged neighbourhoods (Quintile 5). Future research needs to collect similar samples across the IMD quintiles therefore to make a more representative comparison.

 In contrast, OAs with higher levels of education were less likely to consult their GP. This might be because they had fewer health problems, as also evidenced by Palladino and colleagues (2016), showing that people across Europe with higher levels of education had lower risk of multimorbidity. However, it is also possible that those OAs with higher levels of education were able to find other sources of receiving support instead of consulting their GP. For example, they might have better access to social support services and are better able to access these. It is important to highlight that the yearly average of GP visits was 307 million between 2017 and 2018 in England across the population (NHS Digital, 2018). This equates to approximately 5.5 visits per person, the average of 5 visits per OA in this survey is close to the national average and thus the sample is representative of the general population.

 Living further away from the nearest GP surgery was also found to be associated with increased attendance rates by 7%. This may be explained by the fact that in England, people with chronic conditions and long-term illnesses, which are particularly common in the older population, remain registered with their GPs even when moving. Thus, OAs may move further away from the surgery but due to higher levels of frailty or other conditions may require to see their GP or practice nurse more frequently. Previous findings on the effects of GP distance have been mixed, with Turnbull and colleagues (Turnbull et al., 2008) reporting reductions in GP out-of-hours service use with increased distance across all ages, and Mohan et al. (2019) reporting no effects of distance to the nearest GP service in adults aged 50 and above in Ireland, but instead only the number of local GPs. The latter has been corroborated by Greiner et al. (2018).

One of the strengths of this study is the recruitment of the study cohort from disadvantaged groups. Therefore, this study is primarily based on people living in disadvantaged circumstances, and is thus ideally placed to investigate variations in health care utilisation by socio-economic background.

Some of the limitations of this study include that the collected data are cross sectional, and therefore causation cannot be explained by the data. Furthermore, the HHS did not explore reasons of GP attendance, and collected no follow-up data after the GP visits. Having this contextual information would help understand the different effects on GP visits better. In line with this missing information as part of the survey design, healthcare usage in the survey was based on responses provided by participants, and they may have forgotten some visits, particularly OAs with memory problems, including dementia. Regarding the measurement of frailty in this analysis, the survey did not collect full CFS data, but instead used data from the EuroQoL to align with the CFS frailty levels, which were drawn up in consultation with practising clinicians (AA, MG).

**Conclusions**

Findings from this study suggest that increasing social support, via social prescribing for example, can be an avenue to reduce a proportion of GP visits in OAs. However, with high social support associated with reducing the likelihood of GP visits by 7% only, social prescribing as one option needs to be supported by other policy and clinical strategies to reduce GP visits and thus reduce the burden on the healthcare system.

**Clinical Implications**

Findings suggest higher levels of social support is linked to fewer GP visits.

Social support can be raised via social prescribing, with this study providing support to increase social prescribing.

GPs need to encourage activities to improve and raise social support as part of their clinical treatment.

**Funding**

This project is funded by The National Institute for Health Research Applied Research Collaboration North West Coast (NIHR ARC NWC). The views expressed here are those of the author(s) and not necessarily those of the NHS, the NIHR, or the Department of Health and Social Care.

**Conflicts of interest**

None.

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**Table 1. Questions on social support in the Household Health Survey**

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| --- | --- | --- |
| **Question number** | **Question** | **Possible answers** |
| **Question 1** | “How often do you meet up with family members or friends?” | Likert scale from 1-9, ranging from ‘more than once a day’ to ‘never’ |
| **Question 2** | “If I need help, there are people who would be there for me.” | Likert scale from 1-5, ranging from ‘definitely agree’ to ‘Don’t know’ |
| **Question 3** | “If I wanted company or to socialise, there are people I can call on.” | Likert scale from 1-5, ranging from ‘definitely agree’ to ‘Don’t know’ |
| **Question 4** | Neighbourhood belonging | Likert scale from 1-5, ranging from ‘Very strongly’ to ‘Don’t know’ |
| **Question 5** | “How comfortable would you be asking a neighbour to keep a set of keys to your home for emergencies, for example if you were locked out?” | Likert scale from 1-4, ranging from ‘Very comfortable’ to ‘Very uncomfortable’ |
| **Question 6** | “How comfortable would you be if you were ill and at home on your own and needed someone to collect a few shopping essentials, asking a neighbour to do this for you?” | Likert scale from 1-4, ranging from ‘Very comfortable’ to ‘Very uncomfortable’ |
| **Question 7** | “Suppose you lost your wallet containing your address details, and it was found in the street by someone living in the neighbourhood. How likely is it that it would be returned to you with nothing missing?” | Likert scale from 1-5, ranging from ‘Very likely’ to ‘Don’t know’ |
| **Question 8** | Engagement in clubs/organisations in the past 12 months. | Engagement in 17 different types of social activities, including education for adults, The elderly, safety and first aid, local community and neighbourhood groups, and hobbies |

1,685 cases included

1,771 cases aged 65+ only interviewed once

2,000 cases aged 65+

7,731 cases in Wave 1 and Wave 2 aged 18+

229 cases interviewed for the 2nd time

86 cases with very high GP and/or A&E attendance

5,731 cases aged 18-64

**Figure 1. Sample selection for analysis**



**Figure 2. Healthcare utilisation by social support**

**Legend.** Y-axis shows the mean of the number of GP and A&E attendances by personal social capital, split into high social capital (SC) and low SC. Dark grey bars represent GP attendance, and lined bar represent A&E attendance.

**Table 2. Demographic characteristics** **and healthcare utilisation**

|  |  |
| --- | --- |
| **Characteristics** | **Total sample (n=1,685)** |
| **N (%)** |
| Gender Female  Male | 953 (56.6%)732 (43.4%) |
| Ethnicity White British  Other | 1,606 (95.4%)77 (4.6%) |
| Education Level Educational qualification Of those, degree level | 438 (26.1%)126 (7.7%) |
| Living situation Alone | 933 (55.4%) |
| IMD Quintile 1 (least disadvantaged) 2 3 4 5 (most disadvantaged) | 122 (7.2%)71 (4.2%)116 (6.9%)258 (15.3%)1,118 (66.4%) |
| EQ-5D Mobility No problems walking Some problems walking Confined to bed | 939 (55.7%)729 (43.3%)16 (0.9%) |
| EQ-5D Self-care No problems Some problems with washing/dressing Unable to wash or dress | 1,398 (83.0%)268 (15.9%)19 (1.1%) |
| EQ-5D Usual activities No problems Some problems Unable to perform | 1,072 (63.6%)541 (32.1%)72 (4.3%) |
| Frailty Not frail Moderately frail Severely frail | 1,411 (83.8%)190 (11.3%)83 (4.9%) |
| Engaged with clubs/groups in past 12 months | 439 (26.1%) |
| GP attendance in past 12 months | 1,473 (87.4%) |
| Hospital attendance in past 12 months | 419 (25.0%) |
| **Mean (SD) [Range]** |
| Age, Mean (SD) | 74 (+/-7) |
| PHQ-9 Score, Mean (SD) | 12.9 (+/-5.2) |
| Number of medications | 5 (+/-5), [1-50] |
| Number of GP visits | 5 (+/-5) [0-26] |
| Number of hospital attendances | 2 (+/-0.5) [1-6] |

**NOTE:** GP = General Practitioner;IMD = Index of Multiple Deprivation; PHQ-9 = Personal Health Questionnaire 9; SD = Standard deviation



**Figure 3. Variation in number of GP visits by IMD Quintile**

**Note:** Graph shows the mean (SD) number of GP visits by IMD Quintile (1 – least disadvantaged; 5- most disadvantaged), with error bars showing a 95% confidence interval.

**Table 3. Poisson regression model on GP attendance**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Parameter** | **B** | **Std Error** | **95% Wald Confidence Interval** | **Wald Chi2-test** | **df** | **p-value** | **Exp(B)** | **95% Wald Confidence Interval for Exp(B)** |
|  | **Lower** | **Upper** |  | **Lower** | **Upper** |
| Ethnicity | .078 | .0644 | -.049 | .204 | 1.456 | 1 | .228 | 1.081 | .953 | 1.226 |
| Education | -.071 | .0260 | -.122 | -.020 | 7.369 | 1 | .007 | .932 | .886 | .981 |
| Living alone | .012 | .0226 | -.032 | .056 | .292 | 1 | .589 | 1.012 | .968 | 1.058 |
| Gender | -.040 | .0222 | -.083 | .004 | 3.220 | 1 | .073 | .961 | .920 | 1.004 |
| Personal Social Support | -.059 | .0224 | -.103 | -.016 | 7.073 | 1 | .008 | .942 | .902 | .984 |
| Moderately frail1 | .526 | .0293 | .469 | .584 | 321.864 | 1 | .000 | 1.692 | 1.598 | 1.792 |
| Severely frail1 | .366 | .0439 | .280 | .452 | 69.558 | 1 | .000 | 1.442 | 1.323 | 1.571 |
| IMD Quintile 12 | .072 | .043 | -.012 | .156 | 2.790 | 1 | .095 | 1.075 | .988 | 1.169 |
| IMD Quintile 22 | -.141 | .0621 | -.263 | -.019 | 5.148 | 1 | .023 | .869 | .769 | .981 |
| IMD Quintile 32 | -.090 | .0464 | -.181 | .001 | 3.740 | 1 | .053 | .914 | .835 | 1.001 |
| IMD Quintile 42 | .001 | .0315 | -.061 | .063 | .002 | 1 | .967 | 1.001 | .941 | 1.065 |
| GP Distance | .066 | .0158 | .035 | .097 | 17.583 | 1 | .000 | 1.068 | 1.036 | 1.102 |
| PHQ9 | .025 | .0019 | .021 | .028 | 175.552 | 1 | .000 | 1.025 | 1.021 | 1.029 |

1 in reference to those being fit and not frail; 2 In reference to IMD Quintile 5 (most disadvantaged)