Title: Bridging Health and Community: Evaluating Social Prescribing for Older Adults in Cambodia

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Disclosures: The authors have reported that they have no relationships relevant to the contents of this paper to disclose.

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Abstract

Background: Social prescribing supports individual well-being and community engagement by linking people to local resources. This study examined social prescribing in Cambodia, specifically its potential to improve older adults' access to care and community support systems.

Methods: A cross-sectional mixed-methods study was conducted across ten Cambodian provinces among 1,200 older adults aged 60 and above. Participants were grouped as follows: Group 1 (received social prescribing), Group 2 (did not receive but lived in areas with trained link workers), and Group 3 (lived in areas without trained link workers). Descriptive and logistic regression analyses (adjusted for age, sex, marital status, education, household size, and IDPoor Equity Card status) assessed associations with consultation opportunities, healthcare access, unmet needs, and health status. Qualitative interviews were thematically analyzed.

Findings: Group 1 participants reported high satisfaction (98.9%) and greater opportunities to consult about financial insecurity and access to healthcare. They were more likely to consult with village chiefs and vice chiefs (OR = 2.16, 95% CI: 1.56–3.01, $p < 0.0001$), volunteers (OR = 3.75, 95% CI: 1.95–7.82, $p = 0.00017$), and village health support groups (OR = 4.36, 95% CI: 3.13–6.15, $p < 0.0001$). They were less likely to report poor healthcare availability (OR = 0.73, 95% CI: 0.53–1.00, $p = 0.048$) and loneliness (OR = 0.60, 95% CI: 0.37–0.97, $p = 0.039$). Group 2 also had higher engagement with village heads and health support groups than Group 3.

Interpretation: Social prescribing was associated with lower loneliness and stronger community engagement. This approach may support the cultivation of more age-friendly and resilient communities, even in low-resource environments.

Funding: World Health Organization Regional Office for the Western Pacific

Key Words: Social prescribing, community empowerment, older adults, resource-limited settings

Introduction

Cambodia is a lower-middle-income country experiencing population ageing, urbanisation, and rapid economic development.[1] These changes contribute to an increased burden of noncommunicable diseases (NCDs).[2] The country has proactively introduced several measures to address these emerging health challenges, such as the National Multisectoral Action Plan for NCD Prevention (2018-2027), the National Ageing Policy (2017-2030), Mental Health Strategic Plan (2023-2032) and the Cambodia Primary Health Care Booster Implementation Framework, which promote better health.[3,4,5,6]

In 2019, Cambodia's population aged 60 and above make up approximately 1.38 million, accounting for about 8.9% of the total population—an increase of roughly 60% compared to figures from the 2008 Census.[7] Projections indicate that by 2050, older adults will represent 23·2% of the total population.[7] Concurrently, life expectancy has significantly improved, with males increasing from 60.81 years to 74·3 years and females from 63·7 years to 76·8 years.[7] This rapid ageing trend presents substantial challenges that necessitate targeted and innovative public health policies by the Cambodian government.

Given that Cambodia is still relatively young demographically, a comprehensive national long-term care system has yet to be developed.[4] Consequently, older adults typically rely on informal caregiving by family members, relatives, and friends. Health services for older adults fall under the Ministry of Health's remit, while social welfare is managed by the Ministry of Social Affairs, Veterans, and Youth Rehabilitation, which also coordinates older people's associations.[4,8] However, these associations vary significantly in their scope work and levels of activeness. Civil society organizations support these associations in select locations in Cambodia and advocate for the rights of older adults nationally and internationally. Further research is needed to effectively transition Cambodia into a healthy ageing society.

The National Ageing Policy identifies nine priority areas: Financial Security; Health and Well-being; Living Arrangements; Enabling Environments; Active Ageing and Older People's Associations; Intergenerational Relations; Elder Abuse, Neglect, and Violence; Emergency Situations; and Preparing the Younger Population for Ageing.[4] Delivering these priorities demands coordinated action across sectors—uniting national and local authorities, health and socialcare workers, civil society groups, informal carers, and faith-based organisations that anchor Cambodian community life. Social prescribing

could assist in advancing Cambodia's National Ageing Policy as it directly supports the first goal by strengthening older people's links to community assets, enabling them to engage in family, community, economic, social, religious and political life with freedom and dignity.[9] At the same time, social prescribing could advance the second goal by involving younger volunteers and community members in every step of the process and equips them with the knowledge and habits needed to enjoy productive, healthy and dignified later years.[10]

Recognising the mental health issues heightened during the Coronavirus disease (COVID-19) pandemic, Cambodia launched a social prescribing pilot in 2022 with a strong focus on mental health. Mental health specialists from the Royal University of Phnom Penh, supported by the World Health Organization, trained Village Health Support Groups (VHSGs)— community-based groups that act as an essential link between the public health and social welfare systems and local communities, particularly in rural areas —to act as local "link workers".[11] The VHSGs comprise a range of individuals such as village chiefs and vice chiefs, village members and women's affairs representatives. The link worker training curriculum combined practical counselling skills and screening tools with modules on stress, anxiety and depression management, dementia care, and mindfulness techniques such as meditation, breathing exercises and progressive muscle relaxation.

VHSGs screened and identified older people for unmet social or health needs using a questionnaire developed for the social prescribing programme in Cambodia, explained available services, referred or accompanied participants to health and social services, and followed up at home. Working with village chiefs, commune councils, women's affairs focal points, pagodas and district social welfare-offices, they mobilised local support, provided basic data into social welfare certification systems, and escalated complex cases for additional assistance. By complementing the conventional health-sector referral pathway, this community-driven model was well suited to addressing the social determinants of health in the Cambodian context.

Given the global evidence of social prescribing's benefits, particularly in fostering stronger community connections and improving the well-being of older adults, Cambodia's model offers valuable insights into implementing this innovative approach in low-resource settings.[12-14]

Methods

Data Source and Study Population

This cross-sectional observational study employed a mixed-methods design, collecting both quantitative and qualitative data from ten provinces in Cambodia in which link workers were trained to deliver social prescribing services. The study population included older adults aged 60 and above.Within each province, one district where link worker training had been implemented was selected for assessment. In the same province, another district where no link worker training had been implemented was randomly selected for comparison. From each of these 20 districts (10 with trained link workers and 10 without), four communes were randomly chosen. In communes with trained link workers, 10 older adults who received social prescribing and 10 who did not were interviewed, while in communes without trained link workers, 10 older adults who did not receive social prescribing were interviewed, resulting in a total sample size of 1,200 participants (Supplementally Table 1). Participants were classified into three groups: Group 1 consisted of 400 older adults residing in districts where link workers had been trained and who had received social prescribing services. Group 2 included 400 older adults residing in the same districts as Group 1, where trained link workers were available, but who had not received social prescribing services themselves. Group 3 comprised 400 older adults living in districts located in provinces where no link worker training had been conducted. Whether an individual received social prescribing was determined by trained link workers, who identified participants based on their service records. From among those identified, a random sample was selected for the survey.

Data were collected using a structured, paper-based questionnaire administered by trained interviewers. All interviews were conducted in the local language at participants' homes or other community settings.

Variables and Statistical Analysis

For the quantitative component, the structured questionnaire included items on demographic characteristics, opportunities for consultation, availability of health care, unmet needs, health status, and experiences with social prescribing (if applicable). First, we described the demographic and contextual characteristics of older adults across three groups based on their exposure to social prescribing and trained link workers. For continuous variables such as age and the number of household members, we calculated the mean and standard deviation (SD) for each group. Categorical variables, including sex (female, male, or others),

marital status (single, married, widowed, or divorced), and household composition (alone, with spouse, children, or other relatives), education level (none, pagoda, primary school, secondary school, or higher education), IDPoor Equity Card holder (yes, or no), monthly household income (less than 100 USD [United States Dollars]), 100 to < 300 USD, 300 to < 500 USD, 500 to < 700 USD, 700 to < 900 USD, or more than 900 USD), sewage system at home (clean water only, sewage system only, both, neither), access to healthy food and functional cooking device (yes, or no), enough space in the house to live comfortably (yes, or no), home isolated from external stressors (ex. noise, pollution, hostile weather, storm, flood dry and heat waves) (yes, or no), and safe at home and neighborhood (yes, or no) were summarized as frequencies and percentages. Poverty status was assessed using the Government of the Kingdom of Cambodia's Identification of Poor Households Programme (IDPoor), which identifies socioeconomically vulnerable households through a standardized proxy means test.[15] The assessment considers household composition, primary income source and occupation, housing type and ownership, access to assets such as land, livestock and food. To compare characteristics across the three groups, we used one-way analysis of variance (ANOVA) for continuous variables and chi-square tests for categorical variables. P-values were calculated to assess statistical significance, with a threshold of $p < 0.050$.

Next, we described the content and delivery channels of social prescribing among participants who received social prescribing. The overall recall rate was calculated as the proportion of participants who reported remembering having received social prescribing, presented as a percentage. Among those participants, we examined the following factors, and calculated the frequency and percentage. These factors included the sources of information (commune health centers, commune women's councils, village members, village health support group, family or direct consultation by older person, religious group, village head, volunteer, or neighbor), first impression of social prescribing (positive, neutral, or negative), topic for consultation (physical problem, mental problem, pain, mobility and falls, cognitive decline, medication management, financial insecurity, elder abuse, isolation and loneliness, access to health care, or nutrition), location conducted social prescribing (at home, pagoda, health center, commune hall, or village office), referred service (health facility, social group and community engagement, educational classes, counseling at pagoda, mental health support, peer support, financial advice, transportation, or daily life support), frequency of follow up (every month, every 3 month, every 6 month, or seldom or never), and overall helpfulness of social prescribing (yes, or no).

Lastly, we conducted logistic regression analyses to examine the associations between social prescribing and several key outcomes, including opportunities for consultation (physical problems, mental problems, pain, mobility and fall, cognitive decline, medication management, financial insecurity, isolation and loneliness, access to health care, and nutrition), the type of consultation partner (home doctor, nurse, religious group, village head, volunteer, village health support group and commune women council), availability of primary and secondary healthcare service (poorly available, moderately available, or highly available), unmet needs for healthcare (yes, or no), long term care (yes, or no), and social care (yes, or no), as well as overall health status (excellent, good, fair, or poor), and loneliness (often, sometimes, rarely, or never). For each outcome, we estimated odds ratios (ORs) and corresponding 95% confidence intervals (CIs) using logistic regression models. Two models were developed for each comparison: the first model adjusted for age and sex, while the second model included additional adjustments for marital status, total numbers of household members, education level, and IDPoor Equity Card holder. P-values were calculated to assess statistical significance, with a threshold of $p < 0.050$. Two sets of group comparisons were conducted to explore associations related to social prescribing and the presence of trained link workers. The first comparison was between Group 1 (individuals who received social prescribing in areas with trained link workers) and Group 2 (individuals who did not receive social prescribing but lived in the same areas). This comparison aimed to explore the associations between receiving social prescribing and key outcomes among recipients. The second comparison was between Group 2 and Group 3 (individuals who did not receive social prescribing and lived in areas without trained link workers), in order to examine potential community-level associations related to the presence of trained link workers, even among those who did not directly receive the intervention. All statistical analyses were performed using RStudio 4.4.3.

For the qualitative component, semi-structured interviews were conducted to explore participants' perceptions of social prescribing, including its perceived benefits, helpfulness, and areas for improvement. NVivo 15.2.0(21) was used to assist with qualitative data management and thematic coding. The interview transcripts were thematically categorized to identify

Ethics approval

The present study adhered to the principles of the Declaration of Helsinki. Ethical approval for this study has been obtained from the National Ethics Committee for Health Research (NECHR) of the Ministry of

Health, Cambodia (No. 215 NECHR). Additional ethical clearance has been granted by the World Health Organization (WHO) Regional Office for the Western Pacific Ethics Review Board (2024.15.KHM.2.AGE). Written informed consent was obtained from all participants, or from legally authorized representatives for participants lacking capacity. Data confidentiality and security were ensured through de-identification, restricted access, and encrypted storage, following established ethical and research governance standards.

Role of the funding sources

This research is funded by the Healthy Ageing Unit of the WHO Regional Office for the Western Pacific. The funding body provided technical guidance in the development of the monitoring and evaluation protocol and toolkit, and contributed to data analysis and manuscript preparation, in collaboration with the Royal University of Phnom Penh and the WHO Cambodia Country Office.

RESULTS

Table 1 presents the demographic and contextual characteristics of older adults by social prescribing exposure group. Mean age and the proportion of female participants were similar across groups. Marital status also did not differ significantly; most participants were either married or widowed, with a small percentage being single or divorced. Regarding household composition, significantly fewer participants in Group 1 reported living with children (59.2%, $p = 0{\cdot}038$) or with other relatives (40.5%, $p < 0.0001$). The average total number of household members was also lowest in Group 1 (mean = 4.0, SD = 2.0, $p < 0.0001$). In terms of education, over half of the participants had completed primary school in all groups. Between 33.5% and 37.2% had no formal education, while a small minority had studied at pagodas or completed secondary school. Differences between groups were not statistically significant ($p = 0.76$). A significantly higher proportion of participants in Group 1 held an IDPoor Equity Card (57.5%, $p = 0.0023$). Monthly household income distribution also differed significantly between groups ($p = 0.034$). Group 1 had a higher proportion of participants earning less than 100 USD per month (46.2%) compared to Groups 2 and 3 (42.0% and 36.8%, respectively). In terms of sanitation, Group 1 had a higher proportion of households with only clean water access (22.0%), and fewer with both clean water and a sewage system (2.0%) compared to other groups. The overall distribution of sewage system access

showed significant variation ($p = 0.0014$). No significant differences were observed between groups regarding access to healthy food and functional cooking devices ($p = 0.53$), sufficient living space ($p = 0.27$), protection from external stressors such as pollution or extreme weather ($p = 0.95$), or feelings of safety at home and in the neighborhood ($p = 0.41$).

Among participants in the social prescribing group, 91.0% recalled receiving social prescribing. Most heard about it from village health support groups (82.7%) and village heads (76.9%), followed by commune women councils (44.8%) and village members (41.2%). The majority (93.4%) reported a positive first impression. The most common consultation topics were physical problems (83.8%), access to health care (70.9%), and medication management (46.4%). Mental health concerns (28.8%) and financial insecurity (20.1%) were also mentioned, while few consultations addressed nutrition (5.8%) or cognitive decline (7.7%). Social prescribing most often took place at home (55.2%), with some conducted at pagodas or village offices (18.1% each). The most frequently referred services included health facilities (84.3%) and social group/community engagement activities (77.2%). The most frequently referred services included health facilities (84.3%) and social group or community engagement activities (77.2%). Participants were also referred to counseling services at pagodas (20.6%) and mental health and psychosocial support (21.4%). Other less common referrals included educational classes (11.3%), peer support groups (6.9%), and financial advice services (7.4%). Follow-up occurred monthly for 44.0% of participants and quarterly for 31·9%. Reported benefits included health education (69.0%), motivation for health checkups (44.8%), and assistance in times of trouble (35.7%). "*Understand healthcare and know how to take medicine*" (Participant 27); "*They told me to go to see the doctor on time*" (Participant 14); "*Feel warm and happy when they visit*" (Participant 61). Almost all participants (98.9%) found social prescribing helpful, citing improved understanding of the health system (44.0%) and access to relevant information (47.3%). "*They helped me right away and guided me what to do*" (Participant 33); "*Brought me to the health centre and translated*" (Participant 05); "*Received rice and got IDPoor Equity Card*" (Participant 48). Suggested improvements included better access to healthcare (34.1%), ongoing support over time (33.0%), and financial assistance (28.6%). "*Please come down often and check on us*" (Participant 17); "*Need money for medicine and food*" (Participant 42); "*Want more teaching about hygiene and disease prevention*" (Participant 29).

Compared to the non-social prescribing group (Group 2), participants in the social prescribing

group (Group 1) were significantly more likely to report opportunities to consult about financial insecurity (age and sex-adjusted OR = 1.55, 95% CI: 1.04–2.34, $p = 0.033$) and access to health care (age and sex-adjusted OR = 1.56, 95% CI: 1.18–2·07, $p = 0.0019$) (Table3). These associations remained significant after multivariable adjustment, with adjusted ORs of 1.58 (95% CI: 1.05–2.40, $p = 0.028$) for financial insecurity and 1.50 (95% CI: 1.13–1.99, $p = 0.006$) for access to health care. No significant differences were observed for other consultation topics such as physical problems, mental health concerns, pain, mobility issues, or cognitive decline. In terms of consultation partners, those in Group 1 had significantly higher odds of consulting with village heads (multivariable-adjusted OR = 2.16, 95% CI: 1.56-3.01, $p < 0.0001$), volunteers (multivariable-adjusted OR = 3.75, 95% CI: 1.95-7.82, $p = 0.00017$), and village health support groups (multivariable-adjusted OR = 4.36, 95% CI: 3.13-615, $p < 0.0001$), suggesting enhanced community linkage through social prescribing. Availability of healthcare was also better among the social prescribing group; they were significantly less likely to report poor availability of primary and secondary healthcare services (multivariable-adjusted OR = 0.73, 95% CI: 0.53–1.00, $p = 0.048$). No significant differences were observed for unmet needs in healthcare, long-term care, or social welfare. While no significant difference was found in overall health status, participants in the social prescribing group were less likely to report feeling lonely (multivariable-adjusted OR = 0.60, 95% CI: 0.37–0.97, $p = 0.039$).

Among participants who had not received social prescribing, those living in areas with trained link workers (Group 2) were significantly more likely to report opportunities to consult with village heads (multivariable-adjusted OR = 1.47, 95% CI: 1.01–2.17, $p = 0.046$) and village health support groups (multivariable-adjusted OR = 1.60, 95% CI: 1.05–2.47, $p = 0.031$), compared to those in areas without trained link workers (Group 3) (Table 4). No significant differences were observed for other factors, such as consultation opportunities for physical or mental health issues, access to healthcare services, unmet needs, or health status.

Discussion

Social prescribing interventions must be context specific to be effective.[11] In Cambodia, the National Health Service England's general practitioner led, clinic centred social prescribing model was adapted to fit the local context with few organised community activities and an urgent need for mental health support during the COVID-19 pandemic. Training existing Village Health Support Groups (VHSGs) as link workers

provided an economical, scalable solution that preserved the core principle of connecting people to community resources addressing social determinants of health.

Our findings validate this localisation. Older people were concerned with physical problems (83.8 %), access to health care (70.9 %) and medication management (46.4 %), with substantial proportions also discussing mental health concerns (28.8 %) and financial insecurity (20.1 %). Topics such as nutrition (5.8 %) and cognitive decline (7.7 %) were less common.[16] Delivery settings were likewise context appropriate: more than half of sessions took place in participants' homes, while pagodas and village offices each accounted for roughly one fifth. Referrals focused on health facilities (84.3 %) and opportunities for community engagement (77.2 %), supplemented by counselling at pagodas (20.6 %) and specialised mental health services (21.4 %).

Older people's responses revealed the possible reasons why the social prescribing model resonated. Older adults valued the practical health guidance they received. They appreciated the timely, hands-on assistance, even escorting them to clinics or completing *IDPoor Equity Card* paperwork. The programme also fostered a sense of mutual empowerment: respondents spoke of "good health, hope and strength, supporting each other," said they will "help each other or refer them to the doctor," and noted that the VHSGs now "take responsibility in the village and encourage, support." Visits generally provided positive emotions. Participants felt "warm and happy," "energetic, in good health, and hopeful." Looking ahead, many called for scaling up and sustained engagement, urging teams to "visit more," "help a lot, often," and insisting "there should be more programmes like this" that "spread the word often, support more." Together, these quotations portray social prescribing as a catalyst for knowledge, practical assistance, psychosocial comfort and community-driven expansion among older Cambodians. Acceptance of social prescribing as a beneficial intervention by older people may help reduce social isolation among them. Because isolation is linked to sleep disturbances and depressive symptoms, simple, easily implemented programmes could improve older adults' long-term health outcomes.[17]

Residual confounding cannot be ruled out: Group 1 had higher *IDPoor Equity Card* enrolment and lower income. Future research should stratify by poverty status, employ matched controls or propensity score approaches to isolate programme effects. The high proportion of *IDPoor Equity* households highlights the intervention's reach among vulnerable groups in Cambodia. By contrast, some Group 2 participants may have bypassed social prescribing because their health care access was already deemed adequate. Future

study designs could consider matching controls to intervention groups.

These results add LMIC specific evidence to the growing body of work showing that social connection improves health. Weak social ties have a correlation with greater risk of cardiovascular disease, dementia, stroke, depression, anxiety, and premature death.[18] WHO Commission on Social Connection equates weak social ties with risk factors such as smoking and obesity.[19] As this intervention boosted social connection through minimal, low-cost training of existing community resources, it provides a practical model for scaling up in Cambodia and in comparable low resource settings.[18-20]

Study limitations include the observational design, reliance on self reporting (which may be affected by recall and social desirability bias), absence of objective utilisation data and a short follow up period. Nonetheless, enhanced consultations, perceived access and reduced loneliness are plausible pathways to longer term health benefits. Future studies should incorporate extended follow-up, objective health metrics, robust cost effectiveness analyses and implementation science frameworks that address workforce sustainability and employ digital tools for tracking.

In summary, integrating social prescribing into Cambodia's VHSG network is a feasible, low-cost strategy that operationalises the National Ageing Policy. By linking older adults to local assets it delivers the first goal of the Policy, and by training younger volunteers it promotes the second goal. With further refinement and rigorous evaluation, this approach could serve as a scalable template for other low resource contexts confronting the combined pressures of rapid population ageing, accelerating urbanisation, economic growth and the rising burden of non communicable diseases.

Acknowledgements: We extend our gratitude to Royal University of Phnom Penh reseachers; local government authorities; Ministry of Health; Ministry of Social Affairs, Veterans and Youth Rehabilitation.

Data Availability

Data are available upon request from the authors, subject to approval from the relevant institutional or national ethics board.

The use of AI and AI-assisted technologies in scientific writing

English language editing support was provided using ChatGPT-4o (OpenAI, 2024), an AI-assisted language

model, to improve clarity and grammar in the manuscript. The authors reviewed and edited the content to ensure accuracy and appropriateness, and take full responsibility for the final version.

Roles

The authors' responsibilities were as follows:

Hitomi Kimura: Conceptualization, writing, and editing

Sovandara Kao: Study design, data collection, review the manuscript, provide input on mental health and social prescribing

Khann Sareth: Study design, data collection, review the manuscript, provide input on mental health and social prescribing

Phan Chan Peou: Review the manuscript, provide input on healthy ageing and mental health in Cambodia

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Ada Moadsiri: Review the manuscript, provide input on healthy ageing and mental health in Cambodia

Mikiko Kanda: Review the manuscript, provide input on social prescribing and healthy ageing

Siwon Lee: Conceived the idea, overall supervision, writing, editing, provide input on social prescribing

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Table 1· Demographic and contextual characteristics of older adults by social prescribing exposure status

		Group 1		Group 2		Group 3		
Living in the districts with trained link workers		Yes		Yes		No		
Received social prescribing		Yes		No		No		
		n	%	n	%	n	%	p
Age (mean (SD))		70·3	(6·3)	70·6	(7·0)	70·2	(6·4)	0·66
Sex (%)	Female	274	68·5	269	67·2	273	68·2	0·92
	Male	126	31·5	131	32·8	127	31·8	
Marital status (%)	Single	12	3.0	12	3·0	13	3·2	
	Married	204	51.0	211	52·8	215	53·8	0·79
	Widowed	169	42·2	169	42·2	158	39·5	
	Divorced	15	3·8	8	2·0	14	3·5	
Household composition (%)	Alone	35	8·8	21	5·2	21	5·2	0·066
	With spouse	204	51.0	211	52·8	215	53·8	0·73
	With children	237	59·2	267	66·8	267	66·8	0·038
	With other relatives	162	40·5	215	53·8	232	58·0	<0·0001
Total number of household (mean (SD))		4·0	(2·0)	4·4	(2·2)	4·7	(2·2)	<0·0001
Education level (%)	None	143	35·8	149	37·2	134	33·5	
	Pagoda	9	2·2	16	4·0	16	4·0	
	Primary school	198	49·5	190	47·5	208	52·0	0·76
	Secondary school	41	10·2	37	9·2	36	9·0	
	Higher education	9	2·2	8	2·0	6	1·5	
ID poor card holder (%)		230	57·5	186	46·5	227	56·8	0·0023
Monthly household income (%)	Less than 100 USD	185	46·2	168	42·0	147	36·8	
	100 to < 300 USD	174	43·5	176	44·0	194	48·5	
	300 to < 500 USD	39	9·8	51	12·8	49	12·2	0·034
	500 to < 700 USD	2	0·5	2	0·5	7	1·8	
	700 to < 900 USD	0	0.0	1	0·2	3	0·8	
	More than 900 USD	0	0.0	2	0·5	0	0·0	
Sewage system at home (%)	Clean water only	88	22·0	66	16·5	105	26·2	
	Sewage system only	4	1·0	4	1·0	3	0·8	0·0014
	Both	8	2·0	14	3·5	24	6·0	

	Neither	300	75·0	316	79·0	268	67·0	
Access to healthy food and functional cooking device (%)		261	65·2	276	69·0	268	67·0	0·53
Enough space in the house to live comfortably (%)		313	78·2	320	80·0	331	82·8	0·27
Home isolated from external stressors (ex· Noise, pollution, hostile weather, storm, flood dry and heat waves) (%)		336	84·0	333	83·2	336	84·0	0·95
Safe at home and neighborhood (%)		384	96·0	382	95·5	389	97·2	0·41

Abbreviation: SD, standard deviation; USD, United States Dollars

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Table 2· Contents of social prescribing

		n	%
Recall of social prescribing (%)		364	91·0
Source of information about social prescribing (%)	Commune health center	62	17·0
	Commune women council	163	44·8
	Village member	150	41·2
	Village health support group	301	82·7
	Family or direct consultation by older person	7	1·9
	Friends	12	3·3
	Religious group	38	10·4
	Village head	280	76·9
	Volunteer	86	23·6
	Neighbor	24	6·6
First impression of social prescribing (%)	Positive	340	93·4
	Neutral	24	6·6
	Negative	0	0·0
Consultation topic (%)	Physical problem	305	83·8
	Mental problem	105	28·8
	Pain	114	31·3
	Mobility and falls	51	14·0
	Cognitive decline	28	7·7
	Medication management	169	46·4
	Financial insecurity	73	20·1
	Elder abuse	0	0·0
	Isolation and loneliness	1	0·3
	Access to health care	258	70·9
	Nutrition	21	5·8
Location conducted social prescribing (%)	Home	201	55·2
	Pagoda	66	18·1
	Health center	20	5·5
	Commune hall	11	3·0
	Village office	66	18·1
Referred service (%)	Health facility	307	84·3
	Social group and community engagement	281	77·2
	Educational classes	41	11·3
	Counseling at pagoda	75	20·6
	Mental health support	78	21·4
	Peer support	25	6·9
	Financial advice	27	7·4
	Transportation	5	1·4
	Daily life support	62	17.0
Frequency of follow up (%)	Every month	160	44.0
	Every 3 month	116	31·9
	Every 6 month	49	13·5
	Seldom or never	39	10·7

Benefits of social prescribing (%)	Health education	251	69.0
	Motivation to health checkup	163	44·8
	Voluntary community-funded charitable support	72	19·8
	Help in time of trouble	130	35·7
Overall helpfulness of social prescribing (%)		360	98·9
Reason (%)	Understanding the healthcare system	160	44·0
	Promoting mutual support	77	21·2
	Providing relevant information	172	47·3
	Increasing motivation to take action	102	28·0
	Free consultation	2	0·5
Suggestion to improve social prescribing (%)	Improve access to healthcare	124	34·1
	Provide financial support	104	28·6
	Ensure free access to medicines	31	8·5
	Continue support over time	120	33·0
	Organize regular meetings	98	26·9

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Table 3. Associations between opportunities for consultation, availability of health care, unmet needs, health status and social prescribing: comparison between Group 1 (social prescribing group) and Group 2 (non-social prescribing group, reference) in areas with trained link workers

	Age and sex adjusted OR	(95% CI)	p	Multivariable-adjusted OR[a]	(95% CI)	p
Opportunity to consult about						
Physical problems	0·96	(0·66 - 1·39)	0·82	0·97	(0·67 - 1·41)	0·87
Mental problems	1·20	(0·85 - 1·71)	0·30	1·16	(0·81 - 1·66)	0·42
Pain	0·85	(0·64 - 1·12)	0·24	0·85	(0·64 - 1·13)	0·28
Mobility and fall	0·95	(0·65 - 1·40)	0·81	0·94	(0·64 - 1·38)	0·74
Cognitive decline	1·14	(0·58 - 2·24)	0·71	1·21	(0·61 - 2·40)	0·59
Medication management	0·95	(0·70 - 1·30)	0·76	0·98	(0·72 - 1·35)	0·92
Financial insecurity	1·55	(1·04 - 2·34)	0·033	1·58	(1·05 - 2·40)	0·028
Isolation and loneliness	0·33	(0·02 - 2·61)	0·34	0·30	(0·01 - 2·91)	0·33
Access to health care	1·56	(1·18 - 2·07)	0·0019	1·50	(1·13 - 1·99)	0·0055
Nutrition	1·90	(0·97 - 3·90)	0·068	1·84	(0·93 - 3·80)	0·087
Opportunity to consult with						
Home doctor	1·09	(0·76 - 1·56)	0·65	1·11	(0·77 - 1·59)	0·58
Nurse	0·93	(0·69 - 1·26)	0·65	0·95	(0·70 - 1·29)	0·73
Religious group	1·19	(0·89 - 1·60)	0·24	1·17	(0·87 - 1·58)	0·29
Village head	2·17	(1·57 - 3·01)	<0·0001	2·16	(1·56 - 3·01)	<0·0001
Volunteer	3·94	(2·06 - 8·18)	0·0001	3·75	(1·95 - 7·82)	0·00017
Village health support group	4·59	(3·30 - 6·46)	<0·0001	4·36	(3·13 - 6·15)	<0·0001
Commune women council	1·53	(0·77 - 3·12)	0·23	1·44	(0·72 - 2·95)	0·31
Availability of primary and secondary healthcare service						
Poorly	0·69	(0·51 - 0·95)	0·021	0·73	(0·53 - 1·00)	0·048
Unmet need						
Healthcare	1·11	(0·81 - 1·54)	0·51	1·10	(0·79 - 1·52)	0·58
Long term care	1·14	(0·82 - 1·59)	0·43	1·15	(0·82 - 1·60)	0·42
Social welfare need	1·11	(0·82 - 1·49)	0·51	1·10	(0·81 - 1·49)	0·53
Health status						
Poor overall health status	0·81	(0·59 - 1·09)	0·17	0·82	(0·60 - 1·12)	0·22
Feel often lonely	0·64	(0·40 - 1·02)	0·065	0·60	(0·37 - 0·97)	0·039

a Adjusted for age, sex, marital status, total number of household members, education level, and ID poor card holder

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Table 4. Associations between opportunities for consultation, availability of health care, unmet needs, health status and social prescribing:
comparison between Group 2 (residents with trained link workers) and Group 3 (residents without trained link workers, reference) among non-social prescribing group

	Age and sex adjusted OR	(95% CI)	p	Multivariable-adjusted OR[a]	(95% CI)	p
Opportunity to consult about						
Physical problems	1·06	(0·73 - 1·52)	0·77	1·02	(0·71 - 1·48)	0·90
Mental problems	1·42	(0·97 - 2·10)	0·071	1·47	(1·00 - 2·17)	0·053
Pain	1·06	(0·80 - 1·40)	0·68	1·06	(0·80 - 1·40)	0·70
Mobility and fall	1·04	(0·71 - 1·53)	0·82	1·06	(0·72 - 1·56)	0·77
Cognitive decline	0·82	(0·42 - 1·60)	0·57	0·83	(0·42 - 1·63)	0·59
Medication management	0·95	(0·70 - 1·31)	0·77	0·94	(0·69 - 1·29)	0·71
Financial insecurity	0·98	(0·63 - 1·51)	0·92	0·96	(0·62 - 1·49)	0·87
Isolation and loneliness	0·74	(0·14 - 3·39)	0·70	0·70	(0·13 - 3·38)	0·66
Access to health care	0·91	(0·69 - 1·20)	0·51	0·95	(0·71 - 1·26)	0·71
Nutrition	0·64	(0·31 - 1·29)	0·22	0·67	(0·32 - 1·35)	0·27
Opportunity to consult with						
Home doctor	0·92	(0·64 - 1·32)	0·66	0·94	(0·65 - 1·35)	0·73
Nurse	1·34	(1·00 - 1·81)	0·054	1·33	(0·99 - 1·81)	0·061
Religious group	0·78	(0·58 - 1·04)	0·088	0·78	(0·58 - 1·04)	0·092
Village head	1·46	(1·01 - 2·14)	0·048	1·47	(1·01 - 2·17)	0·046
Volunteer	1·39	(0·55 - 3·62)	0·49	1·29	(0·51 - 3·40)	0·60
Village health support group	1·58	(1·04 - 2·42)	0·033	1·60	(1·05 - 2·47)	0·031
Commune women council	1·44	(0·64 - 3·39)	0·38	1·64	(0·72 - 3·90)	0·25
Availability of primary and secondary healthcare service						
Poorly	1·08	(0·80 - 1·47)	0·60	1·07	(0·79 - 1·45)	0·67
Unmet need						
Healthcare	0·95	(0·69 - 1·32)	0·76	0·98	(0·71 - 1·37)	0·93
Long term care	1·18	(0·84 - 1·67)	0·34	1·19	(0·84 - 1·69)	0·32
Social welfare need	1·18	(0·88 - 1·58)	0·27	1·19	(0·89 - 1·61)	0·25
Health status						
Poor overall health status	1·18	(0·87 - 1·59)	0·28	1·17	(0·86 - 1·58)	0·32
Feel often lonely	1·01	(0·66 - 1·55)	0·96	1·01	(0·65 - 1·57)	0·96

a Adjusted for age, sex, marital status, total number of household members, education level, and ID poor card holder

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