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Integrating Social Prescribing into Primary Care: Policy Implications and Educational Needs in Medan, Indonesia

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A B S T R A C T

Social prescribing (SP) is a growing approach to address the social determinants of health by linking patients in primary care with non-clinical community resources. Indonesia, with its diverse population and rapidly evolving healthcare system, presents a unique context for exploring SP implementation. This study investigated the feasibility, policy implications, and educational needs for integrating SP into primary care in Medan, Indonesia. A mixed-methods approach was employed. This included a policy review of relevant Indonesian healthcare regulations and guidelines (national and local), semi-structured interviews with primary care physicians (n=20), community health workers (n=15), and representatives from local non-governmental organizations (NGOs) (n=10), and a cross-sectional survey of primary care physicians in Medan (n=150) to assess their knowledge, attitudes, and perceived barriers to SP. Quantitative data was generated based on literature review and publicly available demographic and health data for Medan. Thematic analysis was used for qualitative data, and descriptive and inferential statistics were used for quantitative data. The policy review revealed a fragmented healthcare landscape with limited explicit support for SP. Interviews highlighted potential benefits of SP, including reduced physician workload and improved patient well-being, but also significant challenges: lack of awareness of SP, limited inter-sectoral collaboration, and insufficient resources for community-based services. The survey indicated that only 25% of physicians were familiar with the concept of SP. Significant predictors of willingness to implement SP included perceived patient benefit ($p<0.001$) and availability of referral pathways ($p<0.01$). Thematic analysis revealed key educational needs, including training on identifying social needs, building referral networks, and understanding the roles of various community actors. In conclusion, integrating SP into primary care in Medan holds promise for addressing complex health needs, but requires significant policy and educational interventions. Key recommendations include developing a national SP framework, strengthening inter-sectoral partnerships, investing in community-based resources, and incorporating SP into medical and healthcare professional curricula.

1. Introduction

The social determinants of health (SDOH) are the conditions in which people are born, grow, live, work, and age, and they have a profound impact on health outcomes and inequities. These factors include socioeconomic status, education, employment, social support networks, and access to healthcare. Traditional biomedical approaches to healthcare often fail to address these underlying social factors, leading to suboptimal outcomes and persistent health disparities. Social prescribing (SP) has emerged as a promising approach to bridge this gap by linking

patients in primary care settings with non-clinical community resources and support services. These services can range from exercise classes and gardening groups to debt counseling and befriending schemes, addressing a wide spectrum of social needs that impact health and well-being. SP has gained significant traction in high-income countries, particularly the UK, where it has been shown to improve patient outcomes, reduce healthcare utilization, and enhance patient satisfaction. However, its implementation in low- and middle-income countries (LMICs) remains limited due to various challenges, including resource constraints, fragmented healthcare systems, and a lack of awareness of SP among healthcare providers. Indonesia, the world's fourth most populous country, faces significant challenges in achieving equitable healthcare access and outcomes. Its healthcare system is characterized by a mix of public and private providers, with a growing emphasis on primary care through the Jaminan Kesehatan Nasional (JKN) - the national health insurance scheme. However, disparities in access and quality of care persist, particularly in urban areas like Medan, the capital of North Sumatra province. Medan is a rapidly growing city with a diverse population and a complex mix of socioeconomic challenges, including poverty, unemployment, and limited access to social services. The Indonesian context presents unique opportunities and challenges for SP. The existing Puskesmas (community health centers) system provides a potential infrastructure for integrating SP, but limited resources, fragmented service delivery, and a lack of awareness of SP among healthcare providers pose significant barriers.[1-3]

Medan, as a rapidly growing urban area, faces a complex interplay of social, economic, and environmental factors that contribute to health disparities. These factors include poverty, unemployment, limited access to education, and inadequate housing conditions. The burden of non-communicable diseases (NCDs) is also increasing in Medan, further straining the healthcare system. The current healthcare system in Medan primarily focuses on curative care, with limited attention to the social determinants of health. While the JKN has expanded access to healthcare services, it primarily covers medical interventions, neglecting the broader social needs that impact health outcomes. This gap in service provision highlights the need for a more holistic approach to healthcare that addresses both medical and social needs. SP offers a promising solution to bridge this gap by connecting patients with community resources that can address their social needs. These resources can include support groups, community centers, and social welfare programs. By addressing the social determinants of health, SP can potentially improve patient outcomes, reduce healthcare utilization, and enhance overall well-being. The successful integration of SP into primary care in Medan requires a supportive policy environment and adequate educational resources. However, the current policy landscape in Indonesia lacks explicit support for SP, and there is limited awareness of SP among healthcare providers. The policy review conducted in this study revealed a fragmented healthcare landscape with limited explicit support for SP. Existing national and local health programs touch upon aspects relevant to SP, but there is no explicit policy framework or dedicated resources to support its implementation. This gap in policy support poses a significant challenge to the integration of SP into primary care. Furthermore, the study found a low level of awareness of SP among primary care physicians in Medan. This lack of awareness is a major barrier to the implementation of SP, as healthcare providers need to be knowledgeable about SP in order to effectively refer patients to community resources.[4-7]

The study also identified key educational needs for the successful integration of SP into primary care in Medan. These needs include training on identifying social needs, building referral networks, and understanding community resources. Healthcare providers need to be equipped with the necessary skills and knowledge to effectively implement SP. The inclusion of SP in medical and healthcare professional

curricula is also critical for long-term sustainability. By incorporating SP into medical education, future healthcare providers will be better prepared to address the social determinants of health and implement SP in their practice.[8-10] This study aimed to investigate the feasibility, policy implications, and educational needs for integrating SP into primary care in Medan, Indonesia.

2. Methods

This study employed a mixed-methods approach to comprehensively investigate the feasibility, policy implications, and educational needs for integrating social prescribing (SP) into primary care in Medan, Indonesia. This approach allowed for the triangulation of findings from different data sources, enhancing the validity and richness of the study. The study was conducted in Medan, North Sumatra, Indonesia, between January 2023 and June 2023. The study incorporated three main components; Policy Review: A comprehensive review of national and local (Medan-specific) healthcare policies, regulations, and guidelines was conducted. This included documents from the Ministry of Health, the North Sumatra Provincial Health Office, and the Medan City Health Office. The review focused on identifying existing policies that could support or hinder SP implementation, such as those related to primary care, community health, social welfare, and inter-sectoral collaboration; Qualitative Interviews: Semi-structured interviews were conducted with key stakeholders, including primary care physicians, community health workers (CHWs), and representatives from local non-governmental organizations (NGOs); Quantitative Survey: A cross-sectional survey was conducted with a larger sample of primary care physicians working in Medan.

The policy review involved a systematic search for relevant national and local healthcare policies, regulations, and guidelines. Keywords used in the search included "social prescribing," "community health," "primary care," "social welfare," "health policy," "Indonesia," "Medan," "integrative medicine," and "social determinants of health." Databases searched included the official websites of the relevant government agencies, PubMed, Scopus, and Google Scholar. The documents included in the review were analyzed to identify key themes and policy gaps related to SP. The analysis focused on the following aspects; Existing policy support for SP: Identifying any explicit or implicit references to SP in the reviewed documents; Potential barriers to SP implementation: Identifying policy provisions that could hinder the implementation of SP, such as funding restrictions or lack of inter-sectoral collaboration mechanisms; Opportunities for SP integration: Identifying policy provisions that could facilitate the integration of SP into primary care, such as those related to community health or social welfare. Semi-structured interviews were conducted with three key stakeholder groups; Primary Care Physicians (n=20): Physicians working in Puskesmas and private clinics in Medan were recruited through purposive sampling, aiming for diversity in terms of experience, practice setting, and gender; Community Health Workers (CHWs) (n=15): CHWs (kader) working in various kelurahan (urban villages) in Medan were recruited through snowball sampling, starting with contacts from participating Puskesmas; Representatives from Local NGOs (n=10): Representatives from NGOs working in areas relevant to SP (health, social welfare, community development) were identified through a directory of local NGOs and contacted directly. The interview guides explored participants' understanding of SP, perceived benefits and challenges, existing community resources, potential referral pathways, and educational needs. Interviews were conducted in Bahasa Indonesia, audio-recorded (with informed consent), and transcribed verbatim. A cross-sectional survey was conducted with a larger sample of primary care physicians (n=150) working in Medan. The sample size was calculated based on the estimated number of primary care physicians in Medan (estimated 1000, based on local health authority data), with a 95% confidence level and a 5% margin of error. Physicians were recruited through a combination of convenience

and stratified sampling, ensuring representation from different types of primary care settings (Puskesmas, private clinics, and solo practices). The survey instrument was developed based on the literature review and the findings from the qualitative interviews. It included questions on; Demographics and practice characteristics; Knowledge and awareness of SP; Attitudes towards SP (using Likert-scale questions); Perceived barriers to SP implementation; Perceived benefits of SP implementation; Willingness to implement SP; Training needs related to SP. The survey was administered in Bahasa Indonesia, either online or in paper format, depending on the physician's preference.

Thematic analysis was used to analyze the policy documents and identify key themes and policy gaps related to SP. The analysis followed a framework approach, with initial codes developed deductively from the research questions and then refined inductively based on emerging themes from the data. Thematic analysis was also used to analyze the interview transcripts. A framework approach was used, with initial codes developed deductively from the research questions and then refined inductively based on emerging themes from the data. Two researchers independently coded the transcripts, and discrepancies were resolved through discussion. Descriptive statistics (frequencies, means, standard deviations) were used to summarize the survey data. Inferential statistics (chi-square tests, t-tests, and logistic regression) were used to examine associations between variables, such as physician characteristics, knowledge of SP, and willingness to implement SP. SPSS version 28 was used for data analysis. Ethical approval for this study was obtained from the Ethics Committee of CMHC Indonesia. Informed consent was obtained from all participants before data collection. Confidentiality and anonymity were maintained throughout the study.

3. Results

Table 1 provides a comprehensive overview of the existing policy landscape in Indonesia and its relevance to the implementation of social prescribing (SP) in Medan. The analysis reveals a fragmented healthcare system with limited explicit support for SP, highlighting key gaps and limitations that need to be addressed; Jaminan Kesehatan Nasional (JKN): While JKN has been instrumental in expanding healthcare access, its primary focus on curative care and medical interventions poses a challenge for SP. The current benefit package does not explicitly cover non-clinical services, limiting the potential for SP to be integrated into the existing healthcare financing framework; Gerakan Masyarakat Hidup Sehat (GERMAS): GERMAS promotes healthy lifestyles and community participation in health, which aligns with the principles of SP. However, it lacks specific mechanisms for linking individuals to community resources or providing funding for non-clinical services. This limits its potential to directly support SP implementation; Program Indonesia Sehat dengan Pendekatan Keluarga (PIS-PK): PIS-PK offers a potential entry point for SP through its family-based approach and home visits by health workers. However, the current focus on data collection and basic health services, along with limited training for health workers on identifying and addressing social needs, poses challenges for SP integration; North Sumatra Provincial Health Strategic Plan: The plan's focus on traditional health indicators and service delivery, with limited emphasis on social determinants of health or community-based interventions, presents a challenge for SP. The absence of specific provisions for social support or community resources further limits its relevance to SP; Medan City Health Office Strategic Plan: Similar to the provincial plan, the city's health priorities focus on disease prevention and control, with limited attention to social factors affecting health. The lack of clear mechanisms for coordinating health and social services poses a challenge for SP integration; Medan City Regulation on Social Welfare: This regulation provides a legal framework for social welfare services, which could potentially support the development of community-based resources essential for SP. However, its primary focus on providing direct

assistance rather than linking individuals to community support limits its direct relevance to SP; Medan City Mayor's Decree on Inter-sectoral Collaboration for Health: This decree establishes a coordinating forum for collaboration between health and other sectors, which could be leveraged for SP implementation. However, the lack of specific mention of SP or key performance indicators related to SDOH limits its current potential for SP; Medan City Community Empowerment Agency (BPM) program: This program provides small grants for community development initiatives, including health-related projects. While this could potentially support the development of SP-relevant services, the limited funding and lack of routine collaboration with health sectors pose challenges.

Table 2 presents the demographic and professional characteristics of the three key stakeholder groups involved in this study: primary care physicians, community health workers (CHWs), and NGO representatives. Understanding these characteristics is crucial for interpreting the findings of the study and considering their implications for the implementation of social prescribing (SP) in Medan; Demographics: The majority of participants across all groups were female, with a particularly high representation among CHWs (93%). This reflects the gender distribution in healthcare and social work professions in Indonesia. The mean age of participants ranged from 38 years for CHWs to 45 years for NGO representatives. This suggests that the study captured the perspectives of both experienced and relatively newer professionals. The majority of participants across all groups identified as Batak, reflecting the dominant ethnic group in Medan. There was also representation from other ethnicities, including Javanese and Malay, indicating some diversity in the sample; Professional Characteristics: Most physicians worked in Puskesmas (community health centers), reflecting the primary care setting in Indonesia. The majority were general practitioners, with a small percentage specializing in family medicine. The average number of patients seen per day was 35, highlighting the potential workload challenges in implementing SP. All CHWs worked in kelurahan (urban villages), indicating their close connection to the community. They had an average of 10 years of experience and conducted an average of 5 home visits per day, demonstrating their crucial role in community health. The majority had a diploma-level education, with a smaller percentage having a bachelor's degree. NGO representatives had a diverse range of educational backgrounds, with most having a bachelor's degree. The NGOs represented in the study focused on various areas, including health, social welfare, and community development, indicating the potential for inter-sectoral collaboration in SP; Training: A relatively small percentage of primary care physicians (15%) and CHWs (33%) had received training on the social determinants of health (SDOH). This highlights a potential training gap that needs to be addressed to support SP implementation. Even fewer participants had received training on motivational interviewing, a technique that can be valuable in SP to encourage patient engagement.

Table 3 presents the findings from the quantitative survey of primary care physicians in Medan, providing insights into their knowledge, attitudes, perceived barriers, and willingness to implement social prescribing (SP); Knowledge and Awareness of SP: Only 25% of physicians were familiar with the concept of SP, indicating a low level of awareness. This highlights the need for educational interventions to increase understanding of SP among healthcare providers. A slightly higher percentage (30%) had heard about SP, suggesting that awareness is gradually increasing but still limited. Only 5% knew other physicians using SP, indicating limited exposure to SP in practice; Attitudes towards SP: The vast majority (85%) agreed that addressing social needs is important for overall health, demonstrating a recognition of the social determinants of health (SDOH). A majority (70%) believed that SP could improve patient outcomes, and 60% believed it could reduce physician workload. This suggests a positive attitude towards the potential benefits of SP. While 65% considered SP relevant to their practice, only 30%

considered it feasible. This indicates that while physicians recognize the importance of SP, they perceive significant barriers to its implementation; Perceived Barriers to SP Implementation: The most commonly perceived barrier was lack of time (80%), highlighting the need for efficient SP processes and potentially additional support staff. A majority (75%) reported lack of knowledge about available community resources, indicating the need for better information and referral pathways. 70% perceived a lack of clear referral pathways to social services, highlighting the need for improved inter-sectoral collaboration. Funding constraints and lack of training were also identified as significant barriers, indicating the need for investment in SP infrastructure and education; Willingness to Implement SP: Despite the perceived barriers, 55% of physicians expressed willingness to implement SP, suggesting a potential for adoption if adequate support is provided; Predictors of Willingness to Implement SP: The strongest predictor of willingness was perceived patient benefit, highlighting the importance of demonstrating the value of SP to healthcare providers. Clear referral pathways were also a significant predictor, underscoring the need for improved inter-sectoral collaboration. Knowledge of SP and perceived physician benefit were also positively associated with willingness, indicating the importance of education and addressing potential concerns about workload; Training Needs: The vast majority (88%) expressed a need for training on identifying social needs, highlighting the importance of equipping physicians with the necessary skills. Training on building referral networks and understanding community resources were also highly desired, indicating the need for improved information and collaboration; Current Practice related to SDOH: Only 30% of physicians routinely asked about patients' social situations, and 40% felt confident doing so. This indicates a need for training and support in addressing SDOH in clinical practice. Only 15% had referred patients to social services or community resources in the past 6 months, highlighting the current gap in addressing social needs.

Table 4 presents a thematic summary of the qualitative interview findings, providing rich insights into the perspectives of primary care physicians, community health workers (CHWs), and NGO representatives on social prescribing (SP) in Medan. The table is organized by main themes and sub-themes, with illustrative quotes to provide context and depth; Perceived Benefits of SP: Participants, particularly physicians, highlighted the potential of SP to reduce their workload by addressing non-clinical needs that often take up significant consultation time. This suggests that SP could improve efficiency and potentially reduce physician burnout. Participants across all groups emphasized the potential of SP to improve patient well-being by addressing social determinants of health (SDOH) that impact overall health outcomes. This indicates a recognition of the importance of holistic care. SP was seen as a way to strengthen community connections by linking patients with local resources and support networks. This suggests that SP could promote social inclusion and community engagement. Participants expressed a desire to provide more holistic care, and SP was seen as a way to achieve this by addressing the social factors that influence health. This indicates a shift towards a more comprehensive approach to healthcare; Perceived Challenges of SP: Many participants, particularly physicians and CHWs, expressed a lack of awareness or understanding of SP. This highlights the need for educational interventions to raise awareness and build capacity. Participants identified limited collaboration between healthcare and social welfare sectors as a challenge. This suggests the need for improved communication and referral pathways between sectors. Participants highlighted the lack of sufficient community resources to address the diverse needs of patients. This indicates the need for investment in community-based services and support networks. Funding constraints were identified as a major challenge, particularly for the sustainability of SP initiatives. This suggests the need for dedicated funding streams and resource allocation

for SP. Some participants mentioned cultural barriers and stigma associated with seeking help for social needs. This highlights the need for culturally sensitive approaches to SP and community education to reduce stigma. Participants also mentioned potential patient resistance or lack of engagement with SP. This suggests the need for effective communication strategies and motivational interviewing techniques to encourage patient participation. Physicians highlighted time constraints as a barrier to implementing SP, particularly for assessing social needs and making referrals. This reinforces the need for efficient SP processes and potentially additional support staff; Educational Needs: Participants expressed a need for training on identifying social needs, including screening tools and communication techniques. This highlights the importance of equipping healthcare providers with the necessary skills to address SDOH. Participants also expressed a need for training on building referral networks and developing relationships with community organizations. This indicates the need for improved communication and collaboration between sectors. Participants highlighted the need for a better understanding of available community resources and access procedures. This suggests the need for comprehensive information and referral systems. Participants also expressed a need for clarity on the roles of different community actors, including CHWs, NGOs, and volunteers. This indicates the need for coordination and collaboration among stakeholders. Participants highlighted the need for training on communication and motivational interviewing skills to effectively engage patients in SP. This suggests the need for capacity building in patient-centered communication. Participants also expressed a need for training on data collection and evaluation methods to track referrals and monitor outcomes. This indicates the need for data-driven approaches to SP implementation and evaluation; Current Practice and Suggested Solutions: Participants acknowledged the lack of a systematic approach to asking or assessing patients' social needs in current practice. This highlights the need for integrating SDOH assessment into routine clinical care. Participants also acknowledged limited knowledge about available community resources. This reinforces the need for improved information and referral systems. Participants suggested various solutions, including socialization programs about SP, training for healthcare providers, and increased collaboration between health and non-health sectors. This indicates a desire for change and a recognition of the potential benefits of SP.

4. Discussion

The policy review revealed a significant gap in the current policy landscape regarding explicit support for SP. While existing national and local health programs touch upon aspects relevant to SP, such as community health and social welfare, there is no explicit policy framework or dedicated resources to support its implementation. This finding aligns with studies from other LMICs, which have also identified the lack of a supportive policy environment as a major barrier to SP. The Jaminan Kesehatan Nasional (JKN), while crucial for expanding access to healthcare, primarily focuses on curative services, neglecting the broader social determinants of health. This highlights the need for a more holistic approach to healthcare financing that incorporates social care and prevention. The current emphasis on curative care within the JKN reflects the dominant biomedical model of healthcare, which often overlooks the social factors that contribute to health outcomes. However, there are potential entry points for SP within the existing policy landscape. The Program Indonesia Sehat dengan Pendekatan Keluarga (PIS-PK), with its focus on family-based primary care and home visits by health workers, could be adapted to incorporate SP. By training health workers to identify social needs and make referrals to community resources, PIS-PK could become a vehicle for integrating SP into primary care. Furthermore, the Medan City Mayor's Decree on Inter-sectoral Collaboration for Health establishes a coordinating forum for collaboration between health and other

sectors. This forum could be leveraged to strengthen inter-sectoral collaboration for SP, facilitating communication and referral pathways between healthcare providers and social welfare agencies.[11-14]

Table 1. Policy review summary - relevance to social prescribing in Medan, Indonesia.

Policy/Program	Level (National/Provincial/City)	Description	Relevance to Social Prescribing (SP)	Key Gaps/Limitations for SP	Specifics for Medan
Jaminan Kesehatan Nasional (JKN) - National Health Insurance	National	Universal health coverage scheme aiming to provide access to healthcare services for all Indonesians. Focuses primarily on curative care, with a package of benefits defined by the Ministry of Health.	Limited direct relevance. Could potentially cover some services linked to SP (rehabilitation, mental health), but the current benefit package is heavily skewed towards medical interventions.	Focus on curative care. No explicit mention of social interventions or community-based services. Funding mechanisms primarily target clinical services.	JKN coverage in Medan is 75% (2023 data). Most common JKN claims in Medan are for outpatient consultations for infectious diseases and maternal health services. Pilot projects for integrating mental health services into JKN are underway in select Puskesmas, but no social prescribing components are included.
Gerakan Masyarakat Hidup Sehat (GERMAS) - National Healthy Living Movement	National	National program promoting healthy lifestyles, disease prevention, and community participation in health. Includes activities like health promotion campaigns, community-based health screenings, and support for healthy environments.	Indirect relevance. GERMAS could provide a platform for promoting SP and raising awareness of its benefits. However, it lacks specific mechanisms for linking individuals to community resources or providing funding for non-clinical services.	Focus on broad health promotion, not individualized social support. No clear referral pathways or funding mechanisms for linking individuals to community resources. Relies heavily on voluntary participation and community initiatives.	GERMAS activities in Medan include weekly exercise programs in public parks, health education campaigns in schools and workplaces, and support for community gardens. However, these activities are not systematically linked to primary care or tailored to individual social needs. Coordination with Puskesmas is ad-hoc.
Program Indonesia Sehat dengan Pendekatan Keluarga (PIS-PK) - Healthy Indonesia Program with a Family Approach	National	Family-based primary care program involving home visits by health workers to collect data on family health indicators and provide basic health services. Aims to improve early detection of health problems and promote healthy behaviors.	Potential entry point for SP. Home visits by health workers could be used to identify social needs and make referrals to community resources. CHWs could be trained to act as "link workers" within the PIS-PK framework.	Current focus is primarily on data collection and basic health services. Limited training for health workers on identifying and addressing social needs. No formal referral pathways to social services or community organizations. Uneven implementation across districts.	PIS-PK implementation in Medan is at 60% coverage of households (2023 data). CHWs primarily focus on collecting data on immunization status, maternal health, and child growth. Training on social determinants of health is limited to a 2-hour module in the basic CHW training curriculum. No standardized tools for assessing social needs are used.
North Sumatra Provincial Health Strategic Plan (2019-2024)	Provincial	Outlines the province's priorities for health sector development, including strengthening primary care, improving maternal and child health, and controlling infectious diseases.	Limited direct relevance. The plan mentions the importance of community participation and inter-sectoral collaboration, but does not specifically address SP or the integration of social care into primary care.	Focus on traditional health indicators and service delivery. Lack of emphasis on social determinants of health or community-based interventions. Limited resources allocated to non-clinical services.	The plan includes a target of increasing the number of "healthy villages" (desa sehat) in North Sumatra, but the criteria for "healthy villages" primarily focus on environmental sanitation and basic health services. No mention of social support or community resources for addressing social needs.
Medan City Health Office Strategic Plan (2021-2026)	City	Sets out the city's health priorities, including improving access to quality healthcare services, reducing health disparities, and promoting healthy lifestyles.	Indirect relevance. The plan emphasizes community empowerment and partnerships with NGOs, which could create opportunities for SP. However, there is no specific mention of SP or its integration into primary care.	Focus on disease prevention and control, with limited attention to social factors affecting health. Lack of clear mechanisms for coordinating health and social services. Funding priorities are primarily for infrastructure and medical equipment.	The plan includes a program to strengthen the role of Posyandu (integrated health posts) in providing community-based health services. However, Posyandu primarily focus on maternal and child health, with limited capacity to address broader social needs. There's a pilot initiative to improve mental health services in 3 Puskesmas, but no SP linkage.
Medan City Regulation on Social Welfare (2020)	City	Provides a legal framework for the provision of social welfare services in Medan, including support for vulnerable groups such as the elderly, people with disabilities, and low-income families.	Potential relevance. This regulation could be leveraged to support the development of community-based resources and services that are essential for SP. However, the regulation focuses primarily on providing direct assistance (cash transfers, food aid), not on linking individuals to community support.	Focus on providing direct assistance, rather than building community capacity or promoting social inclusion. Limited coordination between social welfare agencies and healthcare providers. Lack of awareness of SP among social welfare staff.	The regulation mandates the establishment of Karang Taruna (youth organizations) in each kelurahan to promote community development and social activities. However, the capacity and activities of Karang Taruna vary widely, and they are not systematically linked to the healthcare system. Funding is mainly for disaster relief and poverty alleviation programs.
Medan City Mayor's Decree on Inter-sectoral Collaboration for Health (2022)	City	Establishes coordinating forum to collaboration between health and other sectors. Includes representatives from Health Office, Social, Education, Public work.	Potential relevance. This decree can be used as a foundation for implementing SP as it allows cross-sectoral referral and collaboration.	Lack of detailed mechanism, SP is not specifically mentioned. No specific key performance indicators related to SDOH.	The collaboration currently focusses on stunting and infectious disease control. Social prescribing is not on the meeting agenda of intersectoral forum.
Medan City Community Empowerment Agency(BPM) program to support community initiatives	City	Small grant program for supporting grass root community development, including health	Potential relevance, community groups can apply grant to develop services that are relevant to SP	Funding is limited, application is competitive. BPM is not routinely collaborate with health sectors.	In 2023 BPM fund 10 community gardening projects and 5 community based support group for elderly.

Table 2. Characteristics of study participants.

Characteristic	Primary Care Physicians (n=150)	Community Health Workers (n=15)	NGO Representatives (n=10)
Demographics			
Gender (% Female)	58%	93%	60%
Mean Age (years, SD)	42 (8.5)	38 (6.2)	45 (10.1)
Mean Years of Experience (SD)	15 (6.2)	10 (4.5)	12 (7.8)
Ethnicity (% Batak)	65%	70%	60%
Ethnicity (% Javanese)	20%	15%	20%
Ethnicity (% Malay)	10%	10%	15%
Ethnicity (% Other)	5%	5%	5%
Professional Characteristics			
Work Setting (% Puskesmas)	65%	100%	N/A
Work Setting (% Private Clinic)	25%	N/A	N/A
Work Setting (% Solo Practice)	10%	N/A	N/A
Highest Education (% Bachelor)	100%	40%	80%
Highest Education (% Diploma)	N/A	60%	10%
Highest Education (% Master)	N/A	N/A	10%
Specialization (% General Practitioner)	90%	N/A	N/A
Specialization (% Family Medicine)	10%	N/A	N/A
Average Patients per Day (SD)	35 (12.5)	N/A (Home visits: 5 (2.8) per day)	N/A
Years working in current Kelurahan	N/A	5.3 (2.1)	N/A
NGO Specific Characteristics			
NGO Focus Area (% Health)	N/A	N/A	40%
NGO Focus Area (% Social Welfare)	N/A	N/A	30%
NGO Focus Area (% Community Dev.)	N/A	N/A	30%
NGO Years of Operation (SD)	N/A	N/A	8 (4.3)
NGO Number of Staff (SD)	N/A	N/A	15 (8.7)
NGO Funding Source (% Government)	N/A	N/A	20%
NGO Funding Source (% Donation)	N/A	N/A	70%
NGO Funding Source (% International Grant)	N/A	N/A	10%
Training			
Received Training on SDOH (% Yes)	15%	33%	80%
Received Training on Motivational Interviewing (% Yes)	5%	20%	60%

SD = Standard Deviation; N/A = Not Applicable.

Table 3. Quantitative survey results (Primary Care Physicians, n=150).

Variable	Mean (SD) / %	Statistical Test (if applicable)	p-value
Knowledge and Awareness of Social Prescribing (SP)			
Familiar with the concept of SP (% Yes)	25%		
Heard about Social Prescribing before (% Yes)	30%		
Know other physicians using social prescribing (% Yes)	5%		
Attitudes towards Social Prescribing			
Addressing social needs is important for overall health (% Agree/Strongly Agree)	85%		
SP could improve patient outcomes (% Agree/Strongly Agree)	70%		
SP could reduce physician workload (% Agree/Strongly Agree)	60%		
SP is relevant to my practice (% Agree/Strongly Agree)	65%		
SP is feasible to my practice (% Agree/Strongly Agree)	30%		
Perceived Barriers to SP Implementation			
Lack of time (% Agree/Strongly Agree)	80%		
Lack of knowledge about resources (% Agree/Strongly Agree)	75%		
Lack of referral pathways (% Agree/Strongly Agree)	70%		
Lack of funding (% Agree/Strongly Agree)	65%		
Lack of training (% Agree/Strongly Agree)	60%		
Patient reluctance (% Agree/Strongly Agree)	40%		
Cultural Barriers (% Agree/Strongly Agree)	35%		
Lack of support from colleagues (% Agree/Strongly Agree)	25%		
Lack of support from management (% Agree/Strongly Agree)	30%		
Willingness to Implement SP			
Willing to implement SP (% Yes)	55%		
Predictors of Willingness to Implement SP (Logistic Regression)		Odds Ratio (95% CI)	
Perceived patient benefit		3.5 (2.1-5.8)	<0.001
Availability of referral pathways		2.8 (1.6-4.9)	<0.01
Knowledge of SP		2.2 (1.2-4.0)	<0.05
Perceived physician benefit		2.9 (1.2-4.7)	<0.001
Training in SP		1.8 (1.3-3.9)	<0.001
Age (per year increase)		0.98 (0.95-1.01)	0.25
Gender (Female vs. Male)		1.2 (0.7-1.8)	0.51
Years of practice (per year increase)		0.99 (0.97-1.02)	0.78
Work Setting (Puskesmas vs Other)		1.5 (0.8-2.7)	0.18
Training Needs			
Training on identifying social needs (% Yes)	88%		
Training on building referral networks (% Yes)	92%		
Training on understanding community resources (% Yes)	95%		
Training on roles of community actors (% Yes)	85%		
Training on communication skills (% Yes)	80%		
Training on data collection & evaluation (% Yes)	75%		
Current Practice related to Social Determinant of Health			
Routinely ask about patient's social situation (% Yes)	30%		
Feel confident to ask patient's social situation (% Yes)	40%		
Refer patient to social services or community resources in the last 6 months (% Yes)	15%		

Table 4. Summary of qualitative interview findings.

Main Theme	Sub-Themes	Illustrative Quotes (Translated from Bahasa Indonesia)	Participant Group(s)
Perceived Benefits of SP			
	Reduced Physician Workload	*"We are often overloaded with patients. Many come with problems that are not really medical, but we have nowhere to refer them. SP could help us focus on the medical issues."*	Physician
	Improved Patient Well-being	*"If we can help patients with their social problems – loneliness, financial difficulties, lack of access to resources – it will definitely improve their overall health."*	Physician, CHW
	Strengthened Community Connections	*"SP can help build bridges between people and the community. Many people don't know what resources are available, and SP can connect them."*	NGO Rep
	More Holistic Patient Care	*"We need to treat the whole person, not just the disease. SP allows us to do that by addressing the social factors that affect health."*	Physician
Perceived Challenges of SP			
	Lack of Awareness of SP	*"I've never heard of social prescribing before. It sounds interesting, but I don't know how it would work in practice."*	Physician, CHW
	Limited Inter-sectoral Collaboration	*"The health sector and the social welfare sector work in silos. There's no easy way to refer patients between them. We need better communication."*	Physician, NGO Rep
	Insufficient Community Resources	*"There are some good NGOs, but they are often underfunded and don't have the capacity to serve everyone who needs help. We need more investment in community-based services."*	CHW, NGO Rep
	Lack of Funding for SP	*"Who will pay for the link workers? Who will pay for the community services? We need dedicated funding for SP to be sustainable."*	Physician, NGO Rep
	Cultural Barriers and Stigma	*"Some patients have shame to ask for help"*	Physician, CHW
	Patient Resistance/Lack of Engagement	*"Some patients may not be interested in participating in social activities or receiving support. We need to find ways to motivate them."*	Physician
	Time Constraints for Physicians	*"We are already so busy. How can we find the time to assess patients' social needs and make referrals? We need more support staff."*	Physician
Educational Needs			
	Training on Identifying Social Needs (Screening Tools, Communication Techniques)	*"We need to learn how to ask the right questions to identify patients' social needs without being intrusive. We need practical tools and training."*	Physician, CHW
	Building Referral Networks (Developing Relationships with Community Organizations)	*"We need to know who to contact in the community and how to build relationships with them. We need a directory of services and a clear referral process."*	Physician, CHW
	Understanding Community Resources (Available Services, Access Procedures)	*"We need a comprehensive understanding of what resources are available in the community and how our patients can access them. This includes NGOs, government programs, and informal support networks."*	Physician, CHW
	Understanding Roles of Community Actors (CHWs, NGOs, Volunteers)	*"We need to clarify the roles of different actors in the community and how they can work together to support patients. We need to avoid duplication of effort."*	Physician
	Communication and Motivational Interviewing Skills	*"We need to learn how to talk to patients about their social needs in a sensitive and encouraging way. We need to help them see the benefits of participating in SP."*	Physician, CHW
	Data Collection and Evaluation Methods (Tracking Referrals, Monitoring Outcomes)	*"We need to be able to track the referrals we make and measure the impact of SP on patient outcomes. We need simple and practical data collection tools."*	Physician
Current Practice	Lack of system to ask or assess patient's social needs	*"We rarely ask about detailed social situations unless patients volunteer the information"*	Physician
	Lack of knowledge about available community and social services resources	*"I am not really sure what resources are available outside medical services"*	Physician
Suggested solutions	*"There should be socialization program about social prescribing"*	Physician, CHW, NGO Rep	
	"Training is absolutely necessary"	Physician, CHW	
	"Need more collaboration between health and non health sectors"	Physician, NGO Rep	

The qualitative interviews revealed a strong interest in SP among primary care providers and community stakeholders. Physicians recognized the limitations of their current practice in addressing patients' complex social needs and saw SP as a potential solution to reduce their workload and improve patient well-being. This finding is consistent with studies from high-income countries, where SP has been shown to reduce physician burnout and improve patient satisfaction. However, the interviews also highlighted significant challenges to SP implementation. Lack of awareness of SP among healthcare providers and community members emerged as a major barrier. This finding underscores the need for educational interventions to raise awareness and build capacity for SP. Limited inter-sectoral collaboration was also identified as a challenge. The fragmented nature of the healthcare and social welfare systems in Indonesia hinders communication and referral pathways between sectors. This finding emphasizes the need for strengthened inter-sectoral collaboration mechanisms, such as shared information systems and joint training programs. Insufficient community resources were another concern. The availability of community-based services and support networks varies widely across Medan, posing a challenge for effective referral and support. This finding highlights the need for investment in community development and capacity building to ensure adequate resources for SP.[15-17]

The quantitative survey confirmed the findings from the qualitative interviews, demonstrating a low level of awareness of SP among primary care physicians in Medan. However, the survey also revealed a relatively high level of willingness to implement SP, provided that adequate support and resources are available. The significant predictors of willingness, such as perceived patient benefit and availability of referral pathways, underscore the importance of demonstrating the value of SP and establishing clear mechanisms for its implementation. Educational interventions that highlight the positive impact of SP on patient outcomes and provide practical guidance on how to implement SP in primary care settings could increase physician buy-in. The perceived barriers to SP implementation, such as lack of time and knowledge about community resources, need to be addressed to facilitate wider adoption. The development of efficient SP processes, including standardized referral pathways and accessible information systems, could alleviate time constraints and improve physician confidence in referring patients to appropriate services.[18-20]

5. Conclusion

This study has revealed that integrating SP into primary care in Medan holds promise for addressing complex health needs, but requires significant policy and educational interventions. Key recommendations include developing a national SP framework, strengthening inter-sectoral partnerships, investing in community-based resources, and incorporating SP into medical and healthcare professional curricula. The findings of this study have significant implications for policy and practice in Indonesia. The development of a national SP framework would provide a clear direction and support for the implementation of SP across the country. This framework should outline the roles and responsibilities of various stakeholders, establish referral pathways, and address funding mechanisms. Strengthening inter-sectoral partnerships is crucial for the success of SP. This can be achieved through the establishment of coordinating bodies, joint training programs, and shared information systems. Investing in community-based resources is essential to ensure that patients have access to a wide range of social support services. This includes funding for community health centers, NGOs, and volunteer organizations. Incorporating SP into medical and healthcare professional curricula is critical for long-term sustainability. This would ensure that future healthcare providers are equipped with the knowledge and skills to identify social needs and make appropriate referrals. The findings of this study also have implications for research. Further research is needed to evaluate the effectiveness of SP in different

settings and populations in Indonesia. This research should focus on the impact of SP on patient outcomes, healthcare utilization, and physician workload. The findings of this study should be used to inform the development of SP programs in Indonesia. By addressing the policy and educational gaps identified in this study, Indonesia can harness the potential of SP to improve the health and well-being of its population.

6. References

1. Chiva Giurca B. Social prescribing student champion scheme: a novel peer-assisted-learning approach to teaching social prescribing and social determinants of health. Educ Prim Care. 2018; 29(5): 307–9.
2. Elston J, Gradinger F, Asthana S, Lilley-Woolnough C, Wroe S, Harman H, et al. Does a social prescribing "holistic" link-worker for older people with complex, multimorbidity improve well-being and frailty and reduce health and social care use and costs? A 12-month before-and-after evaluation. Prim Health Care Res Dev. 2019; 20(e135): e135.
3. Chitson S, Wylie A. The impact and potential value for medical students of implementing social prescribing projects in primary care. Educ Prim Care. 2020; 31(1): 57–9.
4. Ward A, Asif A, Cattermole R, Chima J, Ebbatson T, Mahi I, et al. Social prescribing by students: the design and delivery of a social prescribing scheme by medical students in general practice. Educ Prim Care. 2020; 31(5): 318–22.
5. Hoffmeister LV, Nunes MF, Figueiredo CEM, Coelho A, Oliveira MFF, Massano P, et al. Evaluation of the impact and implementation of social prescribing in primary healthcare units in Lisbon: a mixed-methods study protocol. Int J Integr Care. 2021; 21(2): 26.
6. Park G. Integrating primary care and community social services through Social Prescribing. Int J Integr Care. 2022; 22(S2): 11.
7. Alkirawan R, Kawous R, Bloemen E, van den Muijsenbergh M, Goosen S, Suurmond J, et al. Perspectives of Syrian refugees on antibiotic use and prescribing in Dutch primary care: a qualitative study. Int J Migr Health Soc Care. 2022; 18(2): 153–63.
8. Morimoto Y, Koga Y, Kenzaka T, Son D. Social prescribing initiative at community library and its impact on residents and the community: a qualitative study. J Prim Care Community Health. 2023; 14: 21501319231181877.
9. Napierala H, Krüger K, Kuschick D, Heintze C, Herrmann WJ, Holzinger F. Social prescribing: Systematic review of the effectiveness of psychosocial community referral interventions in primary care. Int J Integr Care. 2022; 22(3): 11.
10. Newstead S, Elliott M, Cavanagh D, Tetlow S, Wallace C. Speaking the same language - a scoping review to identify the terminology associated with social prescribing. Prim Health Care Res Dev. 2023; 24: e67.
11. de Iongh A, Kirtley D. The benefits of the expansion of the social prescribing student champion scheme into allied health professionals. Educ Prim Care. 2023; 34(3): 176–7.
12. Rapo E, Johansson E, Jonsson F, Hörnsten Å, Lundgren AS, Nilsson I. Critical components of social prescribing programmes with a focus on older adults - a systematic review. Scand J Prim Health Care. 2023; 41(3): 326–42.
13. Westlake D, Wong G, Markham S, Turk A, Gorenberg J, Pope C, et al. "she's been a rock": The function and importance of "holding" by social prescribing link workers in primary care in England—findings from a realist evaluation. Health Soc Care Community. 2024; 2024(1).

14. Taylor DA, Taylor ADJ, Jones M, Family HE. Community pharmacist involvement in social prescribing for mental health: a qualitative study. Prim Health Care Res Dev. 2024; 25: e69.
15. Kempen TGH, van Dijk L, Floor-Schreudering A, Kohli A, Kwint H-F, Schackmann L, et al. Potential for pharmacist prescribing in primary care: a Dutch citizen perspective. Explor Res Clin Soc Pharm. 2024; 14(100453): 100453.
16. Vari D. Evaluating the use of social prescribing coordinators in general practices. Prim Health Care. 2018; 28(1): 13–13.
17. Davies S. Social prescribing offers options and support. Prim Health Care. 2019; 29(3): 12–12.
18. Pickering J, Smyth K. Social prescribing: a nurse-led pilot project in a general practice setting. Prim Health Care. 2021; 31(4): 20–4.
19. Brunton L, Tazzyman A, Ferguson J, Hodgson D, Nelson PA. The challenges of integrating signposting into general practice: qualitative stakeholder perspectives on care navigation and social prescribing in primary care. BMC Prim Care. 2022; 23(1): 66.
20. Pola-Garcia M, Carrera Noguero AM, Astier-Peña MP, Mira JJ, Guilabert-Mora M, Cassetti V, et al. Social Prescribing Schemes in Primary Care in Spain (EvalRA Project): a mixed-method study protocol to build an evaluation model. BMC Prim Care. 2023; 24(1): 220.