# BMJ Open Collaboration between general practitioners and social workers: a scoping review

Cornelia Löwe 👵 , Patrick Mark, Samira Sommer, Birgitta Weltermann

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University Hospital / Institute of General Practice and Family Medicine, Rheinische Friedrich-Wilhelms-Universitat Bonn, Bonn, Germany

#### Correspondence to

Cornelia Löwe; cornelia.loewe@ukbonn.de

#### ABSTRACT

**Objectives** Aim of the study is to present an overview of collaboration structures and processes between general practitioners and social workers, the target groups addressed as well the quality of available scientific literature

**Design** A scoping review following the guidelines of the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews).

Included sources and articles According to a prepublished protocol, three databases (PubMed, Web of Science, DZI SoLit) were searched using the participant-concept-context framework. The searches were performed on 21 January 2021 and on 10 August 2021. Literature written in English and German since the year 2000 was included. Two independent researchers screened all abstracts for collaboration between general practitioners and social workers. Articles selected were analysed regarding structures, processes, outcomes, effectiveness and patient target groups.

Results A total of 72 articles from 17 countries were identified. Collaborative structures and their routine differ markedly between healthcare systems: 36 publications present collaboration structures and 33 articles allow an insight into the processual routines. For all quantitative studies, a level of evidence was assigned. Various measurements are used to determine the effectiveness of collaborations, for example, hospital admissions and professionals' job satisfaction. Case management as person-centred care for defined patient groups is a central aspect of all identified collaborations between general practitioners and social workers.

**Conclusion** This scoping review showed evidence for benefits on behalf of patients, professionals and healthcare systems by collaborations between general practitioners and social workers, yet more rigorous research is needed to better understand the impact of these collaborations. **Trial registration number** www.osf.io/w673g.

#### INTRODUCTION

A 2021 bulletin of the WHO attributes 30%–55% of health outcomes to social determinants of health (SDH). Social factors are relevant as risk and protective factors. For example, longitudinal data associated with the German Socio-Economic Panel Study from 1995 until 2005 including 31 800 adults

#### STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ Using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) extension for Scoping Reviews, this study provides a detailed view of interprofessional collaborations between general practitioners (GPs) and social workers.
- Measurements allowing for the evaluation of collaborative models are outlined.
- Articles included refer to the involvement of social workers in care processes for patients together with GPs without addressing social work from a bigger perspective.
- ⇒ Despite the systematic approach, a risk of bias in the appraisal of the data cannot be fully excluded.

showed a remarkably lower healthy life expectancy for low income compared with high income: stratified by gender a reduction of 10 years for women and more than 14 years for men is described. The 2008 Japan Public Health Center-based Prospective Study with 44152 individuals demonstrated a 1.45-fold higher risk of stroke mortality for socially isolated men and women. All social stressors enhance the risk of strain-related diseases. Thus, the appropriate address of SDH is fundamental for improving health and reducing inequities that require collaborative action through all sectors.

General practitioners (GPs) treat patients with various social issues and different social contexts.<sup>5</sup> Cross-sectional studies outlined common psychosocial problems that are frequent in general practice: for example, job problems, unemployment, intrafamilial problems or loneliness.6 GPs report that patients with SDH require higher consultation times.<sup>6 7</sup> In recent qualitative research, German GPs reported feeling helpless when confronted with SDH which results in unmet care needs.<sup>8 9</sup> In the last years, cooperation structures between GPs and social care professionals are emerging and range from pilot projects to routine implementations in selected countries or districts. 10-13



Collaborations between GPs and social workers (SWs) are especially promising as both professions provide low-threshold, person-centred support. Like medicine, social work is based on the interaction of individuals and organisations dedicated to welfare in the state and society. As human rights profession, it has a political and anti-discriminatory function that can strengthen social justice. Social work professionals have a long tradition of cooperation with the medical profession in various healthcare institutions, for example, hospitals. 16 17

A 2018 systematic review by Fraser *et al* outlined the potential of collaborations between SWs and GPs based on 26 randomised control trials: integrated care improved patients' behavioural health outcomes and care processes significantly compared with routine primary care services without SW. According to a 2017/2018 survey of 80 German SWs, SWs believe that their patient-related work will be improved by collaborations with GPs. Similarly, GPs are interested in cooperations with SWs, but various barriers exist. Internationally, different forms of collaborations between SWs and GPs exist, yet no review is available. This scoping review addresses collaborations between GPs and SWs, focusing on their structures, processes, patient target groups and effectiveness.

#### **METHODS**

This scoping review followed the Joanna Briggs Institute methodology for reviews<sup>21–23</sup> and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).<sup>24</sup> The format of a scoping review was chosen because the available literature is heterogenous regarding content and methodologies, which does not allow for a systematic review or meta-analysis.

# **Protocol and registration**

A protocol was registered prior to the review in Open Science Framework.

# **Eligibility criteria**

This review aims at the wide range of interprofessional cooperation between GPs and SWs. Therefore, all study types published in English and German since 2000 were included.

# Information sources and search strategy

Search parameters were defined based on the 'P-C-C'-approach (Population—Concept—Context).<sup>21</sup> The following search terms were selected on a meta-level:

- 1. Population:
  - a. Professional group #1: general practitioners.
  - b. Professional group #2: social worker.
- 2. Concept:
  - a. Collaboration.
- 3. Context:
  - a. Dimension, for example, setting, community.
  - b. Known structures, for example, integrated care.

A combination of keywords was selected to link both professions or contexts to the concept. The details on keywords and their combinations are provided as online supplemental material 1 (Search strategy). Three wellknown databases were searched: PubMed, DZI SoLit and Web of Science. PubMed was chosen as one of the most important databases for medicine worldwide. DZI SoLit is one of the most important libraries for social work in German-speaking countries and is curated by the German Central Institute for Social Issues (DZI) in Berlin. In the Web of Science Core Collection, the 'Social Work' category was searched to identify international evidence in the area of social work practice. A pilot search in the database PubMed provided an enormous data volume; therefore we changed from a 'MesH Terms' to a 'Title/ Abstract' search. The same key term combination was applied in the Web of Science. In the German Central Institute for Social Issues, a librarian searched the internal database according to our keyword combinations. The search was piloted on 21 January 2021, the final search was conducted on 10 August 2021.

# Study selection, data charting and methodological quality appraisal

After removing duplicates, two reviewers jointly developed a template for preselection: all abstracts were screened using the P-C-C criteria: population, collaboration concept, context. The two reviewers charted the data independently and discussed the results thereafter. Following the study protocol, all selected articles were analysed in full-text and categorised regarding the following five aspects:

- ► Collaboration structure/model.
- ▶ Patient population addressed (target group).
- ▶ (Functional) Impairment of patients.
- ► Setting/country.
- Measurements used to describe a collaboration's effectiveness.<sup>25</sup>

Classifications of all articles were documented using a literature management program (QSR CITAVI V.6.10). All quantitative studies were rated for their methodology using the Agency for Health Care Policy and Research (AHCPR) levels of evidence<sup>26</sup> by two researchers with a final review of a senior researcher.

# Summarising and reporting the results

Our qualitative content analysis clustered every source regarding 'structure' (eg, general practice, primary care centre), 'process' (eg, collaboration frame, roles, responsibilities) and 'target groups' (eg, vulnerable groups, functional health). This summary allows for a correlative view of single articles and thematic clusters.

#### Risk of bias assessment

This scoping review does not intend to appraise the risk of bias of the studies analysed.<sup>27</sup>

# **Patient and public involvement**

No patient involved.



#### **RESULTS**

# Selection of sources of evidence, exclusion criteria and study characteristics

The searches retrieved 1136 references. After removing duplicates, 1119 references remained for preselection of which 882 were excluded for the following reasons (exclusion criteria):

- 1. References addressing diseases or temporary life circumstances that typically do not require social work intervention (eg, maternity care, chronic obstructive pulmonary disease);
- 2. References describing inter professional collaboration on a metalevel without addressing GPs and SWs specifically;
- 3. References about SW practices without collaborations with GPs, and
- 4. References from patients' perspective not addressing collaborations.

The remaining 227 articles were imported into a literature management programme for full-text analysis. During this process, all articles beyond the focus of this scoping review also were excluded:

- 1. Articles that describe social interventions without SWs (n=56),
- 2. Descriptions of health and social structures without collaboration between GPs and SWs (n=37),
- 3. Articles not involving the GP settings: in-hospital setting (n=17), paediatric setting, including child protection and child/youth psychiatry (n=18), emergency setting (n=5) and nursing homes (n=12).

The flow chart (figure 1) summarises the process of article selection.

Seventy-two articles from 17 countries were included in the review; 37.5% of the articles originated from North America (n=27), 26.4% from the UK (n=19) and 15.3% from German-speaking countries (n=11). In descending order, the article types were: qualitative studies (n=24, 33.3%); programme/project descriptions (n=11, 15.3%), mixed-methods studies (n=10, 13.9%), quantitative studies (n=8, 11.1%), narrative reviews/expert opinion (n=7, 9.7%), feasibility studies (n=5, 6.9%), systematic or scoping reviews (n=5; 6.9%), one reference book and one study protocol. Nearly half of all articles were published since 2018. The study characteristics are outlined in online supplemental table 1.

## Levels of evidence (AHCPR) and measurements

An evidence level was assigned to 25 studies and 3 systematic reviews. The latter showed a level Ia evidence. <sup>18</sup> <sup>28</sup> <sup>29</sup> Additional 4 studies had high levels of evidence: a randomised controlled trial with mixed-methods design <sup>30</sup> was marked with level Ib. A level IIb was assigned three times: for a longitudinal cohort study, <sup>31</sup> an interventional non-randomised cohort study <sup>32</sup> and a quasi-experimental study. <sup>33</sup> For the remaining 44 articles, the level of evidence grading was not applicable.

Overall, studies used different measurements. In 23 studies, instruments to measure processes and/or

outcomes were mentioned. Nine of 12 studies used standardised instruments to measure patients' psychosocial needs and/or physical functioning, 30 33-40 while the remaining 3 studies did not specify the instruments used. Eight studies measured patients' healthcare utilisation including hospital (re-)admissions and the frequencies of emergency department visits. 30-33 37 38 41 42 In addition, characteristics of collaborative processes were measured, for example, the number of referrals, 37 39 43 44 team climate, team development 32 45-47 and professionals' job satisfaction. 31-33 46 48 49 Cost-effectiveness measurements were addressed in three studies. 30 45 50

## Collaboration structures and the degree of implementation

Collaborations between SWs and GPs differ markedly between healthcare systems. We categorised collaborations in: collaboration within the same practice/institution (eg, community health centre, interprofessional practice)  $(n=17)^{35\ 38\ 40\ 46\ 48\ 50-61}$  and collaboration of GPs and SWs from separate institutions (eg, GPs from a practice collaborating with SWs employed by a public institution) (n=21). 8 20 35 41 42 44 45 52 62-74

The degree of routine implementation of the several collaborations varies between healthcare systems. The two most advanced collaborations are realised in the UK and Canada. Routine enactment is implemented in the UK, in particular established with social prescribing<sup>66 75</sup> and Primary Care Networks<sup>76</sup> embedded in the National Health Service (NHS) Long Term Plan.<sup>77</sup> In Ontario, Canada, Family Health Teams provide communityoriented primary health services. 43 55 78 In Germany, GPs and SWs collaborate in specialised practices, for example, for patients with addiction disorders including alcohol dependency, 44 69 yet there are no routine collaborations between GPs and SWs. Regional models for special patient groups like patients with addiction are also emerging in Switzerland. <sup>67</sup> Primary Care Social Work as part of primary healthcare teams is also described from Ireland<sup>49</sup> as a community-oriented implementation.<sup>79</sup> Table 1 outlines the details for the respective publications.

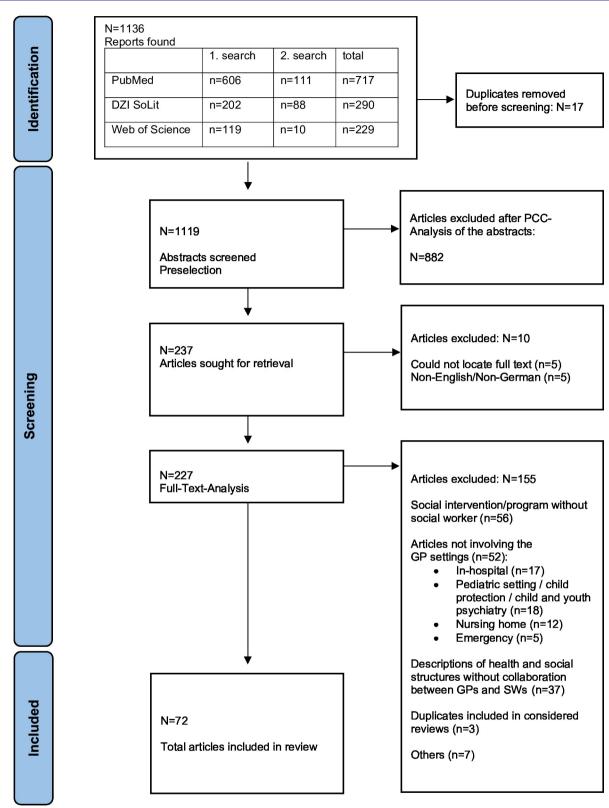
#### **Processes of collaboration**

All collaborations between GPs and SWs target special patient groups in form of the case and care management which were described in more detail in 49 of these 72 articles.

Specific formats of collaborations were identified in 33 articles:

- 1. Joint discussions, for example, round tables and team meetings  $(n=21)^{18\ 28\ 30\ 32\ 38\ 42\ 43\ 45\ 47\ 52\ 58\ 60\ 65\ 67\ 70-72\ 74\ 80-82}$ ;
- 2. Referrals from GP practice or interprofessional groups to SWs (n=11), 32 41 44 52 54 58 59 66 69 80 83 which sometimes is phrased as 'social prescribing' in the literature;
- 3. Vice versa, referral from SWs to the primary care setting/GP practice (n=5).  $^{34}$   $^{51}$   $^{63}$   $^{84}$   $^{85}$

Surprisingly, these processes are already implemented routinely in some countries, for example, the UK. Details are presented in table 2.



**Figure 1** PRISMA flow diagram. GP, general practitioner; P-C-C, Population—Concept—Context; PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses; SW, social worker.

It is remarkable that the majority of articles from the category 'referral from social worker to general practice or interprofessional groups' were published since 2019. We used the term 'referral' to describe any recommendation to contact and/or interact with another

healthcare professional. In some settings, the term 'social prescribing' is used instead. For example, social prescribing is a key component of universal personalised care in the NHS<sup>11</sup> and a prime example of collaboration between GPs and SWs. Also, different terms are used to



**Table 1** Structures of collaboration between general practitioners and social workers, n=36

Categories		Method	Level of evidence (AHCPR)	Publication year	Country of origin	Ref
General	Interprofessional	Mixed-methods study	III	2005	UK	40
practitioners and social workers/ social care	collaboration in	Quantitative study	III	2020	USA	35
	practices, n=10	Quantitative study	III	2019	USA	51
professionals in		Qualitative study	n.a.	2021	UK	52
the same practice/institution, n=17		Qualitative study	n.a.	2017	USA	53
		Qualitative study	n.a.	2010	USA	54
		Description of a care model	n.a.	2019	Germany	55
		Narrative review	n.a.	2012	Germany	56
		Description of a care model	n.a.	2009	Netherlands	57
		Description of a care model	n.a.	2000	USA	58
	Primary care centres/ community health	Mixed-methods study	III	2019	Mexico	48
		Quantitative study	III	2017	Canada	46
	centres, n=7	Quantitative study	III	2016	USA	38
		Quantitative study	IV	2018	Finland	59
		Qualitative study	n.a.	2021	Spain	60
		Study protocol	n.a.	2018	USA	61
		Programme description	n.a.	2005	USA	50
Collaboration of general practitioners in practice and social workers/social care professionals in separate institutions, n=21		Mixed-methods study	III	2018	Netherlands	45
		Mixed-methods study	III	2014	UK	41
		Mixed-methods study	IV	2003	UK	73
		Quantitative study	III	2020	USA	35
		Quantitative study	III	2007	Germany	44
		Quantitative study	IV	2013	Australia	42
		Qualitative study	n.a.	2021	Denmark	62
		Qualitative study	n.a.	2021	UK	52
		Qualitative study	n.a.	2020	Denmark	63
		Qualitative study	n.a.	2020	Germany	8
		Qualitative study	n.a.	2019	UK	20
		Qualitative study	n.a.	2018	Netherlands	64
		Qualitative study	n.a.	2018	UK	65
		Qualitative study	n.a.	2017	UK	66
		Qualitative study	n.a.	2015	UK	68
		Qualitative study	n.a.	2013	UK	70
		Qualitative study	n.a.	2013	Canada	71
		Qualitative study	n.a.	2003	UK	72
		Qualitative study	n.a.	2000	USA	74
		Description of a care model	n.a.	2015	Switzerland	67
		Reference book		2013	Germany	69

Table 2	Processes of	collaboration	hetween	general	practitioners	and social	workers, n=33	

Categories	Method	Level of evidence (AHCPR)	Publication year	Country of origin	Process routine		
					Pilot projects	Established practice	Ref.
	Systematic review	la	2018	USA		X	18
	Systematic review	la	2015	Netherlands		Х	28
	Mixed-methods study	lb	2018	UK	X*		30
	Quantitative study	lla	2015	USA		Х	32
	Mixed-methods study	III	2019	Canada	Χ		43
	Mixed-methods study	III	2018	Netherlands	X		45
	Quantitative study	III	2016	USA	Χ		38
	Mixed-methods study	III	2013	Australia		X	42
	Quantitative study	IV	2017	UK	Χ		47
Joint discussions,	Qualitative study	n.a.	2021	UK		X <sup>*</sup>	52
or example, team	Qualitative study	n.a.	2021	Spain		X	60
neetings, round ables, n=21	Qualitative study	n.a.	2019	USA	X		81
	Qualitative study	n.a.	2018	UK		Χ	65
	Qualitative study	n.a.	2013	Canada		Χ	71
	Qualitative study	n.a.	2013	UK		X	70
	Qualitative study	n.a.	2003	UK		X	72
	Qualitative study	n.a.	2000	USA	X		74
	Narrative review	n.a.	2015	Switzerland		X	67
	Narrative review	n.a.	2014	USA		X	80
	Narrative review	n.a.	2014	USA	X		82
	Narrative review	n.a.	2000	USA		X	58
	Quantitative study	lla	2015	USA		X	32
	Mixed-methods study	III	2014	UK		X	41
	Quantitative study	III	2007	Germany		X	44
	Quantitative study	IV	2018	Finland		Χ	59
Referral from	Qualitative study	n.a.	2021	USA		X	83
general practice or nterprofessional	Qualitative study	n.a.	2021	UK		X*	52
groups to a social worker, n=11	Qualitative study	n.a.	2017	UK		X*	66
	Qualitative study	n.a.	2010	USA	Χ		54
	Reference book	n.a.	2013	Germany	X	X	69
	Narrative review	n.a.	2014	USA		X	80
	Narrative review	n.a.	2000	USA		X	58
	Mixed-methods study	III	2021	USA	X	,	34
Referral from	Quantitative study	III	2019	USA	,	X	51
social worker to general practice or		n.a.	2020	Denmark		X	63
nterprofessional	Qualitative study  Qualitative study	n.a.	2020	USA		X	85
groups, n=5	Narrative review	n.a.	2012	UK		X	84

AHCPR, Agency for Health Care Policy and Research; n.a., not applicable; Ref, reference.

describe the roles of SWs, for example, 'informal broker'85 or 'accompaniment'.63

#### **Target groups**

According to our synthesis, collaborative care is targeting special patient groups with high needs, such as geriatric patients and those with mental health problems. The frequencies of the various target groups addressed

are presented in figure 2 based on a total of 46 articles. In five of these publications, several target groups are addressed. Geriatric patients are focused in 22 articles<sup>8</sup> 28-30 32 33 35 38-40 51 52 54 64 65 68 70 71 74 80 86 87 with additional five articles specifically addressing geropsychiatric patients. 36 43 45 84 88 Other risk groups are adults with complex care needs  $(n=10)^{9} \stackrel{38}{51} \stackrel{51}{52} \stackrel{59}{50} \stackrel{61}{61} \stackrel{62}{62} \stackrel{78}{78} \stackrel{89}{90}$  as well

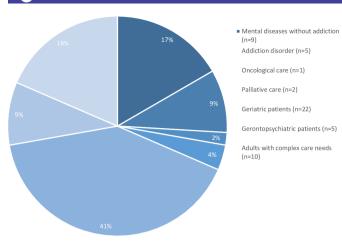


Figure 2 Target groups of collaboration between general practitioners and social workers, n=46.

as those requiring palliative (n=2)34 41 and oncological (n=1) care. <sup>37</sup> Mental diseases are addressed in nine articles, <sup>36</sup> <sup>42</sup> <sup>48</sup> <sup>50</sup> <sup>63</sup> <sup>72</sup> <sup>82</sup> <sup>84</sup> <sup>91</sup> while an additional five articles detail collaboration issues for patients affected by addiction. 44 67 69 92 93

#### DISCUSSION

Our scoping review showed that patient-centred case management is central in professional collaborations between GPs and SWs from various countries. However, otherwise, such collaborations differ by structure, process and patient target groups. Also, the degree of scientific evaluation and evidence of the effectiveness, as well as the routine implementation of the described collaborations, varies markedly.

Currently, the highest evidence for effective collaborations between GPs and SWs is described in a longitudinal US cohort study published in 2019 which included 4230 patients with 167 care professionals including both professional groups. Higher connectedness and higher access to other providers in the community significantly reduced inpatient hospitalisations and emergency department visits.<sup>31</sup> Also in the USA, similar results were achieved by the 2014 adaption of the 'Geriatric Resources for Assessment and Care of Elders (GRACE)' model,<sup>94</sup> which increased patients' quality of life and decreased hospitalisation rates.<sup>38</sup>

Aiming at the best possible integrated care for various patient groups, many studies address the roles and interactions of the participating professionals. 35 46 64 86 Schultz et al emphasise the need to clearly define the roles of all professionals involved to ensure integrated care in the best possible way.<sup>62</sup> This requires appropriate interprofessional education.<sup>52</sup> <sup>64</sup> <sup>78</sup> <sup>80</sup> <sup>84</sup> Knowledge about each other creates an increased awareness of the importance of collaborative skill development which needs to be reflected in curricula for GP and SW education. 95 96 Within and between institutions, and organisational learning culture is needed to support integrated care by interprofessional teams. 97

Our literature review showed that current collaborative models mainly target geriatric and psychiatric patients. However, SDH are much broader, and even highly prevalent problems such as functional health, loneliness, debts, family problems and violence have not been addressed in studies although these are known to negatively influence health outcomes. 98-100

#### **Strengths and limitations**

A detailed search and analysis of the heterogenous articles retrieved were carried out following the PRISMA-ScR guideline. Based on the P-C-C approach, a detailed view of various aspects of collaborations between GPs and SWs was presented. Various formats for collaborative, personcentred care processes were highlighted. Measurements allowing for the evaluation of collaborative models were outlined. Articles included refer to the involvement of SWs in care processes for patients together with GPs without addressing SW from a bigger perspective. Despite the systematic approach, a risk of bias in the appraisal of the data cannot be fully excluded.

## **Conclusion and perspectives**

This scoping review outlined models and strategies to improve SDH by collaborations between GPs and SWs. For transferability, the described best practice models need to be shaped for the respective healthcare system. Although a lack of rigorous research in this field was documented, there is profound evidence of benefits on behalf of patients, professionals and healthcare systems by close collaborations between GPs and SWs. Future research needs to measure the impact of different forms of collaboration in healthcare systems.

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#### **ORCID iD**

Cornelia Löwe http://orcid.org/0000-0003-4455-1405

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