

Can Behavioral Health Improve Without Social Workers? Insights from a Systematic Literature Review on Integrated Health Promotion

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Abstract

Various studies highlight health problems influenced by social factors, underscoring the need for integrated health promotion involving interprofessional roles. This study aims to identify the role of social workers in health promotion by reviewing behavioral health issues that significantly impact physical health. A systematic literature review was conducted, collecting 518 articles, with 27 selected based on inclusion criteria. These articles, published between 2015 and 2025 in PubMed and Scopus, underwent peer review. The articles were analyzed using the PICO framework, with searches based on the keywords “health-promoting universities,” “social work,” and “behavioral health.” The findings indicate that self-promotion, expert-led health promotion, and the contributions of health workers are key actors in addressing health issues tied to social determinants. These actors play critical roles in tackling mental health challenges, lifestyle risks, and social health concerns. This identification highlights opportunities for social workers to provide counseling, offer psychosocial support, enhance quality of life through empowerment, and foster community development. These roles represent the primary domain for social workers to actively contribute to integrated health promotion through interprofessional collaboration.

Abstrak

Problem kesehatan yang di determinasi oleh faktor sosial yang ditemukan dalam beragam penelitian mengindikasikan kebutuhan terhadap promosi kesehatan terpadu yang melibatkan peran antar profesi. Penelitian ini bertujuan untuk menemukan domain dari pekerja sosial dalam kontribusinya pada aspek promosi kesehatan dengan meninjau problem kesehatan perilaku yang banyak diidentifikasi sebagai faktor yang mempengaruhi kesehatan fisik. Penelitian ini menggunakan sistematis literature review dengan mengumpulkan 518 artikel dengan 27 artikel terpilih yang memenuhi kriteria. Artikel yang dipilih dalam penelitian ini telah dilakukan tinjauan sejauh dan diterbitkan antara tahun 2015 hingga 2025 dalam PubMed dan Scopus. Artikel diproses melalui kerangka PICO dengan menggunakan model penelusuran berdasarkan kata kunci health-promoting universities,” “social work,” and “behavioural health”. Penelitian ini menemukan bahwa self-promotion, promosi kesehatan

Kata Kunci:

Promosi kesehatan,
Pekerja sosial,
Kesehatan perilaku

melalui tenaga ahli, dan peran tenaga kesehatan merupakan aktor yang melakukan promosi kesehatan untuk mengatasi problem kesehatan yang berhubungan dengan dimensi sosial. Peran para aktor ini dianggap sebagai petugas yang memberikan solusi untuk menyelesaikan problem kesehatan mental, risiko gaya hidup, dan kesehatan sosial. Identifikasi ini memberikan ruang bagi para pekerja sosial dalam upaya memberikan konseling dan dukungan psiko-sosial, peningkatan kualitas hidup melalui pemberdayaan, dan pengembangan komunitas. Peran ini merupakan domain utama pekerja sosial untuk terlibat aktif dalam promosi kesehatan terpadu dengan melibatkan peran antar profesi.

INTRODUCTION

Health promotion, aimed at enhancing individual control over health, is often recognized as a key role of health workers and has evolved to include integrated services involving interprofessional collaboration. The need for integrated services stems from a promotional approach that emphasizes individual autonomy to empower, motivate, and enable independent action (B. J. Smith et al., 2006). In this context, healthcare providers act as facilitators of behavioral change (Whitehead, 2004), a role closely aligned with the primary domain of social workers. The role of social workers in health promotion is particularly evident in addressing social problems identified as significant determinants of health issues (Akbari et al., 2023; Castillo-Díaz et al., 2024). These social problems directly influence individuals' health status, highlighting the need for collaboration with professions beyond healthcare.

The role of social workers in health promotion has been largely overlooked by previous research. Existing studies tend to examine the social determinants of physical

health through health promotion frameworks. Two main research trends have emerged in exploring the social dimensions of health promotion. First, studies focus on identifying mental health factors related to health issues. A literature review model was used to assess mental health potential by tabulating mental health problems and the interventions employed to address them, including economic impacts (Le et al., 2021), depression and anxiety (Jörns-Presentati et al., 2021; Meherali et al., 2021), and loneliness (Brandt et al., 2022; Haslam et al., 2022). Other studies have explored actions to strengthen mental health promotion and prevention, such as preventive health programs (Singh et al., 2022), physical exercise (Herbert, 2022), and mindfulness-based programs (Galante et al., 2021). Second, digital interventions in health promotion have gained attention. Social approaches leveraging technology are documented in various studies (Petrigna & Musumeci, 2022; Rauschenberg et al., 2021). Notably, McCashin and Murphy (2023) found that the social media platform TikTok is an effective tool for promoting health

among young people. These research trends highlight mental health as a critical public health issue, with a focus on behavioral health, but they fail to address the role of social workers in enhancing the effectiveness of integrated health promotion.

This study aims to identify the primary domains of social workers in health promotion activities to enhance community welfare through a review of existing literature. To achieve this objective, the study examines literature through three key areas. First, it identifies the actors involved in health promotion, focusing on behavioral health issues that impact physical health. Second, it examines behavioral health problems that constitute the primary domain of social workers, providing a foundation for positioning their role in health promotion. Third, it explores the potential roles of social workers as a central component of health promotion activities. These three areas form the basis for identifying the domains of social workers in health promotion.

LITERATURE REVIEW

Health Promotion

The term “health promotion” in academic studies is frequently debated due to its operational definition, which influences the identification of roles for those responsible for its implementation. The World Health Organization (WHO) defines health promotion as a series of processes that enable individuals to increase control over and improve their

health (Nutbeam & Muscat, 2021; B. J. Smith et al., 2006). This definition positions health workers as key actors in enhancing community health. The concept is further expanded by incorporating social aspects, recognizing that health promotion is tied to the collective health of communities (Corbin et al., 2021). This highlights the need for motivational, mobilizing, and empowering initiatives to establish a comprehensive approach to collective health (Mehrolhasani et al., 2021). In this context, the roles of health workers and other community members are emphasized, with health workers recognized as a central component of health promotion mechanisms in society.

The involvement of other elements in health promotion activities is introduced by linking them to the role of social action facilitated by the development of social models as a bridge between social structures and human agency in the context of health (Drageset, 2021; Villalonga-Olivés et al., 2022). The social capital referred to is the total sum of social elements required for the development of human capital related to community networks, civic identity and engagement, reciprocity, participation, social involvement, and mutual trust (Beausaert et al., 2023). Therefore, public health is synonymous with health promotion in terms of its objective to carry out coordinated community actions to create a healthier society. The desired outcomes of health promotion activities lead to a fundamental reform model

of health structures within communities and society as a whole (Al Khashan et al., 2021).

Integrated Care for Healthcare Services

The term "integrated care" refers to a healthcare process that involves interprofessional collaboration to address both behavioral and physical health (Goodwin et al., 2021). An integration model combining primary healthcare providers and behavioral health professionals seeks to manage mental health issues, substance use disorders, health behaviors, life stress, and stress-related symptoms that exacerbate chronic diseases (Chey et al., 2021). Integrated service management enables clients to access a continuous range of preventive and curative services (Homaira et al., 2022). The components of integrated care vary depending on the level of integration—clinical, organizational, or policy—with differing details for each. Collaboration among primary care providers, care managers, and psychiatrists as consultants is a fundamental element in achieving the integration of behavioral and physical health services.

The integration model in primary healthcare has been identified as an effective mechanism for improving patient outcomes, both physical and mental, with consistent findings across studies. Research indicates that integration models enhance preventive efforts, evidenced by reduced patient visits to primary healthcare services (Homaira et al., 2022), decreased risk of adverse events (Romiti et al.,

2022; Wang et al., 2021), and lower medical costs (Hei et al., 2021). Additionally, integrated services achieve treatment targets for chronic diseases more quickly than non-integrated services, as demonstrated by Hu et al. (2023) and Ben-Arye et al. (2021). These findings confirm that the integrated model in primary healthcare significantly contributes to the management and improvement of mental and physical health outcomes.

Social work in Integrated care

The role of social workers in integrated healthcare settings is evident in their contributions to addressing behavioral and physical health issues influenced by behavior. Research highlights their critical role in facilitating access to community services to address social health determinants that impact treatment acceptance and adherence (He & Tang, 2021). Improved treatment acceptance is closely tied to social workers' expertise in identifying and intervening in social determinants of health (Eder et al., 2021). Smith et al. (2022) emphasize that social workers serve as key members of clinical teams, providing treatment for behavioral health conditions. Furthermore, studies by Coquillet et al. (2015) and Muskat et al. (2017) demonstrate that social workers contribute to managing patients with chronic health conditions and complex needs. As integral members of integrated healthcare teams, social workers assist in diagnosing and treating conditions such as depression, anxiety, and schizophrenia.

The expansion of social workers' roles in integrated healthcare settings is driven by the alignment of their professional values with healthcare reform initiatives. The primary objectives of healthcare legislation align with the profession's historical and ongoing commitment to prevention, early intervention, equity in service access, reduction of health disparities, and holistic, patient-centered care (Andrews et al., 2013). Social workers in the health sector employ various assessment and diagnostic tools, such as the Physical Health Questionnaire (Kroenke et al., 2001) and the Scale for Adults with Suicidal Ideation (Ko & Harrington, 2016). Additionally, social worker training for health service roles combines classroom education with field practice—a hallmark of the profession—through a one-year internship in health and behavioral health settings (Zabek et al., 2023).

METHODS

Search Strategy

This research examines the need for integrated care in health-promoting universities by involving social workers who address social determinants of healthy living behaviours. It provides an overview of the literature search process, using a keyword-based restriction model across international indexing agencies. Two databases were selected: PubMed and Scopus. PubMed was chosen for its focus on indexing journals in biomedical and health fields, while Scopus complements it with broader coverage, facilitating the discovery of

articles in social sciences. The search model relies on specific keywords: "*health-promoting universities*," "*social work*," and "*behavioural health*" to filter and retrieve relevant published literature.

Stages of Study

The search model, utilizing selected keywords across international indexing databases, was the initial step in this study to identify research related to health-promoting universities and the social work dimension. This identification stage adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, commonly used for organizing systematic literature reviews (Moher et al., 2009) (see Figure 1). Articles were restricted to those published within a 10-year period (2015–2025). Identified articles were excluded based on the relevance of their titles, abstracts, and keywords to the research objectives. The subsequent screening process involved selecting articles that employed research models addressing social aspects of health problem identification, used quantitative or experimental designs (excluding literature reviews), and provided full-text access. During screening, two independent researchers assessed article validity to enhance objectivity. Articles passing the screening underwent an in-depth eligibility evaluation of their full texts to determine suitability and feasibility. At this stage, full texts were downloaded and evaluated using the PICO framework. Irrelevant articles were

excluded by two independent researchers. This process yielded articles suitable for inclusion in the final selection.

Data Extraction and Handling

The PICO framework (Population, Intervention, Comparison, Outcome) was used to structure the search for relevant research (Schiavenato & Chu, 2021). This model helped frame the research question: Can social workers address behavioural health problems causing health promotion challenges among university students? The PICO components were defined as follows: (P) university students as the population and behavioural health problems as the issue; (I) treatment models as the intervention; (C) the role of social work as the comparison; and (O) the effectiveness of treatment models in addressing social problems. Data were extracted based on the following criteria: (1) methods used, including randomization and completeness of data; (2) identification of behavioural health, including treatments, approaches, and role models; (3) health-promoting aspects; and (4) effectiveness of the social work role.

Inclusion and Exclusion Criteria

To be included in this analysis, studies had to meet the following criteria: use of an experimental design; identification of health-promoting social issues; integration with local conditions; and reference to health promotion policies. A preliminary analysis of titles, abstracts, and keywords was conducted to assess the relevance of each article's content.

Articles not addressing these criteria in their titles, abstracts, or keywords were deemed irrelevant for further analysis. Studies that focused on non-social aspects, used qualitative methods or literature reviews, or were closed-access were excluded at this stage. Full-text articles were retrieved for further evaluation of the research setting (university or other institution) and the social analysis model. Articles addressing non-behavioural health, non-human subjects, or lacking emphasis on behavioural health issues were also excluded. This process yielded articles that met the predetermined criteria.

Quality Assessment

The quality of each article was evaluated based on its internal validity (risk of bias), external validity, and ecological validity. Each selected study was assessed using a checklist tailored to its design: experimental studies were evaluated using the Jadad et al. (1996) scale, and observational studies were assessed using criteria from Mallen et al. (2006). Internal validity was determined by examining study type, randomization, allocation, completeness of data, appropriate sampling, measurement justification, and presence of a control group. Methodological quality was not used as an exclusion criterion. External validity was assessed using criteria from Green and Glasgow (2006), including reach and representativeness, program or policy implementation and adaptation, contextual

relevance, decision-making utility, and maintenance and institutionalization..

RESULTS

Article Selection Process

The literature search was conducted using two international databases, PubMed and Scopus, known for their high-quality health research publications. The search identified 518 articles addressing health promotion and social

aspects within the domain of social workers. Screening titles, abstracts, and keywords reduced the number to 347 articles containing the relevant keywords for this study. Further screening eliminated 242 articles that did not align with the study's main topic. Full-text review of the remaining articles assessed their eligibility, resulting in 27 articles included in the study (see Figure 1)

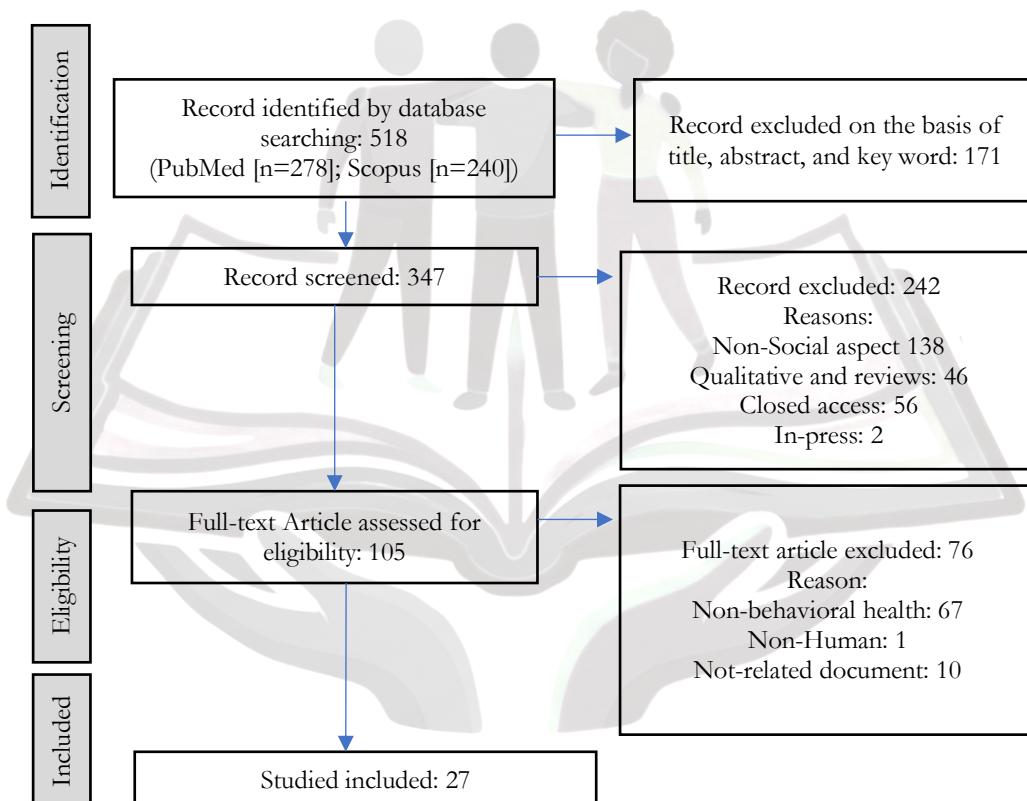


Figure 1. Flowchart of identified, excluded and included literature by *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA)

Articles included in the study underwent a quality assessment based on two key aspects: internal validity and external validity. The validity of the selected articles is detailed below:

Internal validity

An evaluation of the internal components of the selected studies, including methods,

sampling, and data reporting, confirmed that they met the minimum criteria for research validity as defined by Jadad et al. (1996) and Mallen et al. (2006). These criteria were assessed based on the strengths and weaknesses of the study components, with all articles explicitly describing the study type, providing complete

data, using appropriate sampling, and addressing confounding factors (see Table 1).

Variations in criteria emerged regarding randomization in the selection and allocation of research subjects. Eighteen studies did not specify a randomization model, resulting in a moderate internal validity rating. In contrast, studies by Akbari et al. (2023), Schmuck et al. (2021), and Parsapure et al. (2016) explicitly mentioned randomization, included a control

group, and justified their measurements, earning a high internal validity rating. The remaining five studies referenced randomization but lacked details on complete data (Gustafsson et al., 2017) or allocation (Amiri et al., 2023; Çetinkaya & Sert, 2021; Limarutti et al., 2021; Senu et al., 2024), placing them at a moderate-to-high validity level.



Table 1. Internal Validity

Author(s)	Type of Study	Randomization	Allocation	Complete Data	Appropriate Sampling	Justification of Measurement	Control Group	Control of Confounding
Mehri et al. (2016)	Cross-sectional	No	No	Yes	Stratified random sampling	HPLP-II	No	Limited
Castilo-Diaz et al. (2024)	Cross-sectional	No	No	Yes	Convenience sampling	Yes	No	Limited
Akbari et al. (2023)	Randomized Controlled Trial	Block Randomization	Yes	No	Yes	Yes	Yes	Yes
Gusrafsson et al. (2017)	Randomized controlled trial	Yes	Yes	Partial	Partial	Yes	Yes	Partial
Kotter et al. (2016)	Prospective longitudinal cohort	No	No	Partial	Partial	PMSS-D, HADS, AVEM	No	Partial
Ekman et al. (2024)	Longitudinal cohort	No	No	Partial	Partial	SOC scale, SHIS	No	Yes
Senu et al. (2024)	Cross-sectional	Simple random sampling	No	Yes	The sample size (617) exceeded the minimum required	AHP-SF scale, EFA, KMO, Bartlett's test	No	Limited
Khajavi et al. (2024)	Quasi-experimental	Multistage random sampling	No	Partial	The sample size (185, reduced to 154) was calculated to detect a 5-point difference in HPLP2 scores with 80% power	HPLP-II, GHQ	No	Limited
Larsson et al. (2024)	Multicentre repeated cross-sectional	No	No	Partial	The low response rate (37%) and decreasing participation over time suggest potential selection bias	UBQ11, SHIS, SOC, TIQue-SF, QPS Nordic	No	Limited
Alothman et al. (2024)	Cross-sectional	No	No	Partial	The sample size exceeded the calculated requirement, but limit representative	HPLP-II, closed-loop questions	No	Limited
Halloway et al. (2023)	Feasibility (pre-post design)	No	No	Yes	Convenience sampling	UCLA loneliness scale, SOLS, PHQ-9	No	Limited
Bachert et al. (2023)	Cross-sectional	No	No	Yes	Snowball sampling	ERGM	No	Yes
Younus and Younis (2023)	Mixed-Methods	No	No	Yes	Purposive sampling	Antonovsky's SOC theory	No	Limited
Limarutti et al. (2023)	Cross-sectional, mixed-methods	No	No	Yes	Non-random	S-SoC scale	No	Yes
Amiri et al. (2023)	Cross-sectional	Multi-stage stratified	No	Yes	Multi-stage random sampling	HPLP-II	No	Yes

random sampling								
Sanci et al. (2022)	Cross-sectional	No	No	Partial	The sample was representative of the university's population	PHQ-9, GAD-7, AUDIT-C	No	Yes
Ahlstrand et al. (2022)	Cross-sectional	No	No	Partial	The sample was drawn from all first-year student in six universities	SOC, SHIS, OBQ	No	Yes
Jang et al. (2022)	Cross-sectional	No	No	Yes	The sample is geographically diverse	HPLP-II, statistical methods	No	Yes
Schmuck et al. (2021)	Cross-sectional	No	Yes	Partial	The sample was recruited via convenience sampling	SOC-3, ESSI-D, TPV single item, PHQ-4	No	Yes
Limarutti et al. (2021)	Controlled quasi-experimental	No	No	Yes	The sample was purposively selected from health-related programs	S-SoC, support, Bonferroni correction	Social	Yes
Cetinkaya and Sert (2021)	Cross-sectional	Yes	No	Yes	Stratified random sampling	HPLP-II and Likert scale	No	Partial
Lindmark et al. (2020)	Multicenter longitudinal cohort	No	No	Partial	Convenience sampling	SOC-13, OBQ, TEIQue-SF, SHIS, QPS Nordic, WEMS	No	Partial
Mak et al. (2018)	Cross-sectional	No	No	Partial	Convenience sampling	HPLP-II, WHOQOL-BREF, YRBS	No	Yes
Soe et al. (2018)	Cross-sectional	No	No	Yes	Convenience sampling	PSS-10, CES-D, HPLP-II, WHOQOL-BREF	No	Partial
Kaya et al. (2018)	Cross-sectional	No	No	Partial	The study targeted all first-and sixth-year students	HLBS-II, Linkert scale	No	Partial
Parsapure et al. (2016)	Experimental study	Yes	Yes	Partial	Stratified two-stage clustered sampling	Rigorous psychometric process	Yes	Yes

Table 2. External Validity

Author(s)	Reach and Representativeness	Program/Policy Implementation	Contextual Adaptation	Relevance for Decision Making	Maintenance and Institutionalization	Criteria
Mehri et al. (2016)	Only one location	No	Yes	Findings are relevant for campus mental health policy and educational planners	No	Moderate
Castilo-Diaz et al. (2024)	Only one location	No	Yes	The findings are relevant for mental health and healthy lifestyle support	No	Moderate
Akbari et al. (2023)	Only one location	Yes	Yes	The result will be relevant for designing health-being policies	No	High
Gusrafsson et al. (2017)	Only one location	Yes	Yes	The results are relevant for public health policies promotion	No	Low to Moderate
Kotter et al. (2016)	Only one location	Yes	Yes	The results are relevant for practical social-work	No	Low
Ekman et al. (2024)	6 universities	No	Yes	The findings are relevant for designing social work strategies	No	Low to Moderate
Sanu et al. (2024)	Only one location	No	Yes	The validate 22-item AHP-SF scale is highly relevant for social work	No	Moderate
Khajavi et al. (2024)	Only one location	Yes	Yes	The WBE intervention significantly improved HPL, making it relevant for social work	No	Moderate
Larsson et al. (2024)	6 locations	No	Yes	The findings are highly relevant for social work, highlighting the unexpected association between higher occupational balance and lower well-being	No	Moderate
Alothman et al. (2024)	Only one location	No	Yes	The findings are relevant for social work in higher education	Limited	Moderate
Holloway et al. (2023)	Only one location	Yes	Yes	Tellegacy addresses a social isolation linked to depression are relevant for social work	Limited	Moderate
Bachert et al. (2023)	Only one location	Yes	Yes	Identifying of key factors and mechanisms for offering actionable insights for social worker are relevant for social work	Low	Moderate
Younus and Younis (2023)	5 locations	No	Yes	The findings which addresses mental health challenges are relevant for social work	Low	Moderate
Limarutti et al. (2023)	Only one location	No	Yes	By linking loneliness to S-SoC, the study offers actionable insights for designing interventions to enhance social support	Low	Moderate
Amiri et al. (2023)	Only one location	No	Yes	The focus on medical student, who influence community health, underscores its importance for social work	Low	Moderate
Sanci et al. (2022)	Only one location	No	Yes	Data on mental health, service access gaps, and psychosocial stressors are relevant for social work	Low	Moderate to high

Ahlstrand et al. (2022)	6 locations	No	Yes	The focus on healthcare and social work students supports curriculum integration for sustainable professional preparation	Low	Moderate to high
Jang & Je (2022)	Only one location	No	Yes	The findings which is targeted intervention for elderly welfare are relevant for social work	Partial	Moderate to high
Schmuck et al. (2021)	Only one location	No	Yes	The findings are relevant for social work, showing SOC and social support as protective factor for HCW mental health	Partial	Moderate to high
Limarutti et al. (2021)	Only one location	Yes	Yes	The findings are relevant for social work, demonstrating the program's positive effects on social support and sympathy	Yes	High
Cetinkaya and Sert (2021)	Only one location	Yes	Yes	The findings are relevant for social work, identifying at risk groups for targeted interventions	Partial	Moderate to high
Lindmark et al. (2020)	6 locations	No	Yes	The study is relevant for social work, aiming to identify health-promoting factors for sustainable careers	Partial	Moderate to high
Mak et al. (2018)	Only one location	No	Yes	The study is relevant for social work as social work share goals of promoting well-being	Partial	Moderate
Soe et al. (2018)	Only one location	No	Yes	The findings are highly relevant for social work, as they highlight the need for mental health screening	Partial	Moderate
Kaya et al. (2018)	Only one location	No	Yes	The findings are relevant for social work to enhance spiritual development and interpersonal relationships	Partial	Moderate
Parsapure et al. (2016)	Only one location	Yes	Yes	The findings are relevant for social work, providing evidence for educational interventions to improve women's health	Partial	High

External validity

The external validity of the studies was assessed using criteria ranging from low to high (see Table 2), considering that some findings reflect actual behaviors observed in real-world settings. This context was evaluated through the application of contextual models and policy implementation, indicating whether the strategies were institutionalized and sustainable. However, most studies focused on a single university or faculty, limiting the generalizability of findings to broader populations. Only five articles examined multiple universities: three included six universities (Ahlstrand et al., 2022; Ekman et al., 2024; Larsson et al., 2024), and two included five universities (Younus & Younis, 2023). All identified articles directly correlate with social workers' roles in designing mental health policies, promoting mental health, and fostering healthy lifestyles in higher education. Regarding institutionalization and sustainability, nine articles lacked explicit information. Most studies described limited (Alothman et al., 2024; Holloway et al., 2023), simple (Bachert et al., 2023; Limarutti et al., 2023; Younus & Younis, 2023), or partial (Jang & Je, 2022; Schmuck et al., 2021) models. Only Limarutti et al. (2021) provided clear evidence of control over institutionalization and sustainability through the Healthy Study Start program, an intervention addressing potential social isolation among students.

Health Promotion Actors and Behavioral Health: Analyzing Social Workers' Roles in Health Promotion

The identification of behavioral health issues in various studies was assessed by examining their relationship to physical health in the context of health promotion activities. The data highlight three key actors in health promotion efforts, with their effectiveness evaluated in addressing behavioral health or physical health influenced by behavioral factors (see table 3). The first actor is self-promotion. Researchers primarily aim to measure daily living behaviors to improve health status. However, self-directed health promotion faces challenges, including inadequate psychosocial support (Castillo-Díaz et al., 2024; Ekman et al., 2024), low awareness levels (Amiri et al., 2023; Kötter et al., 2016; Sanci et al., 2022), lack of collaborative interventions (Bachert et al., 2023; Jang & Je, 2022), and limited identification of behavioral health determinants (Ahlstrand et al., 2022; Çetinkaya & Sert, 2021). These overlooked issues stem from a tendency to prioritize physical health over behavioral health dimensions (Kaya et al., 2018).

The second actor is expert-led health promotion. Researchers have identified that external actors, such as assisted living facilities, architects, designers, and institutions, contribute to health promotion but face challenges in mental health development (Alothman et al., 2024). Issues in identifying behavioral health also emerge in efforts to

assess healthy lifestyles (Khajavi et al., 2024; Limarutti et al., 2021), social interactions (Holloway et al., 2023; Larsson et al., 2024; Younus & Younis, 2023), social support (Limarutti et al., 2023), and social motivation (Lindmark et al., 2020). Additionally, Parsapure et al. (2016) noted incomplete identification processes for behavioral health, particularly regarding the potential for chronic diseases. The third actor is health professionals. Interventions led by health professionals without social worker involvement often show

limited analysis of psychosocial well-being (Akbari et al., 2023) and behavioral health aspects, such as depression and anxiety (Schmuck et al., 2021). These findings contrast with health promotion activities that include social workers, which demonstrate more integrated health services. Research by Gustafsson et al. (2017) highlights improvements in functional and psychosocial health through community interventions supported by social support.

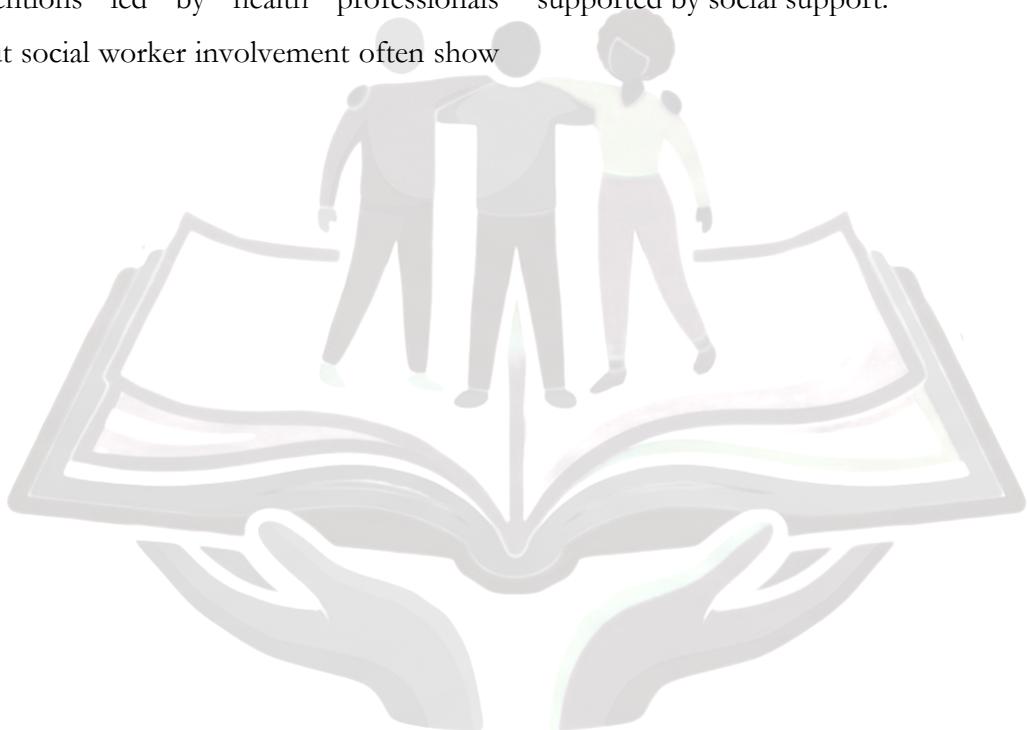


Table 3. Identify the roles, health issues, and promotional strategies in various studies

Author(s)	Behavioral Health	Actor(s) of health-promoting	Lack of study in health-promoting	Treatment model	Approach	Health-promoting aspect	Role
Castilo-Diaz et al. (2024)	Psychological distress	Self-promoting	Low psychological support	Counseling	-	Health-promoting lifestyle	Counseling and psychosocial support
Akbari et al. (2023)	Psychological distress	Healthcare workers	Low handling of psychosocial well-being	Community intervention	Psychological well-being	Health-promoting intervention	Community development
Gustafsson et al. (2017)	Lifestyle risks	Healthcare professionals	Improvement of functional and psychosocial health	Social support	-	Health-promoting intervention	Community development
Kotter et al. (2016)	Lifestyle risks	Self-promoting	Low participation	Community intervention	-	Health-promoting intervention	Community development
Ekman et al. (2024)	Depression	Self-promoting	Low social support	Counseling	Sense of coherence	Health-promoting lifestyle	Counseling and psychosocial support
Senu et al. (2024)	Academic stress	Healthcare professionals	Good construct validity	Education	Use of AHP-SF, Integrated curriculum	Health-promoting intervention	Empowerment
Khajavi et al. (2024)	Lifestyle risks	Experts	No improvement in healthy lifestyle	Community intervention	HPLP-II promotional intervention	Health-promoting lifestyle	Community development
Larsson et al. (2024)	Stress	Experts	Weakness in examining social interaction variables	CBT	SOC/SHIS assessment	Health-promoting lifestyle	Counseling and psychosocial support
Alothman et al. (2024)	Psychological distress	Experts	Weak identification of mental health problems	Counseling	HPLP-II assessment	Health-promoting lifestyle	Counseling and psychosocial support
Holloway et al. (2023)	Lifestyle risks	Assisted living facilities	Weakness in examining behavioral health factors in communities	Community intervention	Intervention using UCLA Loneliness scale	Health-promoting intervention	Community development
Bachert et al. (2023)	Depression and stress	Self-promoting	Lack of intervention for cross-group collaboration aspects	Counseling	-	Health-promoting factors	Counseling and psychosocial support
Younus and Younis (2023)	Stress and anxiety	Architects and designers	Lack of focus on social interaction	Counseling	-	Health-promoting lifestyle	Counseling and psychosocial support
Limarutti et al. (2023)	Loneliness	Institution	Weak social support indicators	Education	Healthy study start program	Health-promoting intervention	Empowerment
Amiri et al. (2023)	Self-efficacy	Self-promoting	Low self-efficacy and well-being	Intervention	Assessment using WHO Well-being index	Health-promoting lifestyle	Counseling and psychosocial support
Sanci et al. (2022)	Depression and anxiety	Self-promoting	High prevalence of health problems	Education	Assessment using PHQ-9, GAD-7	Health-promoting lifestyle	Empowerment

Ahlstrand et al. (2022)	Depression and anxiety	Self-promoting	Lack of identification of behavioral determinants	Intervention	Assessment using SOC dan SHIS	Health-promoting factors	Counseling and psychosocial support
Jang & Je (2022)	Loneliness	Self-promoting	Lack of specific interventions	Community intervention	Assessment using ESLI dan HPLP-II	Health-promoting factors	Empowerment
Schmuck et al. (2021)	Depression and anxiety	Healthcare workers	Lack of handling model for behavioral health	Counseling	Assessment using PHQ-4 dan SOC-3	Health-promoting factors	Counseling and psychosocial support
Limarutti et al. (2021)	Social isolation	Institution	Limited effect on meaningfulness aspects	Education	Healthy study start	Health-promoting factors	Empowerment
Cetinkaya and Sert (2021)	Stress	Self-promoting	Low identification of social desires	Education	Curriculum integration	Health-promoting lifestyle	Empowerment
Lindmark et al. (2020)	Stress	Institution	Low accuracy of social desires	Education	Salutogenic approach in curriculum	Health-promoting factors	Empowerment
Mak et al. (2018)	Stress	Self-promoting	Lack of identification of physical activity affecting mental health	Community education	Healthy education with HPLP-II	Health-promoting lifestyle	Community development
Soe et al. (2018)	Stress and depression	Self-promoting	Limitations in identifying stress and depression aspects	Education	Clinical-educational approach	Health-promoting lifestyle	Empowerment
Kaya et al. (2018)	Lifestyle risks	Self-promoting	Lack of cause-and-effect relationship in healthy behavior	Education	Peer-support with HLBS-II	Health-promoting factors	Empowerment
Parsapure et al. (2016)	Lifestyle risks	Experts	Lack of identification of chronic health problems	Community education	-	Health-promoting intervention	Community development
Mehri et al. (2016)	Lifestyle risks	Self-promoting	Weak identification of sedentary lifestyle and unhealthy diet	Education	Assessment with HPLP-II	Health-promoting lifestyle	Empowerment

Similarly, Senu et al. (2024) emphasize the role of social workers in educational processes to address academic stress disorders among students, with strong construct validity.

Behavioral Health Issues in Health Promotion: The Need for Integrated Approaches

The need for improved health outcomes, driven by social problems involving social workers, underscores the importance of an integrated service model for health promotion on university campuses. Data highlight three primary social determinants impacting student health: mental health issues, lifestyle risks, and social health challenges (see table 3.). Firstly, mental health issues include psychological distress (Akbari et al., 2023; Alothman et al., 2024; Castillo-Díaz et al., 2024), depression (Bachert et al., 2023; Ekman et al., 2024; Sanci et al., 2022), stress (Çetinkaya & Sert, 2021; Lindmark et al., 2020), and anxiety (Schmuck et al., 2021; Younus & Younis, 2023), identified as key social determinants influencing health. Various approaches have been proposed to address these issues, depending on the goals of change. For instance, Castillo-Díaz et al. (2024) utilized counseling to shape individual behavior patterns for psychological distress, whereas Akbari et al. (2023) advocated community interventions to facilitate lifestyle changes. Similarly, counseling models were employed by Ekman et al. (2024), Bachert et al. (2023), and

Schmuck et al. (2021) to address student depression.

Secondly, lifestyle risks. Identify lifestyle factors impacting health problems related to diet, physical activity, and stress management. Researchers have developed health-promoting intervention models to improve health outcomes through community-based programs, including Parsapure et al. (2016), Holloway et al. (2023), Khajavi et al. (2024), Kotter et al. (2016), and Gustafsson et al. (2017). Conversely, Kaya et al. (2018) reported that lifestyle risks among final-year students are more severe than those among first-year students, contributing to health issues and highlighting the need for educational models incorporating mentoring support. Similarly, Mehri et al. (2016) found that women with lifestyles more vulnerable to health issues benefited from educational interventions promoting healthy behaviors.

Thirdly, social health. Determinants identified by researchers related to social health point to issues in a person's relationships and interactions with others and their environment, which can affect mental health and disrupt physical health. Factors such as loneliness (Jang & Je, 2022; Limarutti et al., 2023), social isolation (Limarutti et al., 2021), and low self-efficacy (Amiri et al., 2023) are primary causes of social issues that disrupt students' health status. However, treatment models in some cases differ based on students' academic status. In Limarutti et al.'s (2023) study, an

intervention model is recommended to establish new patterns for first-year students through the Healthy Study Start program. This differs from the findings of Jang and Je (2022), who propose community-based interventions to address loneliness among students during the pandemic. These differing models highlight that treatment approaches must be grounded in situational factors when addressing social issues.

The Role of Social Workers in Integrated Health Promotion

The involvement of social factors in health intervention processes through promotion mechanisms highlights the critical role of social workers in enhancing control over factors influencing health. Data indicate three main specializations of social workers in improving health quality (see table 3.). First, counseling and psychosocial support. Addressing issues such as depression (Bachert et al., 2023), distress (Bachert et al., 2023; Larsson et al., 2024; Younus & Younis, 2023), and anxiety (Schmuck et al., 2021; Younus & Younis, 2023) resulting from social problems demonstrates the appropriateness of clinical social workers' roles. Clinical social workers, as counselors, address psychological and mental health issues while also providing support for emotional, social, and psychological challenges. However, mental health issues identified by Castillo-Diaz et al. (2024), Ekman et al. (2024), Alothman et al. (2024), and Sanci et al. (2022), managed through adequate nutrition and physical activity, and by Amiri et al. (2023) through improved

well-being and independence, suggest that counseling-based interventions alone are insufficient, necessitating a more holistic psychosocial support model for social workers. An integrated assessment model using SOC-3 (Larsson et al., 2024; Schmuck et al., 2021) and PHQ-4 (Schmuck et al., 2021) supports the integration of health promotion models into counseling provided by clinical social workers.

Secondly, improving quality of life through empowerment. Developing health skills and psychological resilience through education and training, facilitating social support, and advocating for the educational environment are considered means of addressing social problems that impact health. Limarutti et al. (2021, 2023) propose a Healthy Study Start program to manage academic challenges and foster independence in overcoming loneliness, using the De Jong Gierveld or S-SoC assessment model. This educational model requires the development of a social network to support student independence in addressing social problems that cause psychological disorders, as found by Seo et al. (2018) and Kaya et al. (2018). A clinical-educational model incorporating coping strategies (Seo et al., 2018) and the Healthy Lifestyle Behavior Scale II (HLBS-II) (Kaya et al., 2018) is recommended for creating this social network. Key aspects of social workers' roles in supporting health promotion are proposed by Sanu et al. (2024), Çetinkaya and Sert (2021), Lindmark et al. (2020), and Mehri et al. (2016) through an

environment-based approach. This approach relies on environmental advocacy in education, including curriculum design (Çetinkaya & Sert, 2021; Senu et al., 2024), policy advocacy (Lindmark et al., 2020), and interventions addressing gender issues (Mehri et al., 2016) to support empowerment through health education.

Thirdly, community development. Improvements in health quality related to social issues are achieved through enhanced social support, increased physical activity, technology-based health literacy, and policy advocacy. These roles align with the responsibilities of health social workers to enhance psychological well-being through interventions focused on increasing physical activity (Akbari et al., 2023) and community-based stress management (Mak et al., 2018). Community-based interventions are recommended by Khajavi et al. (2024), Holloway et al. (2023), Kotter et al. (2016), and Jang and Je (2022) to leverage technology-based health promotion to improve the lifestyles of patients facing health issues related to social problems. Social support is also recommended as an intervention mechanism for patients experiencing health issues due to their status as minorities facing psychological pressure, such as older adults (Gustafsson et al., 2017) and women (Parsapure et al., 2016).

DISCUSSION

The identification of barriers to improving public health through health promotion is determined by the relationship between

behavioral health issues requiring preventive efforts and the need for improvements in social quality within the health promotion process, alongside the disease treatment process. This suggests that health promotion cannot be adequately carried out by health workers, professionals, or individuals relying solely on personal awareness to improve their health status. A promotion process involving only one party to address complex health issues tends to result in partial actions that neglect either physical or behavioral health. This partial tendency is evidenced by many researchers who predominantly overlook counseling, interventions, or community support models for addressing behavioral health issues to improve community health. The complex structure of community health improvement, which is directly tied to both physical and behavioral health, underscores the need for an integrated health promotion model involving social workers.

The involvement of social workers in health promotion reflects a shift in the mechanisms for improving community health within the social action space, integrating sociocultural aspects into the scope of health. Incorporating the social dimension through social workers enables the connection of promotive activities to social structures via agency mechanisms, thereby creating a more actionable role for social action through interventions aimed at enhancing social capital (Whitehead, 2004). Interventions targeting

social capital by social workers increase social elements such as network expansion, emotional resilience, and community empowerment through education or policy advocacy. This dimension enhances the contribution of social workers in health promotion activities, extending beyond community service provision (He & Tang, 2021), knowledge interventions (Eder et al., 2021), or clinical aspects (G. L. Smith et al., 2022), which are identified as their primary roles. The agency role, connecting social structures with health, represents the primary contribution of social workers to integrated health services within health promotion activities.

The involvement of social workers in health promotion emphasizes efforts to foster social, political, economic, and environmental change to improve living conditions, welfare, and social justice, all of which affect health. These mechanisms form part of a multidimensional social action framework that directly links health promotion with community

development. This framework targets seven main domains (see Figure 2), three of which are emphasized here: (1) Collective action for community empowerment: This domain reflects the role of social workers in health promotion by building health skills and psychological resilience through education, training, facilitating social support, and advocating for improvements in the educational environment. (2) Awareness-raising and social education: This domain aims to increase critical awareness within communities about social issues affecting health and well-being through counseling, mentoring, and public campaigns. (3) Advocacy: Social workers engage in public policy advocacy to promote equitable and responsive community needs, enhancing the role of communities, institutions, and the state in supporting social support, physical activity, and health literacy. These three domains underscore the critical role of social workers in health promotion activities.

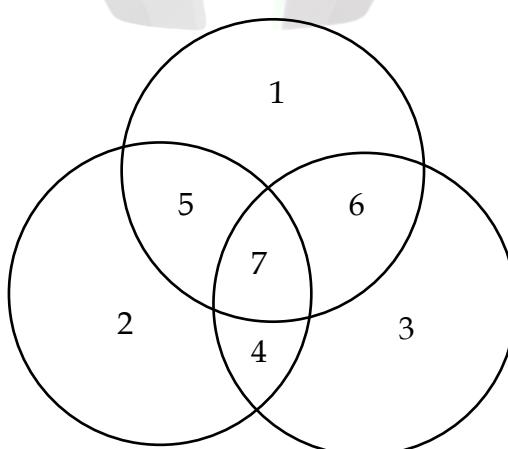


Figure 2. Social workers' domains in health promotion activities

The primary domain of social workers' role in health promotion gives rise to additional domains that intersect to foster a physically and behaviorally healthy society. These domains, numbered 4–7, encompass the following aspects: (4) Social control: Social workers are tasked with advocating against policies that harm health and the environment while fostering critical awareness within communities. (5) Community development education: This domain involves mobilizing resources to promote an improved quality of life that supports enhanced health and well-being. (6) Social capital development and social cohesion: This domain represents the intersection of empowerment and advocacy roles, strengthening social networks, solidarity, and trust to build collective capacity for addressing social problems that contribute to health issues. (7) Social-structural change: This domain focuses on transforming social systems that perpetuate inequality or exclusion through processes of accompaniment, education, and advocacy. The intersectional framework defining the roles of social workers in health promotion highlights specific contributions that many researchers have overlooked in the development of physically and behaviorally healthy communities.

Researchers have often overlooked the primary role of social workers in improving public health. Previous research trends focusing solely on social factors affecting health have neglected the need for social workers'

involvement in health promotion activities. The counseling role, a primary domain of social workers, contributes to addressing issues such as depression and anxiety (Jörns-Presentati et al., 2021; Meherali et al., 2021) and loneliness (Brandt et al., 2022; Haslam et al., 2022), as identified by prior studies. Meanwhile, the domain of community empowerment can help address poverty-related issues identified by Le et al. (2021), which contribute to increased physical health problems. The relationships emerging from the interaction among these domains necessitate expanding the role of social workers in developing new health promotion models, whether through technology or policy interventions.

CONCLUSION

The identification of these domains, which highlight social workers' roles in behavioral health development, underscores the need for an integrated health promotion model that does not rely solely on healthcare professionals but also involves other service providers to foster interprofessional service integration.

The identification of domains defining the role of social workers was achieved through a review of studies published over a ten-year period, linking social factors with health promotion. Although most selected articles had limitations in randomization, they all met minimum methodological standards. The relationship between health promotion variables and social dimensions was identified in all articles, confirming their external validity.

However, direct references to social workers' interventions in health promotion were limited in this study, necessitating further research to develop a model examining the direct relationship between social workers' roles and health promotion activities.

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