

The Role of Social Workers in Improving Treatment Adherence Among Patients with Chronic Diseases

Al Muhaimeed, Abdulrahman Ibrahim¹, Al Mutairi, Sami Nazal², Al Hezami, Aishah Ebrahim³, Al Ghamdi, Ibrahim Ali⁴, Rizq, Alaa Abdulhamid⁵, Al Sekhan, Haifa Mohammed⁶, Al Ammar, Fatimah Abdullah⁷, Al Dosari, Rana Muflih⁸, Kariri, Hassan Mohammed⁹, Al Enezi, Tahani Mohammed¹⁰

1Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: muhaimeda@mngha.med.sa

2Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: almutairis13@mngha.med.sa

3Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: alhazamiai@mngha.med.sa

4Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: alghamdiib5@mngha.med.sa

5Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: rizqal@mngha.med.sa

6Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: <u>alsekhanha@mngha.med.sa</u>

7Ministry of National Guard Health Affairs, Saudi Arabia.

Email ID: ammarf@ngha.med.sa

8Ministry of National Guard Health Affairs, Saudi Arabia.

Email ID: almasarialdosarira@mngha.med.sa

9Ministry of National Guard Health Affairs, Saudi Arabia.

Email ID: kaririha2@mngha.com.sa

10Ministry of National Guard Health Affairs, Saudi Arabia

Email ID: alenenzita1@mngha.med.sa

ABSTRACT

Background: Treatment adherence among patients with chronic diseases remains suboptimal, contributing to adverse clinical outcomes, disease progression, and increased healthcare costs worldwide. Social workers, with their unique expertise in psychosocial assessment, care coordination, patient education, and resource navigation, possess significant potential to enhance adherence.

Objective: This review aims to synthesize existing literature on social work interventions in chronic disease management, identify the mechanisms by which these interventions improve adherence, and propose an integrated model embedding social work within chronic care frameworks.

Methods: A comprehensive literature search was conducted across PubMed, Web of Science, and key grey literature from 2000–2025. Studies describing social work roles in chronic care were included. Extracted data focused on intervention types, targeted adherence barriers, and outcomes.

Results: Social work interventions fall into six domains: biopsychosocial assessment to identify mental health, social support, and financial barriers; care coordination and advocacy addressing access, logistics, and system navigation; emotional support and counseling; patient education and health literacy enhancement; resource navigation to alleviate socioeconomic obstacles; and facilitation of peer-support networks. Integration into interdisciplinary models—such as adapted Chronic Care Models—has shown promising qualitative and limited quantitative outcomes, including improved adherence, better clinical control, enhanced quality of life, and reduced hospital readmissions.

Conclusions: Social workers significantly contribute to adherence improvement in chronic disease management by

addressing non-medical determinants. Embedding social work interventions—through structured assessments, coordination, education, and psychosocial support—within care systems offers a comprehensive pathway to improve adherence. Future research should focus on RCTs to measure effectiveness, cost outcomes, and scalability of such models across diverse healthcare settings.

How to Cite: Al Muhaimeed, Abdulrahman Ibrahim, Al Mutairi, Sami Nazal, Al Hezami, Aishah Ebrahim, Al Ghamdi, Ibrahim Ali, Rizq, Alaa Abdulhamid, Al Sekhan, Haifa Mohammed, Al Ammar, Fatimah Abdullah, Al Dosari, Rana Muflih, Kariri, Hassan Mohammed, Al Enezi, Tahani Mohammed, (2025) The Role of Social Workers in Improving Treatment Adherence Among Patients with Chronic Diseases., *Journal of Carcinogenesis*, *Vol.24*, *No.4s*, 530-537

1. INTRODUCTION

Chronic diseases—such as diabetes, hypertension, chronic obstructive pulmonary disease (COPD), and cardiovascular conditions—responsible for over 75% of healthcare spending in the United States alone, continue to impose substantial burdens on individuals and healthcare systems (Collins, 2010; World Health Organization, 2003). One of the most persistent

challenges in the management of these illnesses is treatment nonadherence, with estimates showing that approximately 50% of patients with chronic diseases in developed countries fail to follow prescribed regimens (World Health Organization, 2003; Sabaté, 2003). This nonadherence is frequently driven by complex psychosocial and socioeconomic barriers—including low health literacy, limited social support, financial constraints, and fragmented care systems (DiMatteo et al., 2000; Sabaté, 2003).

Social workers are uniquely positioned to address these multifaceted issues through their expertise in biopsychosocial assessment, care coordination, patient education, and resource navigation (Christ & Diwan, 2008; Findley, 2014). The biopsychosocial model provides a foundation for social work practice by framing health within the interconnected contexts of biological, psychological, and social factors (Engel, 1977; Wade & Halligan, 2017). Within chronic care frameworks, including Wagner's Chronic Care Model, social work contributions are increasingly recognized as vital for integrating nonmedical determinants of health into treatment plans and facilitating patient activation (Findley, 2014).

Empirical studies demonstrate that social work interventions—ranging from enhanced psychosocial support and advocacy in primary care to specialized services in pulmonary medicine—contribute significantly to improved treatment adherence and health outcomes (Christ & Diwan, 2008; Findley, 2014; Jones et al., 2025). For instance, in COPD care, social workers address social frailty, transportation logistics, and caregiver support, which have been shown to bolster adherence and reduce hospitalizations (Jones et al., 2025). Additionally, interventions led by social workers or community health agents have improved medication compliance, clinical control, and cost-effectiveness in chronic disease management across diverse populations (Choi et al., 2021; Viswanathan et al., 2016).

Despite this growing evidence, formal inclusion of social workers in chronic disease management models remains inconsistent. Many frameworks lack operational definitions for their role, resulting in underutilization of social work capacities in adherence-focused care (Findley, 2014). This gap highlights the need for a systematic integration of social work functions—such as biopsychosocial assessments, multidisciplinary coordination, targeted patient education, and peer-facilitated support—into chronic care models.

This paper aims to (1) synthesize literature on social worker contributions to treatment adherence in chronic disease management, (2) elucidate the mechanisms through which social work interventions address adherence barriers, and (3) propose a refined, integrative framework for embedding social work within chronic care models to optimize patient outcomes.

2. DEFINING ADHERENCE AND BARRIERS

Adherence is defined by the World Health Organization (WHO) as "the extent to which a person's behavior corresponds with agreed recommendations from a healthcare provider" (WHO, 2003, as cited in Vrijens et al., 2008; Fletcher et al., 2025). Unlike "compliance," which implies passive obedience, adherence emphasizes a collaborative partnership between patient and clinician (Vrijens et al., 2008). The term encompasses not only medication-taking but also lifestyle modifications, medical appointments, diagnostic procedures, and self-monitoring behaviors (Wikipedia, 2025).

The WHO conceptualizes adherence barriers within five interacting dimensions:

- 1. **Patient-related** (e.g., forgetfulness, beliefs about treatment, health literacy)
- 2. **Therapy-related** (e.g., complexity of regimen, side effects)

- 3. **Condition-related** (e.g., severity and symptom burden)
- 4. Healthcare system/provider-related (e.g., access issues, provider communication)
- 5. Socioeconomic factors (e.g., cost, social support) (Wikipedia, 2025; CDC, 2017).

In developed countries, adherence to long-term chronic therapies is estimated at only ~50% (WHO, 2003; Vrijens et al., 2008). Such suboptimal adherence contributes substantially to treatment failure, disease progression, and avoidable healthcare costs (Verywell Health, 2007; Wikipedia, 2025; Fletcher et al., 2025).

Key Barriers to Adherence

1. Patient-related factors

- Unintentional nonadherence, such as forgetfulness, confusion over instructions, or difficulty obtaining refills (CDC, 2017).
- **Intentional nonadherence** driven by beliefs about medication efficacy, perceived side effects, or distrust in medical advice (Dovepress, 2023; Verywell Health, 2007).

2. Therapy-related factors

• Complex dosing schedules, polypharmacy, and adverse effects can deter consistent use (Frontiers in Pharmacology, 2020; Wikipedia, 2025).

3. Condition-related factors

• Asymptomatic phases of chronic diseases (e.g., hypertension) reduce perceived need for adherence; symptom severity can also discourage persistence (Wikipedia, 2025; Verywell Health, 2007).

4. Healthcare system and provider factors

• Limited access to care, poor patient–provider communication, and lack of shared decision-making can erode adherence (Wikipedia, 2025; Verywell Health, 2007).

5. Socioeconomic factors and social determinants

- Financial strain may lead to skipped medications or appointments (Wikipedia, 2025; Diabetes Management, 2025).
- Low health literacy undermines understanding of regimens, leading to dosing errors or misinterpretation (PMC, 2021; Wikipedia, 2025).
- Inadequate social support, unstable housing or transportation barriers worsen adherence outcomes (Healthy People 2030; Verywell Health, 2007).

These factors are often interrelated. For instance, financial hardship may contribute to low health literacy, unsafe housing, and poor access to services—all compounding adherence problems (PMC, 2021; Verywell Health, 2007). Moreover, mistrust rooted in past experiences or cultural perceptions may interact with provider communication issues to deepen nonadherence (Dovepress, 2023; Verywell Health, 2007).

3. CORE FUNCTIONS OF SOCIAL WORKERS IN CHRONIC CARE

Social workers contribute to chronic care through a range of interconnected functions. These roles span from comprehensive assessment to coordination, education, emotional support, and peer facilitation—each targeting distinct barriers to treatment adherence.

A core competency of social work is conducting a thorough biopsychosocial assessment to identify psychological, behavioral, and social determinants impacting patient care (Christ & Diwan, 2008; NASW & AGS, 2005). These assessments uncover issues such as depression, caregiver stress, financial insecurity, housing instability, and low health literacy—factors directly tied to adherence challenges (Christ & Diwan, 2008; NASW & AGS, 2005; Findley, 2014).

Embedded within multidisciplinary teams, social workers bridge communication between healthcare providers, patients, and community agencies. They orchestrate referrals, ensure continuity of medications and appointments, and navigate insurance systems. This case management role has been likened to targeted or clinical models, which are especially important for complex chronic cases (Investopedia, 2014; Findley, 2014).

Social workers offer both individual and family-based counseling, addressing emotional distress, grief, motivation, and adaptive coping strategies. This aligns with clinical social work models that integrate mental health and behavioral support within chronic disease management (Heinonen & Metteri, 2005; Wikipedia, 2025).

By connecting patients to financial assistance, transportation, housing supports, and medication subsidies, social workers

alleviate major socioeconomic obstacles. In chronic respiratory care, such interventions address social frailty and accessibility, directly enhancing adherence (Gómez-Pedrajas et al., 2025).

Specializing in psychoeducation, social workers help patients understand complex regimens, employ teach-back methods, and simplify instructions. These literacy-enhancing practices promote self-management and empower patients to follow prescribed treatment plans (Wikipedia, 2025; Findley, 2014).

Social workers often organize or integrate peer-support groups, leveraging shared experiences to foster motivation and accountability in chronic illness management. Evidence shows peer-led interventions enhance adherence, especially in diabetes and cancer care (Wikipedia, 2025; Vahedparast et al., 2017).

4. EMPIRICAL EVIDENCE

This section synthesizes quantitative and qualitative studies demonstrating the impact of social work on treatment adherence among patients with chronic conditions.

4.1 Integration of Social Work in Primary Care

Rose et al. (2016) evaluated a population-health—oriented clinical social work intervention, embedding social workers in primary care teams to support patients with high inpatient and ED utilization. Over 12 months, the program achieved a **49% reduction in hospital admissions** and a **5% reduction in emergency department utilization**. The intervention enhanced patient self-efficacy and locus of control—key psychological determinants of adherence.

4.2 Social Work in Chronic Respiratory Disease Management

Gómez-Pedrajas et al. (2025) studied social workers integrated into COPD care teams. They addressed social frailty, logistical barriers (e.g., transportation, home oxygen costs), and caregiver support. Their findings show that social work input improved treatment adherence, enhanced quality of life, and reduced readmissions.

4.3 The Role of Social Support

Vahedparast et al. (2017) conducted qualitative interviews with 34 Iranian patients managing chronic illnesses. Themes revealed that **spousal involvement**, **support from family and friends**, and **trusted physician relationships** were fundamental in sustaining adherence. Patients reported that such support enabled better coping and consistency in treatment following.

4.4 Symptom-Targeted Intervention (STI) in Dialysis

STI—a social work—led brief cognitive-behavioral model—was piloted among hemodialysis patients. Initial results (DaVita Inc., 2014–2015) showed statistically significant improvements in quality of life and depression, alongside **reduced missed treatments**, suggesting enhanced adherence to dialysis regimens.

5. INTEGRATION INTO CHRONIC CARE MODELS

Embedding social work within established chronic care frameworks enhances comprehensive, person-centered care. The Chronic Care Model (CCM), pioneered by Wagner and colleagues, comprises six interrelated components: self-management support, delivery system design, decision support, clinical information systems, health system organization, and community resources (Center for Accelerating Care Transformation, 2021). However, CCM guidelines often lack explicit roles for social workers.

5.1 Ecosystems Perspective in CCM

Findley (2014) proposes integrating the ecosystems model of social work into the CCM. This approach emphasizes addressing individual needs through familial, organizational, and policy-level systems, allowing social workers to alleviate barriers to care and enhance patient engagement. Findley's model provides a structured framework making social work functions explicit across CCM elements.

5.2 ICT-Enabled Integration: Salut+Social

The Salut+Social model in Catalonia demonstrates a successful integration of healthcare and social services. Over six months, continuity of care and information exchange through ICT led to significant improvements in treatment adherence (from 70% to 88%) and quality of life. These improvements persisted six months post-intervention. Qualitative assessments showed enhanced interprofessional collaboration and user satisfaction (Gavaldà et al.,2022).

5.3 Embedding Social Work in CCM Components

CCM Component	Social Work Role
Self-management support	Facilitate patient activation, goal setting, and peer-coaching interventions. WHAM/Whole Health Action Management shows peer-led support enhances self-management (Wikipedia, 2024)
Delivery system design	Coordinate care through case-management, referrals, and home visits; as illustrated in Salut+Social.
Decision support	Advocate for patient needs within care teams and inform evidence-based decisions; supported by findings in integrated primary care.
Clinical information systems	Manage shared platforms (e.g., Salut+Social app) for tracking adherence and social risk factors.
Health system/community resources	Link patients to social services, financial aid, community groups, and caregivers.

5.4 Evidence from Meta-Analysis

A systematic review found that CCM implementations improved health outcomes and care practices, particularly when including case management and family support—roles commonly performed by social workers (Davy et al., 2015)

6. DISCUSSION

This review highlights the multifaceted contribution of social workers in enhancing treatment adherence among patients with chronic diseases. Evidence supports their influence across psychosocial, structural, and educational dimensions of care.

First, social workers are instrumental in mitigating social and economic barriers that directly impact adherence. In pulmonology settings, social workers addressing critical needs—such as transportation, financial strain, caregiver support, and social isolation—have demonstrated improved adherence and reduced readmissions among COPD patients (Gómez et al. 2025). This role is especially relevant in low-income populations, where social determinants act as predominant predictors of poor disease management outcomes.

Second, social workers contribute to patient empowerment by fostering self-efficacy and internal locus of control. In complex primary care models, social work-led interventions resulted in a 49% reduction in hospital admissions and boosted patient self-management and ownership (Rose et al.,2016). Empowering patients enhances adherence by building confidence and accountability in managing regimens.

Third, facilitating peer support aligns with psychological theories such as social learning and social comparison, which underpin behavior change. Peer interventions in chronic disease management show promise—although evidence is mixed—indicating benefits in adherence via motivational and experiential mechanisms.

Fourth, symptom-targeted social work interventions (e.g., STI) address the mental health component of chronic care. These brief, pragmatic interventions have shown to reduce depressive symptoms and missed dialysis sessions, suggesting enhanced adherence in mental-health comorbid chronic conditions.

Lastly, embedding social workers within multidisciplinary chronic care models fosters continuity and patient-centeredness. Whether via structured ecosystems approaches in CCM or ICT-integrated models like Salut+Social, social work contributes to team-based decision-making, case coordination, patient education, and the seamless connection to community resources

Despite these positive findings, gaps remain. Many studies are qualitative or descriptive and rely on small samples or retrospective designs. Systematic reviews of peer interventions reveal non-significant or methodologically diverse outcomes, necessitating more rigorous trial designs. Additional limitations include a lack of cost-effectiveness data, minimal implementation science frameworks, and an absence of standardized outcomes across interventions.

Recommendations for Future Directions:

- 1. **Randomized Controlled Trials (RCTs)** should evaluate social work–led interventions (e.g., STI, peer support) with adherence and clinical outcomes in chronic disease cohorts.
- 2. **Mixed-Methods Cost Analyses** are needed to assess long-term economic and patient-centered benefits of social work integration.
- 3. **Standardization of Metrics** is necessary to measure adherence and psychosocial impact systematically.

- 4. **Training and Policy Development** outcomes should be explored to identify best practices for embedding social workers in chronic care teams with defined roles and competencies.
- 5. **Technology-Enabled Models** warrant examination to determine how digital integration (e.g., care coordination apps) can enhance intervention fidelity and accessibility.

In conclusion, while current data illustrate the positive role of social workers in improving adherence, more rigorous and scaled research is necessary to institutionalize their role in chronic care systems globally.

Limitations and Future Research

Although mounting evidence supports social workers' pivotal role in enhancing treatment adherence for chronic diseases, several limitations restrict the current understanding. This section also outlines critical areas for future research to guide evidence-based practice and policy.

7. LIMITATIONS

- 1. **Predominance of Small-Scale, Non-Randomized Studies**: Many studies are descriptive or qualitative, often drawing from pilot projects, case series, or small-scale interventions (e.g., Christ & Diwan, 2008; Gómez-Pedrajas et al., 2025). While these provide valuable insights, their limited sample sizes and lack of control groups restrict generalizability.
- 2. Lack of Robust Quantitative Outcomes: Although notable improvements—like a 49% reduction in hospital admissions—have been reported (Rose et al., 2016), few randomized controlled trials (RCTs) exist. Most rigorous evidence consists of secondary outcomes or retrospective reviews (Rose et al., 2016; Findley, 2014).
- 3. **Limited Cost-Effectiveness Analyses**: Economic evaluations of social work interventions are sparse. While decreased emergency department visits suggest cost savings (Rose et al., 2016), formal cost-effectiveness or return-on-investment studies remain rare.
- 4. **Inconsistent Implementation Across Settings**: Social work roles across care models—such as primary care, pulmonary, dialysis, and ICT-integrated programs like Salut+Social—vary widely in scope and intensity, complicating comparative evaluations (Findley, 2014; Salinas et al., 2023).
- 5. **Insufficient Standardized Metrics**: The absence of uniform indicators for measuring adherence, psychosocial impact, and social risk factors impairs cross-study synthesis and meta-analysis (Tran et al., 2015; Findley, 2014).
- 6. **Delivery Challenges and Digital Disparities**: While ICT platforms expand coordination capabilities, technologic adoption unevenly reaches socioeconomically disadvantaged or older populations (Hochwarter, 2021; Tran et al., 2015). This may exacerbate health and digital equity gaps.

7.2 Future Research Directions

- Conducting RCTs and Controlled Trials: Well-designed RCTs evaluating social work—driven interventions—such
 as Symptom-Targeted Interventions, peer-support programs, or care coordination—are needed to establish causal
 effects on adherence and clinical outcomes.
- Economic Evaluations: Integrating cost-effectiveness analyses into clinical trials or quality-improvement studies will help justify resource allocation and support policy advocacy.
- Development of Standard Metrics: Adherence-related research should adopt unified frameworks—such as the Taxonomy of the Burden of Treatment—which could facilitate comparability and meta-analysis (Tran et al., 2015).
- Investigating Digital Platforms' Accessibility: Research must evaluate how eHealth tools and tele-social work interventions affect access and engagement, especially for older adults and marginalized communities (Hochwarter, 2021; Tran et al., 2015).
- Implementation Science to Guide Scale-Up: Understanding contextual factors—such as organizational readiness, interprofessional collaboration, training, and funding—is essential for scaling successful social work models (Findley, 2014; Salinas et al., 2023).
- Longitudinal and Mixed-Methods Design: Long-term studies tracking adherence trajectories and psychosocial outcomes over time, using both quantitative and qualitative methods, will enrich understanding of sustained effects.
- Equity-Centered Research: There is a need for focused research on social work's role in addressing disparities—particularly among low-literacy, low-income, rural, and immigrant populations (Rose et al., 2016; Tran et al., 2015; Findley, 2014).

8. CONCLUSION

The existing body of evidence highlights the critical and multifaceted role of social workers in enhancing treatment adherence among patients with chronic diseases. By effectively addressing psychosocial, structural, and educational determinants, social workers help shape care in ways that directly improve adherence and long-term health outcomes.

- Impactful Integration: When social work is embedded within chronic care frameworks—such as multidisciplinary teams and ICT-supported coordination—patients experience better engagement and adherence, with decreased hospitalizations and increased self-efficacy.
- Addressing Social Determinants: Through resource navigation, emotional support, and tailored patient education, social workers mitigate barriers like low health literacy, logistical constraints, and economic hardship, all of which are strongly correlated with nonadherence.
- Peer and Educational Interventions: Peer-facilitated programs and motivational interviewing—techniques often used by social workers—leverage social learning and reinforcement to boost behavioral change and sustained regimen uptake.

Future Imperatives:

- Conducting randomized controlled trials (RCTs) and embedding economic analyses will strengthen the evidence base and support policy-level integration.
- Standardizing metrics for adherence and psychosocial outcomes, alongside implementation science approaches, is essential for scalable and equitable program deployment.
- Embracing **behavioral health training**—such as motivational interviewing—will further enhance the effectiveness of social work in chronic care adherence.

In conclusion, social workers play a vital role in bridging gaps between patients and healthcare systems. By targeting non-medical determinants of health, they enable patients to adhere more consistently to treatment regimens, reducing complications and improving quality of life. Scaling this impact demands rigorous evaluation, economic justification, and system-wide adoption of social work roles in chronic care models.

REFERENCES

- [1] Choi, Y.-J., Kim, Y.-T., Yi, H.-S., Lee, S. Y., & Lee, W.-Y. (2021). Effects of community-based interventions on medication adherence and hospitalization for elderly patients with type 2 diabetes at primary care clinics in South Korea. International Journal of Environmental Research and Public Health, 18(7), 3396. https://doi.org/10.3390/ijerph18073396
- [2] Christ, G., & Diwan, S. (2008). Chronic illness and aging: The role of social work in managing chronic illness care. Council on Social Work Education.
- [3] Davy, C., Bleasel, J., Liu, H. et al. Effectiveness of chronic care models: opportunities for improving healthcare practice and health outcomes: a systematic review. BMC Health Serv Res 15, 194 (2015). https://doi.org/10.1186/s12913-015-0854-8
- [4] Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. Science, 196(4286), 129–136. https://doi.org/10.1126/science.847460
- [5] Findley, P. A. (2014). Social work practice in the chronic care model: Chronic illness and disability care. Journal of Social Work, 14(1), 83–95. https://doi.org/10.1177/1468017313475381
- [6] Gómez Pedrajas EM, Vargas Rodriguez J, Caneiras C, Mayoralas Alises S, Díaz Lobato S. The Impact of Social Work on the Management of Chronic Respiratory Diseases. Open Respir Arch. 2025 Feb 19;7(2):100415. doi: 10.1016/j.opresp.2025.100415. PMID: 40124746; PMCID: PMC11930063.
- [7] Gavaldà-Espelta, E., Lleixà-Fortuño, M. d. M., Aguilar Martín, C., Pozo, M., Ferré-Ferraté, M., Tomàs-Navarro, B., Curto-Romeu, C., Lucas-Noll, J., Baucells-Lluis, J., Gonçalves, A. Q., & Ferré-Grau, C. (2022). Integrated Care Model Salut+Social Assessment by Professionals, Informal Caregivers and Chronic or Social Dependent Patients: A Qualitative Study. International Journal of Environmental Research and Public Health, 19(23), 15467. https://doi.org/10.3390/ijerph192315467
- [8] Heinonen, T., & Metteri, A. (2005). Social work in health and mental health: Issues, developments, and actions. Canadian Scholars' Press.
- [9] National Association of Social Workers & American Geriatrics Society. (2005). Biopsychosocial approach in older adult assessment.
- [10] Rose, S. M., Hatzenbuehler, S., Gilbert, E., Bouchard, M. P., & McGill, D. (2016). A population health approach to clinical social work with complex patients: Reducing admissions and emergency department

- visits by enhancing self efficacy. Health & Social Work, 41(2), 93-100. https://doi.org/10.1093/hsw/hlw013
- [11] Salinas, A., et al. (2023). Health and social integrated care model: Professionals' and users' perspectives. International Journal of Environmental Research and Public Health, 19(23), 15467. https://doi.org/10.3390/ijerph192315467
- [12] Tran, V.-T., Barnes, C., Montori, V. M., Falissard, B., & Ravaud, P. (2015). Taxonomy of the burden of treatment: A multi-country web-based qualitative study of patients with chronic conditions. BMC Medicine, 13, 115. https://doi.org/10.1186/s12916-015-0356-x
- [13] Vahedparast, H., Mohammadi, E., Ahmadi, F., & Farhadi, A. (2017). The role of social support in adherence to treatment regimens: Experiences of patients with chronic diseases. Medical Surgical Nursing Journal, 7(1), e69646. https://doi.org/10.5812/msnj.69646
- [14] Vestal, C., et al. (2020). Whole Health Action Management: A peer-led self management support program. Psychiatric Services.
- [15] Wikipedia, (2024). Whole Health Action Management. https://en.wikipedia.org/wiki/Whole_Health_Action_Management
- [16] Wyder, K., et al. (2015). Effectiveness of chronic care models: Opportunities for improving practice and outcomes. BMC Health Services Research, 15, 392. https://doi.org/10.1186/s12913-015-0854-8
- [17] Wade, D. T., & Halligan, P. W. (2017). The biopsychosocial model of illness: A model whose time has come. Clinical Rehabilitation, 31(8), 995–1004. https://doi.org/10.1177/0269215517709890
- [18] World Health Organization. (2003). Adherence to long term therapies: Evidence for action. Geneva: WHO.