



AN OVERVIEW ROLES OF NURSING, PHARMACIST AND SOCIAL WORKER IN REDUCTION OF HEALTH COMORBIDITY

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Abstract:

Social workers, nurses, and pharmacists can mitigate the substantial disparities that have arisen during the COVID-19 pandemic and other comorbidities by incorporating a policy practice framework into their professional responsibilities across diverse health and social environments. The COVID-19 pandemic has resulted in significant transformations in the provision of healthcare, intricate social, behavioral, and economical health emergencies, and a multitude of disparities. We examine the responsibilities of nurses, pharmacists, and social workers in mitigating health comorbidity. According to the research, the program that combines pharmacists and social workers showed a noteworthy decrease in the occurrence of multiple health conditions in the hospital environment.

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Introduction:

Adverse drug events (ADE) are a substantial yet largely avoidable burden on both clinical outcomes and economic resources [1]. ADE, or Adverse Drug Event, is a term used to describe any negative occurrence related to a medication, regardless of whether it could have been prevented or not. Within the scientific literature, this notion encompasses many words, like adverse drug responses (ADR), drug-related problems (DRP), and medication errors (ME).

From 1995 to 2000 in the United States, the estimated rate of hospitalizations owing to adverse drug events (ADEs) ranged from 1.8% to 7% [3]. A comprehensive analysis conducted in Europe estimated that the frequency of Adverse Drug Events (ADEs) leading to hospitalizations ranges from 0.5% to 12.8% [4]. The two nationwide surveys ENEIS conducted in France produced comparable findings: over half of the adverse occurrences were linked to healthcare items (48% in 2004 and 58% in 2009). The overall percentage of hospital stays attributed to medications ranged from 1.5 to 2.1%. In 2009, 51.2% of Adverse Drug Events (ADE) were avoidable and 54.5% led to hospitalization [5].

Multiple investigations have demonstrated that the causes of ADE are multifaceted. Adverse drug events (ADEs) are frequently associated with the patient, their medical conditions, prescription therapy, or the healthcare system. Two primary risk factors are frequently observed: polypharmacy, which refers to the use of many medications, and lack of medication adherence, which pertains to the failure to follow prescribed drug regimens [7]. Between 53% and 58% of hospitalizations attributable to adverse drug reactions (ADR) in the United States were caused by medication mistakes [8].

Clinical pharmacy is a method aimed at enhancing the quality of drug therapy through the optimization of therapeutic options, the distribution of medications, and the administration of medications to the patient. Pharmacists, whether working in ambulatory care or in a hospital setting, are recognized as essential in preventing Drug-Related Problems (DRP) [9]. Their primary function is to give guidance to healthcare professionals, educate patients, and assess pharmaceuticals to assure the provision of high-quality drugs to patients [10]. The World Health Organization has produced the Global Patient Safety Action Plan 2021–2030, which aims to foster a culture of safety. The objective is to minimize preventable damage in the healthcare sector by improving the operational conditions. The implementation of multidisciplinary and interprofessional techniques

is considered essential for enhancing patient safety [11].

The pharmacist's position has seen significant transformation in recent decades. The conventional practices of the occupation generally centered on the distribution and provision of pharmaceuticals, with very minimal engagement with other healthcare practitioners. In the present day, pharmacists have expanded their role to include the responsible and economical utilization of medications, advocating for healthy lifestyles, and enhancing clinical results by direct involvement in patient care and collaboration with many healthcare fields [11].

Overreview:

In the United States, individuals afflicted with the human immunodeficiency virus (HIV) do not regularly avail themselves of medical treatment [3,6], leading to unfavorable health consequences such as mortality [4]. Individuals who are HIV-positive progress through a series of stages in their healthcare journey [5,6,7], starting from being unaware of their HIV status to achieving retention in HIV care and ultimately achieving viral suppression [8,9]. The provision of healthcare for individuals with HIV is evaluated along a spectrum, wherein an individual transitions from being unaware of their HIV status to achieving viral suppression [5,6,7]. Retention in HIV care refers to the utilization of HIV care services by patients to progress through the HIV continuum of care [8,9]. Over 80% of persons who remain in HIV care successfully achieve viral suppression [10]. Individuals with HIV who are not consistently receiving medical treatment have increased rates of death, impairment, and resistance to antiviral medications as a result of missed chances to manage concurrent health conditions [11]. Coexisting medical disorders, including drug use disorder, mental illnesses, hepatitis C, diabetes, and heart disease, can be identified and necessitate proactive treatment [11]. Effective HIV management can only be achieved when a patient remains engaged in medical care. In addition, patients who get HIV treatment will see advantages from their antiretroviral medication and will be provided with protection for opportunistic infections [11].

Previous research has confirmed that the community pharmacy environment in the United States plays a crucial role in ensuring patients remain engaged in their healthcare by actively promoting their overall health and well-being [12]. Pharmacies have a crucial role in determining whether patients are successful or unsuccessful in staying engaged in their healthcare, as stated by the

United States Department of Health and Human Services [12]. A community pharmacist is a certified pharmacist who operates in a registered establishment authorized to dispense medicine, offer expert advice, and provide pharmaceutical services to anyone within a certain geographical region [12]. Although community pharmacists typically lack specialization in HIV treatment, they nonetheless have a crucial position in the provision of HIV care due to their presence in the community and easy accessibility to patients [12]. Individuals who are HIV-positive may have several healthcare providers, however, they often obtain all of their medications from a single pharmacy, thereby making the pharmacist a crucial point of contact [7]. The pharmacy environment is also perceived as having less social disapproval and is regarded an optimal place for providing HIV treatment [11]. Presently, a greater number of individuals who are living with HIV are being provided with medical attention in community-based settings as opposed to hospital-based settings [10]. Interestingly, almost 70% of individuals residing in rural regions are located within a 15-mile radius of a pharmacy, whereas 90% of those in urban areas are within a two-mile radius of a pharmacy in the United States [12]. The strategic positioning of pharmacies ensures their accessibility to those who may have limited engagement with the healthcare system, hence reducing the risk of patients disengaging from medical treatment [12].

Social workers are healthcare professionals who base their clinical practice on the principles of social justice. They are dedicated to addressing current health inequalities and preventing future disparities. Social workers have a distinct advantage in several sectors of the healthcare system, such as hospitals, primary healthcare, public health, community settings, non-profit organizations, and other areas. They are well-equipped to address the intricate social and psychological consequences arising from the epidemic [13]. Social work has a fundamental systems approach, including treatments that encompass micro, meso, and macro levels. Microlevels, mesolevels, and macrolevels are fundamental concepts in social theory used to classify social structures and processes that influence health determinants, leading to health disparities. They also inform the development of strategies to tackle these health inequities [4,11]. The microlevel encompasses individual risk factors related to psychological, social, behavioral, and material aspects, whereas the mesolevel pertains to the structures and systems inside organizations and institutions. The macrolevel refers to the features of society as a whole, including healthcare policy,

societal standards, and wealth distribution [4]. Social work utilizes a variety of skills and competencies that are crucial for addressing the evolving demands of the pandemic. These include conducting risk assessments, managing crises, developing advanced care plans, providing individual, family, and group therapy, overseeing case management, advocating for clients, navigating complex systems, solving problems, allocating resources, and mobilizing communities [14]. Social workers have a crucial role in addressing the many psychological and mental health requirements that arise during the pandemic. This includes aiding patients in obtaining pertinent financial resources like as the Canada Emergency Response Benefit (CERB). Social workers have actively advocated for social justice in many practice contexts, including addressing the significant rise in racism and xenophobia during the COVID-19 epidemic. Recent research highlights the crucial significance of social work in addressing the societal crises caused by the epidemic. Amidst the COVID-19 epidemic, there has been a growing need for social work to have a role in policy-level decision-making. This is aimed at tackling the unfair structural systems and social factors that contribute to health difficulties arising from this public health catastrophe [14].

There is a need for a plan in the health system to effectively address the need for prompt decision-making. One possibility may be to entrust part of the duty for end-of-life talks during the shift from curative to palliative care to other health professionals who feel prepared and capable [9]. Nurses, who are non-medical practitioners, can provide assistance to patients and their families by regularly interacting with them at the bedside. This connection helps to establish trust and a good relationship [15]. Nurses possess a distinctive viewpoint on the individualized progression of diseases, enhancing their authority in discussions on end-of-life matters. Nurses presently fulfill three distinct roles in end-of-life communication, which encompass being an information intermediary, a source of support, and a champion. Their responsibilities including translating complex medical information, advocating for the patient and their family's objectives within the broader healthcare team, navigating the complexities of the healthcare system, and emphasizing the need of avoiding unnecessary and ineffective treatments.

Conclusion:

The COVID-19 pandemic has placed an exceptional strain on health systems globally and has revived recognition of the necessity for expedited decision-making in the latter stages of

life. The current overwhelming demand for intensive care services, which cannot be met, presents an opportunity to consider expanding the responsibilities of essential members of the healthcare team, such as nurses and social workers. The individuals possess the necessary qualifications and have a deep understanding of the social and clinical aspects to effectively initiate and facilitate conversations on end-of-life matters with patients and their families. By implementing focused education, legislative backing, and raising public awareness, it is feasible to bring about a transformation in the healthcare culture. This transformation would enhance comprehension of high-quality end-of-life care, acknowledge the importance of palliative care, and establish the idea that it is acceptable to refrain from or discontinue futile life-sustaining treatments for individuals with no chance of survival.

References:

- Garin N, Sole N, Lucas B, Matas L, Moras D, Rodrigo-Troyano A, Gras-Martin L, Fonts N. Drug related problems in clinical practice: a cross-sectional study on their prevalence, risk factors and associated pharmaceutical interventions. *Sci Rep.* 2021;11(1):883. 10.1038/s41598-020-80560-2.
- Bates DW, Cullen DJ, Laird N, Petersen LA, Small SD, Servi D, Laffel G, Sweitzer BJ, Shea BF, Hallisey R, et al. Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA.* 1995;274(1):29–34.
- Leape LL, Bates DW, Cullen DJ, Cooper J, Demonaco HJ, Gallivan T, Hallisey R, Ives J, Laird N, Laffel G, et al. Systems analysis of adverse drug events. ADE Prevention Study Group. *JAMA.* 1995;274(1):35–43.
- Bouvy JC, De Bruin ML, Koopmanschap MA. Epidemiology of adverse drug reactions in Europe: a review of recent observational studies. *Drug Saf.* 2015;38(5):437–53. 10.1007/s40264-015-0281-0.
- Hanlon JT, Schmader KE, Koronkowski MJ, Weinberger M, Landsman PB, Samsa GP, Lewis IK. Adverse drug events in high risk older outpatients. *J Am Geriatr Soc.* 1997;45(8):945–8. 10.1111/j.1532-5415.1997.tb02964.x.
- Onder G, Pedone C, Landi F, Cesari M, Della Vedova C, Bernabei R, Gambassi G. Adverse drug reactions as cause of hospital admissions: results from the Italian Group of Pharmacoepidemiology in the Elderly (GIFA). *J Am Geriatr Soc.* 2002;50(12):1962–8. 10.1046/j.1532-5415.2002.50607.x.
- Field TS, Gurwitz JH, Harrold LR, Rothschild J, DeBellis KR, Seger AC, Auger JC, Garber LA, Cadoret C, Fish LS, Garber LD, Kelleher M, Bates DW. Risk factors for adverse drug events among older adults in the ambulatory setting. *J Am Geriatr Soc.* 2004;52(8):1349–54. 10.1111/j.1532-5415.2004.52367.x.
- Mugosa S, Bukumirić Z, Kovacević A, Bosković A, Protić D, Todorović Z. Adverse drug reactions in hospitalized cardiac patients: characteristics and risk factors. *Vojnosanit Pregl.* 2015;72(11):975–81. 10.2298/vsp140710104m.
- Evans RS, Lloyd JF, Stoddard GJ, Nebeker JR, Samore MH. Risk factors for adverse drug events: a 10-year analysis. *Ann Pharmacother.* 2005;39(7-8):1161–8. 10.1345/aph.1E642.
- Pirmohamed M, James S, Meakin S, Green C, Scott AK, Walley TJ, Farrar K, Park BK, Breckenridge AM. Adverse drug reactions as cause of admission to hospital: prospective analysis of 18 820 patients. *BMJ.* 2004;329(7456):15–9. 10.1136/bmj.329.7456.15.
- Alhawassi TM, Krass I, Bajorek BV, Pont LG. A systematic review of the prevalence and risk factors for adverse drug reactions in the elderly in the acute care setting. *Clin Interv Aging.* 2014;9:2079–86. 10.2147/CIA.S71178.
- Banks S, Cai T, de Jonge E, et al.. Practising ethically during COVID-19: social work challenges and responses. *Int Soc Work* 2020;63:569–83. 10.1177/0020872820949614
- Abrams EM, Szeffler SJ. COVID-19 and the impact of social determinants of health. *Lancet Respir Med* 2020;8:659–61. 10.1016/S2213-2600(20)30234-4
- Berg-Weger M, Morley JE. Editorial: loneliness and social isolation in older adults during the COVID-19 pandemic: implications for Gerontological social work. *J Nutr Health Aging* 2020;24:456–8. 10.1007/s12603-020-1366-8
- Walter-McCabe HA. Coronavirus pandemic calls for an immediate social work response. *Soc Work Public Health* 2020;35:69–72. 10.1080/19371918.2020.1751533