

Integrating Social Care Informatics, Pharmacists, and Social Work to Support Holistic Health Care: A New Vision

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Abstract

This paper explores the integration of social care informatics, pharmacists, and social work to create a holistic approach to healthcare. By focusing on interdisciplinary collaboration and leveraging informatics tools, the study highlights how patient care can be improved by addressing social determinants and encouraging collaborative decision-making among healthcare professionals. The research also emphasizes the need for a patient-centered approach that includes physical, emotional, and social well-being, along with technological advancements that support integrated care.

Keywords

Holistic Healthcare, Social Care Informatics, Interdisciplinary Collaboration, Pharmacists, Social Work

1. Introduction

Health care is complex, and patient needs are influenced by a wide variety of traditional medical and social drivers. Health disparities and inequities are becoming more recognized, and there is an increasing recognition that individuals must be treated as members of populations and meta-populations, rather than local, isolated individuals. The non-uniform requirements of various populations and the heterogeneity of individual patients emphasize the importance of distributed health care among professionals in a wide range of various fields. (Richardson et al.2022)(Patel et al.2020)(Gómez et al.2021)

This focused attention on outcomes, rather than technology, presents a major paradigm shift for the current focus of health care, with dramatic downstream implications. Thus, our viewpoint suggests that interdisciplinary care management is not an add-on that treats patients belonging to an upper-end class, but rather an approach that will benefit all

patients. Traditional medical research has focused on finding cause-effect relationships among groups and seeking to apply results to subgroups—the subclinical. From our viewpoint, both paradigms can be considered. But if ultimately we must choose one, we endorse a patient-focused paradigm. This paradigm stands to yield the best patient outcomes by taking into account the patient's social environment—fewer cases of therapeutic non-compliance—by engaging the patient support team client in the decision-making process. We believe this holistic approach can translate into cheaper long-term care, reflect appropriate changes in societal value judgments, and ultimately speed the reform to a patient-focused care system.

1.1. Background a

Health care practices historically have been based on a biomedical model, which has begun to evolve to include a biopsychosocial approach and a more holistic approach to patient care. The biopsychosocial approach recognizes that a person's health is as much about their physical being as it is about their emotional and social states. A holistic approach widens the biopsychosocial view to include the concept of the integrated whole of the person. These adapted views of patient care indicate a growing recognition of the significant impact of emotional and cognitive attributes, as well as social influences in health and well-being. It has been suggested that social care informatics offers a way to operationalize a truly holistic model of care that links the consumer's medical, social, and emotional history through service delivery systems in ways that allow for comprehensive care plans that involve everyone in that person's service system. As well, regardless of care models, social workers are capable of providing much-needed emotional support to front-line professionals.

1.2. Rationale for Integration

There are many vantage points that suggest bringing social care informatics and social work expertise together with pharmacists in more familiar health care settings is desirable. First, many service delivery gaps exist that may be addressed by attending more closely to the emotional, cognitive, and mental health of patients. Front-line service providers are trained to look primarily at the presenting physical complaints, even when informed by a more holistic health care philosophy. Cognitive theory examples have been examined in pain management, and there may be an important role for social care in other chronic disease self-management as well. Moreover, an immense amount of evidence shows that when there is cooperation and collaboration between two or more different health or social health specialties, there are better health outcomes for patients. As different front-line specialties like pharmacists, social workers, psychologists, or many others can and do interact, it is important to study the impact on patient health of social care, especially in the generic end-user group because they cut across all conditions. Another reason to consider revised organizational setups is that there is clearly an increased focus on interdisciplinary care planning as health care professionals deliver more services at various points. Policy frameworks are changing to encourage a more multidisciplinary approach to health and mental health conditions, from acute care to health promotion and chronic disease self-management. Further, in addition to the top-down policy support, people living in communities now expect and want proper effective programming to do something about the documented results in mental and social health research. As such, there appear to be

sound philosophical and pragmatic reasons to attend closely to the emotional and cognitive states of patients as they present to health and social services of all kinds.

2. Understanding Holistic Health Care

Holistic care, holistic health care, or wholism emphasizes health care of the entire patient (physical, mental, social, environmental), including social and behavioral problems, as well as diseases, and usually over time. It is the philosophy that health care should include physical, emotional, and social well-being. It targets patients as subjects, recognizing their multifaceted roles as individuals, spouses, caregivers, employees, and community residents. It promotes opportunities for patients to partake in their health care. Patients as subjects must be empowered with information on symptoms and disease and maintained on the care continuum without costly and traumatic interruptions. (Richardson et al.2022)(Whitehead & Dahlgren, 2021)

It is distinguished by focusing on alternative, non-medical treatment. It is a possible system for prevention, rather than just treatment, and follows principles of prevention and partnership, which enhance health that is the natural equilibrium of the patient but can be strengthened by care. It is based on several principles, ranging from prevention through continuous care and democratic assistance, to the holistic approach. Holistic care encourages patients to be active participants in therapy and treatment. It emphasizes four principles that characterize holistic care and set it apart from traditional medical care. • The patient holds primary power. • The care is continuous. • The care is easily accessible to meet full needs. • The care empowers and promotes the patient. (Richardson et al.2022)(Whitehead & Dahlgren, 2021)(Shim, 2021)

2.1. Definition and Principles

Conceptions of holistic care run parallel in many texts and contexts, but differ in exact contours. Scholars agree that a holistic perspective on health and care realizes the multidimensional nature of humans. Health and care are understood in terms of body, mind, spirit, emotions, social relationships, and material environment. Holistic health implies more than the absence of disease, pain, and disability. It is about the ability of individuals to make their lives as well as possible and to relieve suffering as much as possible. This form of health, and therefore of care, evaluates an individual from four interdependent aspects: physical, emotional, social, and spiritual.

Principles of holistic care are those of individualization, collaboration, and inclusion. Care is patient-centered and involves empathy and communication skills. Many institutions and models expand the care around the disease to the social, emotional, spiritual, and financial support needed for the patient, family, or caregiver to cope and resettle or adapt. These models are grounded in the research on how people learn, grow, and change, and spell out how to use the knowledge to contribute to the development of people, organizations, and agencies. These models also embrace patient empowerment, a concept that presents potential benefits of the empowerment model for patients and health care professionals.

From Africa, the ASBOS model provides an appealing description of how an HIV care clinic in Harlem involves pharmacists and social care workers. They contribute to a holistic service to support clients in looking after their health and taking their medication. By reaching out to people in many clinics, the social care pharmacist has a unique view of his or her neighborhood and knows the best community resources. The pharmacist can develop a pillbox plan for patients who cannot read. The social worker ensures a quiet, safe environment where the client and care providers can have private time together. In these

diffusion zones, we relearn through observing each other and talking. This is the holistic model of today—to better engage our clients, link with our own colleagues, and work closely with our community partners. The plan works because we care.

3. Role of Social Care Informatics

Social Care Informatics is about the use of technology in health and social care to support integrated working. The wider issues are discussed in this paper, which discusses how pharmacists and social workers can work with GPs providing more holistic care, which involves knowing about patients on a wider basis, and the role of informatics in this new vision.

Informatics can be used to provide 'integrated patient records', which bring together the information in different professionals' records. Applications such as these can support processes that integrate care. Using the technology to bring different views of the person together will concentrate on the individual as a whole and enable the development of shared care plans. Results from surveys in general practice have shown that the information in social care records is thought to be just as important as medical or psychological information in developing shared care plans in primary healthcare, and only slightly less important in specialist healthcare. Key informatics areas for work in social care assessment and care management include collecting information from clients and carers, providing problem-based summaries, and providing costings. (Gómez et al.2021)(Patel et al.2020)

Informatics can be used by the patients/service users themselves to book, change, cancel appointments, order repeat prescriptions, and access a wealth of health information. In addition, various e-monitoring applications are providing e-support for self-care, empowering individuals to manage their care in collaboration with carers and physicians. Monitoring a person's social care environment and social care indicators is beginning to support people with long-term conditions; it can suggest when medication or other interventions do not seem to be working, or where interferences and opportunities for integrated working might lie. For example, monitoring housing, heating, debt, and social networks would provide a clearer picture of some of the social determinants of health and support holistic care plans. Consumers of services can contribute to their systematic assessment and care planning, where informatics enables them to express themselves effectively. The 'power' in the social care records can describe whether a person with support needs is involved in activities and services. (Gómez et al.2021)(Patel et al.2020)(Richardson et al.2022)(Whitehead & Dahlgren, 2021)(Shim, 2021)(Llop-Gironés et al.2021)(Yao et al.2022)(Bartley & Kelly-Irving, 2024)

Monitoring wider indicators assists commissioners in strategic service development and planning. Modern social care software should be purposed to streamline workflow, increase processing speed, reduce paper, provide information related to the desktop, and enhance cost and efficiency measures. Informatics applications used to integrate in this and other ways help contribute towards sharing a holistic view of the patient, to track healthcare and social support, and to improve patient tracking and flow. Informatics pose greater opportunities to contribute to the prevention of or early interventions for disease and wider social determinants for poor health. One disadvantage is data security and patient confidentiality. There are new challenges, which might include the potential identification of participants in some research data studies and relatives in shared databases through

connection by 'time and space'. Most of the issues and strategies used to facilitate sharing of primary care information can be found in various resources. Information shared must be proportionate, secure, accurate, shared in the service user's legitimate interests, and shared with service users, carers, and families. A communication plan on information sharing is essential. In terms of project management, involving users in development and choice in preferred practical format or in gaining the required investment has been shown to contribute to highlights. In summary, informatics and technology contribute to a new vision of practice in the future, which will work across health and social care and shed benefits for all. (Whitehead & Dahlgren, 2021)(Shim, 2021)(Richardson et al.2022)(Patel et al.2020)(Gómez et al.2021)

3.1. Applications and Benefits

Specific applications of social care informatics are also illustrated in health care to assist the reader in understanding the various concepts. These applications range from keeping patient information in electronic health records to the remote delivery of services through telehealth monitoring and narrowband IoT passive data collection. Additionally, patients have access to numerous smartphone apps, which help them in their care journey, many of which are condition-specific. The apps help individuals self-assess their signs or symptoms and empower them to take further action. Technology like this supports the values of shared decision-making, patient centricity, and planning for various clinical services. These telehealth monitoring systems and apps are designed to maintain and improve the time and accuracy of information between the person with lived experience and the health care provider. Furthermore, these apps may generate alerts and send them to the health care provider group in real-time. Real-time alerts have the potential to target individuals who are in need of time-sensitive intervention and facilitate the quick commencement or modification of care. Incorporating informatics may facilitate a collaborative planning approach at the department level for addressing the acquired data of technology and health care provider priorities around early interventions and quality of care. Moreover, incorporating informatics may also result in a reduction of resources to prevent unnecessary health care conditions or early intervention, which correlates with fewer bed days or a reduction in doctor visits and hospitalizations. Confining informatics and digital data management helps ensure information privacy, regulatory compliance, and systems-level standards. Close stakeholder consultation related to governance and ethics must also be conducted to ensure that the use of social informatics and models of service delivery always meets policy, regulatory, and professional standards. The aim is not only to have excellent data for direct care delivery and monitoring but also to utilize the information from digital systems to advance health care service delivery according to the goals of an integrated system. Thus, informatics need to be planned from an enterprise-level service strategy for digital health to underpin a new vision of health care delivery. (Gómez et al.2021)(Patel et al.2020)(Richardson et al.2022)(Whitehead & Dahlgren, 2021)(Shim, 2021)(Llop-Gironés et al.2021)(Yao et al.2022)(Bartley & Kelly-Irving, 2024)

4. The Contribution of Pharmacists

Pharmacists are vital to holistic health care for many reasons. They know how to manage chronic medication therapies and what side effects or interactions to watch for. Pharmacists provide education to patients about their medications, the differences between existing and newly prescribed drugs, how to properly store medications, when to take them during the day, with food, or on an empty stomach, and help them understand what happens if doses

are missed or double doses are taken by accident. They help patients understand the reasons their doctor changed a medication therapy and why it is possibly related to other medications or illnesses because they can see the big picture. For instance, pharmacists perform Medication Therapy Management services that aim to prevent adverse drug reactions by promoting safe drug use and optimizing therapeutic outcomes for patients. (Richardson et al.2022)(Patel et al.2020)(Gómez et al.2021)(Shim, 2021)(Whitehead & Dahlgren, 2021)

The process goals for MTM services include ensuring adherence, reducing medication mismanagement, preventing and resolving medication-related problems, and reducing unnecessary medical and drug costs. Preventative health care and health promotion services that have been initiated by disease state management clinics have begun to highlight the clinical role and innovative practice activities of pharmacists. In reality, these services dovetail with pharmacists' current practices; in Michigan and many other states, pharmacists are allowed to administer immunizations, stop smoking, and test for various conditions and help people understand how to take care of their current health. (Patel et al.2020)(Whitehead & Dahlgren, 2021)(Richardson et al.2022)

4.1. Collaboration with Other Healthcare Professionals

Pharmacists have collaborated with other healthcare professionals over the years to improve patient care. An array of interdisciplinary approaches to the delivery of healthcare services has been developed to improve the health outcomes of patients. In a clinic in Colorado, pharmacists and physicians work together to manage patients with chronic diseases. An integrated approach to care was piloted in which a pharmacist and nurse care manager are integral members of the primary healthcare team that works with patients on any health management needs. A collaboration developed between a pharmacist, nurse team leader, and social work care coordinator to identify patients in the parish clinic at risk for disease states or instability before hospice services were initiated. (Patel et al.2020)(Gómez et al.2021)(Shim, 2021)(Whitehead & Dahlgren, 2021)(Richardson et al.2022)

Pharmacists who work in HIV clinics and AIDS service organizations provide essential services such as opportunistic infection prophylaxis and treatment recommendations, adherence strategies, evaluation, and dosage recommendations for pediatric HIV medications, as well as education to physicians, patients, and other healthcare providers. The addition of a pharmacist to a pain management team has resulted in better overall results at an academic health center that provides care for chronic pain patients. Primary care physicians realized an increase in efficiency and job satisfaction as a result of the insights of their clinical pharmacist colleague. Team management of anticoagulation therapy among patients with a long-term indication resulted in quicker attainment of a safe international normalized ratio. Social workers and pharmacists have developed an interdisciplinary team approach to improve anticoagulation monitoring. Pharmacists have taken a more active role in care coordination of patients across transitions of level of care within healthcare facilities and from hospital to home. Social workers are increasingly looking to their growing number of pharmacy colleagues for medication management recommendations in integrated social care informatics environments. However, both historical and contemporary information collection has indicated a lack of synergy between

social workers and pharmacists working in sub-acute care. Social workers involving their pharmacy colleagues in activities of daily living care planning elevates the holistic care of the particular patient. As is the case with physicians, communication barriers exist among pharmacy and social work professionals within the healthcare environment. Barriers between pharmacists and social workers are exacerbated by differences in philosophy, history, larger social roles, and professional culture. This lack of communication or coordinated care impacts the consumers of healthcare services and the ultimate quality of care as well. In general, communication barriers are not related to the potential for synergy of practice among social workers and pharmacists but are deeply rooted in complex historical and philosophical issues. Various strategies are proposed here to help reduce the barriers to integrated care. Healthcare professionals can follow these examples to improve practice. (Gómez et al.2021)(Patel et al.2020)(Richardson et al.2022)(Whitehead & Dahlgren, 2021)(Shim, 2021)(Llop-Gironés et al.2021)(Lavizzo-Mourey et al.2021)(Yao et al.2022)(Bartley & Kelly-Irving, 2024)

5. Enhancing Health Outcomes through Social Work

Integrating social care informatics, pharmacists, and social work to support holistic health care: A new vision. Social workers and social work play a transformative role in addressing the person in environmental or social context. From a health care perspective, a social work rehabilitative model is specifically devoted to enhancing health outcomes for those involved in our health care systems. There are many ethical debates about creating an integrated or holistic health care system. Whether in collaboration or independently, social workers assess a myriad of psychosocial and community needs of service users or "patients." These include accessing adequate support systems and resources in a person's community of origin. Addressing these determinants of health is a social work value that has historically been part of the origins of the profession. Diet, safe housing, education, social support, physical environment, and more recently, socially validating practices all present as social determinants of health.

When social determinants are absent, present with challenging conditions, or have traumatic effects, patients often present with poor health conditions, which can affect their adherence to their plans of care as well as their mental cognitive state. Social work practices, whether in a prevention or acute context, develop a resilience response in patients where goals are supported, and education is given for advanced contingency planning as well as engagement in the milieu to access care when needed. A lack of culturally or societally insensitive health care practitioners, inadequate patient or person-centered care, or a lack of accurate methods to screen health care access patterns must be equally addressed to improve health outcomes in an integrated system. The science of collaboration among health care practitioners is decades ahead of the field of social informatics. Pharmacists rely on informal care networks when delivering pharmaceutical care, yet these culturally constructed social networks reflect the social determinants of health when supports necessary to follow negotiated behavior patterns cannot be continued. Troublesome collaboration among health care workers has also been documented. Studies have broadly documented such interpersonal conflicts and disruptive behaviors and barriers to inter-professional learning in the pharmacy field. A thorough review of technical skills and an understanding of pharmacology are positively correlated with patient health, as are emotional intelligence and cultural competence. Emotional intelligence is at the core of good communication skills and successful medical care.

5.1. Interdisciplinary Collaboration

According to the provision of optimum care depends on interactions among health, social services, and informatics professionals. Larger hospitals employ social workers and have access to pharmacists. This chapter describes how technology can support the work of social care professionals and other members of healthcare teams while exploring how improved sharing of information can support these professionals' impact on client wellness. The Social Work Process Social workers collaborate with other professionals to assess and provide appropriate care to patients and clients. Many social workers in larger hospitals also gain in-depth technical knowledge of their local area, including the health issues of interest to their employer. In discussing collaboration, we frequently discuss the role of the pharmacist. Many readers may assume that collaboration between a pharmacist, who carries units of medication into the hospital for in-house expert knowledge on drugs and drug interactions, and doctors, who determine what to prescribe, already happens. In smaller hospitals and other similar care settings, pharmacists may also take a lead role advising about nutritional supplements, over-the-counter drug use, and durable equipment. Sharing Information between Members of a Health and Social Care Team The clinic opened as a joint effort between a hospital, individual and group volunteers and donors, and members of the city, and has met its goal of lowering hospital and emergency room use by the urban poor, many of whom are homeless. Features such as on-site access to social workers and pharmacists and a team-based approach that treats both "heartburn and homelessness" help keep patients out of the hospital and meet a broad range of patient needs. Social workers take an active part in patient care. Still, they have seen the clinic build strong feedback loops to provide the care that these patients need to live in the world. Using Integrated Care Team Methods with Social Care Across the spectrum of collaborative behaviors, a more highly integrated, team-based approach has more potential to promote interprofessional and grasp the complex healthcare needs of the clients. A holistic approach underpinning interdisciplinary integration is to regard the whole client when planning and delivering care to a level of depth and complexity not covered by equivalent one-discipline or multidisciplinary approaches. The clinic supports this by providing weekly meetings where drugs are adjusted and therapy is coordinated for the sickest clients. For this group, months were a fact of life, and social work support was often needed, reinforcing the team approach to reducing hospitalizations for this population. (Whitehead & Dahlgren, 2021)(Shim, 2021)(Patel et al.2020)(Richardson et al.2022)(Gómez et al.2021)(Yao et al.2022)(Bartley & Kelly-Irving, 2024)

6. Integration Models

Several integration models illustrate the potential roles for social care in a clinical team setting, for social work, and for informatics in such interdisciplinary practice. Informatics developments in mental healthcare are gaining momentum, but the specifics of a model of interdisciplinary practice supported by informatics are not clear. Interdisciplinary care requires appropriate communication pathways, shared resources, and support from the management echelons in clinical settings. This section sets out various models of care that reflect this level of interdisciplinary care, to illustrate the position of an industry-funded social work model and a pharmacist-led social care model of interdisciplinary practice as

they might sit within the holistic movement. (Richardson et al.2022)(Patel et al.2020)(Gómez et al.2021)(Shim, 2021)(Whitehead & Dahlgren, 2021)

There is a long history of social care from the social work and pharmacist perspectives in providing care and support. Such engagement extends the healthcare continuum; however, increasingly, pharmacists and social workers are moving into clinical settings to engage with multidisciplinary care teams, providing a form of case management with the patient's primary caregiver or caregivers to help enable holistic healthcare. The necessary communication pathways to enable such broader rapport are thus both vertical and horizontal, depending also upon the accompanying informatics and/or paper clinical records, the funding contexts, and the physical structures for teams to be co-located and thus more able to engage with other clinicians to enhance care. Integrating social care informatics, pharmacists, and social work, this section will present a case study that exemplifies such a pharmaceutical care approach and a vertical care approach. Integration models enable implementation and can provide an empirical evidence base.

6.1. Case Studies and Best Practices

6.1. Case Studies / Best Practices

To showcase what is possible, we present below three case studies that illustrate a variety of delivery system and integration models. One example involves the collaboration of pharmacists and social workers who have value to bring to meeting social needs. In another, pharmacists bring social data into their care decisions. The third example illustrates the world of social care informatics and its growing potential to support many kinds of interdisciplinary decisions.

- A Way to Care: How AccessHealth makes it easier for social workers and pharmacists to collaborate to address social determinants of health and medication outcomes.
- Care Act 5: Integrating pharmacists and hospital blood banks to address the health care needs of refugees.
- How two comprehensive community initiatives in Michigan use social care informatics to improve access and outcomes for patients and communities.

A number of compelling best practice insights arose from our case studies, as we will present in more detail in Part 7. In brief, they include a consistent view of integrated, patient-and-community-centered care, melded with a deep understanding of the unique context of each interdisciplinary relationship. Common across our case studies, best practices include:

- Those building relationships looked for early wins to propel their changing relationships forward.
- Best practices emphasized practitioners learning enough about their interdisciplinary partners' work to appreciate their value.
- Our respective managers and administrators made significant investments in supporting the new processes and technologies these relationships required, including infrastructure, staffing, training, and significant attention to ways to make their integrated teams resilient to the vagaries of policy and program shifts.

The training for these new teams emphasized the primacy of empathy and compassion, not just towards shared patients and consumers but towards one another.

- All of these permitting infrastructures were specifically designed to evolve as providers shift to value-based service delivery payment models, as well as to accommodate the changing demographics and other conditions of the communities they serve.

· Importantly, all of these efforts took time. The investments in these trainings and in creating the training infrastructures that could evolve to keep up with policy and program shifts are indicative of the profound shifts that these integrated teams sought to make in interprofessional communication and collaboration. (Richardson et al.2022)(Patel et al.2020)(Gómez et al.2021)(Shim, 2021)(Whitehead & Dahlgren, 2021)

7. Challenges and Opportunities

As noted earlier, the vision we offer in this paper is not yet operational, and there are numerous challenges to overcome. For example, neither interoperability—the electronic exchange of data among different information systems—nor a commonly agreed-on theoretical base yet exists to support social care informatics and integrate it with bio-physical health care. Although health care policymakers and practitioners frequently advocate for more integrated approaches to bio-physical and social care, financial constraints often result in funding for pilot initiatives. The overall current low level of technological integration between social care, community-based health care, and more technical hospital-based care, despite efforts in many countries that would scale or morph large parts of the social care agenda into the health care arena, will need to be overcome. Additionally, the relatively low level of education and understanding among hospital- and research-based health care staff of the ethical, economic, and practice implications of integrated bio-physical and social care can hinder needed progress. Beyond ethical aspects that pit the "benefit of the patient" against the "future utility maximized health of the population" lie many technical difficulties. Representing social care issues so that health care professionals and informaticians might integrate these into the electronic health record is a change requiring technical and human capacity unlikely to be available in the short term. Stakeholder collaboration across traditional provider sectors, including regional public health and non-governmental health-related services, needs to be encouraged. This area of practice and research will involve advocacy not only for tools just described but for the organizational changes in our hospitals that will be necessary for the practice described above and for the changes in social care practice and its informatics not described here. Social informaticians and health informaticians will need to use such efforts to push for the development of the information-based integrated systems that result in the practice described above.

7.1. Ethical and Legal Considerations

When considering the implementation of collaborative care settings, digital health and social care informatics integration with clinical care represent profound changes in routine care practice. From the outset, social work, pharmacy, and clinical care communities must develop strict protocols for explicit patient privacy requirements, data sharing, and consensus-building approaches as a cornerstone for systems design. These protocols will vary as each billing system and laws for compliance differ in each state. Knowledge and access to relevant state laws and policies are necessary, but developing explicit protocols is needed for meeting ethical standards among different health care stakeholder professionals and for training the next generation of multi-care professionals. There is often tension around cross-training and interprofessional or interdisciplinary learning, and there is a long history and many complex advanced degrees and credentials among these professionals. However, training future health care professionals as discipline experts

based on a shared model of accountability and professional competencies is needed while also training them to understand each other's ethical frameworks, as responsibility and mutual capability and accountability have great merit, which is a guiding principle of the Professional Practice Model.

There may also be cases or incidents in which patient confidentiality and privacy rights may be held in tension with patient 'best interest' as determined by a free and valued decision with a patient's behalf holder, or when the patient is cornered into stern medical adherence and a concern arises in which a larger ethical conflict concerns giving up pertinent information to be shared regarding the patient's mental status concerning unethical issues of justice and allocable fairness meant to heal the pain of various social injustices against the patient. Treatment teams and integrated health care and social action systems should facilitate and develop ways of participating in organizational ethics meetings to better understand and plan to perform their collaborative roles with their patients regarding ethical duty conflicts and conflicts professionally. An agreement among the team members and integrated health social care professionals and experts must be cognitively informed and medically properly consented for the emergent issue at hand, and consider further ethics guidelines, e.g., if the application of an ethics centrist model might be helpful as well as a hermeneutic justice model. This will help avoid individualist decisional bias.

8. Conclusion

In this paper, we have put forth a vision for patient-centered, holistic care. We have discussed ways to integrate state-of-the-art approaches to collaborating across disciplinary lines for the benefit of patient care. These include collective information systems, interventions by carefully trained pharmacists, and superb social work interventions. We have described the value of addressing social determinants as we work to draw patients into care settings that can help them manage their own care. All of our recommendations can be seen as developing concepts about what health is, so that we can deliver care that supports and improves health. Accordingly, we believe our contributions promote gathering care in an effective way that requires concerted teamwork and communication among all of the acting providers rather than a service that can be parceled out and managed by separate parts. Addressing social determinants of health, engaging the patient's interest in self-care, and creating software for social work will all be of benefit to many of the parties who are acting to promote, manage, and reduce disease. We can halt a pandemic or precipitously reduce a disease, but if we throw very ill individuals out onto the street, destroy their social support systems, and prevent them from getting enjoyable exercise, they will simply return for care that they are unable to pay for. We aim here to unearth a key ground for tailoring care in a way that can allow systems to address the coming health challenges and give patients the care they need. We invite those charged with ensuring a coordinated system of health care to engage all members of the health care delivery team and to brainstorm about and contribute their own visions of best practices, present obstacles, possible areas of research focus, and to suggest policy changes that would offer an environment of support for health care integration.

8.1. Summary of Key Findings and Future Directions

A potential collaboration of social care informatics, pharmacists, and social work may provide a strong foundation in approaching health care with a more holistic vision or a person-centered approach. However, further research is needed to achieve small and large-

scale outcomes from this potential combination of professions. In our health care settings, we must address the systemic changes necessary to be patient-focused rather than creating patients who must fight for our resources. An integrated approach will provide better services and outcomes for our patients, their families, and society. Future research should focus on better models, processes, and validations to meaningfully reduce the burden on the end user. Additional application areas are needed in evaluating specific health outcomes, looking at readmissions, fall rates, and satisfaction scores. Collaborative research with combined social care informatics, pharmacists, social work, and other medical disciplines is needed across all health care settings, academic institutions, and communities. Meeting basic health care needs is likely to include approaches like this. We believe that, at a minimum, knowledge and understanding must be broadened among multiple disciplines. It is also a philosophical approach not shared by people raised in the medical model. Available resources for formal dissemination of these ideas must be explored. Some barriers to implementing the pharmacist-driven role of helping to coordinate community resources for patients include obstacles in time, role definition, and role resistance that must be addressed.

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