Approaches for the Identification and Management of Non-Compliance in Patients with Chronic Illness

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ABSTRACT

Patients with chronic illnesses often require complicated care, characterized by frequent follow-ups, exacerbations, and alterations in treatment. Understandably, patient non-compliance is not an uncommon occurrence, and may significantly diminish the quality of health care received. This paper explores the current approaches to chronic illness management, including strategies to identify and reduce non-compliance, as well as the physician's responsibilities in chronic illness management as guided by the CanMEDS roles. It also introduces a novel approach to the identification and management of non-compliance in patients with chronic illness: the Patient-System Interaction Model (PSIM).

RÉSUMÉ

Les patients atteints de maladies chroniques nécessitent souvent des soins complexes, caractérisés par des suivis fréquents, des exacerbations et des altérations du traitement. Naturellement, la non-conformité des patients n'est pas un phénomène rare et peut réduire considérablement la qualité des soins de santé reçus. Ce document explore les approches actuelles de la gestion des maladies chroniques, y compris les stratégies visant à identifier et à réduire la non-conformité, ainsi que les responsabilités du médecin dans la gestion des maladies chroniques guidées par les rôles CanMEDS. Il introduit également une nouvelle approche pour l'identification et la gestion de la non-conformité chez les patients atteints de maladie chronique: le modèle d'interaction patient-système (PSIM).

Non-compliance is an archetypal issue in the field of medicine. Non-compliance is particularly salient in the setting of chronic disease management, where patients may require frequent monitoring or counselling, intensification of treatment during acute exacerbations, complicated coordination of care, and the development of adequate self-management strategies in order to prevent future morbidity and mortality (1). Optimal chronic disease management is, understandably, often difficult to achieve. However, appropriate exploration of patient non-compliance under a chronic care framework, in addition to the patient's personal interactions with the healthcare system, may potentially combat this issue. Importantly, the CanMEDS roles should serve to guide the physician's efforts.

The chronic care model of disease management was first introduced by Wagner in 1998 in order to address deficiencies in chronic disease management (1,2). The model integrates community-based and health system-based approaches to improving care; an example of the former being the development of self-management strategies, and an example of the latter being enhanced decision supports. Specifically, the development of self-management strategies engenders an informed and active patient, whereas optimal healthcare system management produces a proactive, cohesive healthcare team. Interactions between the patient — who is an active participant in their own care- and a knowledgeable healthcare team result in improved patient outcomes (such as adherence to prescribed medication) (2).

The physician's approach to the non-compliant patient should begin with an informal assessment of competence and proceed to subsequent exploration of the patient's current feelings and attitudes toward their condition and treatment plan. Specifically, self-management support systems should be assessed both individually by the physician and collaboratively by the healthcare team (including nurses, dieticians, and pharmacologists, among others). Additionally, an analysis of the healthcare delivery system is essential. This analysis should ensure appropriate allocation of tasks to providers, adequacy of planned interactions with the healthcare team, adequacy of follow-up and decision support, and utilization of community resources (2).

PATIENT-SYSTEM INTERACTION MODEL (PSIM)

Patients with chronic disease may demonstrate ineffective self-management despite integration of the principles described

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in the chronic care framework. To improve this framework, it is imperative that the physician recognize and integrate the patient's interaction with the healthcare system into the exploration of non-compliance in order to address ineffective self-management. The Patient-System Interaction Model (PSIM) of non-compliance introduces this concept and applies it to the management of chronic illness. In PSIM, an initial diagnosis leads to treatment (e.g. surgical or pharmacological). There is then a natural worsening of the chronic illness over tme, independent of treatment (the condition will continue to deteriorate irrespective of treatment). However, if not effectively managed by the healthcare team, this may lead to a loss of hope and distance from the medical team (for example, missed follow-up appointments). Loss of hope subsequently generates further distance from the medical team and poorer management of the chronic condition. Poorer management then results in an increase in morbidity and mortality and further worsening of the condition. Finally, morbidity and mortality are increased by distancing from the medical team (for example, lack of dose alteration, follow-up care) (please refer to **Figure 1**). Importantly, each of the antecedents leading to non-compliance in PSIM may be managed in order to reduce morbidity and mortality. For example, it is imperative that the physician ensure from the outset that the patient understands the natural progression of their illness in order to prevent loss of hope and subsequent poor self-management when the condition worsens. Additionally, it is essential that the physician ensure adequate follow-up in order to prevent distancing from the medical team, loss of hope, and subsequent morbidity and mortality. Lastly, reassurance and encouragement may be provided with closer follow-up, improving connections with the medical team, a sense of hope, and preventing poorer self-management and morbidity and mortality.

CASE EXAMPLE

These approaches may be applied to the following case: Jane, a 55-year-old bank executive, has come to your clinic in regards to her elevated glycated hemoglobin (HbA1c) (which has risen to 7.8%). She says she "feels fine, and actually better" without her prescribed metformin, and "doesn't see the need for it". Superficially, the resolution seems obvious — an explanation of the importance of optimal glucose control with either a tapering of the metformin dose or perhaps a switch to an alternative medication; however, this approach is likely to fail. The physician should first explore Jane's feelings and attitudes about her condition and treatment plan (identifying loss of hope), ensur-

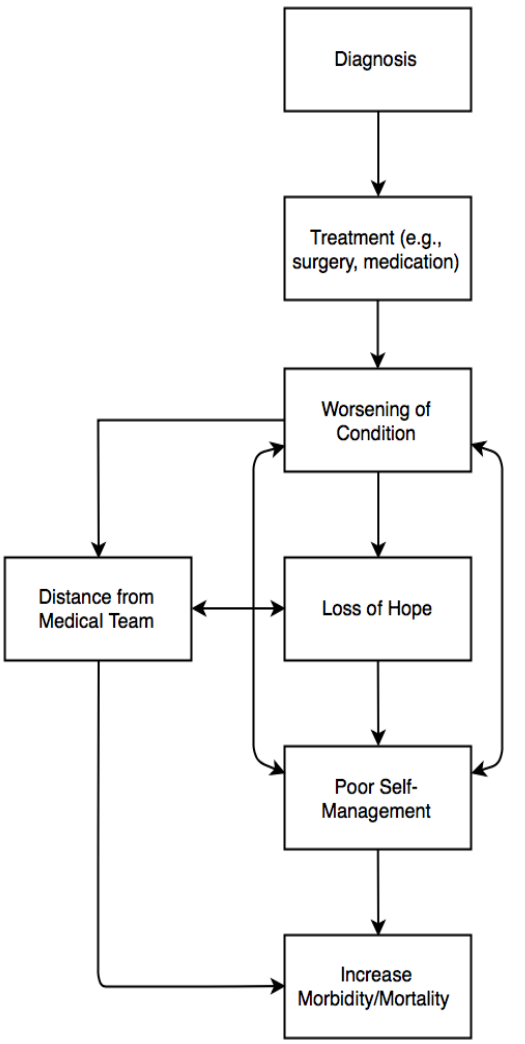

Figure 1. PSIM demonstrating causes of patient non-compliance when interacting with the medical system. Note: Initial diagnosis leads to treatment (e.g. surgical or pharmacological). There is a natural worsening of the chronic disease over tme, independent of treatment (i.e. it will continue to deteriorate irrespective of treatment), however if not effectively managed by the healthcare team, this may lead to a loss of hope, and distance from the medical team (e.g. missed follow-up appointments). Loss of hope subsequently engenders further distance from the medical team, and poorer management of the chronic condition. Poorer management then results in an increase in morbidity and mortality, and further worsening of the condition. Finally, morbidity and mortality are increased by distancing from the medical team (e.g. lack of dose alteration, follow-up care). Each of the antecedents to non-compliance may be addressed in order to decrease morbidity/mortality (e.g. explanation of natural progression of disease, encouragement/reassurance, and adequate follow-up).

ing to describe the natural progression of her diabetes. For example, in our case, Jane mentions that her mother died of colon cancer; thus, her gastrointestinal symptoms on metformin have been concerning to her. Additionally, she has been disappointed with her increasing blood glucose levels despite dieting. Assessment and encouragement of Jane's self-management skills should then occur (for example, you discover that Jane has been monitoring her blood glucose infrequently and was unaware of the appropriate timing for monitoring). Lastly, the physician should assess and subsequently tailor the healthcare delivery system to Jane; in our case, Jane had missed her last scheduled six-month HbA1c follow-up and was feeling depressed about her condition. Taking this all into account, an appropriate resolution for Jane may include: 1) individual support by her physician (determining where deficiencies exist, encouraging/reassuring to prevent loss of hope, adjusting medications if necessary, and providing education regarding long-term complications); 2) integration of care with a group of providers in order to develop coping strategies, create lifestyle and medication adherence goals, and access to community resources (such as group exercise classes, cooking classes, and peer-support groups); and 3) ensuring adequate follow-up (through group sessions with multiple providers) in order to prevent distancing from the medical team, loss of hope, and future morbidity and mortality (2).

APPLICATION OF THE CANMEDS ROLES

An analysis of Jane's case also demonstrates the relevance and importance of the application of the CanMEDS roles in the chronic care and PSIM frameworks. For example, as a professional, the physician is responsible for ensuring that standards of care are met and the well-being of the patient is maintained (principle of beneficence) (3,4). However, the physician is also responsible for ensuring patient-centered care and, where possible, that outcomes are resolved in the patient's favour (principle of autonomy) (3). Moreover, the physician must be capable of integrating both the roles of leader (taking responsibility for the delivery of patient care) and collaborator (working effectively with other members of the healthcare team to ensure adequate care). The physician must also be an effective communicator in order to identify and express where deficiencies in care exist (3,4).

CONCLUSION

Patient non-compliance is often a challenging issue, particularly in the setting of chronic disease management. These patients require complicated care, commonly characterized by frequent follow-ups, exacerbations, and alterations in treatment. However, if physicians effectively explore patients' feelings and attitudes through the framework of the chronic care model (with the CanMEDS roles serving as a guide) while identifying and addressing the principles described in the PSIM framework, they will likely be more successful in reducing patient morbidity and mortality (1).

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