

Addressing Medication Literacy in Diabetic Geriatrics

Emad Hammouda*

Tawam Hospital, Pharmacy Department, UAE

Abstract

Introduction: Diabetes mellitus is approaching epidemic proportions in most countries and has captured the attention of physicians at local, national and global levels. The elderly population remains at a higher risk for diabetes mellitus [1], and the disease poses unique concerns for geriatricians, primary care physicians, nurses, diabetic educators and pharmacists who provide care to the elderly. Safe and effective use of diabetes medications depend on the extent of patient's understanding, knowledge and actions. Such actions relate strongly to people's health literacy. Health literacy is defined as 'The ability to make sound health decisions in the context of everyday life- at home, in the community, at the workplace, the health care system, the market place and the political arena [2].

Discussion: The US Institute of Medicine report, "Health Literacy: A Prescription to End Confusion" [3], reported that low health literacy negatively affects the treatment outcome and safety of care delivery. People concerned, especially elderly are more likely to be admitted to hospital, and they may stay longer and be less likely to take their medicines and/or make errors with those medicines [3]. Health literacy covers a wide range of activities, and older patients ability to make good decisions about medicines, and use them safely and effectively, is an important part of healthcare practice. Low health literacy is a factor that underpins the wider issue of health equity, since getting the best outcome of a health system is a complex issue and arguably requires high levels of health literacy. Collaborative efforts are continually needed to allocate and maximize utilization of resources to help empower older adults with diabetes to overcome literacy barriers to optimize their disease management.

Conclusion: Healthcare providers must tailor individualized treatment methods with emphasis on addressing patient literacy to achieve the ultimate goal of optimizing pharmacotherapy of diabetes in elderly population to improving the quality of life for this vulnerable population.

Importance of Medication Literacy

Pharmacotherapy is the most frequent intervention in the majority of health systems. Safe and effective use of diabetic medications is key elements in optimizing patient care. The global prevalence of diabetes is rising, attributable to an increase in new cases driven by higher obesity rates, rise in elderly population, and declining of mortality rates [4]. Meanwhile, medicines are the most common cause of adverse events in healthcare process. In addition, it has been established that adherence with long-term medicines is estimated to be around 50% [5]. One suggested approach to reduce this non-adherence is to address patient's medication literacy as a priority in clinical practice. This has been described as 'partnership in medicine taking' or, previously, 'concordance' [6]. Health literacy is critical to such empowerment in elderly population [7]. It has been shown that 22% of patients had not filled their prescriptions and 21% had some difficulty understanding the purpose of their medicines [8]. In a studied group of relatively well-educated patients after being given at least one new medicine while being hospitalized, 14% did not know they had been given a new medicine and 36% did not know the name of that medicine or its purpose when telephoned at home 1-2 weeks later [9]. Healthcare-related barriers to improve literacy may include communication difficulties, limited range of services, understaffing and ability to motivate staff. Providing counseling, guidance and support should be a higher priority, along with the traditional clinical and educational responsibilities. Effective communication can be enhanced through active listening and opening a free channel of flow of ideas and information between patients and healthcare providers.

Role of Pharmacists in Promoting Health Literacy

Pharmacists represent a key role in providing elder patients with verbal and written information, and directing them to other useful sources of information [10]. In a recent systematic review of medicines

information for patients, it has been found that people seek information about medicines for two main purposes: they want information supporting decisions about which medicines to take, and they want information about how to safely and effectively take those medicines [11]. Pharmacists should always accompany explicit instructions along with medication inserted pamphlets to ensure thorough understanding of their old adults in order to optimize effectiveness of the provided medications. Treatment strategies should always take into consideration individual patient factors, as well as quality of life and patient preference. Elderly population is expected to nearly double over the next 25 years and rates of diabetes are expected to continue rising. The older adult population is heterogeneous with wide variations in functional status, comorbidities and life expectancy. Health illiteracy may add to needed efforts and care to meet the special requirements of this population. Polypharmacy can be regulated and monitored through close collaboration between pharmacy staff and the treating physician. Medication reconciliation should be performed during each patient visit or post discharge. Promoting patients health literacy may help patients to adhere to the given recommendations for the best possible outcome of used medications. Pharmacists should keep in mind that providing information alone does not guarantee behavioral change unless accompanied by keen and continued follow up of their

*Corresponding author: Emad Hammouda, Tawam Hospital, Pharmacy Department, Al Ain, Abu Dhabi, UAE, PO Box 15258, Tel: 00971508308473; Fax: 00971037017732; E-mail: emhammouda@hotmail.com

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patient's health. Adaptation for cognitive changes in older adults should be addressed through frequent repetition and allowing needed time for full understanding. Pharmacists should help empowering patients with the knowledge, skills, adaptations and confidence they desire and need to live well with their diabetes and make informed daily decisions about their disease control.

Ways to Approach Health Literacy

Health literacy and health knowledge are two different concepts [12]. Health literacy is defined as 'the relationship between a person's health literacy, language and numeracy levels and their ability to receive, understand and process health information' [13]. This definition helps to clarify the two way nature of approaching health literacy. Clinician's role is to help older adults to improve their skills in understanding information about medicines and take part in decisions about their health, and make sure that the spoken and written information is simple and easy to understand in order to meet patient's expectations [14]. Pharmacists would assist older patients for better awareness about their medications through building stronger local bonds with customers by promoting a culture of 'better health literacy for all', particularly those in the areas of greater social deprivation and where significant health inequalities exist. A systematic review of past research related to written medicines information for patients revealed a sound finding that patients regard spoken information as the priority, with written information as a valuable back-up [11]. Pharmacists are obliged to provide verbal information in a supporting environment that maintains privacy and confidentiality of customers. It is the mutual responsibility of pharmacy staff and senior management to have the appropriate training in communication skills in order to afford related information effectively. Evidence from search revealed that doctors and pharmacists do not seem to be giving instructions to many people in the general practice and pharmacy setting about how to use their medicines [15]. The value placed on written information as a backup means that pharmacists need to be able to effectively interpret written information to correctly direct older patients to appropriate materials, as the above review also concluded that written information currently provided does not meet patient's needs. Clinicians need to be aware that the package leaflets required to be supplied with all medicines have, since 2005, had to be tested for readability, using the so-called User Testing process [16]. Such testing should ensure that since that date, medicine leaflets will meet patients' needs. Readability of leaflets as well as length of used words and sentences is an important factor to meet older patients requirements for better understanding of the information provided. Evidence-based guidance on how to write good medicines information for elderly patients is now available [17]. A considerable percentage of elderly population can read little or not at all, for whom any written information is likely to be of no use. Pictorial figures may represent a good aid to those patients by being included in separate medicine related information handouts. Verbal information accompanied by well-designed and tested pictorial information may have the potential to provide extra support in increasing accessibility and understandability of the use of dispensed medications [18]. Commitment of leadership is the cornerstone to promote health literacy in order to improve quality of service provided. Training and continued staff development are crucial factors along with medical education to update staff with needed information necessary to upgrade elders knowledge and awareness of diabetes and its complications.

Areas of Development and Improvement in Health Literacy

Research into the 'patient end' of the drug development process

remains within the unsatisfactory level, with biomedical research still receiving the greatest share [12]. Policy documents in US and European countries currently promote such research, including a focus on health literacy in general [3], people's understanding of their medicines [19] and developing informed choice and shared decision-making [20]. Pharmacy practice researchers need to seize this initiative in order to meet community expectations of better healthcare. Effective interventions to support health literacy are unlikely to succeed if solely focused on improving the usability of spoken and written information alone. Healthcare managers need to communicate in a way that invites interaction and participation [7]. The written information that patients receive with their medicines could be used as part of an active interaction with them. The pharmacist is expected to act as an aide memoire, to help elders remember the key issues and also to show this special population that the leaflet is a document which could be useful to them. There is a need to develop materials which are more specific to the needs of patients. Patients should be empowered to share the decision of medication choice and ensure safe and effective use of medicines once they have started to take it.

Conclusion

Diabetes care is a complex and costly issue and represents a considerable burden on healthcare systems especially for geriatric population. Health literacy has become a top priority of the healthcare agenda. Clinicians, pharmacists and pharmacy practice researchers should ensure that medication literacy is appropriately addressed to maximize the benefit that diabetic geriatrics gets from their medicines.

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