## Needed: Online behavior change counseling training for health care professionals caring for patients with diabetes

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Diabetes is a chronic condition affecting approximately 8.3 percent of the United States population. It is the leading cause of kidney failure, non-traumatic limb amputations, and new cases of blindness among adults; the major cause of heart disease and stroke; and, the seventh leading cause of death nationwide[1]. Commonly prescribed interventions in diabetes treatment and management include diet, insulin, and oral medication to lower blood glucose levels. Patient education and self-management are also important parts of diabetes care that help people with this chronic condition lead ordinary lives[2-6]. Physicians and other health care professionals can adhere to patient care guidelines and provide the best interventions possible but, in the end, it is up to the patient to engage in the behavior, or self-management, necessary for adequate diabetes care[10-11]. Self-management is defined as the tasks that an individual can undertake to manage a chronic condition(s) (e.g., eating a healthy diet, exercising, adhering to a medication regimen, etc.) and is based on the theory that greater confidence in one's ability to make life-improving changes results in better health outcomes[7-8].

Since the daily choices patients make in the care of their diabetes has a greater effect on their health outcome than the choices made by health care professionals, effective self-management is necessary for adequate maintenance of diabetes[2, 9-10]. Oftentimes patients are well intentioned, but are not necessarily motivated or confident enough to engage in the health behavior necessary to be an effective self-manager. To address this issue, the United States Preventive Services Task Force and other organizations recommend the use of behavioral counseling interventions, such as Motivational Interviewing (MI), as evidence-based approaches to motivate patients to engage in health behavior change [3, 11-12]. First used in substance abuse cessation treatment, MI has since been successfully applied to improve self-management behavior in patients with chronic conditions such as diabetes [13-15]. Research shows that diabetic patients of physicians, nurses, and diabetes educators who are trained in MI have improved health outcomes when compared to treatment as usual [13, 16-19]. Moreover, the demonstrated effectiveness of these counseling techniques has led to their inclusion, combined with related approaches to self-management support for patients, as one of the criteria for the Patient Centered Medical Home (PCMH) designation for primary care practices[20-22].

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Given MI has a positive influence on patient health outcomes, and will be integral to many primary care practices in the near future, it is beneficial for health professionals to acquire MI skills to implement when working with patients with diabetes. Unfortunately, MI-based patient counseling to date has primarily involved in-person training at professional conferences or in small groups in worksite settings, which is labor-intensive and relatively expensive. Based on clinical and research experience, we know that outside of the aforementioned training opportunities many primary care professionals have limited time to acquire counseling skills such as MI, due to hectic schedules, role in the practice, and limited financial resources. Such issues act as barriers for the dissemination of empirically supported treatments indicated for use with patients with diabetes and other chronic conditions.

To date, no published clinical trials of an online alternative to formal in-person MI training for health care professionals working with patients with diabetes exist. The development and validation of an online MI training course would make dissemination easier as it will accommodate busy providers and staff who want to acquire MI skills to use in daily practice. This method of dissemination will likely result in comparable MI skill acquisition since online education courses have been found to be just as effective as in-person instruction[23-25]. Furthermore, an online MI training course for diabetes may be tailored to other chronic diseases requiring significant self-management behavior (i.e., asthma, epilepsy, hypertension, etc.).

The difficulty will be in creating an online course that can effectively teach this interpersonal communication skill in a rather impersonal way. Regardless of this difficulty, it is likely possible to create a 'just-as-good' online training. The authors encourage any and all who are skilled in online education development to take interest in this area as your work will be extremely helpful to the field of medicine and our country's public health.

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