Pharmacist services and medication adherence in diabetes care in Indonesia

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IMPACT

This dissertation contributes to the identification of suitable pharmacist services to improve medication adherence among patients with diabetes in Indonesia. The motivation behind this topic is to provide evidence on how pharmacists can enhance patient care, especially diabetes care, by improving medication adherence. Both the perspectives of pharmacists and patients are analyzed to get more comprehensive insight into the desired pharmacist services in diabetes care. Exploring the preferences of the user and provider offers a better understanding of suitable pharmacist services that meet patients’ needs. As diabetes treatment always relates to long-term medication and adherence, each healthcare professional in the diabetes care team has a role in optimizing diabetes treatment goals and minimizing the risk of diabetes complications. The pharmacists’ role in this team has changed and now it also focuses on patient care without leaving out the pharmacists' dispensing tasks, even though this transition remains challenging in some countries, including Indonesia.

Contribution to diabetes care

As evidenced in this dissertation, pharmacists have a role in diabetes care to provide services that focus on patients’ needs. This can be important in low-resource countries that have limitations in the number of healthcare professionals, including physicians available in each medical facility. It means that pharmacists can potentially contribute to supporting the physicians in providing care for patients without any intention to replace the physicians’ role. As one of the most accessible healthcare professionals in practice, pharmacists benefit from regular contact with patients. This is also the case in Indonesia, where the implementation of the Universal Health Coverage program since 2014 has put community health centers as the first-line gate to medical services. Pharmacists working at those centers are likely to meet with patients regularly, for example, when patients take medication refills. Thus, pharmacists can enrich services provided to patients by monitoring their medication use, including identifying medication problems and adherence. However, the dissertation also cautions that implementing the
extended pharmacists’ role in diabetes care to improve medication adherence is not a simple matter in practice. There is a need to consider the input from patients and pharmacists regarding the identification of suitable pharmacist services. Also, constraints related to capacity and workload in the pharmacy practice should be taken into account when expanding pharmacist services. As some barriers can hamper the application of suitable pharmacist service, the involvement of stakeholders, healthcare professionals, and policymakers in discussing and finding appropriate solutions is needed.

Contribution to pharmacist practice
This dissertation is expected to have an impact on pharmacist practice. The evidence on preferences provided in this dissertation offers important insights into the patients’ expectations from pharmacists and the pharmacist services patients desire. Not all pharmacists, however, provide services tailored to the patient. Moreover, they are mostly limited to giving general medication information to patients. In Indonesia, the common pharmacist practice is far from ideal, considering the absence of a focus on patient care. Many limitations cause this shortcoming. Evidence on patients’ preferences, like those provided in this dissertation, can help pharmacists evaluate and prioritize their services and stimulate them to help patients improve medication adherence. As outlined in this dissertation, there are many activities that pharmacists could consider adding to their practice according to the pharmaceutical care standards to support patients. Valuable input on the key aspect of the pharmacist services, such as privacy matters and the need for flexible access to contact pharmacists, are worth noting and considering in practice, as evidenced in this dissertation. There is, however, a need to involve all key stakeholders in developing the current pharmacist practice, especially given the limited number of pharmacists and their heavy workload. Furthermore, it means that pharmacists need to prepare themselves to find a way to facilitate patients’ needs to help improve their medication adherence.

Contribution to research
This dissertation shows how evidence-based pharmacist services can be developed to improve diabetes treatment goals and medication adherence in
terms of the scientific impact. In particular, the dissertation brings together evidence generated through qualitative and quantitative research methods, which are designed based on a preliminary systematic review and meta-analysis. In addition, the dissertation includes the perspective of both patients and pharmacists. The inclusion of other stakeholders, such as physicians, is suggested for future research. The multiangle approach to the research topic is an important strength of this dissertation. Without any limitation on the origin of the countries, identifying pharmacist services in the published literature provides many potential alternatives of the pharmacist services that can be used in practice. As there is no consensus on the best suitable pharmacist services to improve medication adherence, this dissertation has generated empirical findings on the preferences of patients and pharmacists toward pharmacist services to improve medication adherence among patients with diabetes. The involvement of the perspectives of user and providers offer a complete picture of a pharmacist services design that meet patients’ preferences and needs.

**Social impact**

The societal impact of the dissertation is the substantiation that pharmacists can have a role beyond dispensing in diabetes care, especially in improving medication adherence. These dissertation findings provide a broader perspective on what pharmacists can offer regarding patient care without changing patients’ mindset on the physicians’ leading role in their care. Most patients are familiar with the traditional pharmacists’ roles focused on product-oriented care services, but pharmacists could help them improve their medication adherence by providing additional care. Patients with chronic diseases, including patients with diabetes, who have medication problems due to long-term medication use, need to become aware of the support the pharmacists can offer. This could open the opportunity for patients to get to know what pharmacists can do for their medication problems, including the possibility to have a consultation with pharmacists.