



Introduction

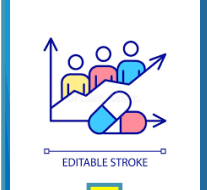
1. Oral hypoglycemic agents (OHAs) are highly effective in managing Type 2 diabetes if taken appropriately
2. Medication adherence is a complex process and is affected by diverse and multiple factors
3. Saudi Arabia is facing an unprecedented increase in Type 2 diabetes and has one of the highest prevalence rates i.e. 17.6%, in the world with high rates of chronic complications

Methods and results

1

A cross-sectional study using the Arabic version of MMAS included 395 patients of whom

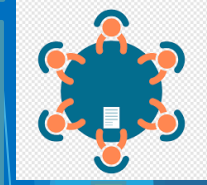
- 40% achieved a high level of OHA adherence.
- Lower adherence was associated with younger age (Odds Ratio (OR) 1.084; 95% CI 1.056 to 1.112), higher numbers of non-OHAs (OR 0.848; 95% CI 0.728 to 0.986) and higher HbA1c levels (OR 0.808; 95% CI 0.691 to 0.943)



2

Semi structured interviews based on the Theoretical Domain Framework were completed with patients (N=20) and identified a wide range of factors:

- Behavioural related factors (e.g. scheduling medication intake, ability to develop a habitual behaviour)
- Social influences (e.g. acting as a role model, the effect of family support)
- Gaps in knowledge about diabetes and its management with OHAs.



3

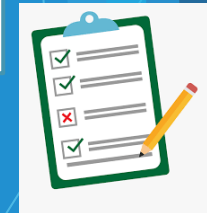
Semi structured interviews explored the point of view of physicians and family members of patients with diabetes (n=17) using theoretical domain framework. The participants identified a variety of factors:

- Environmental context and resources related factors such as burden of polypharmacy, medication shortages, and long waiting time of care.
- Patient beliefs about consequences related factors such as beliefs about diabetes complications and fear of insulin injections
- Knowledge and social influences related factors



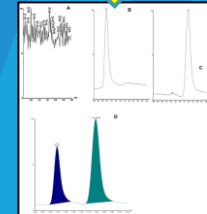
4

- A theoretical based instrument was developed and validated to assess adherence with type 2 diabetes medication, ASMA scale.
- The ASMA scale consisted of 31 questions. The pilot study of the scale assessed with 49 patients and showed a good Cronbach's α for the whole questionnaire (0.822) the study is ongoing to test the scale in 100 patients



5

A simple and rapid LC/MS/MS method for Metformin analysis in dried blood spot (DBS) sample for patient monitoring studies purposes (adherence) was developed.



Although my journey showed considerably a lot of work, we did not achieve the improved medication adherence goal yet!

My journey presents how much preparatory and exploratory research is required before jumping to intervention design.

