

Background

- Uncontrolled or poorly controlled chronic medical conditions carry significant risk of adverse outcome to mother and fetus, including preterm birth, low birthweight, and cesarean delivery.^{1,2,3}
- A 2011 study using U.S. data from 1976-2008 reported that 90% of women take at least one medication during pregnancy, and 70% take at least one prescription medication.⁴
- Other studies using Morisky Medication Adherence Scale (MMAS-8) found 26% to 36% of pregnant women reported low adherence to their chronic medication regimens during pregnancy.^{5,6}

Objective

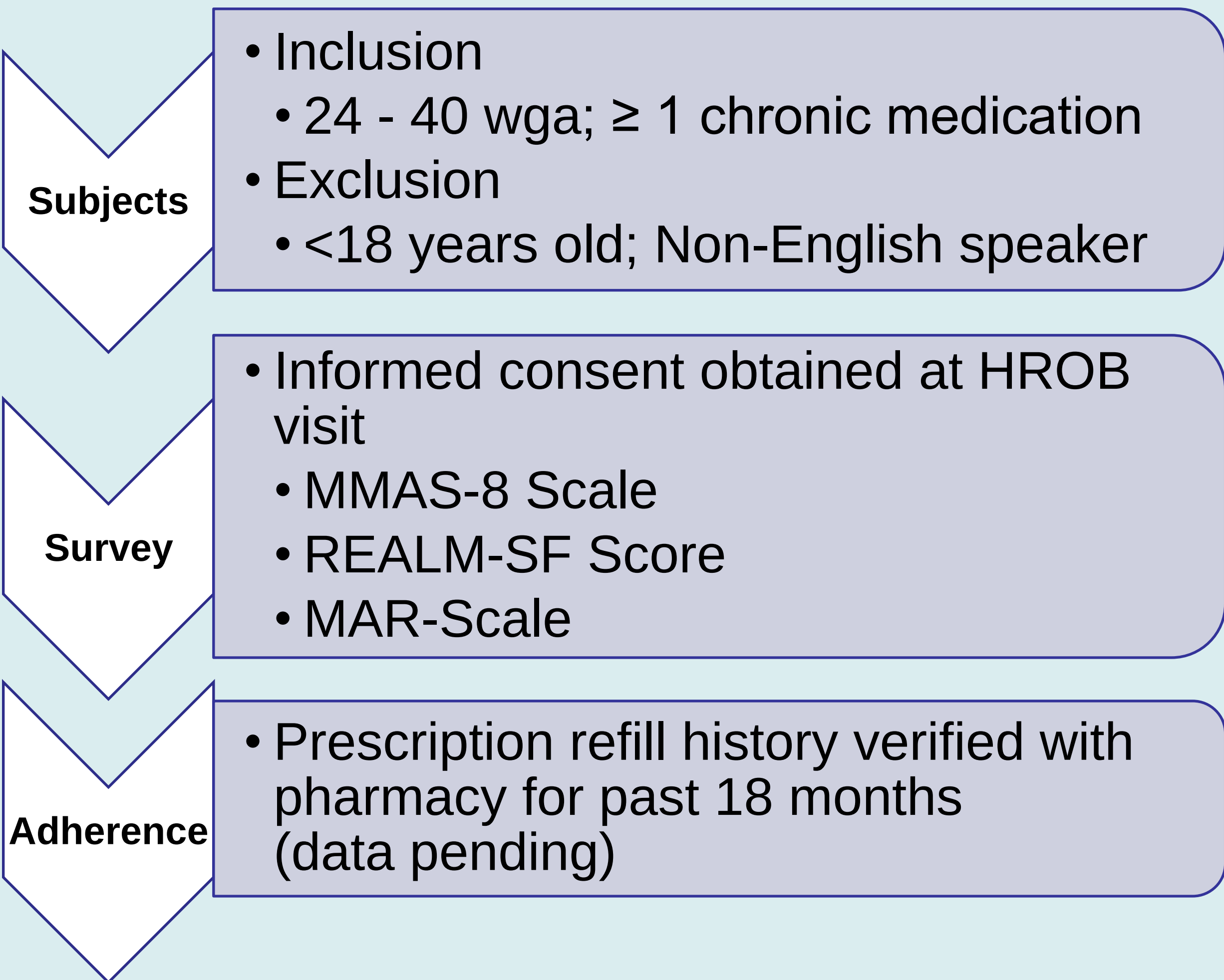
- The objective of this research is to quantify chronic medication adherence rates and identify factors influencing medication adherence during pregnancy.

Methods

- A prospective cross-sectional study was conducted in the UIC Obstetrics Clinic for pregnant women prescribed medication for asthma, diabetes, epilepsy, depression, hypertension or thyroid disorders

Methods and Results

Study Flow Chart



Morisky Medication Adherence Scale - 8 (n=40)



Baseline characteristics compared by patient self reported adherence rates per MMAS-8 scale (n=40)

Characteristic	low adherence	moderate or high adherence	P value
Unplanned pregnancy (%)	66.7	60.7	1.0
Employed (%)	50	35.7	0.49
Own smartphone (%)	83.3	92.9	0.57
Use Tobacco (%)	16.7	7.1	0.57
Marijuana (%)	8.3	0	0.30
≤ 8 th grade literacy per REALM-SF (%)	41.7	42.9	0.94
Mean # total prescription meds	5.3	4.8	0.47
Mean # chronic prescription meds	2.08	2.04	0.57
Mean # dependents	2.08	2.04	0.95
Mean # failed prenatal appts	0.67	0.96	0.49

Medication Adherence Reason Scale – Patient identified reasons for missed medication (n=40)

	Total	Asthma (n=11)	DM (n=18)	HTN (n=17)	Thyroid (n=8)	Epilepsy (n=1)	Depression (n=4)
I would have taken it but simply missed it	13	3	3	5	2	0	0
I would have taken it but missed it because of busy schedule	9	2	2	4	1	0	0
I had side effects from this medicine	5	0	3	2	0	0	0
I am concerned about the possible effects of this medicine on my pregnancy	4	0	2	2	0	0	0
I sometimes skip this medicine to see if it is still needed	3	0	1	2	0	0	0
I would have taken it but have problems forgetting things in my daily life	3	2	1	0	0	0	0
I had difficulty swallowing this medicine	3	0	1	2	0	0	0
I sometimes skip this medicine to see if it is still needed	3	0	1	2	0	0	0
I am concerned about the possible effects of this medicine on my baby after it is born	3	0	1	1	0	0	1
I did not have the money to pay for this medicine	2	1	1	0	0	0	0
I was not comfortable taking it for personal reasons	2	1	1	0	0	0	0
I have trouble managing all the medicines I have to take	2	1	0	0	1	0	0
I am concerned about possible side effects from this medication	2	1	1	0	0	0	0
The pharmacy was out of this medicine	1	1	0	0	0	0	0
I didn't have a ride to the pharmacy	1	1	0	0	0	0	0
I am not sure how to take this medication	1	1	0	0	0	0	0
I don't think that I need this medicine anymore	1	0	0	0	0	0	1
This medicine is not a high priority in my daily routine	1	1	0	0	0	0	0

Discussion

- When comparing MMAS-8 scores between low vs. moderate/high adherence there were not statistically significant differences in this small sample of preliminary data via t-test or Chi square.
Demographics
 - There is a trend towards a higher percentage of smoking and marijuana use in women with MMAS-8 low adherence score.
- Maternal co-morbidity
 - There is a trend towards a higher mean number of total prescription medications for patients with low adherence
- Health literacy
 - There is no difference between groups in the percent of patients with ≤ 8th grade education
- Patient identified factors contributing to low medication adherence
 - Missed doses due to forgetting
 - Missed doses due to a busy schedule
 - Medication side effects

References

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