

Dyslipidemia Medication Adherence: The Relationships of Depression, Medication Beliefs, and Illness Control Perceptions

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April 26, 2021

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About Me

- ❖ Beginning and focus transition at UTA
- ❖ Previous experience
 - ❖ Pediatric Nursing
 - ❖ Chronic diagnoses
- ❖ Interests:
 - ❖ Diagnosis, treatment, and psychological adjustment of chronic diseases.

Background

- ❖ High Cholesterol
- ❖ Management:



cardiovascular disease



$\sim 50\%$ never achieve full adherence (Huser et al., 2005)

Adherence

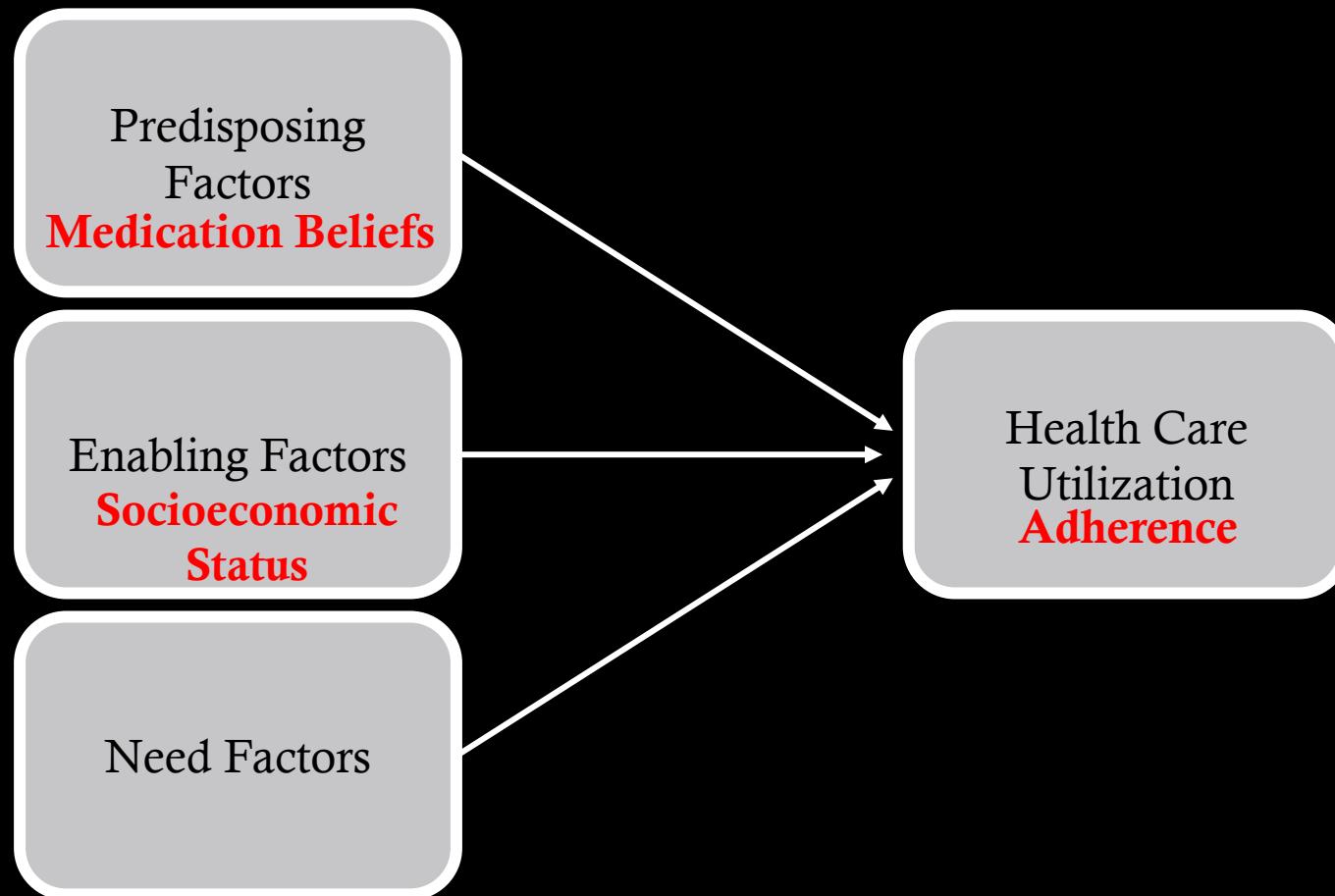
- ❖ Major public health issue
 - ❖ Financial burden
 - ❖ Negative health outcomes
- ❖ Associated with characteristics of:
 - ❖ Treatment
 - ❖ Setting
 - ❖ Patient

Andersen's Behavioral Model

- Education
- Ethnicity
- Health attitudes and knowledge

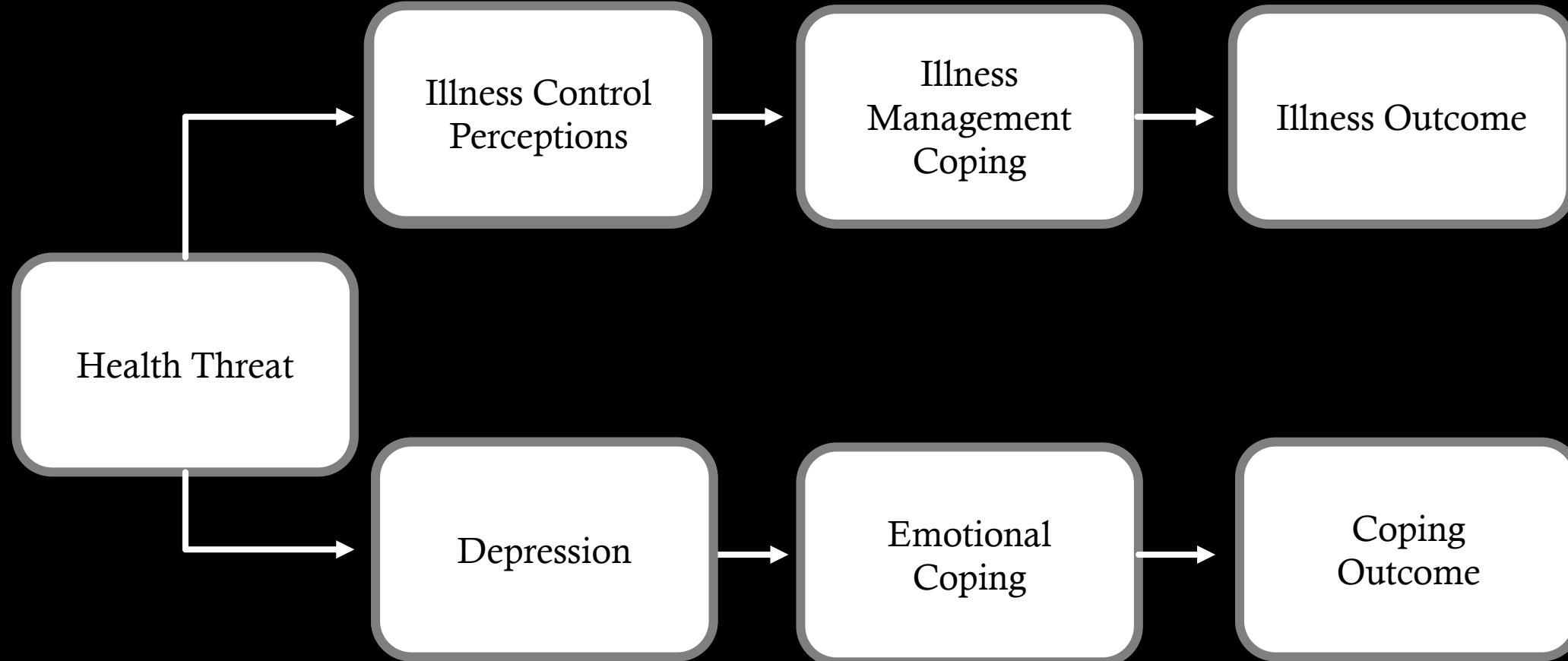
- Income
- Insurance
- Social Support

- Personal and professional evaluations of health status



Note. Representation of Andersen's Behavioral Model adapted from "Revisiting the Behavioral Model and Access to Medical Care: Does it Matter?" by R. M. Andersen, 1995, *Journal of Health and Social Behavior*, 36, p. 1-10.

Leventhal's Common-Sense Model



Note. Representation of The Common-Sense Model adapted from “The Common-Sense Model of Self-Regulation (CSM): A dynamic framework for understanding illness self-management.” by H. Leventhal, L. A. Phillips, and E. Burns, 2016, *Journal of Behavioral Medicine*, 36(6), p. 935-947

Medication Beliefs and Illness Perceptions

- ❖ Associated with lower adherence:
 - ❖ Lower necessity beliefs (Horne et al., 2013)
 - ❖ Higher medication concerns (Horne et al., 2013)
 - ❖ Negative illness perceptions (Averous et al., 2018)
- ❖ Older adults
 - ❖ Dependency and side-effect concerns (Ruppar et al., 2012).

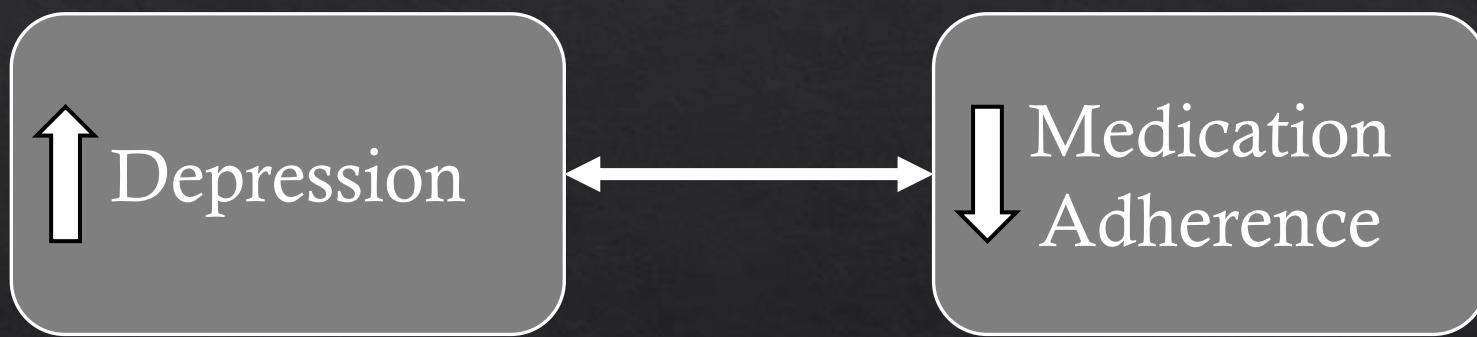
Depression

- ❖ Relationship with chronic medical conditions is bidirectional
 - ❖ Chronic illnesses lead to increased risk of depressive symptoms (Clarke & Currie, 2009).
 - ❖ Depression influences disease outcomes and experiences (Beck & Bredemeier, 2016).

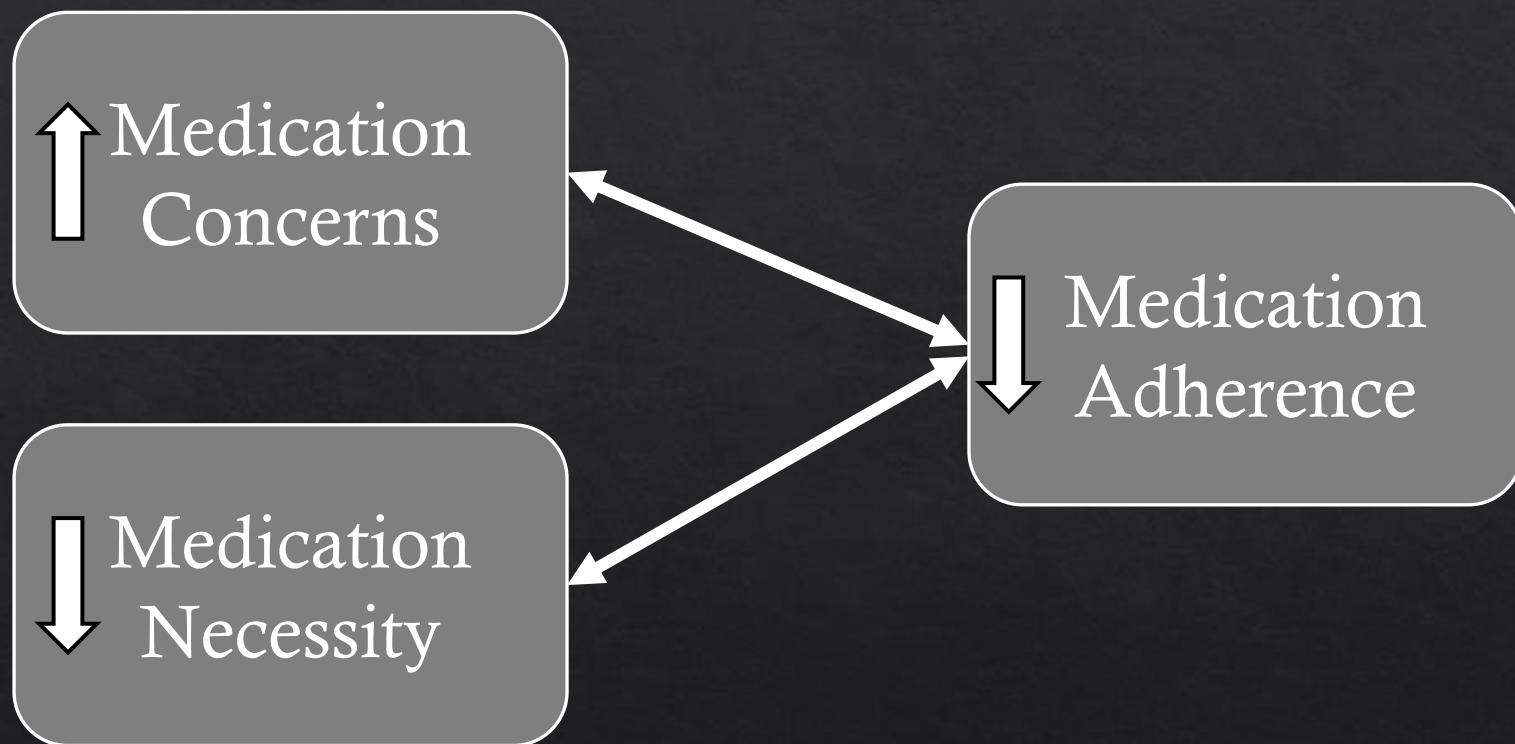
Current Study Aim

- ❖ Examine as correlates of medication adherence
 - ❖ Depression
 - ❖ Medication Beliefs
 - ❖ Illness Control Perceptions

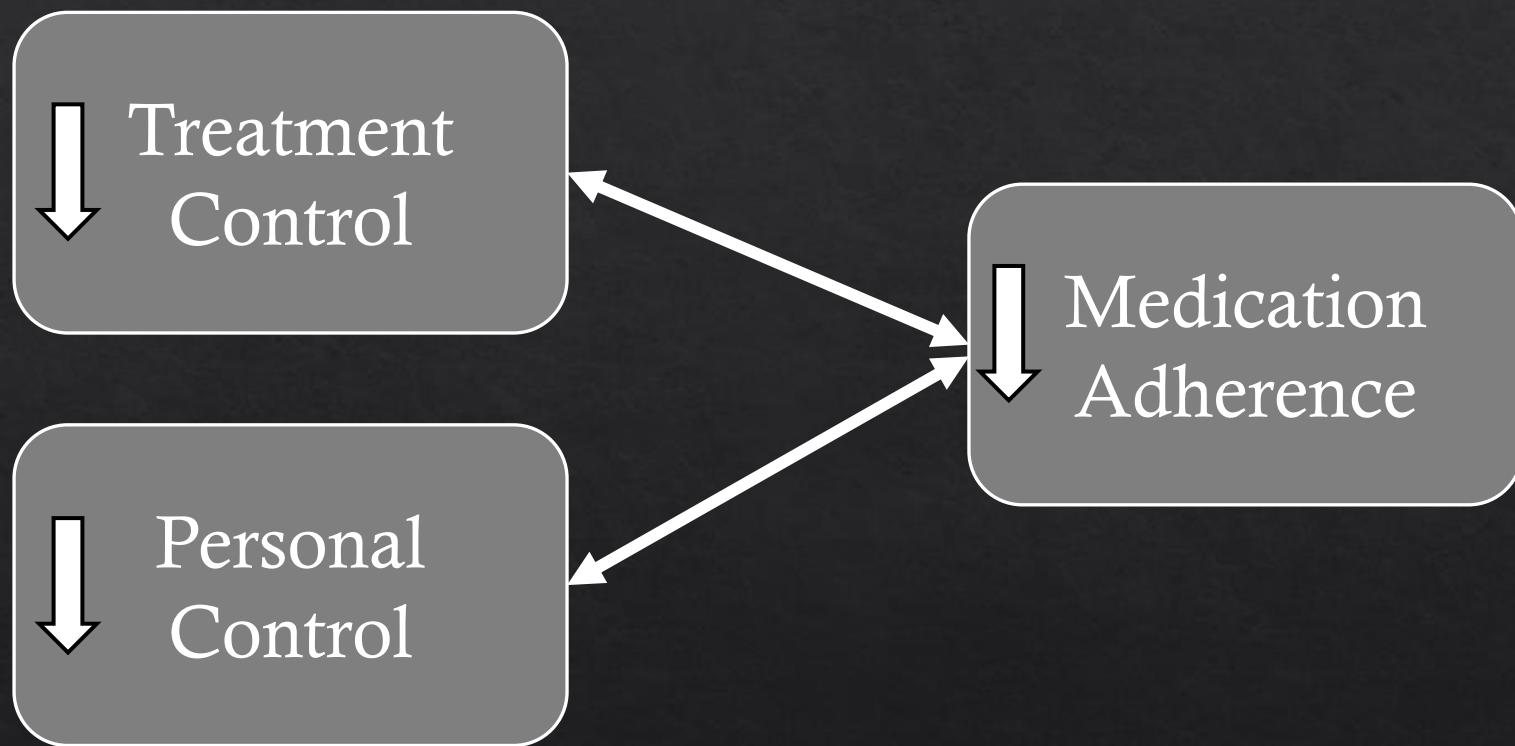
Hypotheses



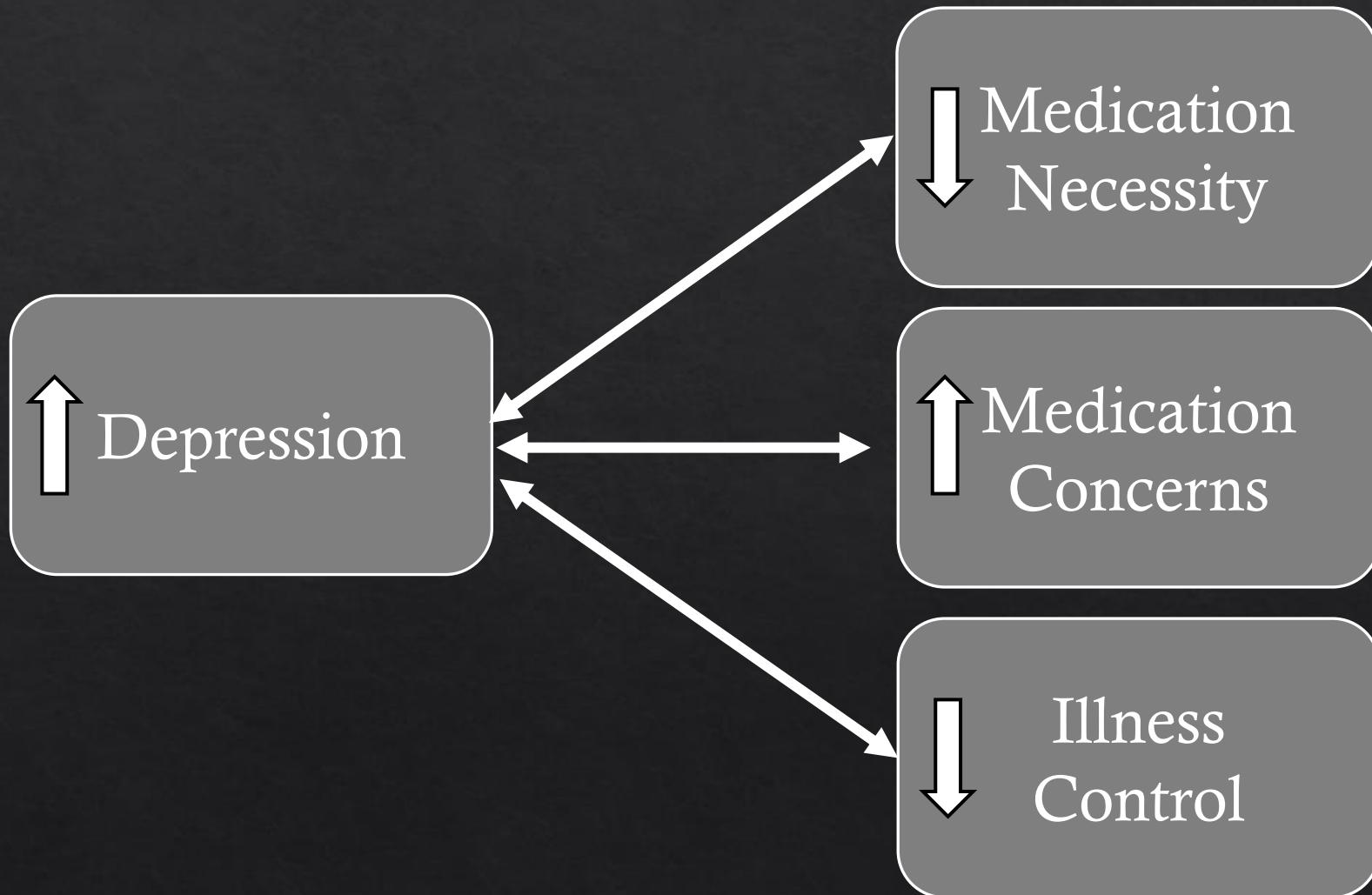
Hypotheses



Hypotheses



Hypotheses



Participants

- ❖ N = 36 (18 female; 18 male)
 - ❖ Ages 66-94 (M = 77)
- ❖ Recruited through a participating medical clinic
- ❖ Eligibility criteria:
 - ❖ 18 years of age or older
 - ❖ Able to communicate in English
 - ❖ Diagnosed with high-cholesterol and treated with stable doses of statins for at least three months

Procedure

- ❖ Recruitment: physician recommendation.
- ❖ Paper questionnaire: medical history, demographics, adherence behaviors, beliefs about medications, illness perceptions, depression, and other measures of psychosocial health
- ❖ Blood work
- ❖ Informed consent

Measures

- ◊ Depression: Center for Epidemiologic Studies Short Depression scale (Radloff, 1977).
 - ◊ 10 items; measured depressive symptoms over the previous one week.
 - ◊ $\alpha = .53$
- ◊ Illness Perception: Revised Illness Perception Questionnaire (Moss-Morris et al., 2002)
 - ◊ 50 item questionnaire, measured multiple components of illness representation
 - ◊ Personal control: $\alpha = .76$; Treatment control: $\alpha = .76$
 - ◊ High scores on personal and treatment control represent positive beliefs about controllability and understanding of illness.

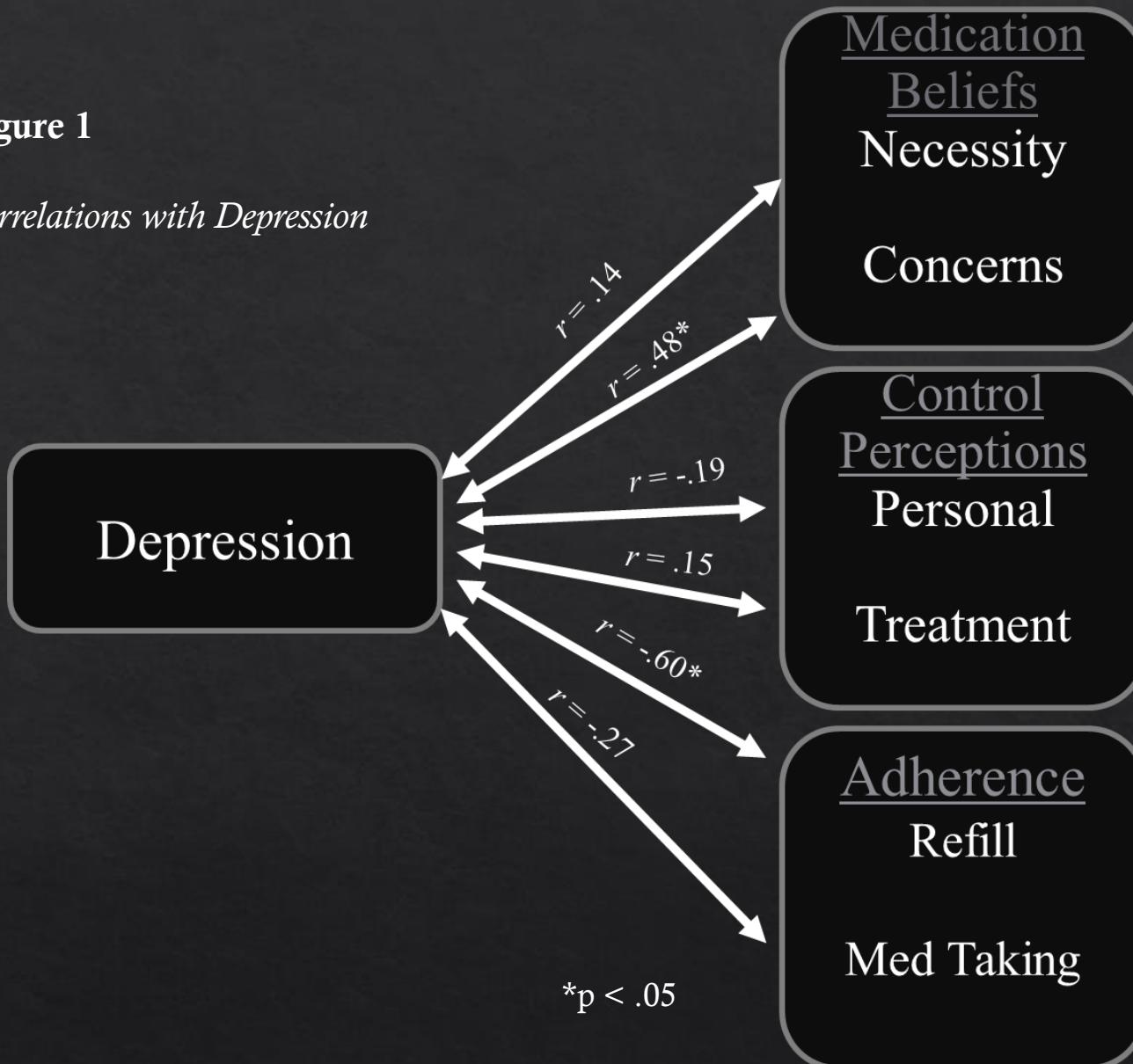
Measures

- ❖ *Medication Beliefs*: Beliefs about Medications Questionnaire (Horne et al., 1999)
 - ❖ Two 5-item scales; assessed specific beliefs about the necessity of prescribed medications in controlling disease and concerns about possible adverse effects of medication.
 - ❖ Necessity: $\alpha = .90$; Concerns: $\alpha = .83$
- ❖ *Medication Adherence*: Adherence to Refills and Medications (Kripalani et al., 2009).
 - ❖ 8-item medication taking ($\alpha = .82$) and 4-item refill subscale ($\alpha = .31$).
 - ❖ Higher scores indicated worse medication adherence.

Results

Figure 1

Correlations with Depression

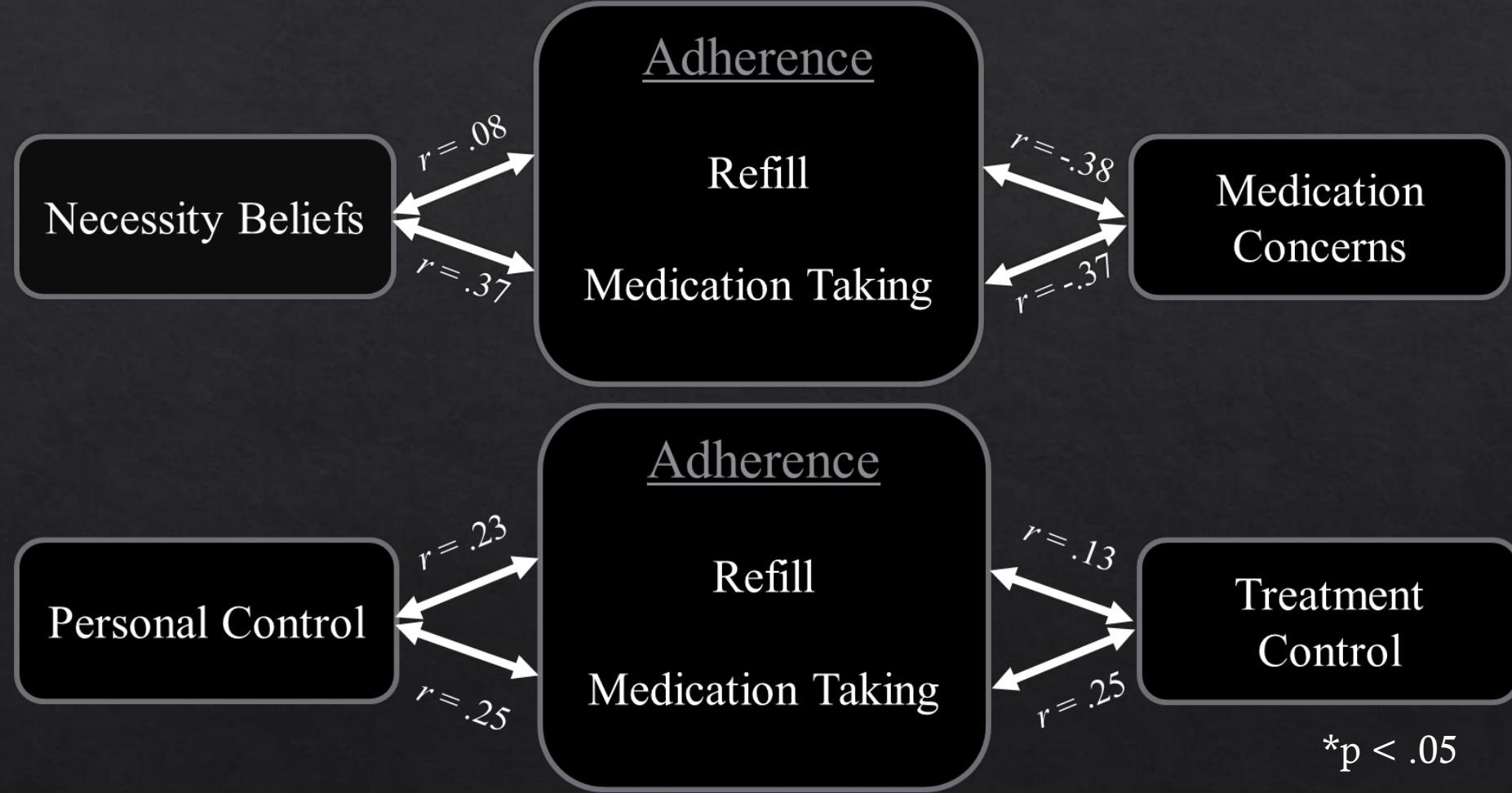


Note. Correlations of depression with medication beliefs, control perceptions, and adherence while controlling for 'difficulty paying bills' as an indicator of socioeconomic status. Asterisk indicates significance.

Results

Figure 2

Correlations of Adherence, Medication Beliefs, and Illness Control Perceptions



Note. Correlations of adherence with medication beliefs and illness control perceptions while controlling for 'difficulty paying bills' as an indicator of socioeconomic status. Asterisk indicates significance.

Conclusion

- ❖ Depression and medication beliefs are associated with and may play an important role in medication adherence.
 - ❖ Possible intervention target
- ❖ Depressive symptoms associated with concerns about medication side effects.

Future Research

- ❖ Specific roles of current study variables
- ❖ Illness and medication beliefs as mediators?



Questions?

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Figure 3. Depression and Medication Concerns

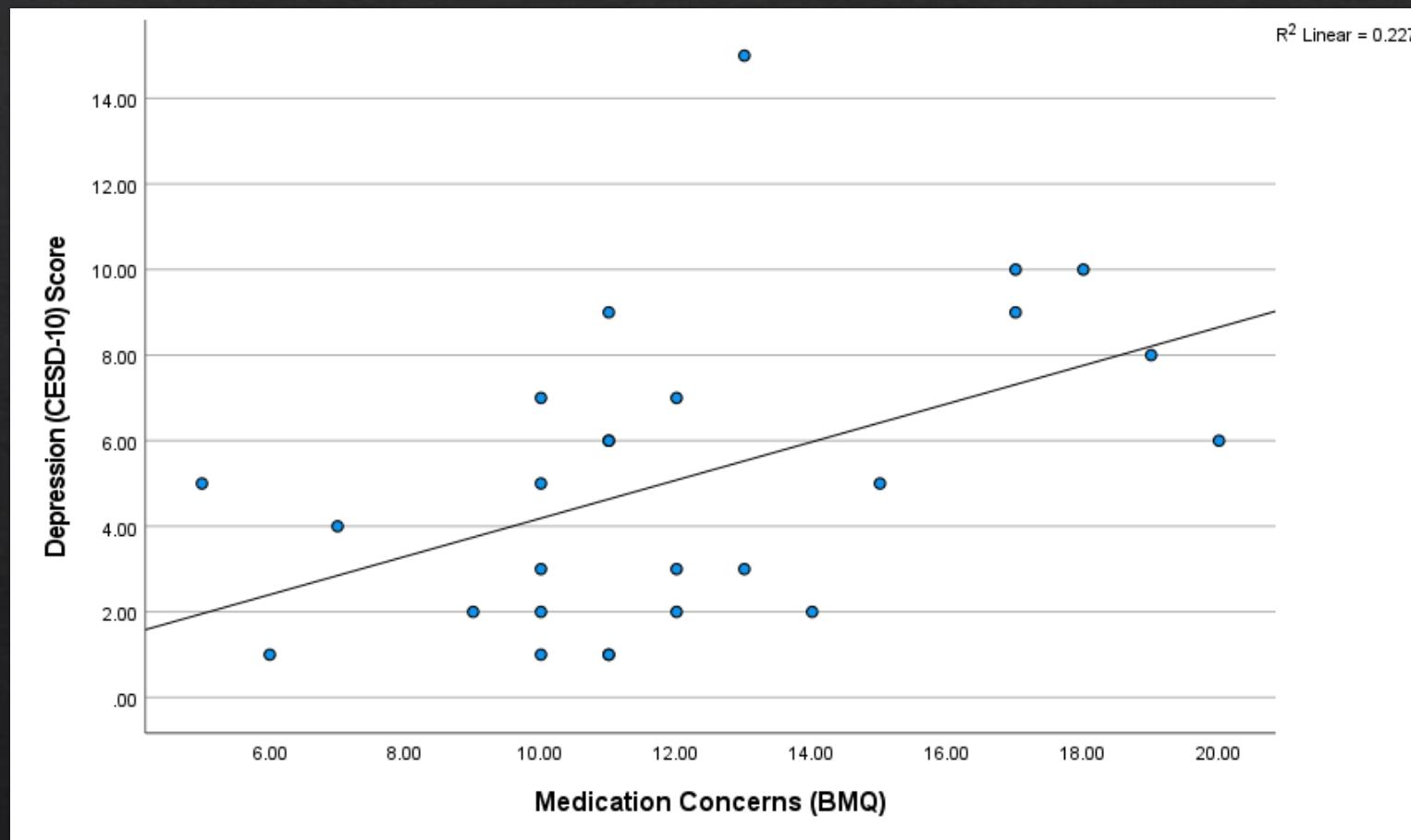


Figure 4. Depression and Refill Adherence

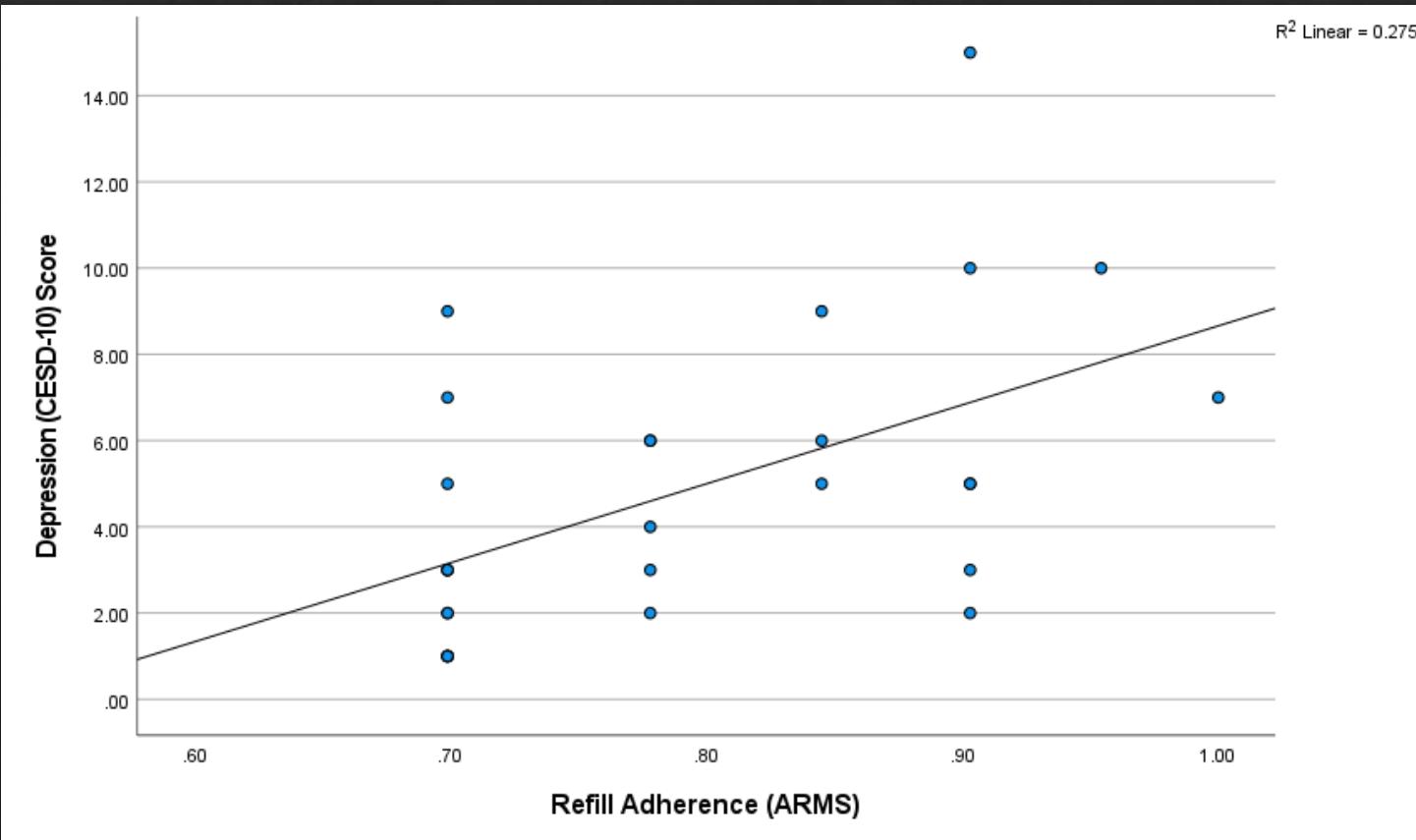


Figure 5. Medication Concerns and Refill Adherence

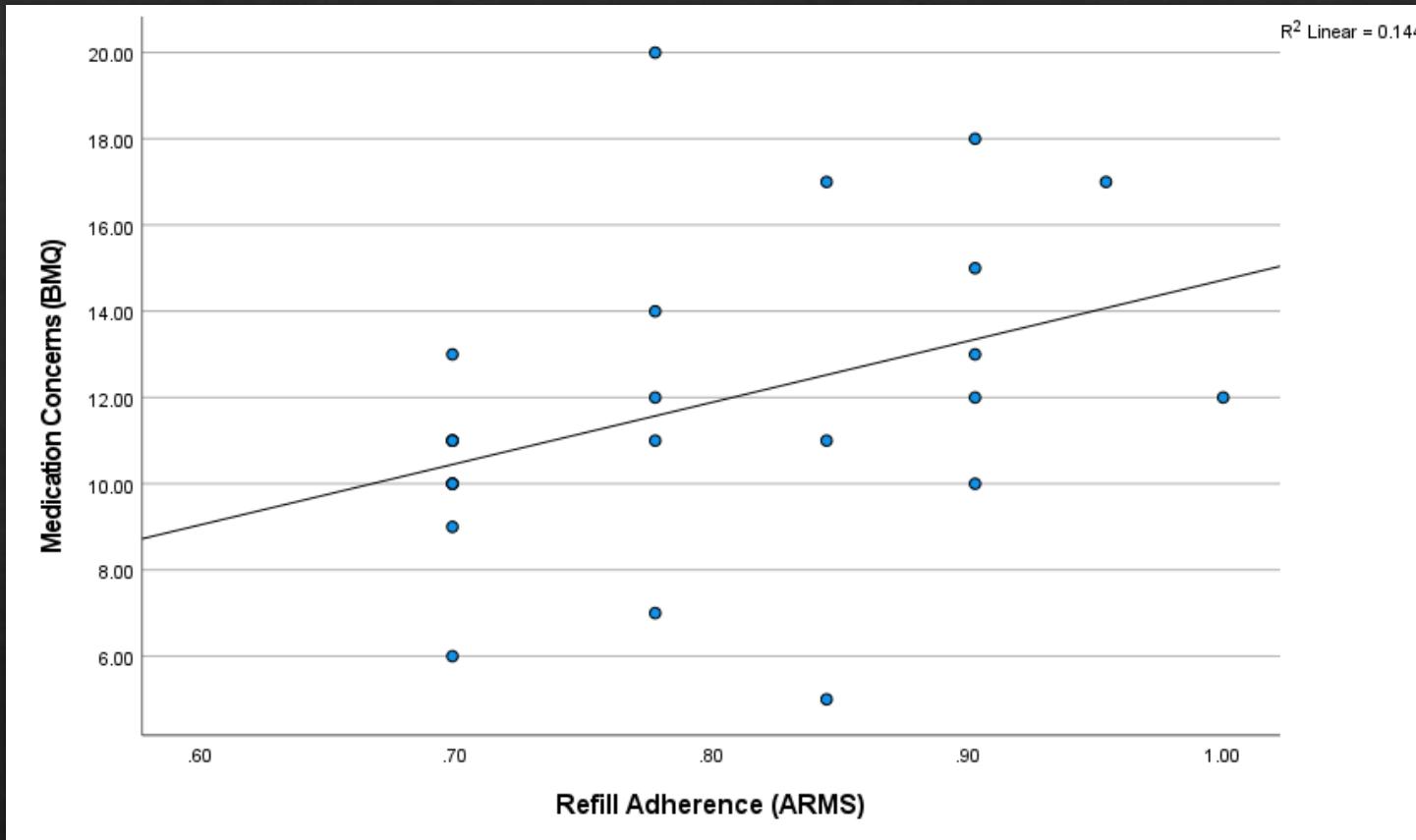


Figure 6. Medication Concerns and Medication Taking Adherence

