**I/O Psychology (PSYC 4505)**

**Professor Spikes**

**Reflection Activity 1, worth 12 points (Due: 9/25/2020 at 11:00am)**

**SUBMIT: Online via Canvas**

I have given information about particular sections of the practice critique article. However, for the last section (external validity), please ***provide further detail or explanation for each [listed] aspect of low external validity.***

…………………………………………………………………………………

**Goal:**

To determine the effects of a personal health record (PHR)-linked medications module on medication accuracy and safety.

**Problem Formulated:**

Revolved around the fact that medication-related morbidity and mortality is estimated to result in $76 billion dollars in total costs annually. One major contributor to such problem is adverse drug events (ADE). Further, there are problems in the area of communication between patients and doctors as per appropriate medication regimens.

**Hypothesis:**

A Personal Health Record (PHR) module (linked to an ambulatory electronic health record-EHR) would reduce discrepancies between patient-reported and EHR-documented medication regimens and reduce potential and preventable/ameliorable ADEs.

**Research Design:**

From September 2005 to March 2007, they conducted an on-treatment sub-study within a cluster-randomized trial involving 11 primary care practices that used the same PHR. Intervention practices received access to a medication module prompting patients to review their documented medications and identify discrepancies, generating ‘eJournals’ that enabled rapid updating of medication lists during subsequent trials.

**Data Collected:**

A sample of 267 patients who submitted medication eJournals was contacted by phone 3 weeks after an eligible visit and compared with a match sample of 274 patients in control practices that received a different PHR-linked intervention.

**Data Analyzed:**

Two blinded physicians adjudicators determined unexplained discrepancies between documented and patient-reported medication regimens. The primary outcome was proportion of medication per patient with unexplained discrepancies.

**Interpretation of Results:**

*First…*Among 121 046 patients in eligible practices, 3979 participated in the main trial and 541 participated in the sub-study. The proportion of medications per patient with unexplained discrepancies was 42% in the intervention arm and 51% in the control arm. The number of unexplained discrepancies per patients with potential for severe harm was 0.03 in the intervention arm and 0.08 in the control arm.

*Second…*When used, concordance between documented and patient-reported medication regimens and reduction in potential harmful medication discrepancies can improve with a PHR medication review tool link to the provider’s medical record.

**External Validity:**

Low:

* Small number of patients (both facets of the study)…
* Limited to Patient Gateway (PG) Users…
* Comparison between doctors and patients…
* Lack of comparison group…