

# Predicting Follow-up Compliance after Psychiatric Crisis: A Prospective Cohort Study

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## Introduction

Psychiatric patients often fail to follow up with an outpatient provider after crisis. Such non-compliance leads to overuse of psychiatric emergency services (PES), increases costs and lowers treatment efficacy.

**Purpose:** Identify patient characteristics and prior service utilization associated with compliance immediately following psychiatric crisis.

## Methods

**Design:** Multisite prospective cohort study

**Setting:** Psychiatric inpatient unit (PIU) and PES

**Recruitment:** PIU (scheduled follow-up appointment) or PES (unscheduled, recommended provider) between June 2012 and Sept. 2013

**Eligibility:** Cognitively intact adults with GAF score > 40

**Primary outcome:** Initial aftercare attendance (compliance)

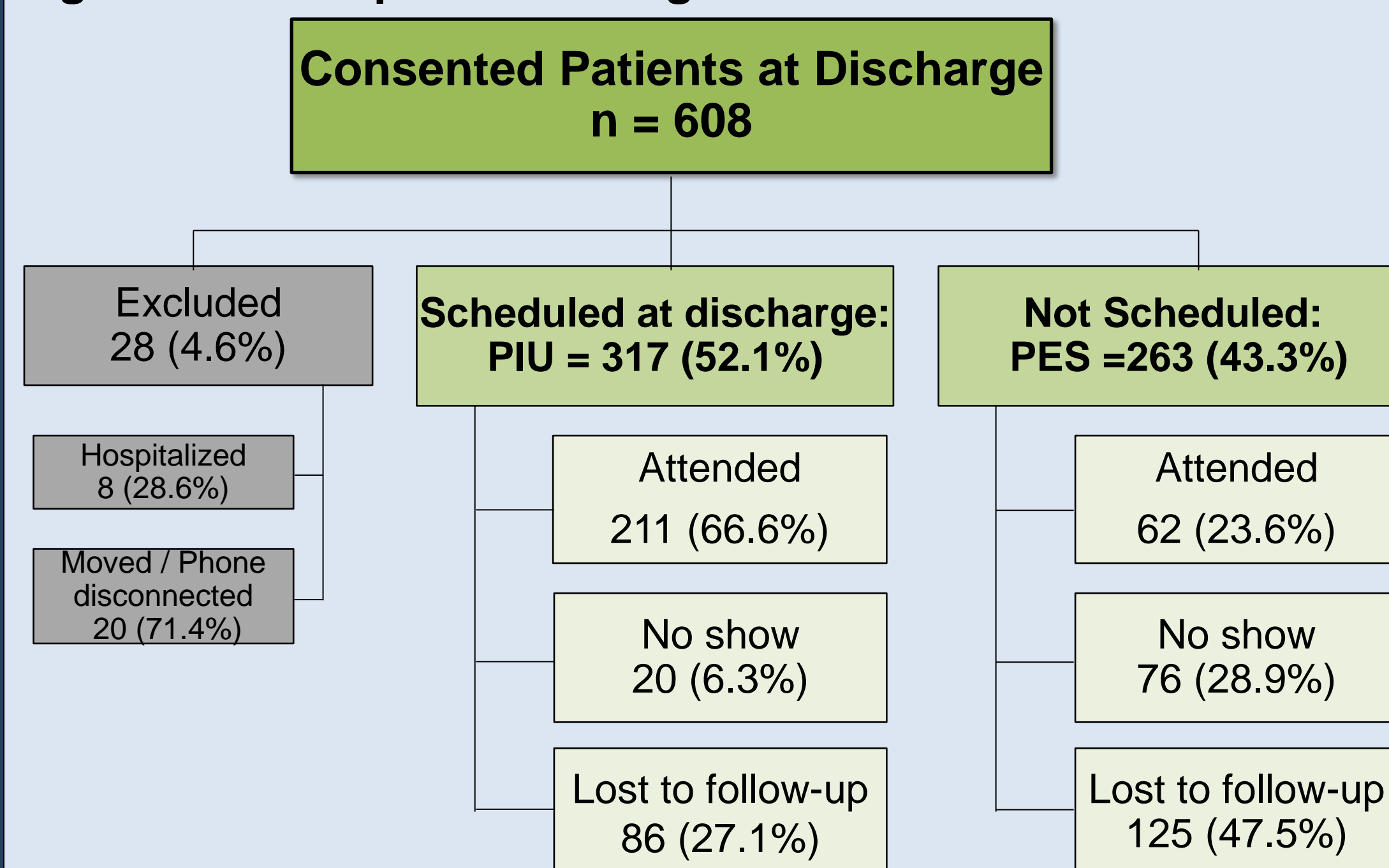
**Protocol:**

- Day 0: patients consented at discharge
- Day 7: A) call provider, if non-compliant call participant (discharged from PIU); B) call participant (discharged from PES)
- Day 10: 2<sup>nd</sup> call attempt to participant (non-compliant or unscheduled)
- Day 14: last call attempt to participant (non-compliant or unscheduled)
- Phone survey: administered upon participant contact; calling stopped

**IRB approval:** KUSM-W and Via Christi HSC

**Sample size:** 40% survey response rate with 80% power

**Figure 1. Participant flow diagram**

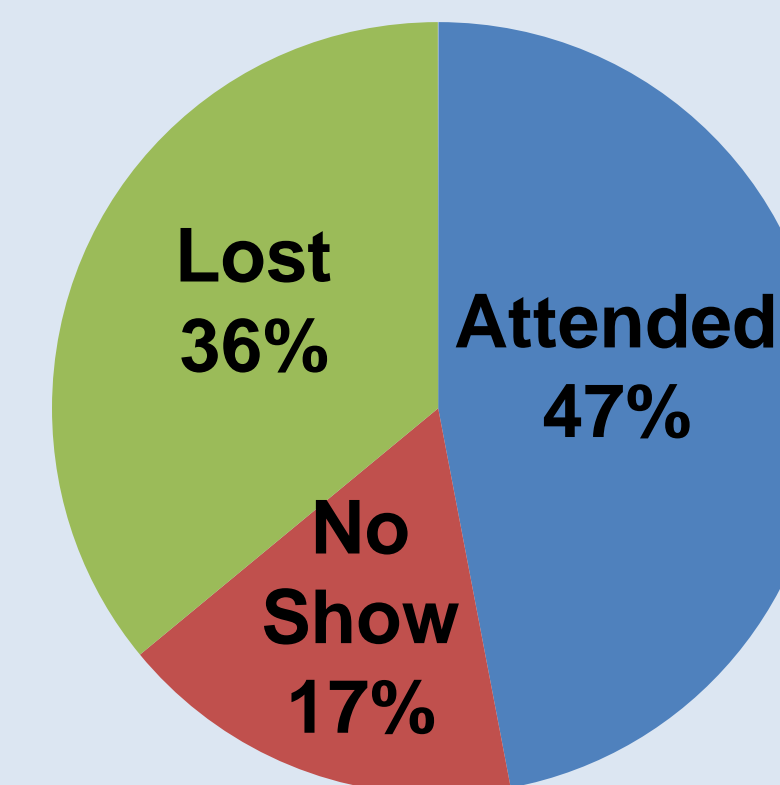


## Results

### Participants analyzed

580 adult psychiatric patients

- 53% female
- 42% unmarried
- 55% scheduled at discharge
- Mean age 36 y; sd 12.7



**Figure 2. Primary outcome: Follow-up compliance aftercare attendance**

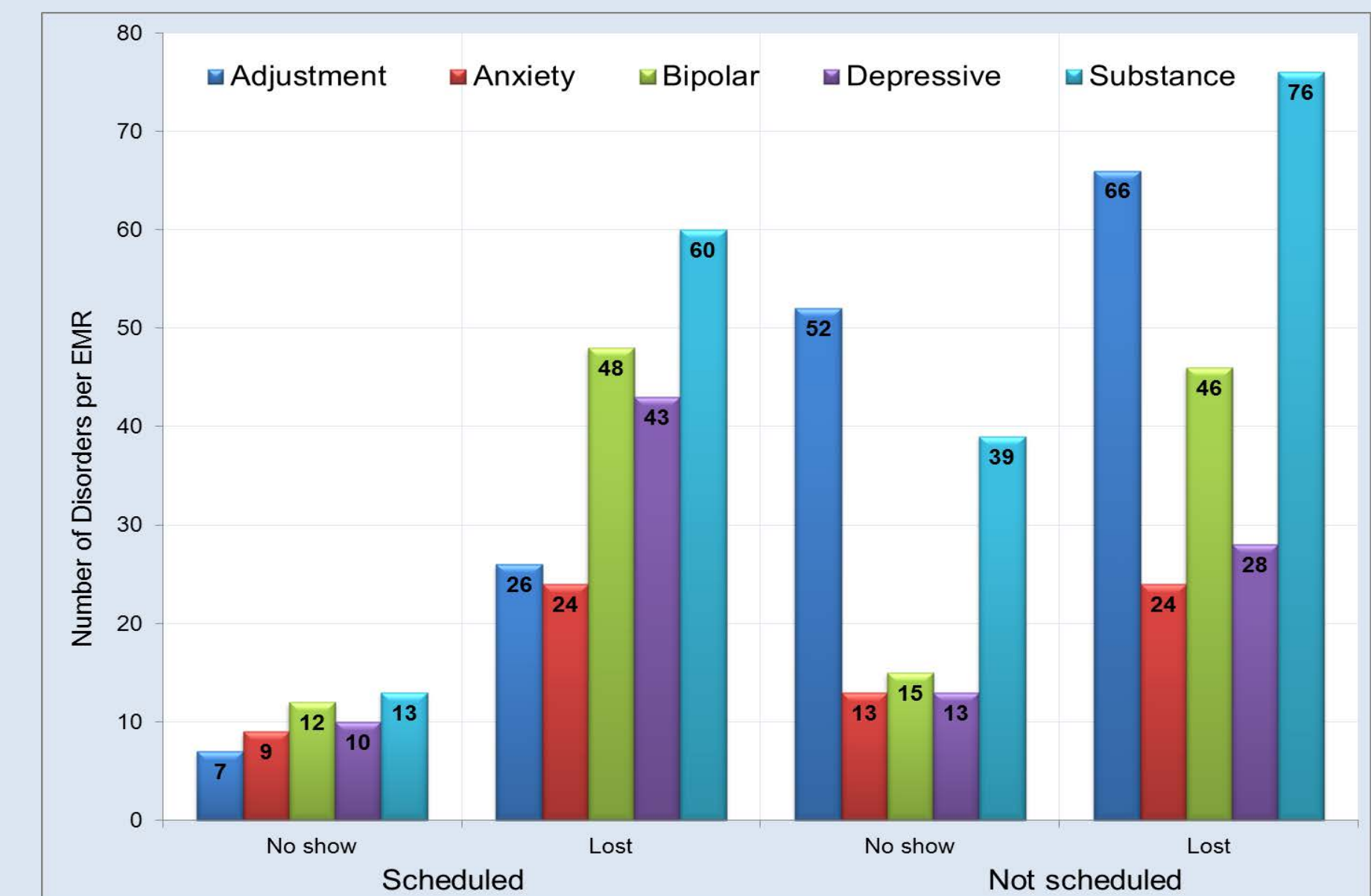
**Table 1. Patient characteristics**

Description	Attended n=273 (%)	No show n=96 (%)	Lost n=211 (%)	p
Female	163 (61.0)	46 (48.4)	96 (47.1)	0.005
Not Married	99 (67.8)	49 (77.8)	99 (79.8)	0.061
Psychotropic Meds.				
Antianxiety	58 (21.6)	10 (10.4)	30 (14.7)	0.023
Atypical Antipsychotic	45 (16.7)	10 (10.4)	18 (8.8)	0.029
Mood Stabilizers	31 (11.5)	4 (4.2)	16 (7.8)	0.075
Antidepressants	75 (27.9)	14 (14.6)	29 (14.2)	< 0.001
SSRI	106 (39.4)	23 (24.0)	61 (29.9)	0.009
Scheduled	211 (77.3)	20 (20.8)	86 (40.8)	< 0.001

**Table 2. Prior six month service utilization**

Prior service	Attended n=269 (%)	No show n=96 (%)	Lost n=204 (%)	p
ED: Emergency department (for any reason)				
Once	46 (17.1)	28 (29.2)	30 (14.7)	0.006
Two +	44 (16.4)	20 (20.8)	49 (24.0)	
PES: Psychiatric emergency service				
Once	59 (21.9)	50 (52.1)	74 (36.3)	< 0.001
Two +	9 (3.3)	3 (3.1)	5 (2.5)	
PIU: Psychiatric inpatient unit				
Once	106 (39.4)	11 (11.5)	54 (26.5)	< 0.001
Two +	16 (5.9)	2 (2.1)	5 (2.5)	

**Figure 3. Non-compliant patients by disorder**



## Non-Compliant patients (No show or Lost):

Significantly less likely

- Females; **Table 1**
- Psychotropic medication; **Table 1**
- Scheduled follow-up care; **Table 1**
- Prior PIU hospitalizations; **Table 2**

Significantly more likely

- Prior ED visits; **Table 2**
- Prior PES visits; **Table 2**
- Adjustment disorder (62% or 45%);  $p < 0.001$

No significant differences between compliant or non-compliant patients for substance related disorders; participants may have multiple diagnoses

## Conclusion

Prescheduling patients prior to discharge may improve treatment compliance and prevent overutilization of emergency services, especially for those with adjustment and substance related disorders; **Figure 3**

**Study limitation:** observational design w/o randomization

**Proposed plan to improve patient outcomes:**

- Implement targeted patient discharges
- Advocate for social worker within the PES to schedule follow-up appointments for all patients
- Initiate patient call back procedure to encourage compliance

## Funding Sources

Kansas Bioscience Authority, Wichita Graduate Medical Education, Via Christi Behavioral Health Services