

2020

Customized Blister Packaging for Patients Living with HIV: Assessment of Patient Attitudes and Satisfaction

Holly Groteluschen

Harlan Sayles

Joshua P. Havens

Sara Bares

Jasmine Marcelin

Follow this and additional works at: https://digitalcommons.unmc.edu/emet_posters



Part of the **Medical Education Commons**

Customized blister packaging for patients living with HIV: assessment of patient attitudes and satisfaction

Holly Groteluschen, Harlan Sayles, Joshua Havens, PharmD, Sara Bares, MD, Jasmine Marcelin, MD
Department of Infectious Diseases, University of Nebraska Medical Center, Omaha, NE 68198

Background

- Adherence to medication regimens results in improved control of disease states.
- In the setting of HIV infection, good adherence to antiretroviral regimens can reduce HIV transmission and increase patient's life expectancy (Cohen).
- Nonadherence can contribute to increased resistance of HIV against antiretroviral therapies (Gunthard).
- In 2013, the Nebraska Medicine HIV Clinic partnered with a community pharmacy located next door to the clinic to develop a Collaborative Care Program (CCP) in which places medications in multi-dose adherence blister packaging which are dispensed every 2 weeks.

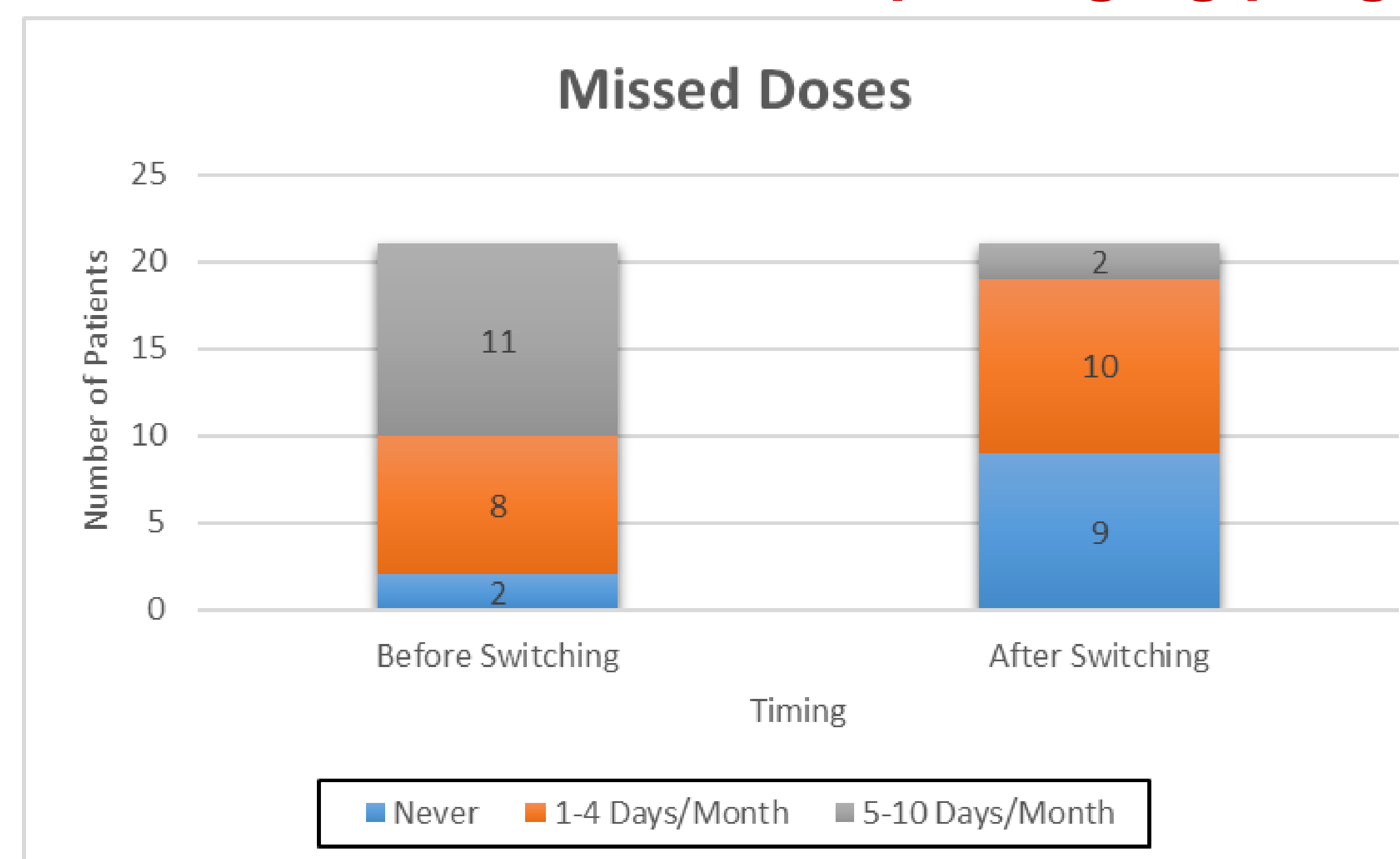
Methods

- The goal of this study was to determine if this program was viewed as helpful by the patients enrolled in it.
- A survey was created to ascertain patient's contentment and opinions on the program.
- Surveys were distributed to 44 of the patients enrolled in the Collaborative Care Program, with responses from 23 patients.

Table 1: Breakdown of demographic data of patients on ART through the blister packaging program who participated in this survey

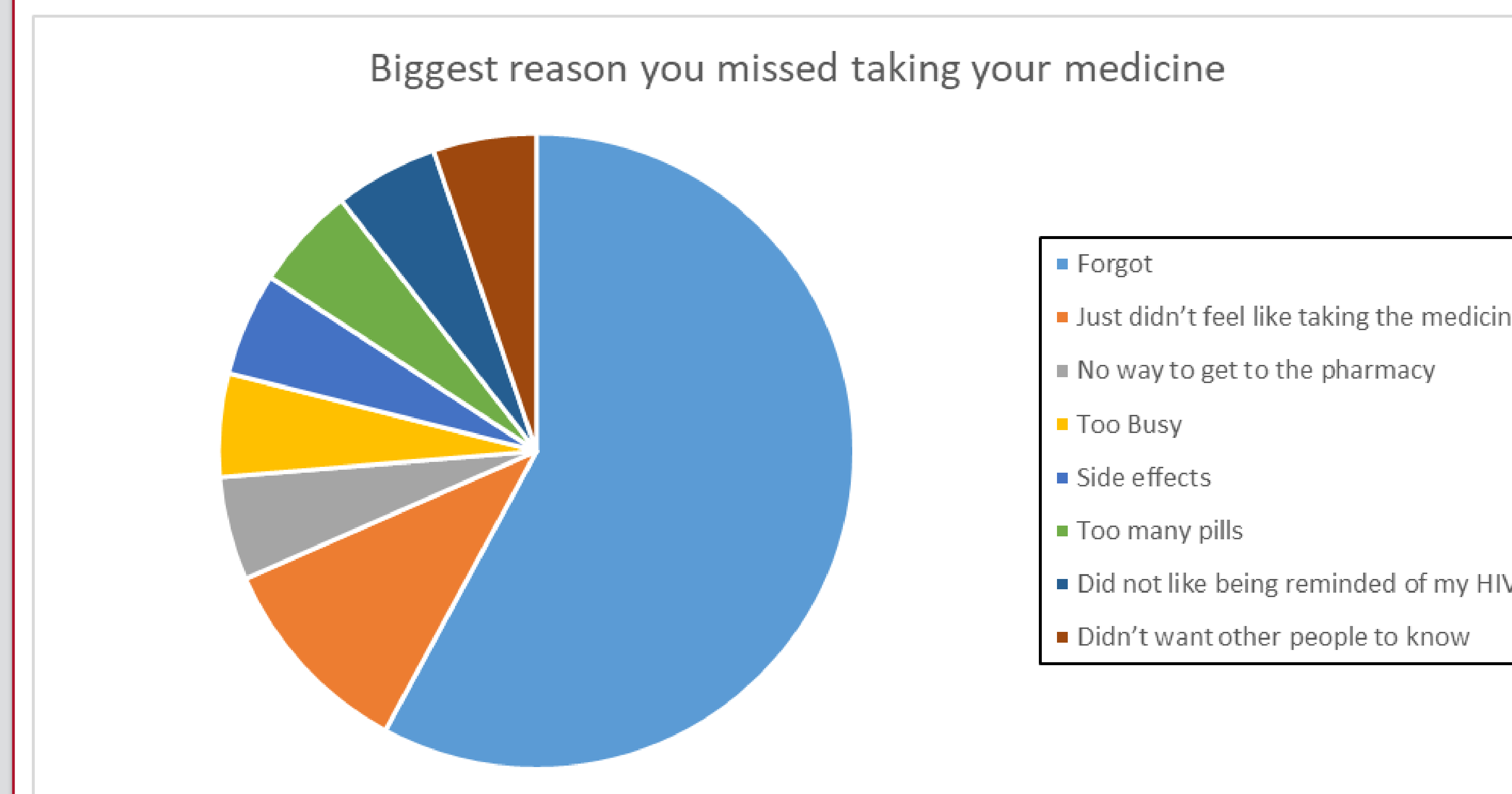
Characteristic	Median (IQR) or n (%)
Age, years	54 (48, 58)
Gender	
Female	10 (48)
Male	11 (52)
Race/Ethnicity	
Non-Hispanic White	11 (52)
Non-Hispanic Black	5 (24)
Non-Hispanic American Indian / Alaska Native	1 (5)
Hispanic	4 (19)
Marital Status	
Single	10 (48)
Married	3 (14)
Significant Other / Life Partner	3 (14)
Divorced	5 (24)
Work Status	
Employed for wages	4 (19)
Out of work (involuntary)	2 (10)
Out of work (voluntary)	2 (10)
Unable to work	13 (62)
Income	
Below 100% of the federal poverty level	12 (60)
At least 100% of the federal poverty level	8 (40)
HIV Duration, years	16.2 (12.2, 21.7)
ART Duration, years	8.7 (4.9, 14.4)
Last Viral Load < 50	20 (95)
Last CD4	621 (398, 976)
Regimen Type	
INI	15 (71)
NNRTI	1 (5)
PI	5 (24)
ART Pill Count	
1	6 (29)
2	10 (48)
3	3 (14)
5	2 (10)
Number of Medications	9 (7, 11)
Proportion of Days Covered, %	100 (83, 100)
Mental Health Diagnosis	17 (81)
History of Opportunistic Infection	5 (24)
Diabetes	7 (33)
Hypertension	11 (52)
CVD	13 (62)
Kidney Problems	3 (14)
Substance Use	8 (38)
Have Someone to Remind/Encourage Taking Medicine	8 (38)

Figure 1: Frequency of missed ART doses before and after enrollment in the blister packaging program



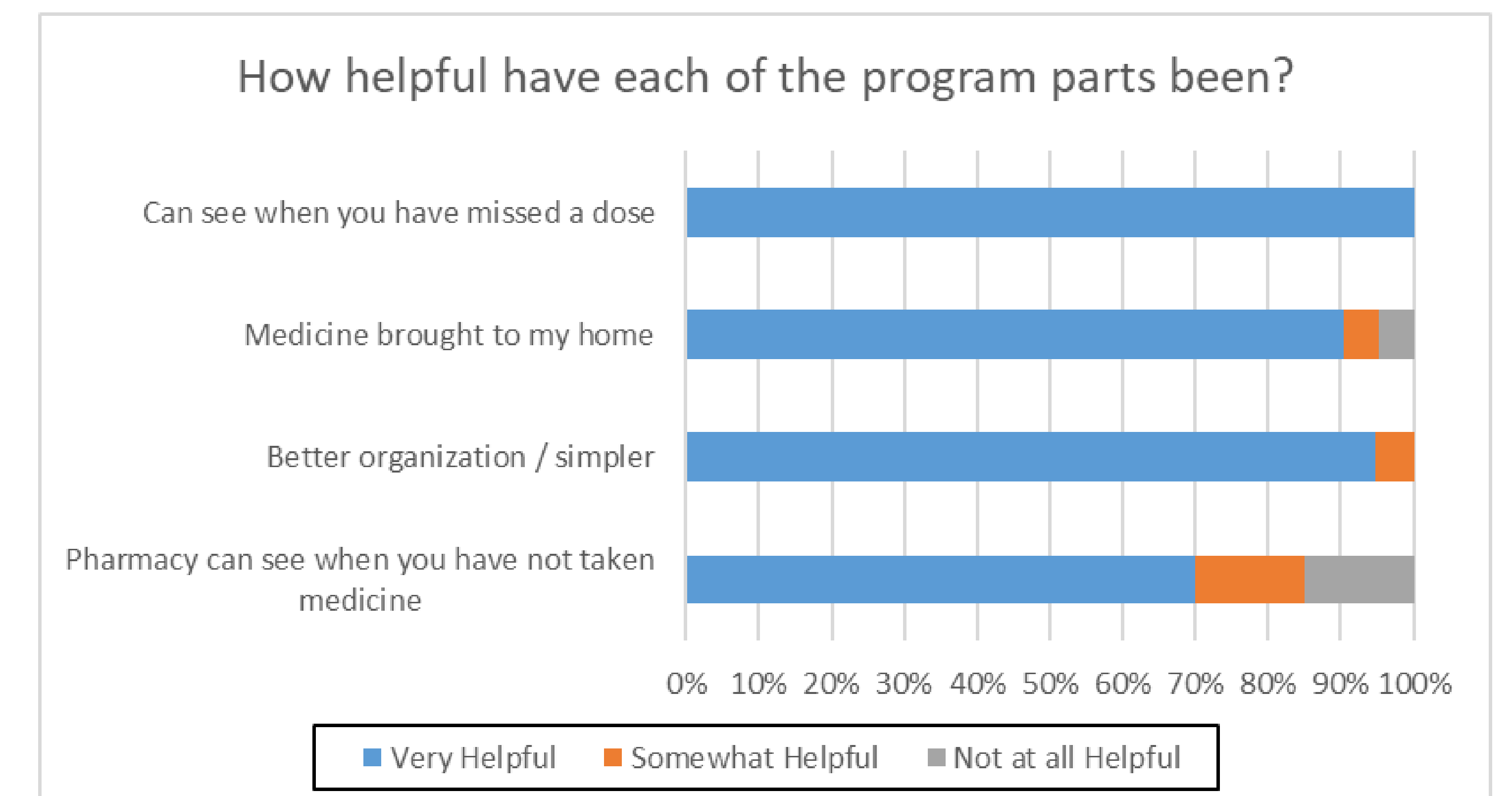
Decreased frequency of missed doses of ART after enrollment in the blister packaging program. Per a previous study (Osborne), this decrease in missed doses is reflected in improved viral loads and CD4+ counts after switching as well.

Figure 2: Patient-reported reasons for missed doses of ART medications



Biggest reported reason for missing doses of ART regimen was forgetfulness, followed by simply not wanting to take the medication.

Figure 3: Patient-reported most helpful aspects of blister packaging program



100% of patients reported they would recommend the blister packaging program. The most helpful part of the program was being able to clearly see when they had missed a dose.

Conclusion and Future Directions

Conclusion: Using a collaborative care program to create a blister package method of medication administration can improve medication adherence in patients who struggle with adhering to their medication regimen, and is perceived as helpful by the patients who utilize the program.

Potential next steps:

- Looking at effectiveness in a multi-center study
- Consider logistics and possibilities of involving other community pharmacies
- Consider expanding this program to patients with polypharmacy including non-HIV related medications, such as for hypertension, hyperlipidemia, diabetes, mellitus, etc.

References

Cohen MS, Chen YQ, McCauley M, et al. Antiretroviral Therapy for the Prevention of HIV-1 Transmission. N Engl J Med. 2016;375(9):830-839. doi:10.1056/NEJMoa1600693

Günthard HF, Calvez V, Paredes R, et al. Human Immunodeficiency Virus Drug Resistance: 2018 Recommendations of the International Antiviral Society-USA Panel. Clin Infect Dis. 2019;68(2):177-187. doi:10.1093/cid/ciy463

Osborn, Rebecca et. al. Adherence Packaging as Part of a Collaborative Care Program to Improve HIV Virologic Suppression. Presented at: "2018 ACTHIV Conference: A State-of-the Science Conference for Frontline Health Professionals", April 5-7, 2018 in Chicago, IL