

# Associations Between Patient Experience and Clinical Outcomes in Substance Use Disorder Clinics:

## Findings from the Veterans Outcomes Assessment Survey

*(Under review)*

Edward Liebmann, Ph.D.

VA Connecticut Healthcare System

Yale University School of Medicine

Interprofessional Advanced Fellowship Scholarly Presentation

May 5, 2021

## SUD Treatment & Patient Centered Care

Patient-centered care is a guiding principle for SUD care (Bradley & Kivlahan, 2014; IOM, 2006).

Individuals with SUDs value treatment that is voluntary, empathically delivered and includes their involvement in treatment-related decision making (Friedrichs et al., 2018).

Patient experience measures (PREMs) are an important tool for assessing the quality of patient-centered care (Brown et al., 2010; Larson et al., 2019).

Little existing research beyond global ratings of satisfaction to guide the use of PREMs in the SUD treatment context (Davis et al., 2020).

## Patient-Provider Communication

Patient-provider communication is an essential component of patient-centered SUD care.

Core domain of patient-centered SUD treatment frameworks and a component of empirically supported models of SUD treatment (Marchand et al., 2019; Urbanoski et al., 2012).

Measures of alliance are specific to psychotherapy and outside of the mainstream of consumer healthcare evaluation.

The Experiences of Care and Health Outcomes survey (ECHO) provider-communication subscale assesses extent to which patients feel listened to, respected, adequately attended to and that information was conveyed clearly by their providers (Daniels et al., 2004).

Conceptually proximal to therapeutic alliance and developed for the purpose of assessing treatment quality.

# Present Study

*Predictive validity of perceived treatment quality and patient-provider communication on SUD treatment outcomes and discontinuation*

## Hypotheses:

Lower perceived treatment quality and problems with communication associated with:

1. Treatment discontinuation
2. Discontinuation due to problems with care
3. Poorer treatment outcomes at follow-up

## Additional research questions:

1. Does the timing of quality assessment influence associations with outcomes?
2. What is the relative influence of global ratings of quality and communication quality on outcomes?

Sample: Data from 3 waves (2017-2019) of Veterans Outcome Assessment survey ( $N = 2,788$ ) .

Veterans initiating outpatient SUD care, assessed at baseline and 3-months (Katz et al., 2020).

Experiences of Care and Health Outcomes survey (ECHO): Overall perceived treatment quality item and patient-provider communication subscale (Daniels et al., 2004).

Outcomes:

*Discontinuation:* Self-report, treatment encounters (EHR), reasons for discontinuation (problems with care vs. treatment not wanted/needed).

*Treatment:* 3-Month BAM-R subscales (Cacciola et al., 2013); Mental Health Component Score (MCS-12) of SF-12 (Ware et al., 1996).

Covariates: Demographics, psych. & SUD diagnoses, health comorbidities, baseline BAM-R, baseline MCS-12, VISN, survey year

Methods:

Sample & Measures

Analyses conducted using multiple imputed data and survey weights.

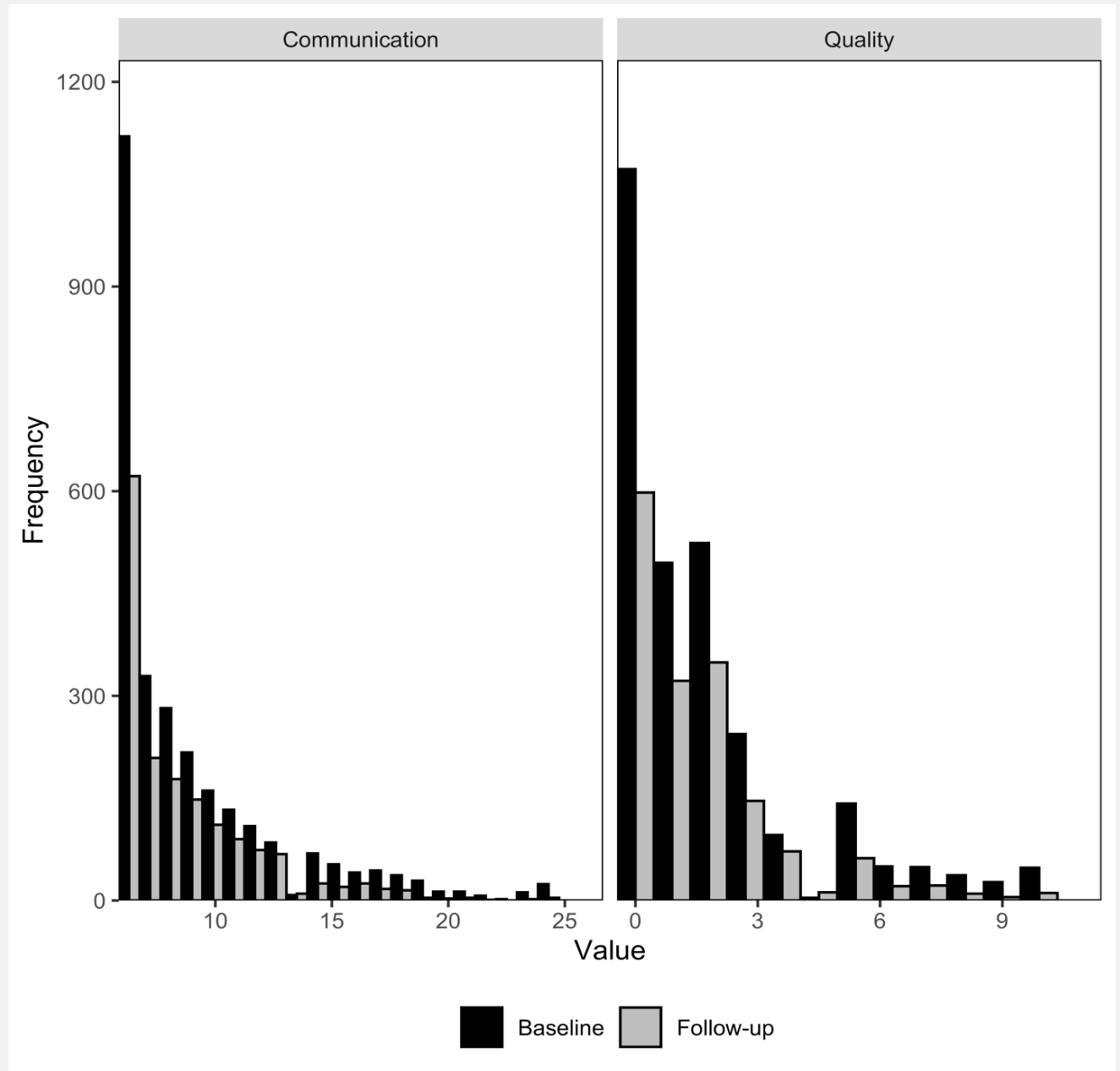
Associations between outcomes and PREMs of interest estimated using linear regression and GLMs. Coefficients pooled according to Rubin's rules (Barnard & Rubin, 1999).

Methods:

Analysis

<b>Step 1</b>	
Treatment Quality	Baseline, 3-months
Communication Quality	Baseline, 3-months
<b>Step 2</b>	
Treatment Quality	Baseline + 3-months
Communication Quality	Baseline + 3-months
<b>Step 3</b>	
Treatment + Communication Quality	Baseline + 3-months

Results:  
Experience Measure  
Distributions



**Results:**

**Discontinuation  
& Reasons for  
Discontinuation**

Communication quality at 3-months associated with self-reported treatment discontinuation across adjusted models ( $AOR = 4.02, p < .001$ ).

Overall treatment quality ( $AOR = 1.35, p < .05$ ) and communication ( $AOR = 1.30, p < .05$ ) associated with absence of EHR encounters between baseline and 3-months in adjusted models.

Among veterans who reported discontinuing SUD care ( $N = 239; 17\%$ ):

Treatment quality ( $AOR = 3.65, p < .05$ ) and problems with communication ( $AOR = 3.26, p < .05$ ) at baseline associated with discontinuation due to problems in care in adjusted models.

Treatment quality and communication not significantly associated with discontinuing care due to not wanting/needing care in any adjusted models.



**Results:**

**BAM-R and MCS-12**

**Outcomes at 3-Months**

Treatment quality ( $AOR = 1.51, p < .01$ ) and Communication quality associated ( $AOR = 1.49, p < .01$ ) at 3-months with any use on BAM-R, Use subscale in adjusted models.

Treatment quality ( $AOR = 1.85, p < .001$ ) and Communication quality at associated ( $AOR = 1.73, p < .001$ ) 3-months with  $>75$ ile for BAM-R, Risk subscale in adjusted models.

Communication quality at 3-months associated ( $AOR = 1.78, p < .001$ ) with  $< 25$ ile for BAM-R, Protective subscale in adjusted models.

Treatment quality ( $b = -1.54, p < .05$ ) and Communication quality at associated ( $b = -2.29, p < .01$ ) 3-months with any use on MCS-12, subscale in all adjusted models.

## Implications

Perceptions of treatment quality and patient-provider communication associated with SUD tx outcomes, discontinuation and discontinuation due to problems with care.

ECHO may be useful within the context of measurement-based care (MBC) for the purposes of clinical care, quality monitoring and quality improvement (Joint Commission, 2018; Lewis et al., 2019).

Similar to what is observed in the patient satisfaction literature, response distributions for the patient-experience measures were strongly right-tailed (Trujols et al., 2014; Williams et al., 1998).

When considered simultaneously, experience of communication does not account for variance above and beyond overall treatment quality.

Timing of assessment of PREMs influences pattern of associations with outcomes.

THANK YOU

QUESTIONS?

# REFERENCES

- Barnard, J., & Rubin, D. B. (1999). Small-Sample Degrees of Freedom with Multiple Imputation. *Biometrika*, 86(4), 948–955. JSTOR.
- Bradley, K. A., & Kivlahan, D. R. (2014). Bringing patient-centered care to patients with alcohol use disorders. *JAMA*, 311(18), 1861–1862. <https://doi.org/10.1001/jama.2014.3629>
- Browne, K., Roseman, D., Shaller, D., & Edgman-Levitan, S. (2010). Analysis & commentary. Measuring patient experience as a strategy for improving primary care. *Health Affairs (Project Hope)*, 29(5), 921–925. <https://doi.org/10.1377/hlthaff.2010.0238>
- Cacciola, J. S., Alterman, A. I., DePhillippis, D., Drapkin, M. L., Valadez, C., Fala, N. C., Oslin, D., & McKay, J. R. (2013). Development and initial evaluation of the Brief Addiction Monitor (BAM). *Journal of Substance Abuse Treatment*, 44(3), 256–263. <https://doi.org/10.1016/j.jsat.2012.07.013>
- Daniels, A. S., Shaul, J. A., Greenberg, P., & Cleary, P. D. (2004). The Experience of Care and Health Outcomes Survey (ECHO): A Consumer Survey to Collect Ratings of Behavioral Health Care Treatment, Outcomes and Plans. In M. E. Maruish (Ed.), *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment*. Lawrence Erlbaum Associates.
- Davis, E. L., Kelly, P. J., Deane, F. P., Baker, A. L., Buckingham, M., Degan, T., & Adams, S. (2020). The relationship between patient-centered care and outcomes in specialist drug and alcohol treatment: A systematic literature review. *Substance Abuse*, 41(2), 216–231. <https://doi.org/10.1080/08897077.2019.1671940>
- Friedrichs, A., Silkens, A., Reimer, J., Kraus, L., Scherbaum, N., Piontek, D., Röhrig, J., Hempleman, J., Härter, M., & Buchholz, A. (2018). Role preferences of patients with alcohol use disorders. *Addictive Behaviors*, 84, 248–254. <https://doi.org/10.1016/j.addbeh.2018.05.002>
- Institute of Medicine. (2006). *Improving the Quality of Health Care for Mental and Substance-Use Conditions*. The National Academies Press.
- Joint Commission. (2018). *Outcome measures standard*. <https://www.jointcommission.org/accreditation-and-certification/health-care-settings/behavioral-health-care/outcome-measures-standard/>
- Marchand, K., Beaumont, S., Westfall, J., MacDonald, S., Harrison, S., Marsh, D. C., Schechter, M. T., & Oviedo-Joekes, E. (2019). Conceptualizing patient-centered care for substance use disorder treatment: Findings from a systematic scoping review. *Substance Abuse Treatment, Prevention, and Policy*, 14(1), 37. <https://doi.org/10.1186/s13011-019-0227-0>
- Katz, I. R., Resnick, S. G., Kaspro, W. J., Boden, M. T., Cherkasova, E., Fielstein, E. M., Trafton, J. A., & Hoff, R. A. (2020). Using patient-reported outcome measures for program evaluation: Design and findings on intention-to-treat outcomes from the Veterans Outcome Assessment survey. *Psychiatry Research*, 291, 113226. <https://doi.org/10.1016/j.psychres.2020.113226>
- Larson, E., Sharma, J., Bohren, M. A., & Tunçalp, Ö. (2019). When the patient is the expert: Measuring patient experience and satisfaction with care. *Bulletin of the World Health Organization*, 97(8), 563–569. <https://doi.org/10.2471/BLT.18.225201>
- Lewis, C. C., Boyd, M., Puspitasari, A., Navarro, E., Howard, J., Kassab, H., Hoffman, M., Scott, K., Lyon, A., Douglas, S., Simon, G., & Kroenke, K. (2019). Implementing Measurement-Based Care in Behavioral Health: A Review. *JAMA Psychiatry*, 76(3), 324–335. <https://doi.org/10.1001/jamapsychiatry.2018.3329>
- Trujols, J., Iraurgi, I., Oviedo-Joekes, E., & Guàrdia-Olmos, J. (2014). A critical analysis of user satisfaction surveys in addiction services: Opioid maintenance treatment as a representative case study. *Patient Preference and Adherence*, 8, 107–117. <https://doi.org/10.2147/PPA.S52060>
- Urbanoski, K. A., Kelly, J. F., Hoepfner, B. B., & Slaymaker, V. (2012). The role of therapeutic alliance in substance use disorder treatment for young adults. *Journal of Substance Abuse Treatment*, 43(3), 344–351. <https://doi.org/10.1016/j.jsat.2011.12.013>
- Ware, J., Kosinski, M., & Keller, S. D. (1996). A 12-Item Short-Form Health Survey: Construction of scales and preliminary tests of reliability and validity. *Medical Care*, 34(3), 220–233. <https://doi.org/10.1097/00005650-199603000-00003>
- Williams, B., Coyle, J., & Healy, D. (1998). The meaning of patient satisfaction: An explanation of high reported levels. *Social Science & Medicine* (1982), 47(9), 1351–1359. [https://doi.org/10.1016/s0277-9536\(98\)00213-5](https://doi.org/10.1016/s0277-9536(98)00213-5)