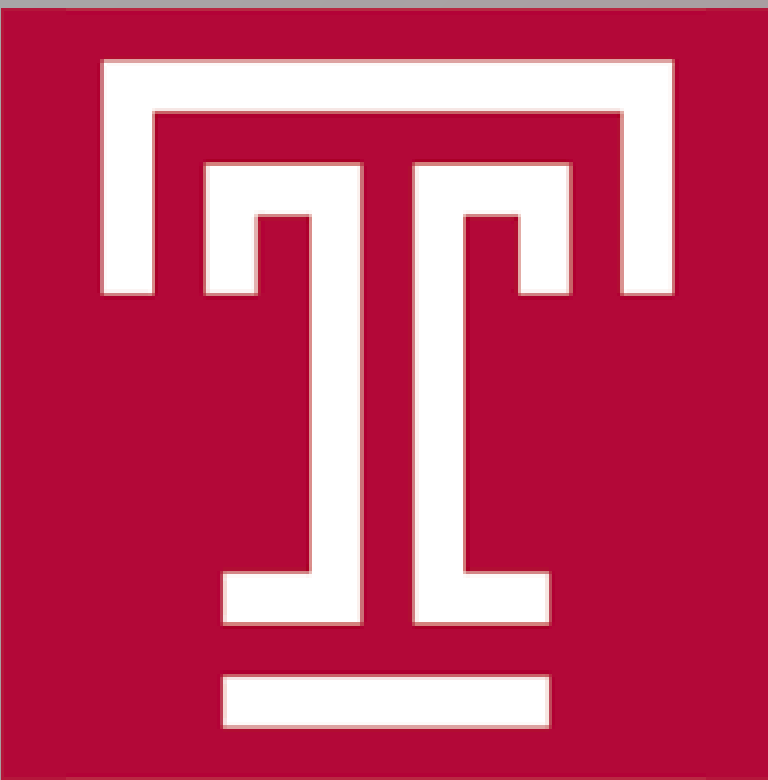
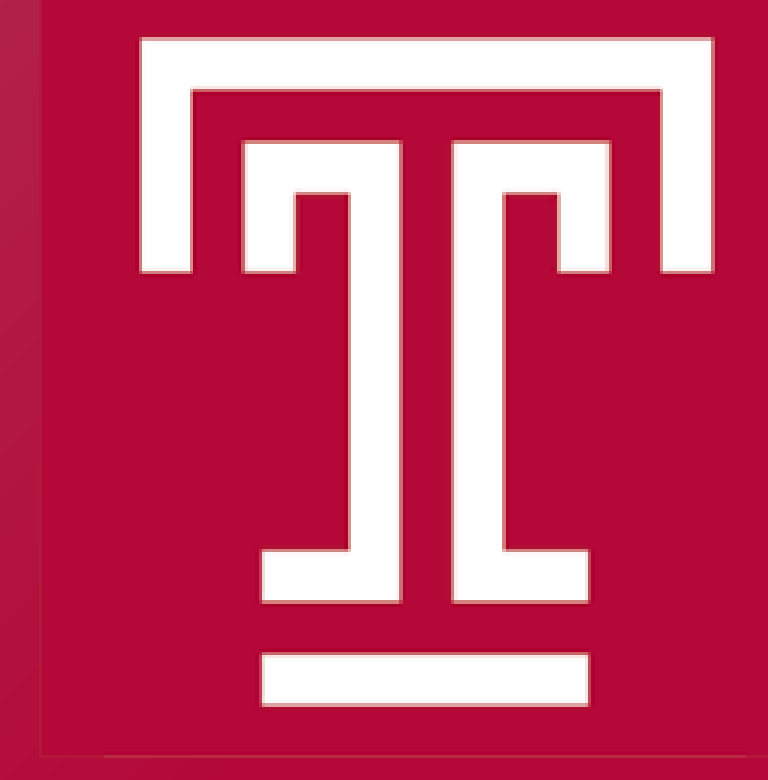




A Content Validity Study of Accountability and Forgiveness Constructs in a population with substance use disorder



Leonardo S. Negrini, MD, MS; Sarah Bachman, BS; Megan Guinan, BS; Jesse Shank, BS

Department of Psychiatry, Lewis Katz School of Medicine at Temple University, Philadelphia, PA

INTRODUCTION

Substance use disorders (SUDs) represent a growing global health crisis, affecting 39.5 million of the 296 million people who used drugs worldwide in 2021. Despite comprising only 4.2% of the world population, the United States accounts for half of all SUD-related deaths. Among available treatments, Twelve Step Facilitation (TSF) has demonstrated superior efficacy in achieving abstinence, particularly for alcohol use disorder, and is applicable across all addictive behaviors. However, despite TSF's proven effectiveness, the specific psychological mechanisms driving recovery remain poorly understood.

We propose that TSF's core components can be explored empirically with the following measurable psychological constructs: locus of control, accountability, and forgiveness. With available measuring tools a model can be tested where the traditional “spiritual transformation” referred to in TSF is understood as a more differentiated process where the character strengths of forgiveness, accountability and locus of control interact to produce positive outcomes.

This study is a preliminary step to test the model described above and is concerned specifically with testing the construct validity of accountability and forgiveness in a population of outpatients attending a substance use clinic in Northeast Philadelphia. Because the target population has low literacy rates, it is important to ensure the language from measuring tools is accessible and content validity is explored with a qualitative design before testing construct validity with quantitative methods.

OBJECTIVES

- Explore participant’s comprehension of the three key concepts of “transcendent,” “accountability,” and “forgiveness” using thematic and content analysis
- Identify potential issues undermining content validity of the measuring tools when used in a population with low level of literacy
- Establish feasibility of recruiting participants from the substance use clinic for larger study using quantitative methods

METHODS

Cognitive interviewing was conducted with patients receiving care at an outpatient substance use clinic in Temple University’s Episcopal Hospital. Interviews assessed participants’ comprehension of items from six measuring tools. Interviewers asked patients to define key terminology and rephrase the statements of all items from the measuring tools.

Thematic analysis was done through a collaborative coding process where first each investigator proposed a coding system independently and then through discussion reached a consensus around a unified coding system of themes. Content analysis was done by grouping individual transcript segments under at least one theme from the coding system. Three main concepts were explored: “transcendent,” “accountability,” and “forgiveness.”

A separate content analysis was done to identify problematic items in the scales with a coding system for levels of understanding comprising four categories: “on topic,” “near topic,” “off topic,” “skipped or absent.” Problematic items were assessed for item “intent and clarity,” “wording” and “relevance and context.”

MEASURING TOOLS

Human Accountability Scale (HA): 11 items measuring an individual's sense of personal moral responsibility, ownership of actions, and willingness to be answerable for their conduct.

Transcendent Accountability Scale (TA):10 items assessing an individual’s sense of being ultimately accountable to a higher power, such as God or a transcendent moral authority.

Heartland Forgiveness Scale (HFS):18 items measuring disposition forgiveness based on subscales of forgiveness of self, others, and situations.

Transgression-Related Interpersonal Motivations Inventory (TRIM): 12 items aimed at identifying motivational tendencies such as avoidance and revenge in response to interpersonal offenses.

Toussaint Scale for Trait Forgiveness (TS): 12 items evaluating the association between forgiveness and spirituality in the context of perceived offenses by oneself and others.

Self-Forgiveness Dual-Process Scale (SFDP):10 items assessing an individual’s value reorientation and esteem restoration after a perceived interpersonal transgression.

RESULTS

Descriptives

- Sample size: a total of **N =15 participants** were interviewed with each measuring tool applied to at least 3 participants.
- No demographics were collected since this study was part of a practice run for the larger study to follow and was exempt from IRB review.

Item Comprehension Analysis

Instrument	Items	On Topic	Near/Off Topic	Rank
TRIM	36	100.00%	0.00%	1st
Toussaint Scale	35	85.70%	14.20%	2nd
Human Accountability	33	82.00%	18.00%	3rd
Transcendent Accountability	31	80.60%	19.30%	4th
Heartland Forgiveness	48	77.00%	23.00%	5th
Self-Forgiveness Dual Process	30	66.70%	33.30%	6th

Item Intent & Clarity:

- **HA:** in item 5 the respondent must consider the willingness to explain one’s work to people one is responsible to. One participant misunderstood the statement to be referring to people he is “responsible for.”
- **HFS:** in item 13 one participant could not grasp the situation described referring to being trapped in ruminating thoughts
- **TS:** one participant noted that item 11 was confusing

Item Wording:

- **HA:** in item 4 the word “perspective” was not understood by a participant
- **HFS:** the word circumstances was not understood by 2 participants one of which skipped items containing it and another understood it as acts of others
- **SFDP:** one participant didn’t understand what “compassion” means

RESULTS

Relevance & Context:

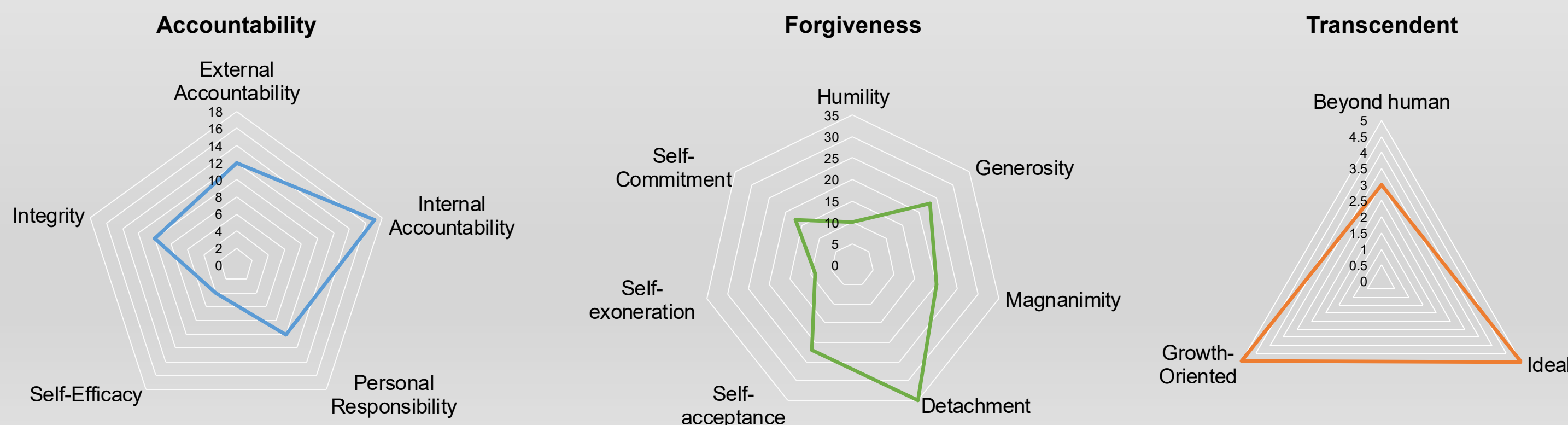
- **TS:** in item 12 one participant did not seem to consider praying for his offender something relevant. In item 10 one participant said she did not believe in God therefore she did not pray to God.

Thematic Analysis

Three main concepts explored: **Transcendent, Accountability, Forgiveness**

Total coded segments: 236

Non-categorizable: 29



DISCUSSION

The results of the content analysis of item comprehension support stronger content validity for Transgression-Related Interpersonal Motivations Inventory (TRIM) followed by Toussaint Scale for Trait Forgiveness (TS), Human Accountability (HA) and Transcendent Accountability (TA) all of which had 80% or more item comprehension with answers pertinent to the topic by participants. The Heartland Forgiveness Scale (HFS) and the Self-Forgiveness Dual Process Scale (SFDP) had 77% and 66.7% of item comprehension respectively. Issues with item intent and clarity, wording and item relevance and context were found in higher-performing scales as well as underperforming ones and are described in the results section. Words used in scale items were misapprehended or not at all understood such as “circumstances,” “perspective,” and “transcendent.” This finding would advise adaptation of the scales to increase content validity when administered to participants with low level of education. Thematic analysis showed that accountability as a concept was mostly understood as in holding oneself accountable to one’s ideals and taking ownership of one’s own actions coded as internal accountability and personal responsibility respectively. Forgiveness was mostly understood as detachment from guilt or grudge, abstaining from retribution and abstaining from judgment coded as detachment, generosity and magnanimity respectively. Transcendent was understood as to mean mostly an ideal or growth and to a lesser extend to mean beyond human. These finding support a grounded theory of the concepts above as they are articulated by the participants of the study and align closely with the construct definitions articulated in the construct validity studies that produced the scales except perhaps to a lesser extent with the concept of “transcendent.”

Limitations: sample size was small which advises against definitive conclusions about the content validity performance of the scales. The transcripts of participants’ responses was recorded by manually taking notes which limits their validity as a sample of the participants’ insight. In order to increase power, thematic analysis included transcripts from scale items as well as responses to the questions asking to define the key concepts of accountability, forgiveness and transcendent. However, this may introduce a bias of how the scales define the constructs to the interpretation of the responses.

REFERENCES

1. GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Lancet*. 2020;396(10258):1204–22.
2. Griffin, B. J., Worthington, E. L., Jr., Davis, D. E., Hook, J. N., & Maguen, S. (2018). Development of the Self-Forgiveness Dual-Process Scale. *Journal of Counseling Psychology*, 65(6), 715–726. <https://doi.org/10.1037/cou0000293>
3. McCullough, M. E., Root, L. M., & Cohen, A. D. (2006). Writing about the benefits of an interpersonal transgression facilitates forgiveness. *Journal of Consulting and Clinical Psychology*, 74(5), 887–897. <https://doi.org/10.1037/0022-006X.74.5.887>
4. Thompson LY, Snyder CR, Hoffman L, Michael ST, Rasmussen HN, Billings LS, Heinze L, Neufeld JE, Shorey HS, Roberts JC, Roberts DE. Dispositional forgiveness of self, others, and situations. *J Pers*. 2005 Apr;73(2):313–59. doi: 10.1111/j.1467-6494.2005.00311.x. PMID: 15745433.
5. Toussaint, Loren, Everett L. Worthington, Jon R. Webb, Colwick Wilson, and David R. Williams. 2023a. Forgiveness in Human Flourishing. In *Human Flourishing*. Cham: Springer International Publishing, pp. 117–31.
6. United Nations Office on Drugs and Crime. World drug report 2023. Available at <https://www.unodc.org/unodc/en/data-and-analysis/world-drugreport-2023.html>. Accessed 20 Jan 2024.
7. Witvliet, C. V. O., Jang, S. J., Johnson, B. R., Evans, C. S., Berry, J. W., Leman, J., ... Hayden, A. N. (2022). Accountability: Construct definition and measurement of a virtue vital to flourishing. *The Journal of Positive Psychology*, 18(5), 660–673. <https://doi.org/10.1080/17439760.2022.2109203>
8. Witvliet, C. V. O., Jang, S. J., Johnson, B. R., Evans, C. S., Berry, J. W., Torrance, A., ... Bradshaw, M. (2023). Transcendent accountability: construct and measurement of a virtue that connects religion, spirituality, and positive psychology. *The Journal of Positive Psychology*, 19(2), 243–256. <https://doi.org/10.1080/17439760.2023.2170824>