The relationship between clinician turnover and adolescent treatment outcomes: An examination from the client perspective

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A B S T R A C T

The turnover of substance use disorder (SUD) treatment staff has been assumed to adversely impact treatment effectiveness, yet only limited research has empirically examined this assumption. Representing an extension of prior organizational-level analyses of the impact of staff turnover on client outcomes, this study examined the impact of SUD clinician turnover on adolescent treatment outcomes using a client perspective. Multilevel regression analysis did reveal that relative to those adolescents who did not experience clinician turnover, adolescents who experienced both direct and indirect clinician turnover reported a significantly higher percentage of days using alcohol or drugs at 6-month follow-up. However, clinician turnover was not found to have significant associations (negative or positive) with the other five treatment outcomes examined (e.g., substance-related problems, involvement in illegal activity). Thus, consistent with our prior findings, the current study provides additional evidence that turnover of SUD clinicians is not necessarily associated with adverse treatment outcomes.

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1. Introduction

It has been suggested that turnover of substance use disorder (SUD) treatment staff may have negative impacts on the quality and effectiveness of treatment services that are delivered to clients (e.g., Knudsen, Ducharme, & Roman, 2007; Knudsen, Johnson, & Roman, 2003; McNulty, Oser, Johnson, Knudsen, & Roman, 2007). To date, however, a recent study by Garner, Hunter, Modisette, Ihnes, and Godley (2012) represents the only known empirical test of this common assumption. Using data collected as part of a national evidence-based treatment (EBT) dissemination and implementation initiative, Garner et al. examined the extent to which organizational-level rates of staff turnover (i.e., annualized rates of organizations' staff turnover over a 3-year period) were associated with several client-level treatment outcomes (e.g., days of abstinence, involvement in illegal activity, social risk). In addition to not supporting the hypothesis that higher staff turnover would be significantly associated with poorer treatment outcomes, multilevel regression analyses revealed that higher organizational-level rates of staff turnover were significantly associated with clients reporting less involvement in illegal activity and lower social risk. Although not expected, Garner et al. noted their findings were consistent with qualitative research by Woltmann et al. (2008), which suggested staff turnover can have positive influences on the implementation of EBTs in the mental health field. For example, Woltmann et al. noted that 12 of 42 teams (29%) implementing EBTs described turnover as "having a primarily positive influence on implementation," including giving them the ability to replace "less qualified staff with more qualified staff." Importantly, however,

quantitative findings by Woltmann et al. found team turnover to be a significant negative predictor of 24-month fidelity scores.

In an effort to further advance understanding of the relationship between SUD treatment staff turnover and client treatment outcomes, the present study examined the impact of SUD clinician turnover on treatment outcomes from a client perspective, as opposed to an organizational-level perspective. More specifically, as part of this study, we categorized each adolescent into one of four mutually exclusive groups that represent each adolescent's experience with clinician turnover. These groups included: (a) *directly impacted by clinician turnover*, which represented adolescents who had their clinician turnover during their treatment episode; (b) *indirectly impacted by clinician turnover*, which represented adolescents who did not have their clinician turnover during their treatment episode, but may have been indirectly impacted due to turnover of one of the other clinicians at the organization (e.g., an adolescent may be indirectly impacted by the turnover of other clinicians if for instance his/her clinician had less availability due to being assigned additional adolescents who were previously being treated by the clinician who left the organization); (c) *directly and indirectly impacted by clinician turnover*, which represented adolescents who experienced both direct and indirect turnover as defined above; and d) *neither directly nor indirectly impacted by clinician turnover*, which represented adolescents who did not experience either direct or indirect clinician turnover during their treatment episode. Thus, in contrast to the organizational-level perspective examined by Garner et al. (2012), which tested the hypothesis that *organizations* with higher rates of clinician turnover had worse average client treatment outcomes, this

study drills down further to test the hypothesis that *adolescents* who experience some level of clinician turnover during their treatment episode will have worse treatment outcomes relative to those clients who do not experience clinician turnover.

2. Method

2.1. Study context

Data used in this study were collected as part of a large-scale dissemination and implementation initiative funded by the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment (SAMHSA/CSAT). As described by Godley, Garner, Smith, Meyers, and Godley (2011), the general goal of this initiative was to improve adolescent substance use treatment by providing multiple community-based treatment organizations with funding so that their clinical staff could learn and implement the Adolescent Community Reinforcement Approach and Assertive Continuing Care (A-CRA/ACC; Godley et al., 2001), which has been shown to be effective in reducing adolescent substance use and substance-related problems (Dennis et al., 2004; Garner, Godley, Funk, Dennis, & Godley, 2007; Garner et al., 2009; Godley, Godley, Dennis, Funk, & Passetti, 2002, 2007; Godley et al., 2010). All of the treatment organizations received approximately $900,000 (over a 3-year period). Additionally, each treatment organization was able to have up to five staff participate in extensive training, feedback, and supervision in the model at no additional cost. A-CRA/ACC training included components that have been found effective for training clinicians in evidence-based practices (EBPs), including a treatment manual, 3.5-day initial workshop, coaching/supervision sessions, and feedback on recorded sessions (Miller, Yahne, Moyers, Martinez, & Pirritano, 2004; Sholomskas et al., 2005).

2.2. Procedures

This secondary analysis study was conducted under the auspices of Chestnut Health Systems' Institutional Review Board and used clinician and client data collected as part of the SAMHSA/CSAT initiative described above. Clinician turnover information was recorded as part of a contract to Chestnut Health Systems to provide training and technical assistance to each of the treatment organizations participating in the SAMHSA/CSAT project. Adolescent intake and follow-up data were collected by each of the respective treatment organizations participating in the SAMHSA/CSAT-funded initiative.

2.3. Sample

The sample for this study included adolescents who (a) received one or moreA-CRA/ACC treatment sessions within 30 days of completing their initial intake assessment and (b) completed the 6-month follow-up interview. These 2012 clients, which represented an 85% follow-up rate, were mostly male (73%), with 34% being Caucasian, 13% African American, 31% Hispanic, and 22% mixed or other race. The average age was 15.8 ($SD=1.4$) years. There were 50% that reported coming from a family with single parent custody, 65% reported current involvement in the criminal justice system, 69% reported one or more co-occurring disorders (e.g., generalized anxiety disorder, conduct disorder), and 35% reported having had prior substance use treatment. These 2012 adolescents were nested within 144 clinicians and 27 treatment organizations that were participating in the SAMHSA/CSAT initiative.

2.4. Measures

2.4.1. Independent variable

As part of the SAMHSA/CSAT initiative, project start and end dates were recorded for all project clinicians. Additionally, treatment service information was recorded for all adolescents and included treatment open/close dates as well as dates of each treatment session. This clinician and adolescent information allowed us to create a client-level clinician turnover measure of direct turnover and indirect turnover. More specifically, for each adolescent, we first examined if his/her assigned clinician had a turnover date that fell within the adolescent's treatment open and close dates. If this occurred, the adolescent was coded as having been directly impacted by clinician turnover. If this did not occur, the adolescent was coded as having not been directly impacted by clinician turnover. Next, for each adolescent, we examined if any other project clinician had a turnover date that fell within the adolescent's treatment open and close dates. If this occurred, the adolescent was coded as having been indirectly impacted by clinician turnover. If this did not occur, the adolescent was coded as having not been indirectly impacted by clinician turnover. Finally, using these two dichotomous measures, we categorized each adolescent into one of four mutually exclusive groups. Again, these four groups included: (a) directly impacted by clinician turnover, (b) indirectly impacted by clinician turnover, (c) both directly and indirectly impacted by clinician turnover, and (d) neither directly nor indirectly impacted by clinician turnover.

2.4.2. Dependent variable

As part of the SAMHSA/CSAT initiative, adolescents were assessed at treatment intake and 6 months post-treatment intake using the Global Appraisal of Individual Needs (GAIN; Dennis, Titus, White, Unsicker, & Hodgkins, 2003). The GAIN is a comprehensive biopsychosocial assessment designed to integrate research and clinical assessment into one structured interview. Consistent with the treatment outcomes examined as part of our prior work (Garner et al., 2012), we examined the following six treatment outcome measures: (a) *percent of days used* (i.e., percentage of days of using alcohol or other drugs during the past 90 days, controlling for days in controlled environments such as jail, prison, or residential treatment); (b) *substance problems scale* (i.e., a count of past-month symptoms of substance abuse, dependence, or substance-induced disorders that is based on *DSM-IV*; alpha = .90); (c) *social risk index* (i.e., a sum of items indicating how many people the respondent hangs out with socially are involved in school, training, illegal activities, substance use, or treatment); (d) *recovery environment risk index* (i.e., an average of items [divided by their range] for the days [during the past 90 days] of alcohol in the home, drug use in the home, fighting, victimization, being homeless, and structured activities that involved substance use and the inverse [90-answer] percentage of days going to self-help meetings, and involvement in structured substance-free activities); (e) *illegal activities scale* (i.e., an average of items [divided by their range] for the recency of illegal activity, days [during the past 90 days] of any illegal activity, supporting oneself financially with illegal activity, illegal activity in order to obtain alcohol or drugs or were performed while drunk or high; alpha = .64); and (f) *emotional problems scale* (i.e., an average of items [divided by their range] for recency of mental health problems, memory problems, and behavioral problems; the days [during the past 90 days] of being bothered by mental problems, memory problems, and behavioral problems; and the days the problems kept participant from responsibilities; alpha = .72).

2.5. Analytic plan

Despite our conceptualization of clinician turnover as a client-level measure, the data remain multilevel in structure. Thus, all analyses for this study were conducted using HLM 6 software (Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004). As an initial step, we conducted a series of separate multilevel regression analyses to examine: (a) the relationships between each of the adolescent