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THOSE WITH THE MOST FIND IT HARDEST TO SHARE: EXPLORING LEADER RESISTANCE TO THE IMPLEMENTATION OF TEAM-BASED EMPOWERMENT

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We use a convergent parallel mixed methods approach to explore barriers to the successful implementation of a team-based empowerment initiative within the Veterans Health Administration. Although previous research has suggested that leaders often actively obstruct empowerment initiatives, little is known about the reasons behind and effects of such hindering. Using a longitudinal quasi-experimental design, we support a hypothesis that higher-status physician leaders are less successful than lower-status nonphysician leaders in implementing team-based empowerment. In parallel, we analyze qualitative data obtained through interviews conducted during early months of the team-based empowerment initiative to identify common themes for why and how leaders facilitated or obstructed implementation. Leader identity work and leader delegation were identified as themes explaining (1) why higher-status leaders struggled with the new empowering role and (2) how specific leader actions either facilitated or inhibited sharing of tasks and leadership. Results suggest that team-based empowerment creates a status threat for high-status leaders who then struggle to protect their old identity as someone with distinct professional capabilities, which in turn leads to improper delegation behavior. Therefore, in order for team-based empowerment to succeed, leaders may need to change their perceptions of who they are before they will change what they do.

Contemporary organizations are increasingly structuring around teams rather than individuals (Mathieu, Maynard, Rapp, & Gilson, 2008; Tannenbaum, Mathieu, Salas, & Cohen, 2012). In contrast to traditional bureaucratic structures where leadership is carried out by a specific individual in a formal role, many team-based structures have a primary objective of empowering team

members and more equally distributing leadership responsibility (Carson, Tesluk, & Marrone, 2007). Empowerment and shared leadership have been linked to better team processes, enhanced emergent states, and improved outcomes (D'Innocenzo, Mathieu, & Kukenberger, 2014; Nicolaides et al., 2014; Seibert, Wang, & Courtright, 2011; Wang, Waldman, & Zhang, 2014). However, transitions toward team structure and empowerment commonly beget obstructive behavior from leaders (Aime, Humphrey, DeRue, & Paul, 2014; Batt, 2004; Benson & Blackman, 2011; Fast, Burris, & Bartel, 2014; Ishikawa, 2012; Klein, 1984; Stewart & Manz, 1997). Such obstruction is noteworthy given that a majority of leaders report significant stress from not having enough time to complete work (Campbell, Baltes, Martin, & Meddings, 2007), and team-based empowerment seemingly provides an avenue for reducing leader workload. We thus explore the paradox of why leaders resist the implementation of team-based empowerment even though such a transformation holds promise for improving both personal and organizational outcomes.

As noted by Hackman (1986), the extent of empowerment can range from a low of hierarchical control to a high of shared self-governance. The process of shared self-governance within a team has recently been described as heterarchical leadership, which is defined as "a relational system in which the relative power among team members shifts over time as the resources of specific team members become more relevant" (Aime et al., 2014: 328). Our notion of team-based empowerment lies between hierarchy and heterarchy in that we focus on teams that include a member with a formal role that incorporates a relatively high number of leadership functions but who also empowers others by sharing responsibility and control (Maynard, Gilson, & Mathieu, 2012; Morgeson, DeRue, & Karam, 2010). *Team-based empowerment* thus includes both a structural component, in that work is arranged around teams rather than individuals, and an empowerment component, in that there is a designated leader who is expected to share responsibility and control with team members.

A transition from bureaucratic hierarchy toward increasingly shared leadership requires leaders to adopt a facilitative role that involves a rebalancing of power and control among team members (Aime et al., 2014; Manz & Sims, 1987). The new role requires substantial adaptation that includes giving up some previous behaviors and learning new cognitive and behavioral routines (Baard, Rench, & Kozlowski, 2014). Adopting new perspectives and behaviors associated with the rebalancing of power toward greater employee empowerment appears to be particularly difficult, as research has found moving from centralized to cooperative structures to be more difficult compared to moving in the opposite direction, toward more hierarchical control (Beersma, Hollenbeck, Conlon, Humphrey, Moon, & Ilgen, 2009; Johnson, Hollenbeck, Humphrey, Ilgen, Jundt, & Meyer, 2006; Moon et al., 2004).

Rebalancing power toward greater shared leadership is difficult because a hierarchical structure provides leaders with high status and commensurate influence and access to resources (Bendersky & Hays, 2012; Huberman, Loch, & Önçüler, 2004). As summarized by Aime and colleagues (2014: 344), "It may be that members with formal authority perceive power transitions as a threat to their position and attempt to constrain any shifts in power expression." Indeed, the shift toward team-based empowerment creates a status threat for leaders whose sense of identity is potentially challenged by a more equal social structure (Morrison, Fast, & Ybarra, 2009; Scheepers & Ellemers, 2005). Because status is often seen in relative rather than absolute terms (Berger, Fisek, Norman, & Zelditch, 1977; Stets, 1997), threat is expected to be heightened in proportion to the initial status difference: The larger the disparity in status before the implementation of team-based empowerment, the stronger the expected resistance from those who were previously favored. The degree to which leaders of varying initial status adapt, or perhaps fail to adapt, to an increase in shared leadership thus represents an important key to understanding the likely success or failure of team-based empowerment.

The process of leader adaptation from hierarchy to team structure and shared leadership, especially in terms of psychological and behavioral responses, requires a longitudinal examination in an organization moving from bureaucracy to team-based empowerment (Baard et al., 2014; Cronin, Weingart, & Todorova, 2011). The Veterans Health Administration (VHA), a nationwide U.S. health care provider serving almost nine million patients (Department of Veterans Affairs, 2016), represents an ideal setting for such a study. The VHA recently introduced a national change initiative that enacted an organization-level intervention of creating small, relatively autonomous teams (Rosland et al., 2013; Schectman & Stark, 2014; Yano, Bair, Carrasquillo, Krein, & Rubenstein, 2014). These teams were trained to improve the quality and timeliness of health care delivery by redistributing work and increasing shared

leadership. The team-based empowerment initiative resulted in better outcomes at the organization level, such as improved access to medical appointments and lower risk of avoidable hospitalizations (Yoon et al., 2013). However, recent popular press reports have called into question the organization's effectiveness in delivering timely health care services (e.g., Bronstein & Griffin, 2014; Kesling, 2014; Kesling, Crittenden, & McCain Nelson, 2014; Lerner, 2014). Both investigations of potential impropriety and comprehensive empirical measurement of outcomes (Nelson et al., 2014) have clearly shown substantial variation at the team level in the success of moving a significant portion of the workload and control from primary care providers, such as doctors, to other team members, such as nurses and medical assistants.

Having the opportunity to interact with dozens of teams as the VHA implemented team-based empowerment, we and others (Helfrich et al., 2014; Solimeo, Ono, Lampman, Paez, & Stewart, 2015; True, Stewart, Lampman, Pelak, & Solimeo, 2014; Tuepker et al., 2014) observed team leaders, namely doctors, frequently struggling to empower team members. Moreover, we observed that leaders with higher status (e.g., physicians) appeared to find it more difficult to share power than did leaders with relatively lower status (e.g., physician assistants), even though the higher-status leaders had higher workloads and could potentially benefit most from empowering team members. Put simply, leader failure to share influence and control represented—and continues to represent—a significant challenge in the VHA. At least some of the recent criticism levied against the VHA thus arose from an inability to implement the change in a way that empowers teams as quickly as desired to meet aggressive goals for improving patient access to appointments.

In order to better understand leader and follower reactions to the implementation of team-based empowerment, we pursued a convergent parallel mixed methods research design wherein quantitative and qualitative data were collected independently but simultaneously in the VHA setting during the period of transition (Creswell & Plano Clark, 2011). Based on a review of the existing literature, we first develop a hypothesis that teams with high-status leaders (i.e., physicians) are less effective in implementing team-based empowerment than are teams with lower-status leaders (e.g., nurse practitioner, physician assistant). We then empirically test this hypothesis using longitudinal measures of team effectiveness obtained for a period spanning 7 months

before and 37 months following the introduction of team-based empowerment. Next, because little is known about the process that underlies resistance from high-status leaders, we adopt a qualitative approach to explore the cognitive and behavioral reactions accompanying adaptation to a fluid team situation (Baard et al., 2014; Humphrey & Aime, 2014). This approach is summarized in Figure 1, which shows team leader status as a moderator of the relationship between the implementation of team-based empowerment and team effectiveness, which is the focus of our quantitative hypothesis testing. The "black box" represents our subsequent qualitative analyses, designed to inductively develop theory related to the processes that underlie this moderated relationship (Sutton & Rafaeli, 1988).

Through our mixed methods approach we make two specific contributions. First, we use longitudinal quantitative analysis to track the introduction of team-based empowerment to illustrate and test the relative difficulty of moving toward greater shared leadership when teams include a leader with high status. This contribution is noteworthy in that we follow Humphrey and Aime's (2014) recent call for research focusing on social structuration within teams. They specifically pointed out the need for research that highlights fluid aspects of power, status, and other social processes. Longitudinal analysis in the VHA also provides a contribution by conducting research in a highly relevant context with a pressing managerial problem. The rarity of such contextualized longitudinal research was demonstrated by Cronin and colleagues' (2011) finding that only 16% of published studies have

FIGURE 1
Hypothesized Model of Differential Effects of Leader Status on Effectiveness of Team-based Empowerment

Shaded area represents explanatory process elucidated in qualitative findings
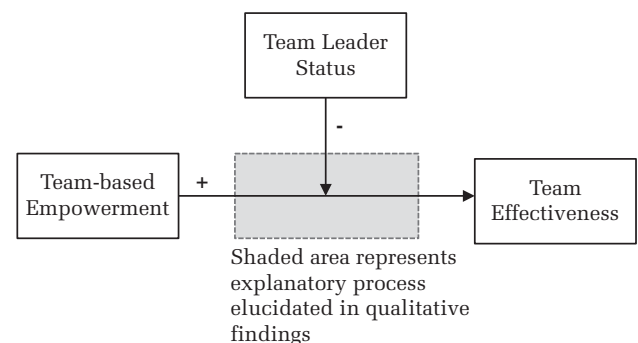
adopted such an approach. Our second contribution comes from inductively developing theory to explain leader cognitive and behavioral reactions to sharing of leadership. Although evidence has suggested that shared leadership associated with team-based empowerment has numerous potential benefits, little is known about leader resistance to moving away from hierarchical control. We specifically provide insight into the identity process that explains why high-status leaders struggle with taking on an empowering leadership role as part of a structural change to organizing work around teams. We also extend knowledge about the delegation process by highlighting the necessity for leaders working in a team-based empowerment structure to walk a tightrope between too much and too little delegation.

TEAM-BASED EMPOWERMENT IN THE VHA

In 2010, the VHA began implementing system-wide efforts to improve long-term disease management and timely primary care delivery by creating patient-centered medical homes called Patient Aligned Care Teams. VHA team members historically worked in a traditional bureaucratic structure with distributed expertise and clearly differentiated power and status. With the reorganization, primary care staff were reorganized from loosely coupled silos of workers organized by professional role (e.g., nursing, clerical) to tightly coupled interdisciplinary teams that integrate staff across professional roles. At the VHA, each primary care team ideally consists of four individuals: a primary care provider, a care manager, a clinical associate, and an administrative associate. The team leader role is filled by primary care providers, who themselves are medical professionals with a range of clinical licensures with differing skill level and status, including not only medical doctors and doctors of osteopathy but also nurse practitioners and physician assistants. Care managers are registered nurses (RNs), clinical associates are typically licensed practical nurses (LPNs), and administrative associates are entry-level employees without clinical training (Rosland et al., 2013).

As part of team-based empowerment, each team aims to meet the individual needs and preferences of each patient in their assigned panel through proactive care coordination and tailored services. This approach of assigning specific patients to teams is designed not only to serve a greater number of patients but also to provide each of those patients with high-quality customized care. A simultaneous increase in both efficiency and quality is predicated on the adoption of small teams, rather than individual providers, as the basic building block of service delivery (Rosland et al., 2013; Schectman & Stark, 2014; Yano et al., 2014). Autonomous teams are expected to provide a motivating work environment and to adapt quickly to the changing and individualized needs of patients (Stewart, Courtright, & Manz, 2011; Trist, 1981). Primary care providers are expected to share leadership by transferring tasks to other team members, such as screening patients for disease, educating patients about medicines, responding to messages from patients, and tracking diagnostic data (Brown, Canamucio, Helfrich, & Long, 2014; Edwards et al., 2016).

Transferring tasks to other members who are capable of handling them frees primary care provider time to focus on tasks that only the primary care provider is qualified to do. This aims to help overcome primary care provider labor shortages. In addition, having other team members perform the same tasks primary care providers were doing before is expected to reduce overall labor costs, as salaries for other team members are lower than for primary care providers (Huang, Yano, Lee, Chang, & Rubenstein, 2004). In order for this to be effective: (1) the primary care provider must empower others by delegating tasks and sharing responsibility with team members, and (2) all team members must work to the top of their skill level. However, counter to what managerial leaders expected, previously reported longitudinal evidence has suggested that this attempt to broaden the task responsibility and shared leadership among team members resulted in many VHA nurses and administrative workers perceiving a decrease in work satisfaction and empowerment over the initial years of team implementation (Solimeo et al., 2015).

Similar difficulties with delegation, empowerment, and sharing of leadership have been identified in numerous other settings (Maynard et al., 2012; Leana, 1987; Yukl & Fu, 1999). Specifically, a recent review (Tannenbaum et al., 2012) concluded that changes in organizational structure, such as the adoption of teams, known as structural empowerment (Maynard et al., 2012), often do not lead to expected changes in team member feelings of being in control and experiencing meaning in work, known as psychological empowerment (Conger & Kanungo, 1988; Spreitzer, 1995). Indeed, structural empowerment can even reduce psychological empowerment if employees perceive that they are being asked to do more work with no clear benefits (Tannenbaum

et al., 2012). Such a negative result was identified in Barker's (1993) classic study, which found that groups attempting to implement team-based empowerment replaced hierarchical control with peer-based concertive pressure that resulted in reduced feelings of individual empowerment.

In contrast to Barker's study setting, where team members initially saw each other as social peers with potentially equal influence, VHA team members and medical teams have historically worked in a bureaucratic hierarchy with clear differences in expertise, power, and status (Hollenbeck, Beersma, & Schouten, 2012; Stevenson & Gilly, 1991). In VHA teams, the primary care provider has both the most complex technical skillset and the most distinguished status. Moreover, the VHA setting is potentially unique in that there are two distinct categories of providers who serve as team leaders. One category consists of high-status professionals licensed as medical doctors and doctors of osteopathy (hereafter labeled physician providers). The other category consists of nurse practitioners and physician assistants (hereafter labeled nonphysician providers), who practice under physician supervision but operate to a significant degree as autonomous team leaders with lower status and professionalization than physicians. This VHA arrangement allows for the contrasting of outcomes and behaviors associated with higher- and lower-status leaders in order to clarify why sharing leadership is so difficult for some team leaders.

We note that research has previously compared the quality of care achieved by physician providers and nurse practitioners (e.g., Laurant et al., 2005; Mundinger et al., 2000). Not surprisingly, these two groups differ in regard to the responsibility, privileges, and income that they think should be afforded nurse practitioners (Donelan, DesRoches, Dittus, & Buerhaus, 2013). Nurse practitioners believe that they should be allowed to lead teams in medical homes, but physicians often disagree, citing that they themselves provide better examinations and consultations. Various studies have, nevertheless, concluded that nurse practitioners in many primary care settings are equally effective at managing patients as physicians (Horrocks, Anderson, & Salisbury, 2002; Kinnersley et al., 2000; Laurant et al., 2005; Mundinger et al., 2000; Naylor & Kurtzman, 2010). Although physician assistants have not been examined in the same level of detail as nurse practitioners (Strand, 2008), they have comparable education and licensing requirements. Additionally, Lawrence et al. (1977) found that physicians have similar attitudes about physician assistants as they do nurse practitioners. Thus, although differences in practice outcomes of physicians and nonphysicians are not the focus of the present study, there is some evidence that they provide commensurate care.

THREATS TO LEADER POWER AND STATUS

Hierarchical control can be functionally adaptive and provides specific benefits, such as creating certainty, increasing coordination, and reducing conflict (Halevy, Chou, & Galinsky, 2011; Magee & Galinsky, 2008). Hierarchy is self-reinforcing in that it affords individuals at the top of the rank order power and status that they use to preserve their positive social standing. Individuals lower in relative standing also preserve hierarchy through the manifestation of implicit beliefs about authoritarianism and meritocracy, as well as preference to enact submissive roles (Magee & Galinsky, 2008). Moving away from hierarchical structure toward team-based empowerment is thus expected to be particularly difficult in that it goes against natural forces of social organizing.

Hierarchy is ingrained in the field of health care, with physicians historically ranked among the elite in both the medicinal hierarchy and the larger occupational context (Carr-Saunders & Wilson, 1933). Freidson (1988) described this high professional status in terms of "society's belief that the occupation has [a distinctively and especially superior skill] and belief in the dignity and importance of its worth" (187). For physicians, high occupational status follows a long and intense process of education and socialization that results in a strong sense of professional identification, which is defined as a "professional employees' sense of oneness with their profession" (Hekman, Bigley, Steensma, & Hereford, 2009: 511). This clear sense of unique professional status and identity for physicians creates salient differences in power and prestige within medical teams (Janss, Rispens, Segers, & Jehn, 2012; McNeil, Mitchell, & Parker, 2013).

An organizational change such as the implementation of team-based empowerment alters both the formal hierarchical structure and the subsequent nature of social interactions, and creates a sense of potential loss for individuals with high status in the previous hierarchical structure (Sauder, 2005). Feelings of potential loss create status threat (Scheepers, 2009) for physicians who fear that changes in social structure will diminish the distinctiveness between their group and other groups (Berdahl, 2007;

Branscombe, Ellemers, Spears, & Doosje 1999). People whose status is threatened tend to engage in antisocial behavior to purposely harm others through actions such as criticizing and acting unkindly (Aquino & Douglas, 2003). Higher-status individuals such as physicians attempt to sustain their preferential social position and power by: "(1) asserting superior legitimacy or competence; (2) attempting to assert dominance relative to others; or (3) devaluing another's or inflating one's own contributions" (Bendersky & Hays, 2012: 327; see also Emerson, 1962; Magee & Galinsky, 2008; Rudman, 1998). Dysfunctional individual behavior reduces group information sharing and corresponds with negative team-level states and outcomes (Bendersky & Hays, 2012).

We expect status threat and associated negative repercussions to be most pronounced in teams where leader status is highly differentiated from other team members. This anticipation of a magnified effect for higher-status leaders can be explained by expectations states theory, which is commonly invoked to explain status hierarchies in groups (Berger, Connor, & Fisek, 1974; Berger & Zelditch, 1998), and suggests that group members defer to individuals to the extent that they believe those individuals will make valuable contributions. As expressed by Correll and Ridgeway (2003: 31),

> The greater the expectation of one actor compared to another, the more likely the first actor will be given chances to perform in the group, the more likely she or he will be to speak up and offer task suggestions, the more likely her or his suggestions will be positively evaluated and the less likely he or she will be to be influenced when there are disagreements... In this way, relative performance expectations create and maintain a hierarchy of participation, evaluation, and influence among the actors that constitute the group's social status hierarchy.

Leaders who trigger greater expectations for differentiated contribution are thus likely to generate greater natural pressure to maintain clear hierarchy and status differences.

The elite view of the physician occupation elicits, sometimes implicitly and unconsciously, performance expectations for physicians that exceed expectations for nonphysicians. In contrast to nonphysicians, whose status is more similar to other team members, these higher expectations create a self-reinforcing cycle of exclusivity that makes change toward an egalitarian structure more threatening for physicians. Larger status distinctions magnify negative social behavior used to protect against threats from lower-status groups (Maass, Cadinu, Guarnieri, & Grasselli, 2003). In addition, discomfort among group members occurs when status is not seen as being gained through individual effort or achievement but from unsolicited shifts in organizational characteristics (Neeley & Dumas, 2016). Thus, given that physician leaders have more differentiated status and are thus likely to see their contributions as of relatively greater worth compared to the contributions of other team members, they are expected to resist sharing control of work to a greater degree than are nonphysician leaders, which in turn inhibits the implementation of team-based empowerment. Hence, we specifically predict the following:

> *Hypothesis 1. Teams led by higher-status leaders are less effective in implementing team-based empowerment than are teams led by lower-status leaders.*

QUANTITATIVE METHODS ANALYZING TEAM PERFORMANCE DIFFERENCES

We adopted a longitudinal quasi-experimental design to test for the predicted difference in effectiveness of team implementation by obtaining a performance outcome measure from VHA administrative records for all providers located in one of 21 geographical divisions. To be included in our sample, a provider had to be working before the beginning of the team-based empowerment intervention. This resulted in the collection of pre- and post-intervention data for a sample of 224 providers. We analyzed monthly time series measures for 142 physician providers and 82 nonphysician providers obtained 7 months before (beginning when the performance outcome became available) and 37 months after the adoption of team-based empowerment.

Measures

Team effectiveness. An important objective of the VHA transformation to team-based empowerment was improving patients' timely access to care by increasing within-team efficiency. Because the number of time slots where patients can be seen by a provider is mostly fixed within the VHA system, the granting of same-day appointments to a significant degree captures the extent to which other team members take on tasks and substitute their work for provider work. Because the provider's time is

limited, effective teams reorganize work by doing things such as having nurse care managers conduct some visits and allowing team members other than the provider to provide patient education. Such shifts in workload open schedule slots so that providers can grant patient requests for same-day appointments, making this measure a primary indicator of the extent to which the team as a collective shares responsibility for effectively meeting the needs of patients in their assigned panel. As a result, we measured team effectiveness using the VHA metric *same-day appointment access*, operationalized as the percentage of same-day appointment requests granted within a monthly reporting period.[1]

Status. The status of each team's provider was coded as a dichotomous variable, with 1 representing higher-status physician providers and 0 representing lower-status nonphysician providers.

Coding of time. As we were interested in testing whether the team-based empowerment intervention introduced a performance trajectory where none previously existed, we utilized an absolute coding scheme for discontinuous growth modeling time variables (see Bliese & Lang, 2016, for the distinction between absolute versus relative coding). We coded monthly time periods to allow for a performance trajectory prior to team implementation (PRE = 0, 1, 2, . . . , 6 in the first seven periods; 6, 6, 6, . . . , 6 in the last 37 periods), a performance shift immediately following team implementation (TRANS = 0, 0, 0, . . . , 0 in the first seven periods; 1, 1, 1, . . . , 1 in the last 37 periods), and a subsequent performance trajectory following team implementation (POST = 0, 0, 0, . . . , 0 in the first seven periods; 0, 1, 2, . . . , 36 in the last 37 periods).

Covariates. We accounted for monthly workload differences between health care teams by including two key covariates: (1) panel size, which is the number of patients assigned to the team provider; and (2) diagnostic cost group average (DCG), which is a risk adjustment measure derived from patient diagnoses indicating the aggregate severity of illness for patients assigned to the provider. Panel size and DCG are standard indicators of provider workload in health care research, with panel size representing

the number of patients receiving care and DCG representing the relative complexity of care for a given panel of patients.

Statistical Analyses

We conducted discontinuous growth modeling analyses using the nlme package (Pinheiro, Bates, DebRoy, Sarker, & R Core Team, 2016) included in R software (R Core Team, 2015). Following Bliese and colleagues' guidance for building discontinuous growth models (Bliese & Lang, 2016; Bliese & Ployhart, 2002), we first used a series of Level 1 models to describe change in appointment access over time. After establishing a Level 1 model for change, we then introduced a Level 2 predictor, team leader status, to examine team-level differences in the Level 1 change parameters. We present below a concise summary of our step-by-step model-building approach. See Appendix A for additional details, including model equations and full results at each step.

Results

Descriptive data and intercorrelations. Table 1 contains means, standard deviations, and intercorrelations for the study variables.

Intraclass correlation coefficient. As recommended by Singer and Willett (2003), we first examined the degree of variance associated with between-team differences across time by using an unconditional (random intercept) mixed effects model to estimate the intraclass coefficient correlation (ICC1). Analysis revealed an ICC1 of .34, indicating that 34% of the variability in access outcomes was explained by between-team variance. This result suggested that meaningful team-level variance in same-day appointment access existed.

Fixed functions for time. We began the discontinuous growth modeling process by first adding covariates to the model (panel size, DCG). We then tested different forms of time (e.g., linear, quadratic) to properly model fixed effects for change trajectories. We first examined a basic linear discontinuous Level 1 model. Results show there was no significant performance trajectory prior to the intervention (PRE, $\beta = -0.002$, n.s.), no significant performance shift immediately following the intervention (TRANS, $\beta = 0.02$, n.s.), and a significant positive performance trajectory following the intervention (POST, $\beta = 0.002$, $p < .05$). This is consistent with expectations that patient access would not

TABLE 1
Means, Standard Deviations, and Correlations

Variable	Mean	SD	1	2	3	4
1. Panel Size	750.03	406.87	—	−0.47*	0.28*	0.12
2. DCG	0.77	0.61	−0.45*	—	−0.36*	0.01
3. Access	0.46	0.17	0.17*	−0.22*	—	−0.16*
4. Status	0.64	0.48	0.13*	−0.05*	−0.09*	—

Note: $n = 224$; Time = 44 months. Panel size = number of patients assigned to the team provider. DCG = Diagnostic cost group average, which is a risk adjustment measure derived from patient diagnoses indicating the aggregate severity of illness for patients assigned to the provider. Status = 1 if physician provider, 0 if nonphysician provider. Correlations below the diagonal were calculated at Level 1 after assigning the Level 2 variable Status to each Level 1 instance of Panel Size, DCG, and Access. Although this practice results in biased standard errors and significance tests, the correlation magnitudes are accurate. Correlations above the diagonal were calculated at Level 2 after averaging Level 1 Panel Size, DCG, and Access variables and assigning the averages to each Level 2 instance of Status.

* $p < .05$

immediately increase following the intervention, but would improve over time as teams learned to work together to increase efficiency.

We then omitted the nonsignificant TRANS parameter, testing a more parsimonious linear model consisting of only the PRE and POST trajectory variables that models the effects of time as a change in slope after the intervention without a distinct performance increase or decrease at the time of the intervention. Results again showed a nonsignificant performance trajectory prior to the intervention (PRE, $\beta = 0.002$, n.s.), and a significant positive performance trajectory following the intervention (POST, $\beta = 0.002$, $p < .05$).

We next compared this linear model to a model in which the fixed effects of time were nonlinear. Specifically, we examined a model that included quadratic time variables PRE^2 and $POST^2$. Results revealed that both PRE^2 ($\beta = -0.002$, n.s.) and $POST^2$ ($\beta = 0.000$, n.s.) variables were nonsignificant, so they were dropped from subsequent models. In line with the results of these analyses, the basic linear model consisting of PRE and POST trajectory variables was retained for modeling time in later models.

Variability in growth parameters. As a next step, we tested variations of the basic linear model in order to account for random effects in the change terms. When compared to the basic linear model, a model that allows for variability in the growth parameters by including random slope terms for PRE and POST trajectory variables exhibited a significant model fit improvement (L.Ratio = 423.30, $p < .01$). Therefore, random slope terms were retained for subsequent models.

Error structure. Following recommendations by DeShon, Ployhart, and Sacco (1998) and Lang and Bliese (2009), we next tested for autocorrelation and heteroskedasticity in the Level 1 model error structure. Results from these analyses revealed evidence of both autocorrelation (L.Ratio = 313.91; $p < .01$) and heteroskedasticity (L.Ratio = 41.27; $p < .01$), which we subsequently accounted for in Level 1 change models when we introduced Level 2 parameters to the model.

Effects of status on team effectiveness. With a final Level 1 model formed, we proceeded to test our hypothesis that teams led by higher-status providers would be less effective at implementing team-based empowerment than teams led by lower-status providers. We first added status as a Level 2 predictor to model its main effect (see Model 1, Table 2). We then added interaction terms between status and the pre- and post-intervention time indicators to examine whether trajectories of access significantly differ based on the status of a team's provider (see Model 2, Table 2). The interaction between status and the pre-intervention time indicator was nonsignificant (STATUS × PRE $\gamma = .000$; n.s.). This suggests access trajectories prior to the intervention did not differ between lower- and higher-status providers.

In contrast, the interaction between status and the post-intervention time indicator was significant and negative (STATUS × POST $\gamma = -.003$; $p < .01$). This suggests access trajectories following the intervention were lower for higher-status providers than they were for lower-status providers. The estimated trajectories following the intervention, which are shown visually in Figure 2, show that teams led by lower-status providers improved access at a faster rate (simple slope = .004; $p < .01$) than did teams led by higher-status providers (simple slope = .001, $p < .05$). This provides support for our hypothesis that teams led by higher-status providers would be less effective implementing

TABLE 2
Discontinuous Change Model with Differential Effects of Leader Status on Effectiveness of Team-based Empowerment

Variable	Model 1 (status main effect)			Model 2 (status interaction)		
	Coef.	Coef. *SE*	*t*	Coef.	Coef. *SE*	*t*
Fixed Effects						
Level 1 Model						
Intercept	0.461	0.022	20.80*	0.431	0.028	15.13*
Panel Size	0.045	0.009	4.97*	0.044	0.009	4.95*
DCG	−0.033	0.008	−3.95*	−0.033	0.008	−3.99*
PRE	0.002	0.002	0.99	0.002	0.004	0.54
POST	0.002	0.000	4.57*	0.004	0.001	5.09*
Level 2 Model						
Status	−0.077	0.022	−3.48*	−0.029	0.035	−0.81
Status × PRE				0.000	0.005	0.06
Status × POST				−0.003	0.001	−2.87*

		Correlations			Correlations	
	Variance	1	2	Variance	1	2
Random Effects (variance)						
1. Intercept	0.038	—		0.037	—	
2. PRE	0.000	−0.33	—	0.000	−0.33	—
3. POST	0.000	−0.57	−0.03	0.000	−0.56	−0.03
Residual	0.042			0.042		
Fit Indices						
−2 Log (REML)	498.11			491.86		
AIC	−966.21			−949.71		
BIC	−859.15			−828.38		
Pseudo R^2	0.22			0.22		

Notes: n = 224. Panel size = number of patients assigned to the team provider. DCG = Diagnostic Cost Group Average, which is a risk adjustment measure derived from patient diagnoses indicating the aggregate severity of illness for patients assigned to the provider. Status = 1 if physician provider, 0 if nonphysician provider. PRE = pre-intervention trajectory, or the linear change in access prior to team implementation. POST = Post-Intervention Trajectory, or the linear change following team implementation. Panel Size and DCG variables are standardized. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; REML = restricted maximum likelihood. The difference in log likelihoods between the models reported here and the models without random effects is significant, $p < .01$.

  * $p < .05$

team-based empowerment compared to teams led by lower-status providers.

In order to estimate the percentage of variance accounted for by time and status, we also calculated pseudo R^2 values by comparing residual variances from each model to the residual variance from the unconditional means model (Singer & Willett, 2003). To estimate the percent of variance accounted for by time, we calculated the change in pseudo R^2 when adding time variables to a model that accounted for covariates. The resulting change in pseudo R^2 was .01, suggesting that 1% of variance in access scores was accounted for by time. To estimate the percentage of variance accounted for by status, we calculated the change in pseudo R^2 when adding status and its interactions with time variables to the prior model that accounted for covariates and time variables. The resulting change in pseudo R^2 was .09,

suggesting that 9% of variance in access scores was accounted for by status. To contextualize the magnitude of the slope differences, by the end of the 37-month post-implementation period, improvement in same-day appointment access for nonphysician providers was quadruple that of physician providers.

QUALITATIVE METHODS ANALYZING LEADER REACTIONS

Having used a quantitative approach to test and confirm the hypothesis that teams with high-status leaders are less effective in implementing team-based empowerment, we next analyzed qualitative data to detect self-report and team member perceptions of providers' differing reactions to team-based empowerment and specific leader activities implementing it. In particular, we sought to inductively

FIGURE 2
Pre- and Post-Intervention Trends in Same-Day Appointment Access for Physician and Nonphysician Providers
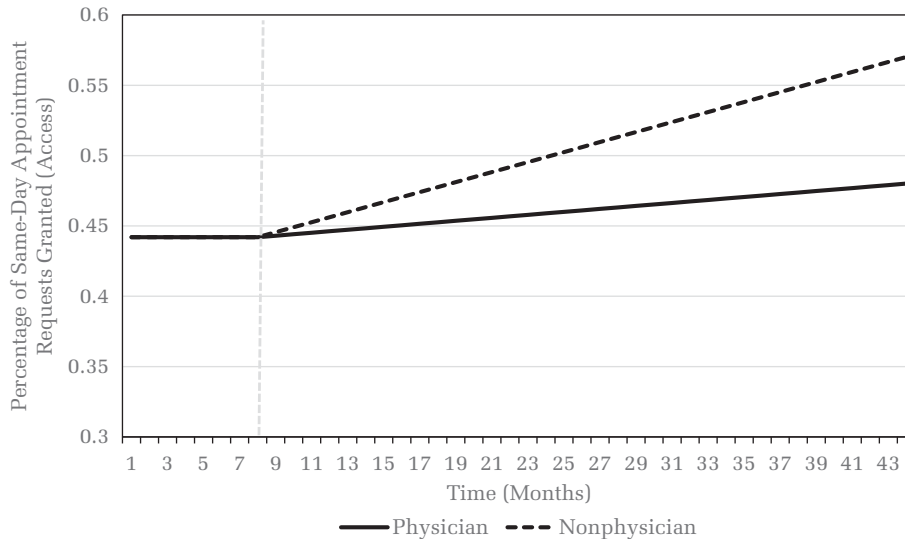
Note: Vertical dashed line indicates the period in which team-based empowerment intervention occurred.

develop theory about status and team leadership by looking inside the "black box" shown in Figure 1.

Method and Analysis

As the parallel component within a convergent mixed methods design, qualitative data were drawn from participant interviews conducted as part of a larger study of VHA teams. Data from these interviews have been previously published in medical studies describing specific role experiences within VHA teams (Patterson et al., 2015; Solimeo, Ono, Stewart, Lampman, Rosenthal, & Stewart, 2017; Solimeo, Stewart, Stewart, & Rosenthal, 2014; Stewart et al., 2015; True et al., 2014). These role experiences have been published in the medical literature as predominantly descriptive, atheoretical reports. The current analysis provides a multidisciplinary perspective and extends previous work to the management literature by theoretically examining new questions related to the delegation process and differences between high- and low-status leaders. In the current study, we specifically include interview data obtained during initial months of implementing team-based empowerment ($n = 30$) and follow-up interviews one year later ($n = 14$). None of the exemplar quotations included in this study have been published previously.

We used a purposive sampling strategy to recruit team members in the same geographical division as our quantitative sample. Participants represented all team roles (e.g., 8 providers, 10 care managers, 6 clinical associates, and 6 administrative associates). Interviews averaging 50 minutes in length were conducted by the same interviewer to minimize confounding (Lee, 1999). Interviews were conducted prior to the quantitative analysis and did not specifically ask about status threats; rather, we used a semi-structured format (Kvale, 1996; Lee, 1999) focused broadly on identifying facilitators and barriers associated with the implementation of team-based empowerment. Data regarding status, identity, and leader behavior are derived from participants' own identification of central challenges to implementing teams.

Following procedures described by Miles and Huberman (1994) and Huberman and Miles (1994), we followed a three-step analysis. In Step 1—*identifying themes*—an author listened to the audio recordings and reviewed transcripts while making detailed descriptive and reflective notes. The author recorded initial impressions of recurring themes and then returned to the interviews to see if the sentiment occurred frequently. If a phenomenon was relatively common, it was retained for further exploration. If not, it was dismissed. Through these multiple iterations of reading, note-taking, and discussion with coauthors, we identified two major themes: (1) leader identity work, and (2) leader delegation. In Step 2—*creating categories within themes*—we further subdivided each theme into categories representing varying experiences within each theme.

Through cycles of reading and discussion, we categorized specific comments within each theme, maintaining an attention to parsimony in the overall number of within-theme categories. We used these categories to create scatterplots of within-theme variation and groupings (Miles & Huberman, 1994). We classified leader identity as being enacted through two responses: (1) embracing the empowering identity, and (2) protecting the hierarchical identity. Simultaneously we identified three leader behaviors with regard to delegation: (1) insufficient, (2) overabundant, and (3) balanced delegation.

In Step 3—*connecting patterns between categories*—we sought to ascertain and confirm relationships among theme categories. As we identified themes and categories, we formed a working supposition that the ineffectiveness of high-status leaders could be explained by their failure to embrace the new identity of an empowering leader and associated lack of proper delegation. We explored this possibility by coding all described providers for links between these categories (Miles & Huberman, 1994). First, we assessed occurrences of four possible patterns based on combinations of two status differences (high, low) and two variations of leader identity work (protecting, embracing). For example, a physician provider described as protecting identity was coded as "high-status–protecting identity." Second, we assessed occurrences of six patterns based on combinations of two variations in identity work (protecting, embracing) and three types of delegation (under, balanced, over). In this case, when a provider was described as protecting identity and also as engaging in insufficient delegation, this provider was coded as "protecting identity–insufficient delegation."

In order to guard against confirmation bias, a research assistant blind to both the findings and developing theory also coded the providers into the various categories. There was agreement in 88% of the cases in the status and identity coding and 87% of the identity and delegation coding. Cohen's κ for both rounds of coding was good (.84 and .80, respectively [Cohen, 1960]), suggesting consistency between raters (Landis & Koch, 1977; Neuendorf, 2002; Popping, 1988). Most discrepancies were resolved via discussion and review of the categorization scheme, with another author providing final input in cases where consensus could not be reached.

Results: Themes

In step one we initially noticed decidedly inconsistent reactions to team-based empowerment.

Some participants reported extremely positive reactions in terms of both their own work experiences and patient outcomes.

> RN A: I'll do an assessment. I'll get their vital signs. I'll see how they're doing you know, which is certainly a lot more creative than just giving a shot... So I'm doing a lot more.

Other interviewees reported frustration and a sense of consequences being opposite to what the VHA intended in terms of sharing power and responsibility with team members.

> RN D: We have a lot of talent... It's just not being utilized... Why are you going to hire someone who has 37 years of experience... and then get all upset at them because they take it and run with it?

> Admin A: [Nurses] feel like they're not really doing the nursing anymore, they're just clicking the reminders... it seems strange to be going in the opposite direction.

Given such discrepant descriptions, our subsequent reviews of the interview data focused on identifying broad themes capturing leader reactions and behaviors that might explain why team-based empowerment was more effective in some teams than others. We identified two themes: leader identity work and leader delegation. Leader *identity work*, identified in 71% of the interviews, reflects an adaptation process that occurs during transitions where people experience changes in prestige and status that require them to redefine who they are (Dutton, Roberts, Bednar, 2010; Ibarra, 1999). As change is enacted, individuals often enter a liminal state wherein they oscillate between trying to retain the old identity and adopting the new identity (Conroy & O'Leary-Kelly, 2014). Leader *delegation*, which we identified in 82% of the interviews, captured descriptions of leaders recognizing others' expertise and distributing tasks accordingly. As noted by Seibert, Silver, and Randolph (2004: 332), "At its core the concept of empowerment involves increased individual motivation at work through the delegation of authority to the lowest level in an organization where a competent decision can be made."

Results: Categories within Themes

Identity work. Some leaders embraced the new empowering identity by seeing themselves not as a high-status leader but rather as a member of a team

with a larger purpose. As stated by one nonphysician provider (NP A),

> The fear of change and the clearing of schedules is something that I'm not having difficulty with because I am perfectly happy with changing how I'm seeing patients and getting them appropriate care.

Being part of a team with shared leadership was described by a physician assistant (B) who said,

> ...the RN, LPN, the clerk are so involved in everything that I order and what we're doing. I actually keep them updated as much as possible so they know what's going on with our patients. So I would say yes, I feel like they are totally invested...

This same leader explained the benefit of the new identity by contrasting it with the old, "I mean it felt like I was just sort of treading water... I think everybody on our team would feel that—I don't think we'll ever go back [to the old model of care]..."

In contrast, other leaders responded to team-based empowerment by protecting their hierarchical identity. This reaction was described as

> PA B: ... sort of a professional hierarchy deal... we have a couple of older physicians who [have the mindset], "I practice medicine the way I've practiced it for the last 40 years, and this is the way I'm going to do it," and people don't want to break down that hierarchy.

Physicians were described as doing things to sharpen the distinction between their higher status identity and the identities of other team members. For example, a nurse practitioner (A) described a colleague as "a provider who doesn't want to be called a provider, she will only be called a doctor. She doesn't like the term *provider*." High initial status differences also influenced other team members' willingness to challenge physician providers to transition to the new identity. A nurse described such hesitancy by describing her interactions with a physician:

> LPN A: How do you tell someone who has practiced medicine for 30 years that—as an LPN, or as an RN—how do you speak to someone who has that kind of experience and expertise and say, "Well this is a new way of doing medicine that is better." It has to be someone [closer to their status] who can speak to their level of experience and knowledge in a way that they understand.

Delegation. We identified three categories constituting a continuum ranging from an absolute lack of sharing tasks and decision making on one end, to a significant push of all responsibility to the team on the other. Both ends of the continuum were perceived negatively, whereas a more balanced approach was associated with examples of empowerment.

Providers portrayed as insufficiently delegating attempted to "stay in their silo and remain opposed to any help" (NP C). Such leaders were described as "not letting go of being the one in control" (NP B). Team members described leader behaviors such as withholding agendas until 15 minutes before meetings began, not following up on projects, and approving new procedures suggested by team members but failing to implement them. Leaders engaging in such actions were ironically seen as experiencing high workloads and stress precisely because they were so busy personally doing tasks that they failed to step back and look for alternative—perhaps more efficient and effective—ways of sharing tasks and responsibility.

A contrasting category depicted leaders as erring in the opposite direction of overabundant delegation. Leaders who overshared responsibility were described as carrying out new initiatives that were perceived as ways to indiscriminately push more work onto lower-status team members. Nurses reported having so much work to do that they became afraid of missing important details and making mistakes. Failure to define expectations and roles for team members created role overload and ambiguity, such as the feelings captured by a nurse who stated the following:

> RN F: Because not only is [the provider] interrupting me [sighs], the clerical associates are up front, they're calling me for questions. I also have walk-in patients, I have follow-up patients from my chronic disease management calling... I also have phone calls coming in from the call center, with patients, or public health nurses, requesting calls back. And LPNs come in for frequent questions. There are multiple RNs up here that come in and ask frequent questions. I get calls from social workers, and other departments within the facility, with patient issues. So, my day is full of interruptions. I don't think a half hour goes by without an interruption.

In contrast to the negative consequences of insufficient and overabundant delegation, balanced delegation practices were described positively. A nonphysician leader described this approach as "So now with this team I'm where I can delegate. My LPNs call back when I need [phone] call backs. They all give me information. They'll gather

information for me" (NP A). Providers who delegated in a balanced manner were described as identifying team member strengths and utilizing them, engaging the team in planning and decision making, facilitating open communication and listening, and directly involving team members in patient care. A nurse described the feeling of empowerment that comes from a leader getting team members to work to the top of their competencies by explaining,

> LPN D: The other day I helped a Veteran... I got him his cancer medication... he couldn't believe that I helped him. I mean, he was so happy, and had it been the old way, there's no way I could have had the time to do that.

Results: Patterns Between Categories

Consistent with our expected patterns, 88% of described nonphysician providers were associated with embracing the new team-based empowerment identity, whereas embracing was described for only 38% of physician providers. In contrast, 63% of described physician providers engaged in efforts to protect their previous identity, but only 13% of described nonphysician providers did the same (see Table 3). A pattern of higher-status leaders protecting the previous identity and lower-status leaders embracing the new identity thus seems plausible. A prototypical description of embracing of the new identity as empowering leader can be seen in a physician assistant's description of her leadership style:

> PA B: I don't feel necessarily that I am the team leader. I think our RN has a lot of very good leadership skills also, and so we've been trying to pass around the minutes and whoever's holding the minutes seems to run the meetings.

Although such adoption of the empowering leader identity was predominantly identified in references to lower-status nonphysicians, some higher-status physicians also seemed to embrace the new identity. They tended to be initial champions of team-based empowerment who, because of their extensive knowledge and acceptance of the initiative, had been

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TABLE 3
Provider Status and Identity Exemplars

Provider Type	Identity	
	Embracing Empowering Identity	**Protecting Hierarchical Identity**
High-Status Provider	9 physician providers 38% of described physician providers "Well actually [my provider] is just kind of a participant in the whole process. He doesn't dictate how the clinic will run. We just kind of work it together... He tells us his preference of what he would like to see happen and then we discuss that and if it works we do it that way. If it doesn't work then we negotiate how it can be done to meet everybody's needs." (RN I describing physician provider)	15 physician providers 63% of described physician providers "I am being targeted up here [in my physical location]. ...It is a physician provider that is doing this. And it's a provider who doesn't want to be called a provider, she will only be called a doctor. She doesn't like the term provider... and now she works with this physician provider, so they kind of do their own thing... I just think they're viewing what I'm doing as suboptimal patient care." (NP A follow-up describing physician providers)
Low-Status Provider	7 nonphysician providers 88% of described nonphysician providers "[Physician Assistant] is just an outstanding PA. Her patients love her... [T]o be able to work with a provider who's equally enthusiastic about doing that and then having the VA get behind us and say, 'Okay. This is the way to do it.' You know, 'Let's focus on the patients.' And we've only been at it for a little bit but already I would say patients are responding to this initiative well. I mean we have more time." (LPN A describing nonphysician provider)	1 nonphysician provider 13% of described nonphysician providers "[Physician Assistant] is kind of a hands-on guy. He wants to do a lot of stuff himself. He has just started allowing us to have nurse visits..., but he's got some criteria that they pretty much have to be pretty basic for that to happen... He wants to have his hand in it so he knows what's going on." (LPN B describing nonphysician provider)

Notes: χ^2 [1] = 6.00, $p < .05$, $n = 32$. Number and percentage of providers includes the number of different providers mentioned doing identity work either by self or others. In cases where multiple participants described the same provider, the provider is only included once.

previously selected by organizational leadership to pilot an early team-based empowerment initiative. Nevertheless, the pattern of high-status leaders being described more frequently as struggling with the new identity was supported (χ^2 [1] = 6.00, $p < .05$).

All providers who were described as engaging in identity work and practicing balanced delegation were coded as embracing the empowering leadership identity (see Table 4). A provider who embraced the new identity and practiced balanced delegation was described as someone who "doesn't dictate how the clinic will run. We just kind of run it together" (RN I). In contrast, only a single provider described as protecting identity was also described as practicing balanced delegation. In this case, the provider expressed excitement about having the ability to pass work off to other team members, but did not fully embrace the notion of more equal status and shared leadership. More commonly associated with providers being described as protecting identity

were descriptions of delegation errors of sharing too little (e.g., "doctors are going to do what they want" [RN A]) or attempts to "dump" (Admin G) too many tasks. The pattern was thus supportive of the notion of leaders who embrace the empowering initiative being more successful at delegating work and responsibility (χ^2 [2] = 23.20, $p < .01$).

DISCUSSION

VHA teams led by physician providers were not as successful at implementing team-based empowerment as were teams led by nonphysician providers. The three-year post-change period of faster improvement for teams led by nonphysicians is consistent with our prediction of high-status leaders resisting the movement from a hierarchical configuration to a team structure that included increased sharing of task and leadership responsibilities. Interviews with leaders and team members experiencing

TABLE 4
Embracing and Protecting Identity through Delegation Exemplars

Identity	Delegation Patterns		
	Insufficient Delegation	Balanced Delegation	Overabundant Delegation
Embracing Empowering Identity	0 providers	15 providers "We're here as a team... he pretty much trusts our instincts... his expectations of what I can do are right on." (LPN C) "[Physician assistant] has her nurse do more than I think most of the other ones..." (LPN B)	0 providers
Protecting Hierarchical Identity	9 providers "...there's still that big hierarchy of, 'Well I'm the provider and this is how it's going to be...' And 'I don't care about your input.'" (Admin A) "It's like one doctor wants to do it this way and this is the way it's going to be done and there's no talking about it." (LPN F)	1 provider "...[the providers] love that we can do more." (RN B)	2 providers "We had a nurse, and what hindered it is one of the [doctors] was making her responsible for being the 'You take care of this. You make sure this is done. You make sure they do this. You make sure this person does this.' And this [doctor] was then empowering her with all this kind of very authoritative leadership, and she was not capable of handling this...finally we had to bring this particular doctor in and say, 'You are not helping PACT. PACT is not an autocratic system...We don't have one person having an iron fist and pounding on everybody else.'" (RN E)

Notes: χ^2 [2] = 23.20, $p < .01$, $n = 27$. Number of providers includes the self and other descriptions of identity and delegation; PACT = Patient Aligned Care Teams, which is the VHA's name for the team-based empowerment initiative.

the change also suggest that resistance is rooted in difficulty embracing the new identity of empowering leader, which in turn corresponds with ineffective delegation. As a supplement to previous studies assessing the difficulty of moving between team-based structures that are either competitive or cooperative, our study thus looks explicitly at the movement from a nonteam bureaucratic structure that emphasizes hierarchy to a team structure that emphasizes empowerment. Such longitudinal analysis in a highly relevant field setting responds to calls (e.g., Humphrey & Aime, 2014) for research assessing the dynamic impact of power, status, and other social processes on organizational change efforts associated with teams. Our results particularly emphasize how difficult an organizational transformation can be when leaders are asked to transition from a hierarchy that provides them preferred status to a team-based structure with more egalitarian relationships.

Differences in the quantitatively assessed performance trends for physician and nonphysician providers draw attention to the difficulty of implementing change in a complex organization. For the VHA, the delay of effective team-based empowerment factored into negative public perceptions and more protracted than desired implementation of a new initiative. Moreover, members of VHA teams reported greater burnout when their teams struggled with participatory decision making and working at the top of their competency (Helfrich et al., 2014). Our finding of fourfold higher improvement for nonphysician providers over physician providers thus not only provides additional evidence of unequal implementation in VHA but also pinpoints leader status as a clearly identifiable and generalizable explanation for variation in the success of empowerment initiatives. Consistent with expectation states theory, we found status differences within teams to be more ingrained, and thereby more difficult to alter, when leader status was more distanced from other team members. Going beyond previous research examining structural change within teams, and adding the concept of select team members having greater impact than others (Humphrey, Morgeson, & Mannor, 2009; Summers, Humphrey, & Ferris, 2012), one of our unique contributions is thus the identification of team leaders as individuals who substantially influence the success of organizational efforts to move from traditional hierarchy to team-based empowerment. Even though empowering team members has the potential to simultaneously reduce their own workload and increase productivity, high-status leaders find it difficult to relinquish the favorable role that assures their distinct standing.

Our qualitative analyses not only illustrate a reason why some leaders facilitate and others resist team-based empowerment, but also demarcate specific patterns of leader behavior that are either helpful or harmful. Through thematic analysis, we detected differences in identity work as the underlying explanation for differing reactions between physicians and nonphysicians. This link between status and identity is not surprising given that psychological research has found status differences among individuals entering a social relationship to influence not only subsequent status but also perceptions of one's own identity (Stets, 1997). In contrast to lower-status nonphysician leaders, who aptly embraced the new empowering identity, higher-status physician leaders struggled to embrace the new identity, which they saw as inconsistent with their unique and highly distinct role of physician. This finding builds on previous work that has uncovered identity modification as an important transitional process that must occur as individuals assume leadership roles (Day & Harrison, 2007; Hill, 1992; Ibarra, Wittman, Petriglieri, & Day, 2014). From this perspective, a process of claiming and granting identity lies at the heart of leadership emergence (DeRue & Ashford, 2010), and our findings extend previous work by elucidating how high-status leaders fail to claim the new empowering identity by holding on to hierarchy and eschewing shared control, as well as how team members fail to grant the new identity by being unable to reject the old hierarchical identity of leaders.

Combining specific identity responses that we observed with theoretical concepts expressed by other researchers allows for further refinement of our theoretical explanation underlying the status-empowerment link. Conroy and O'Leary-Kelly's (2014) theory of identity loss and recovery suggests that embracing another identity is particularly difficult when the new identity is not a major aspiration of the ideal self. Our findings support this assertion in that the extensive socialization and training of physicians seemed to create a view of self as having distinct and irreplaceable skills. They protected this aspiration through actions such as requiring others to call them doctor rather than provider, which is a reaction that Petriglieri (2011: 647) labeled emphasizing "positive-distinctiveness." Burke and Stets (2009) also theorized that an identity with greater investment dominates an identity with lower

investment. Consistent with previous work by Quinn and Perelli (2011), our results suggest that the physician identity is superordinate to the leader identity, and that leaders retain the distinctiveness of their physician identity by establishing an alternative leadership role of directing, rather than empowering, others.

Preeminence of the physician identity suggests that difficulty adopting an empowering identity is not likely confined to a change in organizational structure and expectations, as was the case in the VHA. Given their relatively differentiated identity created through years of formal education, we suspect that high-status leaders such as physicians find empowering leadership difficult to enact even when a specific organizational hierarchy has not previously existed. Nevertheless, in an organization undergoing restructuring, high status provides leaders such as physicians the opportunity to respond to change by altering work to fit their existing identity, rather than altering their identity to fit the new work (Pratt, Rockmann, & Kaufmann, 2006). Thus, combining our findings with previous theoretical expositions of identity work illustrates that a distinct and highly socialized status not only makes it difficult to adopt a new identity that is less clearly aligned with one's sense of an ideal profession, but also provides the job flexibility necessary to resist change efforts by revising one's work role (Wrzesniewski & Dutton, 2001).

Our thematic analysis of interview data also brings to light the importance of leader delegation behavior. Effective leaders were described as achieving a balance of giving team members additional meaningful work while simultaneously providing role clarification and coordination. However, for many physicians, status threat and identity protection resulted in their not sharing tasks and leadership. Erring on the side of insufficient delegation is consistent with holding onto the previous identity by continuing to enact the prior role of being the doctor in charge. Finding the opposite pattern of overabundant delegation was, however, somewhat unexpected. In contrast to leaders who withheld opportunity, these leaders created work overload for other team members. The traditional hierarchy was preserved by demonstrating power to require others to do more. Instead of preserving distinctiveness through holding onto tasks associated with higher skills, these physicians seemingly sought to maintain the previous social order by creating a role that placed them above others through detachment from menial aspects of work. Interestingly, the alternative paths of withholding opportunity and creating overload resulted in similar team member perceptions of decreased empowerment. The path through overabundant delegation was described less frequently than the path through insufficient delegation; however, the identification of the overabundant path is consistent with recent work suggesting that in many cases too much of a good thing can turn into something adverse (Pierce & Aguinis, 2013).

Implications for Research

A summary theoretical model combining our quantitative and qualitative results is displayed in Figure 3. As shown, leader status was supported as a moderator of the relationship between team-based empowerment and team effectiveness. We supplemented this quantitative finding with qualitative analysis that provides evidence of identity and delegation as mediators explaining the "why" and "how" of the conditional relationship. Although some links, such as the connection between delegation and team effectiveness, have been well established by meta-analytic evidence (Seibert et al., 2011), future research should empirically examine the full theoretical model wherein team-based empowerment triggers different responses of identity work for high- and low-status leaders, which in turn link with different patterns of delegation, where these patterns are then associated with variation in team effectiveness.

We should, nevertheless, point out that even though we have utilized both deductive and inductive approaches, our model is unlikely to have captured all relevant variables. For example, even though we did not find such an effect from our thematic analysis, it seems possible that leaders who see themselves as the most capable provider of care may fail to delegate not solely because of status preservation but rather somewhat because of a deep desire to serve patients in the best possible manner. In a related sense, because they are more similar to other team members than are physicians, non-physicians may delegate effectively simply because they have a more accurate understanding of the capabilities of nurses and clerks. Because in many cases providers, nurses, and clerks had worked together previously—albeit not in dedicated teams, some providers may have developed trust in teammates before team organization, leading them to either effectively delegate or perhaps, in some instances, to overdelegate. Regardless, unless leaders appropriately recognize the unique expertise of other team members (Bunderson, 2003; Joshi, 2014),

FIGURE 3
Summary Model Including Mechanisms Derived from Inductive Theory Building to Explain Differential Effects of Leader Status on Effectiveness of Team-based Empowerment
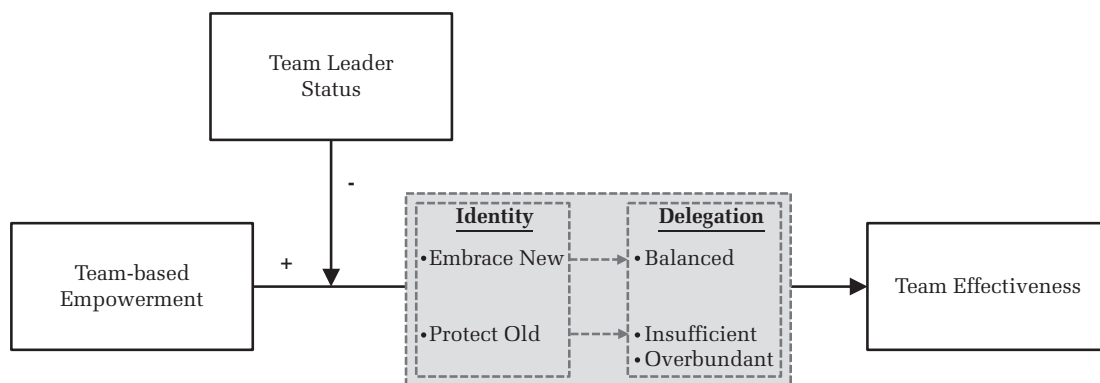
where this recognition in all probability is inhibited by physician perception of distinct status, sharing of tasks and responsibility is unlikely. In addition, although our inclusion of DCG as a covariate provides some assurance against such an alternative explanation, it is also possible that the patients assigned to physicians are just more difficult, and thus represent work that cannot be passed on to other team members to the same degree as the work of nonphysicians. Future research should thus specifically examine failure to recognize expertise and other factors, such as lack of trust among team members, as additional obstacles that inhibit leader facilitation of team-based empowerment.

Our results have important implications for research related to delegation. Although previous research has highlighted the importance of effective delegation (e.g., Leana, 1986; Schriesheim, Neider, & Scandura, 1998), finding a pattern of too much delegation suggests a need for additional work. How does balanced delegation differ across task types? Does overabundant delegation occur predominantly when tasks are mundane? How does team member skill and ability relate to effective delegation? Do leaders with motivations such as protecting their own hierarchical identity take into account team member attributes when deciding whether to delegate, or does identity work override otherwise effective adaptation to specific team composition?

Related to delegation, our work also adds to the emerging literature on shared leadership. Manz and Sims (1987) identified the importance of self-managing teams including a leader who directs activities in a participatory manner that shares responsibility but also retains a unique leadership role.

However, newer perspectives, such as heterarchy (Aime et al., 2014), have advanced the notion of shared leadership by illustrating how leadership functions may move from member to member as work requirements change, which in some cases may supplant the need for a particular individual to enact an enduring specialized role of leader. Although it seems likely that the degree to which teams benefit from either equal sharing of responsibility or inclusion of a demarcated leader depends on differences in both tasks and specialized skills of team members, research to date has not clearly identified contingency factors. Within the VHA context of medical care teams with members having disparate levels of skill and expertise, the findings of this study suggest the need for an acknowledged leader who not only helps clarify each team member's unique role, but also provides ongoing coordination of effort. Future research should assess the generalizability of this conclusion, particularly in teams where members have less specialization and distributed expertise.

Implications for Practice

Our findings provide guidance for organizational leaders that can be captured in the answers to two questions. First, what can leaders do to facilitate increased empowerment and sharing of leadership within team-based structures? Second, how can leaders be encouraged to engage in facilitative behaviors?

The answer to the first question, of what leaders can do to facilitate empowerment, is found in a clearer understanding of delegation. Our findings

suggest that leaders are effective when they stay actively involved in the day-to-day activities of the team while utilizing team member strengths, involving others in team planning and decision making, facilitating open communication, and directly involving team members in expanded tasks. However, these leaders must walk a fine line and not cross to overabundant delegation by simply dumping tasks. This balance is most likely to occur when leaders see themselves as a member of a team rather than as a leader in charge.

The answer to the second question, of how leaders can be encouraged to see themselves as a member of a team, is grounded in identity work. Empowering leaders must develop a new identity that is consistent with both their established identity of someone with specialized skills, such as doctor, and their emerging identity as a leader who shares responsibility and power. Identity research has suggested that this can be facilitated by helping high-status leaders develop narratives about the congruence between these two identities. For example, narratives expressing *authenticity* and *validation* enhance congruence between old and new identities (Ibarra & Barbulescu, 2010). Authenticity highlights the need to develop a narrative that allows individuals a measure of self-consistency across time and situations. Validation captures the need to be seen as someone who can plausibly and credibly enact a legitimate but new identity, and is enhanced by illustrating how skills and competencies developed in a prior role transfer to future roles. In the context of empowering physician leaders, authenticity and validation might be enhanced by helping physicians develop a narrative wherein the role of empowering leader is seen as an extension of the role of doctor, which in many cases requires a new vision of effective health care as something requiring interdisciplinary effort that includes inputs from nurses and clerks, such as providing emotional support and building a sense of personalized connection (Solimeo et al., 2016).

One potentially strong approach for building an inclusive identity is provision of clear and authentic high-status role models who embrace the empowering identity (Ibarra, 1999). Such models were rare in the VHA setting, given that almost the entire organization simultaneously sought to enact the new leadership role. Large-scale organizational change initiatives, such as the adoption of team-based empowerment, may thus benefit from incremental implementation that assures role models are in place to help leaders develop an identity congruent with their new leadership role. Chreim, Williams, and Hinings's (2007) work on professional role identity reconstruction also suggested potential benefits associated with altering not only organizational dynamics, such as incentive structure, but also institutional dynamics, such as garnering support from outside sources like professional associations.

Altering organizational dynamics can, nevertheless, also create a supportive environment for helping high-status professionals build a new identity. For example, changing incentives to focus on team empowerment rather than personal productivity can help motivate leaders to focus efforts on sharing power. Training interventions designed to help leaders develop new skills and see the benefits of empowering team members can help leaders see the practice of medicine, and their particular role, in a new light. An important part of such interventions might be a cross-training component that includes information about the unique skills and knowledge of other team members, which may in turn help alleviate fears about their own skillsets becoming obsolete or diluted. Another potentially potent intervention is the provision of coaches, who are not formal leaders but rather external facilitators with short-term responsibility for helping teams increase empowerment. Indeed, coaches have been shown to positively influence empowerment in a way that goes beyond human resources activities, such as rewards and training (Rapp, Gilson, Mathieu, & Ruddy, 2016). Perhaps such coaching can provide consultation and education related to how other team members enact a different identity, in addition to how leaders enact their own identity. In short, the development of a new identity requires changes in thought and action not only for the leader, but also for followers.

Limitations and Future Directions for Research

Our mixed methods approach provides complementary strengths from each data source, with the resultant analyses providing understanding that cannot be obtained by either approach in isolation (Brewer & Hunter, 2005). Even so, we highlight a few limitations and directions for future research associated with each form of investigation.

Because our convergent parallel approach simultaneously utilized quantitative and qualitative analyses, we were unable to empirically test the mediating mechanisms that we discovered through qualitative analyses. Although our inductive work allowed us to build theory by connecting identity

work and delegation to leaders' status and team-based empowerment, future studies are needed to quantitatively assess this model.

Another potential limitation is our adoption of same-day appointment access as a measure of team effectiveness. We do not have a direct measure of delegation or leadership sharing, and other factors may influence access to appointments. One such factor could be that nonphysician providers simply extended their schedules to provide a greater number of appointments, whereas physician providers did not. We examined this possibility by conducting a 2 × 2 analysis of variance (pre- versus post- intervention; physician versus nonphysician) with number of appointments as the dependent variable. We found no evidence that nonphysicians increased their own number of appointments any more than physicians did, as the interaction of leader status with the pre- versus post-intervention periods on number of appointments was not significant ($F = .01$, n.s.). Of course, team effectiveness is multi-faceted, suggesting the value of future studies that incorporate additional performance measures. Yet this limitation is mitigated somewhat by the longitudinal nature of the measure and our pre–post intervention analysis. Furthermore, time limitations in the health care setting make it so that granting appointment requests requires effective delegation, and same-day appointments are seen as a primary indicator of team effectiveness in the VHA setting.

An additional concern is that our interviews were designed broadly to elicit feelings about barriers and facilitators of team-based empowerment, rather than to assess specific perceptions associated with the themes of identity work and delegation. Although we may have gained additional insight through direct questioning about these specific topics, our approach allowed participants to discuss the issues they saw as most pressing, and problems embracing the new identity and delegation naturally arose. Issues associated with the new leadership identity and delegation were thus of particular salience to the leaders and team members we interviewed; nevertheless, our naturalistic method of identifying a critical barrier to leadership sharing should be further probed in future studies targeted explicitly toward gaining a richer understanding of identity and delegation.

CONCLUSION

We found that teams led by lower-status non-physician leaders were more effective in implementing team-based empowerment than were teams led by higher-status physicians. High-status physician leaders struggled with the new leadership identity, which potentially reduced their sense of distinctiveness associated with the traditional identity of physician-in-charge. This obstructive identity work was associated with less effective patterns of leader delegation. Taken as a whole, our results thus suggest that team-based empowerment is difficult to achieve, particularly when an existing hierarchical structure has provided team leaders with preferential status. Indeed, leaders with the most found it hardest to share, and facilitation of team-based empowerment necessitates changing who these leaders perceive they are as part of changing what they do.

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APPENDIX A

ANALYTICAL MODELS

The discontinuous growth modeling analyses were performed according to standard practice by first using a series of models to develop a Level 1 model that describes the change in patient access over time within teams and then introducing Level 2 predictors that allow for between-team differences in the Level 1 change parameters (see Bliese & Ployhart, 2002). The coding scheme used for time indicators is provided in Table A1, and is based on recommendations from Bliese and Lang (2016) regarding how to test for absolute change in discontinuous growth models.

Model 1. Calculate Intra-class Correlation Coefficient

As recommended by Singer and Willett (2003), prior to beginning the growth modeling analyses we partitioned the variance in the same-day appointment access dependent variable into within-team and between-team components using an unconditional (random intercept) mixed effects model (Table A2, Model 1). The model is presented in Equations 1 and 2:

$$\text{Level 1: } Y_{ti} = b_{0i} + e_i \tag{1}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

This analysis revealed that 34% of the variance in same-day access scores over time was explained by between-team variance, suggesting that meaningful team-level differences existed.

Model 2. Add Covariates

We began the discontinuous growth modeling process by first examining a model that accounted for two key covariates, panel size and diagnostic cost group average (DCG), with random intercepts (Table A2, Model 2). These covariates were selected in order to account for workload differences between different health care teams due to the number of patients assigned (panel size) or the complexity of the assigned patient cases (DCG). Equation 3 represents the Level 1 model. The Level 2 model of random intercepts from Equation 2 is retained:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti} + e_i \tag{3}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

Results indicated that panel size and DCG were significant predictors of access scores.

Model 3. Add Linear Discontinuous Fixed Effects of Time

With covariates accounted for in the model, the next step in the discontinuous growth modeling process involved determining the fixed functions for time. The first model

TABLE A1
Coding and Interpretation of Change Variables in the Discontinuous Growth Models

Variable	Measurement Occasion												Interpretation
	1	2	3	4	5	6	7	8	9	10	. . .	44	
PRE	0	1	2	3	4	5	6	6	6	6	. . .	6	Linear performance trajectory prior to team implementation
TRANS	0	0	0	0	0	0	0	1	1	1	. . .	1	Immediate performance shift due to team implementation
POST	0	0	0	0	0	0	0	0	1	2	. . .	36	Linear performance trajectory following team implementation
PRE^2	0	1	4	9	16	25	36	36	36	36	. . .	36	Curvilinear performance trajectory prior to team implementation
POST^2	0	0	0	0	0	0	0	0	1	4	. . .	1,296	Curvilinear performance trajectory following team implementation

Note: Measurement occasion 8 indicates the period in which team implementation occurred.

TABLE A2
Discontinuous Change Level 1 Model Building for Same-Day Appointment Access

Variable	Model 1 (Base Model)			Model 2 (Covariates Only)			Model 3 (Linear with Trans)			Model 4 (Linear without Trans)			Model 5 (Quadratic)			Model 6 (4 + Random Slopes)			Model 7 (6 + Autocorrelation)			Model 8 (7 + Heteroskedasticity)		
	Coef.	SE	t	Coef.	SE	T	Coef.	SE	t	Coef.	SE	t	Coef.	SE	t	Coef.	SE	T	Coef.	SE	t	Coef.	SE	t
Fixed Effects																								
Intercept	0.459	0.012	39.55*	0.455	0.011	41.84*	0.421	0.015	27.73*	0.414	0.015	28.12*	0.401	0.017	22.98*	0.413	0.017	24.23*	0.412	0.017	24.29*	0.412	0.017	24.30*
Panel Size				0.050	0.007	6.70*	0.036	0.007	4.72*	0.036	0.008	4.78*	0.036	0.008	4.73*	0.038	0.009	4.37*	0.041	0.009	4.48*	0.042	0.009	4.61*
DCG				−0.034	0.008	−4.38*	−0.048	0.008	−6.09*	−0.047	0.008	−6.02*	−0.048	0.008	−6.03*	−0.035	0.008	−4.32*	−0.036	0.009	−4.26*	−0.034	0.008	−4.04*
PRE							−0.002	0.003	−0.73	0.002	0.002	1.06	0.017	0.010	1.65	0.002	0.002	0.94	0.002	0.002	1.00	0.002	0.002	1.01
TRANS							0.023	0.012	1.92															
POST							0.002	0.000	7.41*	0.002	0.000	8.66*	0.003	0.001	3.94*	0.002	0.000	4.55*	0.002	0.000	4.48*	0.002	0.000	4.60*
PRE²													−0.002	0.001	−1.60									
POST²													−0.000	0.000	−1.66									
Random Effects (variance)																								
Intercept	0.028			0.024			0.024			0.024			0.024			.041			.033			.038		
PRE																.000			.000			.000		
POST																.000			.000			.000		
Residual	0.054			0.054			0.053			0.053			0.053			.049			.050			.042		
Fit Indices																								
−2 Log (REML)	32.24			67.47			104.39			106.06			92.85			317.71			474.67			495.30		
AIC	−58.48			−124.93			−192.78			−198.11			−167.69			−611.42			−923.33			−962.60		
BIC	−37.24			−89.25			−135.68			−148.15			−103.46			−525.77			−830.55			−862.68		

Notes: $n = 224$. Panel size = number of patients assigned to the team provider. DCG = diagnostic cost group average, which is a risk adjustment measure derived from patient diagnoses indicating the aggregate severity of illness for patients assigned to the provider. PRE = pre-intervention trajectory, or the linear change in same-day appointment access prior to team implementation. TRANS = transition parameter, or the shift in same-day appointment access immediately following team implementation. POST = post-intervention trajectory, or the linear change in same-day appointment access following team implementation. Panel size and DCG variables are standardized. AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; REML = restricted maximum likelihood.

* $p < .05$

we examined (Appendix Table 2, Model 3) was a basic discontinuous Level 1 model that modeled an overall performance trajectory prior to team implementation (PRE), an overall performance shift immediately following team implementation (TRANS), and a subsequent overall performance trajectory following team implementation (POST). Equation 4 represents the Level 1 model. The Level 2 model of random intercepts from Equation 2 is retained:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti}$$
$$+ b_3 PRE_{ti} + b_4 TRANS_{ti} + b_5 POST_{ti} + e_i \tag{4}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

As models using different fixed effects for time cannot be compared directly using log-likelihood ratios (Bliese & Ployhart, 2002: 381), we instead followed standard practice by examining the parameter estimates and their accompanying t values when determining which parameters to retain. Results show there was no significant performance trajectory prior to the intervention (PRE, $\beta = -0.002$, n.s.), no significant performance shift immediately following the intervention (TRANS, $\beta = 0.02$, n.s.), and a significant positive performance trajectory following the intervention (POST, $\beta = 0.002$, $p < .05$). Because the TRANS parameter coefficient was nonsignificant, we dropped it from subsequent models. Although the coefficient for pre-intervention trajectories was nonsignificant, it was retained in the model as it is necessary to model absolute change in performance trajectories following the team intervention (Bliese & Lang, 2016).

Model 4. Drop Nonsignificant TRANS Fixed Effects Parameter

We proceeded to test a simplified discontinuous growth model that consisted of the two performance trajectories, one prior to the team intervention and one following the team intervention (Table A2, Model 4). This models the effects of time as a change in slope after the intervention without a distinct performance increase or decrease at the time of the intervention. Equation 5 represents the Level 1 model. The Level 2 model of random intercepts from Equation 2 is retained:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti}$$
$$+ b_3 PRE_{ti} + b_4 POST_{ti} + e_i \tag{5}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

Results again showed a nonsignificant performance trajectory prior to the intervention (PRE, $\beta = 0.002$, n.s.), and a significant positive performance trajectory following the intervention (POST, $\beta = 0.002$, $p < .05$).

Model 5. Add Quadratic Discontinuous Fixed Effects of Time

To further explore whether the effects of time would be better modeled in a nonlinear fashion, we next examined a model with quadratic time variables PRE^2 and $POST^2$ included (Appendix Table 2, Model 5). Equation 6 represents the Level 1 model. The Level 2 model of random intercepts from Equation 2 is retained:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti} + b_3 PRE_{ti}$$
$$+ b_4 POST_{ti} + b_5 PRE_{ti}^2 + b_6 POST_{ti}^2 + e_i \tag{6}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

Because the quadratic time parameters were nonsignificant, they were removed from additional models. Thus, we selected a linear-only time function with no immediate performance shift as the final model for time.

Model 6. Variability in Growth Parameters

The next step of our analysis focused on modeling variability in the growth parameters. Up to this point of our analysis, we have assumed that growth for all teams followed the same trajectory (although it does allow for random intercepts). In this step of our model building we relaxed that assumption and tested for time effect (slope) differences between teams (Table A2, Model 6). The model retains Equation 5 at Level 1, and retains Equation 2 at Level 2. The model is updated to allow for random slopes prior to the intervention (Equation 7) and after the intervention (Equation 8):

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti}$$
$$+ b_{3i} PRE_{ti} + b_{4i} POST_{ti} + e_i \tag{5}$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + u_{0i} \tag{2}$$

$$b_{3i} = \gamma_{30} + u_{3i} \tag{7}$$

$$b_{4i} = \gamma_{40} + u_{4i} \tag{8}$$

A comparison of the log likelihood ratios for Models 4 and 6 indicated that Model 6 was a significantly better fit to the data (L.Ratio = 423.30, $p < .01$), therefore random slope terms were retained for subsequent models.

Models 7 and 8. Error Structure

As final steps in our Level 1 analysis, we proceeded to test for autocorrelation (Table A2, Model 7) and heteroskedasticity (Table A2, Model 8) in the model error structures. Results from these analyses revealed evidence of both autocorrelation (L.Ratio = 313.91, $p < .01$) and heteroskedasticity (L.Ratio = 41.27, $p < .01$), which were

accounted for in the Level 1 change models when proceeding to add terms to the Level 2 model.

Model 9. Add Level 2 Prediction of Intercept Variability

Two models were used to test for systematic differences between teams based on the status of the team's health care provider. First, we tested for a main effect of status in predicting model intercepts. This model is presented in the main body of the paper as Table 2, Model 1 (status main effect). The model retains Equation 5 at Level 1. The model is updated at Level 2 to predict intercept variation with the status of the team's health care provider (Equation 9), and retains Equations 7 and 8 allowing for random slopes:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti}$$
$$+ b_{3i}PRE_{ti} + b_{4i}POST_{ti} + e_i \qquad (5)$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + \gamma_{01}Status_i + u_{0i} \qquad (9)$$

$$b_{3i} = \gamma_{30} + u_{3i} \qquad (7)$$

$$b_{4i} = \gamma_{40} + u_{4i} \qquad (8)$$

Results indicated that status has a significant negative overall effect on access scores ($\beta = -.08$; $p < .01$), suggesting that, averaged over our 44-month measurement period and holding patient load and complexity constant across providers, access for patients of physician-lead teams was 8 percentage points lower than it was for patients of nonphysician-led teams.

Model 10. Add Level 2 Prediction of Slope Variability

Finally, in order to test the interaction between health care provider status and team access trajectories, we added status as a Level 2 predictor of the slope for each of the time components (PRE and POST) in the final Level 1 model.

This model is presented in the main body of the paper as Table 2, Model 2 (status interaction). The model retains Equation 5 at Level 1 and Equation 9 at Level 2. The model is updated at Level 2 to predict the change trajectory prior to the intervention (Equation 10) and the change trajectory following the intervention (Equation 11) with the status of the team's health care provider:

$$\text{Level 1: } Y_{ti} = b_{0i} + b_1 Panel\ Size_{ti} + b_2 DCG_{ti}$$
$$+ b_{3i}PRE_{ti} + b_{4i}POST_{ti} + e_i \qquad (5)$$

$$\text{Level 2: } b_{0i} = \gamma_{00} + \gamma_{01}Status_i + u_{0i} \qquad (9)$$

$$b_{3i} = \gamma_{30} + \gamma_{31}Status_i + u_{3i} \qquad (10)$$

$$b_{4i} = \gamma_{40} + \gamma_{41}Status_i + u_{4i} \qquad (11)$$

Results indicated that the interaction between status and the pre-intervention time indicator was nonsignificant (STATUS × PRE $\gamma = .000$; n.s.). This suggests that access trajectories prior to the intervention did not differ between lower- and higher-status providers. The estimated trajectories were essentially flat for both lower-status (simple slope = .002; n.s.) and higher-status providers (simple slope = .002; n.s.).

In contrast, the interaction between status and the post-intervention time indicator was significant and negative (STATUS × POST $\gamma = -.003$; $p < .01$). This suggests access trajectories following the intervention were significantly lower for high-status providers than they were for low-status providers. The estimated trajectories following the intervention show that teams led by lower-status providers improved access at a faster rate (simple slope = .004; $p < .01$) than did teams led by higher-status providers (simple slope = .001, $p < .05$). Furthermore, the effects of status on intercept variation became nonsignificant in this model ($\beta = -.03$; n.s.). This suggests that initial differences in access between teams with physician providers and teams with nonphysician providers were immaterial, and that overall performance differences between them emerge due to post-intervention trajectory differences.