

**Working at the Top of Their Capabilities:  
How Teamwork Support Attenuates Leader Role Conflict**

**Abstract**

**Objective:** To understand whether team member support reduces team leader stress.

**Method:** In Phase 1, we used hierarchical linear modeling with survey data and administrative records from 45 Veterans Health Administration teams (73 providers and 228 associated members) to investigate how teamwork support mitigates leader stress. In Phase 2, we adopted a parallel/simultaneous mixed methods design, utilizing open- and closed-ended responses from 267 additional Veterans Health Administration providers. With the mixed methods design we first analyzed open-ended responses using directed content analysis and hypothesis coding. Next, we transformed our codes into counts and compared them with closed-ended responses to understand whether teamwork support allows leaders to engage in work aligned with their qualifications.

**Results:** As predicted, providers' role conflict corresponded with decreased performance under low teamwork support, but this negative relationship was attenuated with high teamwork support as such support allows leaders to focus on tasks they are uniquely qualified to perform.

**Conclusions:** These findings emphasize the facilitative nature of teams in supporting leaders: followers provide teamwork support that helps leaders navigate role conflict by allowing leaders to work on tasks consistent with their qualifications.

**Keywords:** role conflict; job-demands resources; teamwork support; mixed methods; healthcare

### **Highlights and Implications**

- Team leaders experience greater role conflict compared to team members during team-based empowerment initiatives.
- Teamwork support from team members attenuates the negative effect of leader role conflict on performance.
- Although leaders might drive team performance, team member contributions should also be acknowledged as an important aspect of the leader-team relationship.
- Drawing from a real organizational issue, we found that having a high functioning team allows leaders to work on tasks that align with their capabilities.

### **Working at the Top of Their Capabilities:**

#### **How Teamwork Support Attenuates Leader Role Conflict**

“Currently, [team-based care] at this site is far from where it should be ideally, because of staff members with poor attitudes who are unwilling to work at the top of their license and who remain resistant to adapting to new changes that can help improve patient care and efficiency...” – Phase 2 Primary Care Provider #243

“I’m blessed to have an extremely capable, conscientious team. I rely on them to do their jobs so I can do mine better.” – Phase 2 Primary Care Provider #63

Reducing hierarchical control and increasing team-based empowerment is frequently pursued by contemporary organizations (Aime et al., 2014; Fransen et al., 2018). Shifting to team-based empowerment entails: (1) a structural adjustment towards reliance on team-based work; and (2) an increase in the responsibilities and control shared with team members by the leader (Stewart et al., 2017). Such shifts are challenging to implement, and one reason for their failure (Fast et al., 2014; Ishikawa, 2012) is team leaders’ stress from enacting these structural and behavioral changes while facing inconsistent and changing expectations. Such difficulties hinder their ability to complete tasks, carry out new roles (Gilboa et al., 2008; Jackson & Schuler, 1985; cf. Courtright et al., 2014), and replace previously held identities and actions with new beliefs and behaviors (Klein, 1984; Stewart et al., 2017). This stress is a significant, and often negative, demand on leaders, leading to cognitive overload, incompatible information, and decreased motivation (Jackson & Schuler, 1985).

Stress in the form of *role conflict*—defined as feeling pulled in various directions by incompatible demands (Rizzo et al., 1970)—is likely unavoidable for leaders while enacting team-based empowerment. An example of such role conflict is exemplified in the reorganization

of the primary care workforce into teams within the United States' Veteran's Health Administration (VHA). Primary care providers (PCPs; i.e., physicians, physician assistants, and nurse practitioners), as team leaders, needed to relinquish hierarchical control and center their leadership in team-based empowerment where they share responsibility for patient care with nurses and clerks. This simultaneously changed the way providers are expected to lead and the patient-care tasks they personally perform (Solimeo et al., 2015). Prior healthcare research found that some PCPs effectively navigated this role stress and share responsibility and control with team members, whereas others failed to effectively channel perceptions of stress toward empowerment and remain in a state of resistance (Stewart et al., 2017). This negative impact of team leader role stress has been identified in other settings (Fast et al., 2014; Ishikawa, 2012) but is especially poignant in healthcare, as a team-based approach corresponds with patients receiving better care (Nelson et al., 2014).

To understand how team leaders overcome negative effects of role conflict, we use the job demands-resources model (JDR; Demerouti et al., 2001) which posits that leaders more effectively cope with stress (e.g., role conflict) when they have resources to facilitate work goal accomplishment (Bakker et al., 2005; Bakker et al., 2007). Although support from others is consistently identified as a buffering resource for stress-related demands (Daniels et al., 2013; Smoktunowicz et al., 2015), the extent to which team members alleviate leader role conflict remains an important question. Strategic core theory—which explains why team roles relate differentially to team functioning—suggests that when there are negative changes in more critical team roles (e.g., leaders), the entire team experiences negative outcomes (e.g., Summers et al., 2012). Bridging these theories, we argue that the resource of *teamwork support*, which entails “direct[ing], align[ing], coordinat[ing], and monitor[ing] taskwork to achieve collective

goals” (Crawford & LePine, 2013, p. 34) can help leaders cope with demands by monitoring team goal progress, integrating team activities, and helping with team tasks (Marks et al., 2001).

By examining how high-functioning teams influence leader reactions to role conflict we make three contributions. First, we contribute to the literature on leader-team relationships by focusing on leaders’ role conflict and exploring how leaders overcome role conflict when their team members provide teamwork support. This perspective juxtaposes with research emphasizing the greater influence of more central members on teams relative to other members (e.g., Summers et al., 2012) and illustrates how high-functioning teams ensure that leader role conflict leads to more positive outcomes. Second, we contribute to the role stress literature by investigating the relationship between team leader role conflict and performance. Although role conflict has been conceptualized as a demand that impedes performance (Gilboa et al., 2008; Jackson & Schuler, 1985), there are conditions under which it is less detrimental (e.g., Tubre & Collins, 2000) or even beneficial (e.g., Stamper & Johlke, 2003). Building on research demonstrating how others mitigate the negative relationship between individual-level stress and performance (e.g., LePine et al., 2016), we address the paradox created by: (a) the increased demands that teams create on their leaders as they guide their teams through coping with change, and; (b) the possibility that the team itself may be a critical resource for helping the leader cope with the very role conflict inherent in such leadership contexts. Third, we use an abductive process (Aguinis & Vandenberg, 2014; Spector, 2017) to “start with a real-world challenge and draw from existing theory, and then develop new theory to understand and change it” (Mathieu, 2016, p. 1137) to explain *why* resources help team leaders respond to demands. Specifically, we show that supportive teams enable leaders to spend more time on *well-matched work* (i.e., work congruent with specialized training).

## **Theoretical Background and Hypotheses**

Team leaders may experience role conflict as a baseline job demand, especially while allocating effort to diverging organizational requirements (Schmidt & Dolis, 2009). As a job demand, role conflict can be highly detrimental for team leaders as “unclear and conflicting role expectations greatly influence both the quality of supervisory leadership and work group interaction” (Bedeian et al. 1981, p. 258). Team-based empowerment is distinct from empowering leadership which entails additional behavioral dimensions and less emphasis on team structure (e.g., Zhang & Bartol, 2010). Shifts in the processes for goal attainment away from hierarchical control to more participative interactions, accentuating disparate expectations regarding how things are done, can be difficult for leaders due to the perceived loss of status and influence that can accompany reduced hierarchical control (e.g., Morrison et al., 2009; Scheepers & Ellemers, 2005). Salient changes such as these can serve as important reference points that shape reactions at work (Hausknecht et al., 2011), including, we argue, role conflict. In the present context, prior VHA organizational norms positioned PCPs with clearly defined expertise, power, and status. Once team-based empowerment was adopted, PCPs were expected to diminish their provider-in-charge identity and delegate more control and responsibility (e.g., decision-making for patient care) to team members, yet how and when to do so was not always clear (Stewart et al., 2017). Thus, uncertainty around how and when to balance old protocols and norms against new expectations and behaviors enhanced the role conflict already latent within PCP roles.

Despite the relative shift in power from team leaders to team members that accompanies a move to team-based empowerment, leaders bear a relatively inordinate burden in implementing that shift and for team outcomes (Balogun, 2003). The simultaneous increase in task expectations

with shifting leadership identity and role expectations creates role conflict for leaders (Ashforth, 2001; Conroy & O’Leary-Kelly, 2014). Meta-analytic evidence identified role conflict as a threatening stressor to individual effectiveness and related outcomes such as job performance, employee engagement, and commitment (e.g., Crawford et al., 2010; Gilboa et al., 2008; Örtqvist & Wincent, 2006; Tubre & Collins, 2000). Thus, dealing with greater demands permits leaders to be more influential than their teammates (Li et al., 2015). Yet these same demands are expected to result in team leaders—relative to other members—experiencing heightened role conflict.

**Hypothesis 1:** Team leaders experience role conflict to a greater degree than other team members.

In experiencing relatively more role conflict, team leaders must focus time on important performance-related tasks or rectifying the inconsistencies inherent in role conflict. Although some researchers conceptualize role conflict as a demand which increases anxiety while decreasing satisfaction, engagement, and performance (e.g., Crawford et al., 2010; Gilboa et al., 2008; Örtqvist & Wincent, 2006), the JDR model (Demerouti et al., 2001) provides an alternative lens. According to JDR, all jobs include some demands—hindering aspects requiring sustained physical or mental output—over which one’s resources buffer the otherwise detrimental effects and allow the individual to achieve work goals. Resources can be psychological (e.g., self-efficacy; Xanthopoulou et al., 2007), organizational (e.g., autonomy), or social (e.g., support from friends, family, or colleagues; Hayton et al., 2012; Jolly et al., 2021).

As team leaders’ demands often surround their embeddedness in team functions and ability to lead, their most proximal social resources are often other members with whom they share task and social interdependence (Demerouti et al., 2001; Jolly et al., 2021). Extant research

has focused on how team leaders support followers rather than the impact of team members on the leader (e.g., Summers et al., 2012). This is a critical omission given that team members often provide direct help to the leader through teamwork support that converts team inputs into outputs (Courtright et al., 2015). As a resource, teamwork support can help leaders cope with excessive demands.

Some teamwork support focuses on task completion, such as setting and monitoring goals, coordination, and increased helping (Crawford & LePine, 2013; Marks et al., 2001). Other teamwork support focuses on relational team functioning, such as facilitating cohesion (Courtright et al., 2015). Effective teamwork support thus provides needed behavioral resources (Frese & Fay, 2001; Salanova & Schaufeli, 2008) that help leaders overcome the demands of role conflict and improve performance (LePine et al., 2008; Stewart et al., 2012). Role conflict is likely part of PCP's typical work experience and, per JDR, the social resources of teamwork support are expected to reduce the negative effect of role conflict on performance. To the extent that role conflict occurs when shifting from hierarchical to team-based empowerment, teamwork support that reduces PCP work demands (e.g., by increased helping or facilitating cohesion) may be seen as an indicator of the benefits to shifting in that direction, thus reducing the extent to which one's level of role conflict is perceived as inhibitory—and thus less likely to disrupt performance.

**Hypothesis 2:** The negative relationship between team leader role conflict and performance is attenuated by teamwork support.

Consistent with an abductive approach, the first phase developed and tested Hypotheses 1 and 2 related to leader role conflict and its relationship with teamwork support. The second phase built upon these initial analyses to gain greater understanding of the explanatory mechanisms



underlying these relationships. In order to describe this process as it unfolded, we next describe our study context across the two phases. We then describe our sample, data collection, and results from Phase 1. We then return to further theorizing and hypothesis development associated with Phase 2.

### **Veterans Health Administration Team-Based Empowerment Study Context**

For both phases of our study, we examined our hypotheses using data from VHA, which serves approximately nine million patients with more than 33,000 employees organized into 19 geographic regions. VHA's transition to enact team-based empowerment included restructuring work and teams from hierarchical, top-down teams to teams where PCP team leaders are supported by a registered nurse, a licensed practical nurse, and an administrative associate who interdependently provide patient care to a panel of patients.

The VHA's change provided an ideal context in which to test the hypotheses around role conflict and teamwork support as the shift from hierarchical control to team-based delivery of primary healthcare services provides a team-based context in which the PCP needs to utilize other members for the team to perform at optimal levels while also navigating the change from provider-in-charge to team leader. This redesign of patient care work from role-based silos to a team-based model has been proposed as a solution to mediating rising healthcare costs (Chin et al., 2012), better serving a growing population of older adults living with chronic and complex illnesses (Colwill et al., 2008), and more effectively using PCP expertise—a limited resource in the current healthcare markets (Bodenheimer et al., 2009). As primary care involves a range of tasks with varying clinical sophistication, such as taking vital signs, gathering patient history, preventive screening, evaluation, intervention, health education, care coordination, and communication with patients outside of face-to-face visits (Hysong et al., 2007; Wetterneck et

al., 2012), it is the distribution and allocation of these tasks across members with varying expertise that drives team-based success. Team-based empowerment therefore involves: (a) the sharing of primary care tasks across the four roles (i.e., PCP, registered nurse, licensed practical nurse, and administrative assistant); and (b) the utilization of all members to their role's highest skill set. At the individual team member level, these goals underscore the concept of well-matched work, where each team member utilizes the appropriate skill set to provide the right level of care at the correct time and place (Russell-Babin & Wurmser, 2016). As such, VHA redesign from PCP-driven to team-based care results in work that is designed to provide successful healthcare while reaping the benefits of working in teams.

### **Phase 1 Sample and Data Collection**

The purpose of Phase 1 was to examine how teamwork support affects the relationship between team leader role conflict and performance. To investigate these relationships, we sent a web-based survey measuring perceptions of role conflict to all PCPs in one VHA geographic region. Parallel to the PCP survey, we sent a web-based survey to team members in the same geographic region. Our study procedures were approved and monitored by the University of Iowa's Institutional Review Board (IRB-03 Study 201207709). No incentives were given, and informed consent was obtained through voluntary participation in the survey. A total of 105 PCPs, heterogeneous in gender, responded (28% response rate), but because of turnover and team assignment changes, administrative performance measures were unavailable for 32 PCPs, leaving a final sample of 73 PCPs. This response rate is consistent with rates reported in obtaining responses from busy professionals such as medical doctors (e.g., 19% by Shanafelt et al., 2015). Nonrespondents had lower previous year performance ( $M = 48.90$  versus  $M = 58.74$ ,  $p = .000$ ) and higher patient panel complexity ( $M = 0.87$  versus  $M = 0.67$ ,  $p = .000$ ). Given the

correlations we report below, our sample is thus likely to underestimate PCP role conflict.

Within each VHA geographic region, PCPs and their teams work in facilities with other PCPs and support members. Because PCPs working in a common facility often share team members and organizational culture, we accounted for nesting within facilities such that all members at each facility constituted a team supporting the facility's PCPs. Thus, the 73 PCPs in our sample were nested within 45 facilities. Two facilities had five providers, one had four providers, four had three providers, nine had two providers, and 29 had one provider. A total of 228 team members, heterogeneous in gender, from the 45 facilities provided responses associated with role conflict and teamwork support (45% response rate). We aggregated responses from non-PCP team members to form team-level measures of teamwork support for each of the 45 facilities.

### ***Phase 1 Measures***

***Leader Role Conflict.*** We measured role conflict using eight items from Rizzo et al. (1970). Each PCP rated role conflict on a 5-point Likert scale [1 = not at all; 5 = to a very great extent] ( $\alpha = .91$ ). These items are: I work under incompatible policies and guidelines; I have to do things that should be done differently; I receive an assignment without the manpower to complete it; I have to buck a rule or policy in order to carry out an assignment; I receive incompatible requests from two or more people; I receive an assignment without the adequate resources and materials to execute it; I work on unnecessary things; I have to work under vague directives and orders.

***Team Member Role Conflict.*** We also administered the same eight items from Rizzo et al. (1970) to team members as part of their survey on a 5-point Likert scale [1 = not at all; 5 = to a very great extent] ( $\alpha = .90$ ).

**Teamwork Support.** We measured teamwork support using nine items from Mathieu et al.'s (2020) 30-item short form scale representing the action processes of backup, monitoring, and coordination. Team members individually responded on a 5-point Likert scale [1 = not at all; 5 = to a very great extent] ( $\alpha = .90$ ). These items are: My team regularly monitors how well we are meeting our team goals; My team uses clearly defined metrics to assess our progress; My team seeks timely feedback from stakeholders (e.g., customers, TMT, other organizational units) about how well we are meeting our goals; My team has developed standards for acceptable team member performance; My team balances the workload among our team members; My team assists each other when help is needed; My team communicates well with each other; My team smoothly integrates our work efforts; My team coordinates our activities with one another. Aggregation indices included: one-way ANOVA<sub>227df</sub> = 1.71 ( $p = .008$ ), ICC(1) = .11, ICC(2) = .42, and mean  $r_{wg} = .75$  (SD = .18). While the ICC(1) is acceptable, the ICC(2) did not reach the .60 cutoff recommendation (e.g., Glick, 1985). However, researchers have argued that this lower ICC(2) is expected with smaller teams and does not indicate a lack of internal consistency (LeBreton & Senter, 2008; Mathieu et al., 2020; Shieh, 2016). As such, with our acceptable  $r_{wg}$ , we aggregated responses to the team level.

**Performance.** We measured performance using VHA administrative records tracking the percentage of patient requests for a same-day appointment that were granted over a 12-month period. The 12-month measure spanned a period beginning two months after administration of the web-based survey and concluding 14 months after survey completion, thereby constituting a reliable measure of performance obtained for the timeframe best corresponding with the survey. This measure of same-day access has been utilized as a relevant outcome of interest for research previously investigating similar healthcare teams (e.g., McGough et al., 2017; Stewart et al.,

2017). Furthermore, access to care has been recognized as a critical healthcare outcome as low access to care has been associated with consequences such as disease transmission (Mercer et al., 2007) and death (Prentice & Pizer, 2007). Because clinic hours of operation are fixed, the number of available PCP appointments are finite. Accordingly, patients' access to same-day appointments relies upon the extent to which teams have worked to reduce the amount of time PCPs spend performing tasks for which others are qualified, thus increasing available time slots. Collaboration between the PCP and the surrounding team is necessary to increase same-day appointment access, making it an ideal measure of performance in the team-based healthcare context.

**Covariates.** We derived covariates from VHA administrative records to account for varying team workloads. We included patient panel complexity measured by average Diagnostic Cost Group, an aggregate measure of the severity of illness for a PCP's patients which reflects the relative complexity of care demanded of that PCP. We also included team size as it is possible that the number of surrounding team members might affect teamwork support perceptions (Rentsch & Klimoski, 2001). Finally, standard panel sizes may differ by medical credential, (e.g., physician, nurse practitioner) thus we coded the status of each team's PCP as a dichotomous variable with 1 representing physician providers and 0 representing non-physician providers.

## Phase 1 Results

Table 1 depicts means, standard deviations, and intercorrelations. To test Hypothesis 1, we conducted a dependent-samples t-test to compare team leader role conflict to the role conflict reported by team members. As predicted, there was a significant difference between team members' ( $M = 2.82$ ,  $sd = .78$ ) and team leaders' ( $M = 3.36$ ,  $sd = .87$ ) role conflict ( $t(309) = -$

5.03,  $p = .000$ ), supporting Hypothesis 1. Because Hypothesis 2 involves multilevel data with PCPs nested within teams, we used hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002; see Table 2).

-----Insert Tables 1 & 2 about here-----

We first built a model that included covariates (i.e., patient panel complexity, team size, provider type) as antecedents to same-day appointment access. We then added the direct effect of leader role conflict on performance by estimating a model including team leader role conflict and covariates. We grand-mean centered all variables, except for the dichotomous provider type variable (Raudenbush & Bryk, 2002). We grand-mean centered because our research question concerned how the team-level variable of teamwork support explains variance in the relationship between role conflict and performance not only among PCPs nested in the same team but also among PCPs nested in other teams (Hofmann et al., 2000). Moreover, the relatively small number of PCPs nested within most teams prevents meaningful group-mean centering. The direct effect of team leader role conflict on performance was not significant ( $\gamma_{30} = -1.28$ ,  $p = .278$ ).

To test Hypothesis 2, we assessed intercepts-as-outcomes and slopes-as-outcomes models by adding teamwork support as a predictor and interaction term with leaders' role conflict. The cross-level direct effect of teamwork support on performance was not significant ( $\gamma_{02} = 2.67$ ,  $p = .059$ ). However, a significant interaction existed between team leaders' role conflict and team member teamwork support ( $\gamma_{32} = 4.78$ ,  $p = .041$ ; see Figure 1). As hypothesized, the relation between PCPs' role conflict and performance was negative when the PCP was surrounded by members with low teamwork support. Yet, high teamwork support mitigated the negative effects of PCPs' role conflict on performance. Drawing from the variance-covariance matrix (Preacher

et al., 2006), the results show the effect of PCPs' role conflict on performance to be significant and negative when team members' teamwork support is low (simple slope = -2.44,  $p = .031$ ); the effect on performance is nonsignificant when members' teamwork support is high (simple slope = 0.91,  $p = .534$ ). Thus, Hypothesis 2 was supported.

-----Insert Figure 1 about here-----

## Phase 2

Our first two hypotheses focused on the team as a resource to help leaders overcome role conflict. However, it is also important to better understand *why* leaders benefit from more supportive teams. Extensive discussions with VHA organizational leaders made clear that the premise of the team-based empowerment initiative was to improve the extent to which each team member leverages their unique expertise (i.e., engages in *well-matched work*). This means improving patient access to care by having PCPs focus more exclusively on tasks requiring their expertise surrounding diagnosis and treatment selection, and non-provider team members engaging in tasks that do not require PCP expertise (McGough et al., 2017; Russell-Babin & Wurmser, 2016; Stewart et al., 2017). For example, a provider can diagnose a patient with diabetes and establish a treatment plan, with team members monitoring blood-sugar levels, adjusting prescription dosage, and offering care counseling.

We expect that teamwork support will positively relate to leader well-matched work as members share tasks and work as a collective to provide necessary patient care. For example, better coordination efforts by team members reduce inefficiencies in scheduling and prioritizes high-need patients (O'Malley et al., 2014) while members effective at backing up behaviors reduce the immediate, short-term, workload of the team leader, thereby enhancing PCP capacity to focus on longer-term needs and the tasks they are uniquely qualified to complete (Nelson et

al., 2014; Solimeo et al., 2015). When PCPs receive supportive actions from their team, they are more likely to focus their efforts on performing their unique job functions, which we expect will enable them to utilize their expertise in an efficient manner, rather than wasting time coping with role conflict (Gilboa et al., 2008). Conversely, when teamwork support is low, more time is focused on addressing tasks not directly related to goal accomplishment associated with a leader's expertise, pulling their efforts in less focused directions and thereby decreasing PCPs' efficiency.

**Hypothesis 3:** Higher levels of teamwork support will be positively related to leader well-matched work.

## Phase 2 Sample and Data Collection

The purpose of Phase 2 was to address *why* teamwork support attenuates leader role conflict by examining whether higher levels of teamwork support are positively related to leader well-matched work. We adopted a parallel/simultaneous mixed methods design (Tashakkori & Teddlie, 1998), using a combination of quantitative analysis and directed content analysis of open-ended responses (Hsieh & Shannon, 2005; Krippendorff, 1980; Potter & Levine-Donnerstein, 1999) to test our hypothesis. A directed approach to content analysis is appropriate when theory and research exists that needs to be expanded, further developed, or tested (Hsieh & Shannon, 2005). Using data from a separate nationwide survey of VHA PCPs not utilized in Phase 1, we collected responses to a single open-ended item asking for feedback on the team-based empowerment program. Our study procedures were approved and monitored by the University of Iowa's Institutional Review Board (IRB-03 Study 201207709). Informed consent was obtained through voluntary participation in the survey. We included open-ended responses because they allow participants to provide descriptions of their team experiences without limiting



the types of teamwork support included (Miles & Huberman, 1994). Such organically derived data reduces social desirability in responses which one might anticipate from personnel engaging in a national effort to restructure work. Typically, these accounts consider the most meaningful aspects of support to the participant and thus may include additional constructs not included in Phase 1, increasing the validity of our study (Behfar et al., 2008; Greene et al., 1989). Prior to the current study, and independent of the current analysis, responses to the open-ended item were categorized by VHA external researchers. Consistent with the goal to examine teamwork support, we limited our sample to providers who responded to this open-ended item ( $n = 3,357$ ; 52% overall) and whose responses were categorized by external researchers as pertaining to teamwork dimensions ( $n = 272$ ). The survey also included a single self-reported measure of well-matched work. We matched responses to this quantitative item with quantitized responses to the open-ended question (Miles & Huberman, 1994; Saldaña, 2021; Tashakkori & Teddlie, 1998), removing three individuals who did not respond to the well-matched work item and two respondents whose reports of teamwork support did not allow classification for a final sample of 267 providers who were heterogeneous in gender. No incentives were given for participation in Phase 2.

### **Phase 2 Measures**

***Well-Matched Work.*** To determine the extent to which PCPs spent time on work consistent with qualifications, we asked, “What proportion of your time each week do you typically spend doing work that is well-matched to your training?” As performing well-matched work 75% or more of the time was the goal of the team-based empowerment program implemented by VHA, PCPs were categorized as engaging in well-matched work if they selected “75% or more.” PCPs were categorized as not engaging in well-matched work if they selected

“Less than 25%,” “25%-49%,” or “50%-74%.”

***Open-Ended Teamwork Support Responses.*** We asked PCPs to “Please provide feedback or comments regarding the [team-based empowerment] program, its implementation, or any concerns here.” Because we were specifically concerned with the relationship between teamwork support and well-matched work, we used hypothesis coding (Bernard, 2018; Saldaña, 2021; Weber, 1990) in Excel to code our open-ended responses. Hypothesis coding is commonly used in directed content analysis and recommended when researchers have a specific hypothesis to test but allows for the evolution of codes as the codebook develops (Saldaña, 2021). Thus, we first took a deductive approach to developing a preliminary codebook to characterize teamwork based on previous definitions of teamwork support (e.g., Beal et al., 2003; Crawford & LePine, 2013; Courtright et al., 2015). We identified examples of teamwork support focused on task (e.g., coordination, backup, and monitoring progress towards goals) and relational team functioning (e.g., cohesion and conflict management; Courtright et al., 2015). Second, after identifying the initial codes, two authors independently coded all segments, meeting weekly to discuss discrepancies and further refine coding schemes. Because PCPs did not mention monitoring goal progression and conflict management, these codes were dropped after two rounds of coding. There was agreement in 91% of the cases. Cohen's kappa ranged from .70 to .79 for each of the types of teamwork support, suggesting consistency between raters (Cohen, 1960; Di Eugenio, 2000). We resolved any disagreements in initial coding through discussion.

Third, to be consistent with Hypothesis 3, after coding separately for each of the teamwork support variables (i.e., cohesion, coordination, or backup), we created an overall code for the presence of positive or negative teamwork support. If the respondent was coded as a “1” for any of the three teamwork support constructs, we coded that participant as a “1” signifying

“positive teamwork support.” If the respondent was coded as a “-1” for any of the three teamwork support constructs, we coded that participant as a “-1” signifying “negative teamwork support.” Participants who were coded as “0” for all three teamwork support constructs were coded as “0” for “no mention of teamwork support.” Our final codes included 1 = positive teamwork support, -1 = negative teamwork support, or 0 = no mention of teamwork. Prior to analysis, we transformed these codes into counts of each code so we could analyze differences among levels of well-matched work and positive and negative accounts of teamwork support.

## Phase 2 Results

When prompted to provide feedback regarding the team-based empowerment program we found that 69 PCPs described negative teamwork support (see Table 3). For example, Participant #211 stated, “The worst lack of teamwork is between the clinical and clerical staff. There is absolutely no collaboration [and] no way to facilitate communication between the two groups” and Participant #153 said, “[PCPs] never miss workdays because of a lack of any type of effective backup plan and the resulting chaos if we miss a day of work” (see Table 4 for more exemplars). Eighty-four PCPs described positive teamwork support. Example statements included, “We function as a well-oiled machine” (Participant #3) and “They support me and take extra steps to lighten my load, but more importantly they do what will benefit the patient” (Participant #79).

-----Insert Tables 3 & 4 about here-----

As reported in Table 3, 124 PCPs reported doing well-matched work 75% or more of the time. To determine whether teamwork support related to reports of well-matched work, we calculated the chi-square statistic of the 2x3 matrix. The chi-square was significant  $\chi^2[2]=22.17$ ,  $p = .000$ , suggesting that descriptions of teamwork support relate to provider reports of well-

matched work. We calculated standardized residuals to determine if the frequencies in each cell are significantly different from what would be expected based on the number of PCPs who described positive or negative teamwork support (Agresti, 2003). We tested whether those providers who indicated positive (negative) teamwork support were more (less) likely to indicate they were completing work well-matched to their skills. As shown in Table 3, significantly more providers reported well-matched work greater than 75% of the time than would be expected based on the total number who described positive teamwork support. Significantly fewer providers reported well-matched work 74% or less of the time than would be expected based on the total number who described positive teamwork support. Supporting Hypothesis 3, we found that provider descriptions of positive teamwork support related to whether they reported doing well-matched work.<sup>1</sup>

## Discussion

Organizations adopting team-based empowerment place team leaders in a stressful situation where they must embrace a novel leadership role. Supporting Hypothesis 1, team leaders experience more role conflict than other team members. Nevertheless, our results supporting Hypothesis 2 suggest that team leader role conflict can be attenuated by a surrounding team that exhibits high teamwork support. Leaders working in teams with strong teamwork support perform at a relatively high level regardless of their role conflict, whereas performance decreases when leaders perceive role conflict and lack teamwork support. Seeking greater insight into the process by which teamwork support helps team leaders, we developed Hypothesis 3 via

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<sup>1</sup>When we used a cut-off of 50% or more for well-matched work, we found that significantly more PCPs who described negative teamwork processes reported well-matched work 49% or less of the time and significantly fewer PCPs who described positive teamwork support reported 49% or less well-matched work than we would have expected. Although slightly different in magnitude, the pattern is consistent in that negative teamwork support was associated with provider reports that their work was not matched with their qualifications and positive teamwork support was associated with providers being less likely to report that work did not match their qualifications.

an abductive process identifying PCPs able to do well-matched work as a partial explanation as to why a high-functioning team might serve as a resource to leaders and thus aid against productivity loss during the adoption of team-based change initiatives.

### **Research Implications**

Our findings advance research on leader-team relationships by focusing on why high-functioning support teams can help leaders cope with role conflict. This examination of teams supporting leaders is consistent with research exploring how organizational outcomes depend on complex relationships among central and support team members rather than just on individuals (Wolfson & Mathieu, 2018, 2020). Prominent individuals such as team leaders benefit more from the contributions of those around them than has been historically acknowledged (see Groysberg & Lee, 2009). Demonstrating how teamwork support attenuates the negative effects of leader role conflict contributes beyond previous work identifying how leaders help teams, explaining the converse relationship whereby leader performance is benefited by the teams they lead. Such cross-level ties between highly visible individuals (e.g., leaders) and their supporting cast are “an important issue in explaining team performance in the 21<sup>st</sup>-century workplace” (Aguinis & O’Boyle; 2014, p. 339).

Based in JDR theory, this perspective in which team members are a resource for leaders highlights why all members facilitate performance even (especially) when leaders play an outsized role. Conflicting priorities and actions—due in this context to a team-based empowerment initiative—lead to role conflict for team leaders. Role conflict may be a useful construct for future work investigating why team-based empowerment frequently fails. The demands of empowerment, however, operate within a dynamic setting that can also provide leaders with resources (e.g., teamwork support) that can help them overcome role conflict. The

JDR model provides an important lens for better understanding why leaders fail to sustain empowerment initiatives and for identifying specific factors that can be leveraged to support leaders and team-based empowerment. Our results extend JDR (Demerouti et al., 2001) by including teamwork support as a beneficial resource for leaders operating within teams.

Our cross-level perspective contributes to the individual- and team-level stress literatures. At the individual-level of analysis, some role conflict is thought to be beneficial and even required to stimulate adaptation (Kotter, 2012; Stouten et al., 2018), but it may also hinder leaders (e.g., Bedeian et al., 1981). This tension can be ameliorated when the leader has teamwork support. In contrast with studies demonstrating mixed results of team-based support on individual-level stress (e.g., Bliese & Castro, 2000; Chowdhury & Endres, 2010), we highlight a team-level process counteracting the negative effects of individual-level (i.e., leader) role conflict.

Our qualitative findings suggest that teamwork support benefits leaders via well-matched work. For example, as one PCP reported, “[Team-based empowerment] has empowered members of my team to take on greater responsibilities and subsequently has lightened my workload” (Phase 2 Participant #233). This is consistent with JDR: demands that undercut efforts to enhance performance (e.g., role conflict) can be offset by support (i.e., team resources), the latter of which facilitates specialization (i.e., well-matched work).

### **Practical Implications**

Finding that teamwork support mitigates team leader role stress provides insight into organizational stress management and team practices. When designing teams or implementing training, consider emphasizing teamwork support to decrease detrimental leader stress. In the VHA context, performance (and associated incentives) is typically attributed to (and accrued by)

the provider—our findings highlight the importance of team-based resources that facilitate provider success. Thus, executive managers may consider developing team-level performance measures of within-team processes that influence targeted outcomes, and encouraging teamwork support behaviors.

### **Limitations and Future Directions**

Although our results inform the leader-team relationship in the context of team-based empowerment, we note several limitations for future research to address. Our Phase 1 sample was smaller than ideal but is consistent with other team-level research (Carter et al., 2019), and emphasized meaningful (i.e., patient health) outcomes in a real-world setting. We encourage future research to apply larger samples to further examine the interdependencies of team leaders and team members. Our focus on hierarchically-differentiated teams allowed us to account for both leaders and supporting members. However, many other team structures exist, such as teams without a defined leader that might experience power heterarchy (Aime et al., 2014). Future research should thus confirm these findings in different team contexts. Our use of same day access to care as our performance measure in Phase 1, follows prior research investigating performance in healthcare, but is limited in its ability to account for the *quality* of care provided. In addition, the dichotomization of our well-matched work variable at 75% or more and 74% or less potentially hides nuances that might be uncovered if a continuous variable was utilized. Thus, we encourage future research to investigate more granular and quality-driven healthcare outcomes; for example, examining the contribution of teamwork support on preventive care outcomes or patient satisfaction with care. Finally, although our mixed-method approach allowed us to illustrate two reasons for the importance of teamwork support in leader-centric teams, a more inductive approach might uncover additional mechanisms. Alternatively, more rigorous

tests of mediation are also needed to explain these effects together.

### **Conclusion**

Whereas much research focuses on top-down leader contributions, we contend that understanding supportive team behaviors are important in accounting the effectiveness of more central members and the team as a unit, which in turn have an influence on how well change initiatives are introduced and sustained.



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**Table 1**

*Phase 1 Descriptive Statistics and Correlations*

			1		2		3		4		5		6	
	M	SD	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>P</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>	<i>r</i>	<i>p</i>
Level 1: Provider														
1. Physician vs nonphysician	0.75	0.43			-.01	.91	.21	.07	.11	.34				
2. Patient panel complexity	0.66	0.27	.15	.34			-.05	.70	-.21	.08				
3. Leader role conflict	3.36	0.87	.29	.06	.09	.58			-.13	.28				
4. Performance	60.94	19.31	.05	.76	.09	.57	-.18	.24						
Level 2: Team														
5. Team size	5.67	3.50	-.12	.43	.03	.83	-.04	.80	-.10	.52				
6. Teamwork support	3.28	0.41	.15	.32	.18	.25	.03	.84	.09	.58	-.03	.85		
7. Team role conflict	2.77	0.42	-.13	.38	-.18	.24	.16	.29	-.14	.36	.19	.22	-.22	.14

*Note.* Provider-level correlations are above the diagonal ( $N=73$ ). Team-level correlations are below the diagonal ( $N=45$ ).

**Table 2**

*HLM Results for Leader Role Conflict and Teamwork Support Predicting Performance*

	Random coefficient model		Intercepts as outcomes model		Slopes as outcomes model	
	Coefficient (SE)	<i>p</i>	Coefficient (SE)	<i>p</i>	Coefficient (SE)	<i>p</i>
Level 1 variables						
Intercept ( $\gamma_{00}$ )	61.67 (2.64)	.00	61.54 (2.64)	.00	61.72 (2.66)	.00
Physician vs nonphysician ( $\gamma_{10}$ )	-0.74 (0.46)	.79	-0.53 (2.81)	.85	-0.97 (2.92)	.74
Patient panel complexity ( $\gamma_{20}$ )	14.77 (8.28)	.08	13.83 (8.91)	.13	15.21 (8.80)	.09
Leader role conflict ( $\gamma_{30}$ )	-1.28 (1.17)	.28	-1.26 (1.18)	.29	-0.88 (1.03)	.40
Level 2 variables						
Team size ( $\gamma_{01}$ )	0.12 (0.46)	.80	0.13 (0.45)	.78	0.26 (0.46)	.58
Teamwork support ( $\gamma_{02}$ )			2.67 (4.12)	.06	1.73 (4.14)	.68
Cross-level interaction						
Leader role conflict x Teamwork support ( $\gamma_{32}$ )					4.78 (2.23)	.04

*Note.*  $N_{\text{providers}}=73$ ;  $N_{\text{teams}}=45$ . Multilevel coefficients (robust standard errors) are shown.

**Table 3**

*Phase 2 Contingency Table with Frequencies of PCPs Who Reported Teamwork Support and Well-Matched Work*

		Negative teamwork support	Positive teamwork support	No mention of teamwork support	Total
75% or more well- matched work	Observed	21	56	47	124
	(Expected)	(32.04)	(39.01)	(52.94)	
	Std. Residual	-1.95	2.72	-0.82	
	<i>p-value</i>	.05	.01	.41	
74% or less well- matched work	Observed	48	28	67	143
	(Expected)	(36.96)	(44.99)	(61.06)	
	Std. Residual	1.82	-2.53	0.76	
	<i>p-value</i>	.07	.01	.45	
Total		69	84	114	267

*Note.*  $\chi^2[2]=22.17, p=.000$

**Table 4**

*Phase 2 Teamwork Support Definitions and Exemplars*

Teamwork Support	Definitions and Exemplars
Positive	<p><i>Definition: Coded if examples of cohesion (e.g., strong emotional bonds to other members of the team and the team itself), backup (e.g., assisting each other within the team and awareness of what other members are doing), and/or coordination (e.g., working together and communicating to integrate work efforts, synchronize activities, and manage the order and timing of team members) in the team were present in the responses.</i></p> <p>“Our [team] is working as a cohesive unit to bring about the patient care, outcomes, and satisfaction to the highest level possible.” (Participant #124)</p> <p>“We have the best team here at [location]. We each have great customer service skills, strong work ethic, knowledgeable, and go above and beyond to help each other, our coworkers, and most of all our [Veteran] patients.” (Participant #6)</p> <p>“My [team] works very well with each other. We assist each other to make sure the Veterans receive the best care.” (Participant #226)</p> <p>“Communication among [team] members generally facilitates care coordination.” (Participant #72)</p>
Negative	<p><i>Definition: Coded if examples of lack of cohesion (e.g., absence of emotional bonds), backup (e.g., refusing to assist team members), and/or coordination</i></p>

*(e.g., resisting working together and synchronizing activities) within the team were present in the responses.*

“Providers are often at work late, do not get breaks or lunches and are leaving without work completed at the end of the day. ... Many duties could be performed by nursing, but it is ‘not their job’, or [nurses] state they do not have access or ability to perform.” (Participant #140)

“We have sat down multiple times with expectations of team roles and responsibilities, but this never actually pans out for more than a few weeks. It makes it harder and harder to try to work with people who consistently are refusing to do simple tasks.” (Participant #10)

“I do not have enough help or time to carry out [team-based initiative] much of my day is spent doing secretarial work.” (Participant #215)

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**Figure 1**

*Leader Role Conflict with Teamwork Support on Performance*

