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Chatting Towards Inclusivity: A Digital Approach to Inclusion Action Plans and Leader Development

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ABSTRACT

Inclusion is a cornerstone of success for organizations and society, yet inclusion is not guaranteed. Building on inclusive leadership research and relational models theory, we argue that inclusion cannot manifest without systematic effort and planning by leaders. Unfortunately, few resources exist to help leaders plan and enact specific inclusion behaviors. To address this, we introduce the "Leader Success Bot," an innovative conversational chatbot designed to help leaders develop daily inclusion action plans. Through our immersive longitudinal design and mixed methods data, we advance the taxonomy of inclusive leader behaviors and test the impact of inclusion planning on leaders and followers. We demonstrate how equality matching is an overlooked relational model that is a pivotal relational dynamic for inclusion. Across two studies, our quantitative and qualitative findings show that equitable exchanges by leaders can foster a deeper sense of belonging and community. As leaders interact with the chatbot, both leaders and followers are more likely to accomplish their goals. Additionally, followers' inclusion climate and psychological safety benefited, leading to a decrease in turnover intentions. Our findings underscore the potential of chatbots to support inclusive leadership training and development by providing leaders with a structured, scalable platform for continuous reflection and growth. This research advances theoretical understanding of relational inclusion dynamics and offers practical insights and a scalable tool for HR managers seeking to build more inclusive, psychologically safe cultures.

1 | Introduction

Inclusion is widely recognized as central to the success of modern organizations and as a key focus of human resource management (Ely and Thomas 2020; Roberson et al. 2017; Shore et al. 2011). Indeed, inclusion is not a static phenomenon; it shapes employees' performance, influences interpersonal dynamics, and affects overall well-being (Shore and Chung 2022). Human resource management research suggests that when inclusion is missing, employees are at a heightened risk of disengagement, lower performance, and turnover (Nishii and Mayer 2009; Pichler et al. 2018). Moreover, the benefits of inclusion are not isolated to the margins of organizational life (Shore et al. 2018). Inclusion intersects with

critical social and organizational outcomes at multiple levels both inside and outside the organization (e.g., Boekhorst 2015; Hoobler and Brass 2006). For example, the benefits of diversity, including better decision making, increased creativity, and innovative problem-solving (Dwertmann and Boehm 2016; Walker et al. 2012), can only be realized when employees feel safe enough to share critical information, express themselves, and participate in diversity practices (Dawson et al. 2024; Macari et al. 2024; van Knippenberg et al. 2020). In short, inclusion matters (Hoobler and Brass 2006). Yet, inclusion is not a given, nor does it simply appear in organizations. On the contrary, inclusion requires systematic effort, planning, reflection, and investment to manifest (Wölk et al. 2025). Without such care, organizational inclusion efforts may even

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backfire (Leslie 2019; Triana et al. 2021). Recognizing these challenges, our research centers on leaders and technology as focal points through which organizations can systematically enhance inclusion through the development of action-oriented, inclusive leadership skills (Uhl-Bien 2006).

While inclusion research emphasizes the importance of interpersonal relationships and social dynamics (e.g., Huffman et al. 2008; Ye, Wang, and Guo 2019; Ye, Wang, and Li 2019), HR managers and leaders have been left with little practical guidance on specific, day-to-day behaviors that foster inclusion (for a review, see Randel et al. 2018). This takes on special importance in today's polarized sociopolitical climate, where the very notion of inclusion is often contested (Prasad and Śliwa 2024). In such a context, advancing research-informed practices, rather than compliance mandates, becomes critical. As illustrated by companies like Target and Budweiser, inclusion efforts can trigger backlash when perceived as performative, overly generalized, or mandated without context (D'Innocenzio 2025).

Yet, with 44% of employees reporting disengagement at work (Gonzales 2024), training leaders to develop daily, context-specific action plans with observable inclusive behaviors offers an overlooked yet promising strategy for improving psychological safety, organizational climate, goal progress, and employee retention. However, despite the growing body of research demonstrating the benefits of inclusive leadership, there are currently no evidence-informed tools that help leaders translate inclusion theory into context-specific and self-created (rather than prescribed) daily practices. This is problematic: without a carefully structured approach, initiatives aimed at promoting inclusion may falter, creating a disconnect between HR initiatives and employees' lived experiences (Leslie 2019). Moreover, when leaders fail to foster equitable and balanced environments, employees may disengage, collaboration suffers, and organizations risk stifling innovation and long-term growth (Dwertmann and Boehm 2016).

This challenge, translating inclusion theory into day-to-day practice, has become even more pressing in the context of rapid technological change. While existing HR research has uncovered how technology can inadvertently undermine inclusion by reinforcing exclusionary dynamics and limiting meaningful communication (Brough et al. 2020; Rodgers et al. 2023), it is equally important to examine how technology might be harnessed to strengthen inclusive practices and relational norms. When applied thoughtfully, digital tools such as chatbots can support both organizations and leaders as they tailor their approaches to foster genuine equity, balance, and belonging within their teams (Kelan 2024; Khan et al. 2025). By reframing technology not only as a risk but as a potential resource for leadership development, HR research can explore how digital tools actively cultivate more just, equitable, and inclusive workplaces (Wellman 2017). Realizing this promise, however, requires theory-driven research to guide the design and implementation of digital tools, ensuring they advance inclusion rather than undermine equity and belonging.

Building on theories of inclusive leadership (Korkmaz et al. 2022; Shore et al. 2011) and Fiske's (1992) relational models theory, we illustrate how technology can be designed to activate equality matching (Fiske 1991), a relational model in which individuals pursue balanced, mutually beneficial exchanges that are essential to inclusion. Towards this end, we engrain the theoretical underpinnings of relational models theory (Huffman et al. 2008) and inclusive leadership into a practical conversational chatbot that guides leaders as they create daily inclusion action plans. The chatbot records these plans and pairs them with multi-source longitudinal survey data, enabling a reflexive, mixed-methods examination of leader development. Our approach allows us to trace how leaders' inclusion goals and practices evolve, how this development shapes leader effectiveness, psychological safety, and interpersonal citizenship behaviors, and how these dynamics ultimately influence inclusion climate and turnover. Critically, our approach foregrounds autonomy, choice, and context as the chatbot helps leaders craft and refine their own inclusion plans, rather than imposing compliance with a mandated script, thereby making progress through the thoughtful action plans of leaders and the impact they have over time.

The present work makes several contributions to HR theory and practice. First, we extend the foundational, yet limited, research on inclusive leadership by drawing on inclusive leadership theory to design a chatbot that elicits leaders' action plans and reflections. Analyzing the data generated through this process, we extend and refine a taxonomy of observable inclusion behaviors, thereby providing organizations and scholars with an empirically grounded framework for understanding and developing inclusive leadership. Second, we demonstrate how relational models theory, particularly the equality matching model, explains the pathways through which inclusive leader action plans influence a range of outcomes at the individual and group levels. Specifically, we show effects on leader and follower self-ratings of goal accomplishment over time, leader and follower perceptions of group inclusion climate, and follower-reported experiences such as psychological safety, interpersonal citizenship behaviors, leader effectiveness, and turnover intentions. Drawing on research that highlights the potential of technology to disrupt relational norms and foster equitable exchanges, we argue that chatbot-guided inclusive practices can cultivate belonging and community within organizations.

Third, we introduce a novel, scalable, chatbot-mediated development program that provides a structured platform for dialogue, systematic planning, and reflection. In doing so, we show how leaders can intentionally develop and monitor the four dimensions of inclusion in ways that reinforce equality-matching norms (Korkmaz et al. 2022). Practically, our findings underscore the potential of chatbots not only to enhance leader training and development but also to reframe organizational conversations around justice, diversity, equity, and inclusion. Finally, we advance methodology by employing a reflexive concurrent mixed-methods design that integrates qualitative analysis of leaders' inclusion action plans with quantitative assessments. This approach not only captures growth across 21 inclusive leader behaviors but also demonstrates how chatbot-mediated data collection can enrich the study of leadership development, offering a rigorous template for future research.

2 | Theoretical Development

Inclusion refers to the intentional practices and structures that allow individuals from different backgrounds to feel respected, valued, and empowered to contribute fully to organizational processes. This involves removing barriers that inhibit participation and fostering an environment that encourages diverse perspectives and contributions (Roberson et al. 2017). Ultimately, an inclusive environment nurtures a sense of belonging, where individuals from marginalized groups are able to access opportunities and resources equitably (Roberson 2006). Inclusion operates at both structural and interpersonal levels, encompassing HR practices and policies as well as employee attitudes and behaviors (Guillaume et al. 2017; Nishii 2013). When executed effectively, inclusion promotes richer perspectives, higher creativity, and better organizational outcomes (Carmeli et al. 2010; Choi et al. 2015; Lacerenza et al. 2017; Nembhard and Edmondson 2006).

In their foundational review, Korkmaz et al. (2022) conceptualized four dimensions of inclusive leadership: fostering employees' sense of individuality (uniqueness); strengthening belongingness (feeling like an esteemed member of the team); showing appreciation; and supporting organizational efforts in creating an inclusive environment. They theorize that enacting these behaviors requires continuous reflection from leaders on their daily actions as well as their personal commitment to foster inclusion in their teams. Building on this foundation, we frame inclusive leadership in terms of observable behaviors that manifest across these four dimensions. This perspective emphasizes not only the ideals of inclusion but also the concrete ways leaders can practice and communicate inclusion through their interactions.

Fostering Uniqueness. Inclusive leaders understand that every team member brings a distinct set of experiences, skills, and perspectives, and they actively create space for these unique attributes to shine. These leaders strive to promote and celebrate uniqueness by creating opportunities for individuals to showcase their strengths and talents. When individuals are encouraged to bring their whole selves to work and contribute their unique viewpoints, the team benefits from a more diverse set of ideas and problem-solving approaches. This diversity not only enhances creativity and innovation (Ye, Wang, and Guo 2019; Mansoor et al. 2021) but also leads to more effective and robust solutions. By celebrating the uniqueness of team members, inclusive leadership helps cultivate a culture where differences are seen as assets that can drive collective success.

Showing Appreciation. Showing appreciation is an essential behavior for inclusive leaders, as it directly contributes to a culture of recognition and validation that makes team members feel valued and respected. Regularly acknowledging the efforts and contributions of individuals is a powerful way to communicate that their work is meaningful, reinforcing the belief that every person's contribution matters. Leaders who prioritize appreciation create an environment where employees feel motivated to continue giving their best effort, as their hard work is recognized and celebrated (Fatima et al. 2021). When leaders actively send clear signals that they see and appreciate the individual beyond their job title, it fosters a deeper sense of value and belonging within the team (Grant and Parker 2009).

Strengthening Belongingness. Leaders foster belonging by creating a safe, welcoming environment where individuals are encouraged to express their thoughts and emotions without fear of judgment. This includes actively listening to diverse perspectives, acknowledging contributions, and ensuring that every voice is heard in decision-making processes (Cornelis et al. 2013). By modeling inclusivity, leaders communicate that each team member is essential, which fosters trust and psychological safety (Walton and Cohen 2007). This sense of shared purpose and trust increases cooperation, as employees support one another and work collaboratively to solve problems. Strengthening belongingness is not just about improving interpersonal relationships; it is about creating a supportive environment where everyone feels seen, heard, and valued.

Supporting Organizational Efforts. Inclusive leaders play a pivotal role in ensuring that organizational efforts towards DEI are not only articulated in mission statements but are actively embedded in the day-to-day practices, policies, and decision-making processes. As Korkmaz et al. (2022) highlight, effective inclusive leadership requires an approach that is both adaptable and responsive to the evolving needs of a diverse workforce. This adaptability allows leaders to be attuned to the unique challenges and opportunities faced by employees from different backgrounds, ensuring that inclusion is not just a top-down directive but also a living, breathing part of the organization's identity.

Effective leaders understand that fostering inclusion requires continuous investment in planning, action, and development, with a focus on specific facets of DEI (Roberson 2006). While Korkmaz et al.'s (2022) review is foundational, much of what the literature reports on inclusive behaviors conflates specific and detailed behaviors of leaders with abstract concepts, general intentions, or outcomes. This oversight is problematic because the relationship between actions and impact is difficult to decipher without the ability to differentiate between leaders' planned actions and their effects (Fischer and Sitkin 2023). Towards this end, we propose that inclusion action plans and practices will manifest across four distinct theoretical dimensions. These dimensions, fostering uniqueness, strengthening belongingness, showing appreciation, and supporting organizational efforts, serve as key indicators of inclusive leadership and are distinct from impact. This emphasis on action plans provides a way to systematically identify and categorize inclusive practices, thereby clarifying the behavioral core of inclusive leadership. Thus, we propose the following:

Hypothesis 1. *Inclusion action plans will mirror four theoretical dimensions: fostering uniqueness, strengthening belongingness, showing appreciation, and supporting organizational efforts.*

2.1 | Inclusive Leadership and Equality Matching

The importance of inclusive leadership is evident as groups in any social context tend to adopt shared relational models that

shape their interactions and determine what is considered meaningful or important (Fiske 1992). Over time, employees internalize these patterns, learning which behaviors are acceptable and which are not, until they naturally rely on this established model as a guide for their own actions. Once embedded, these models stabilize group-level norms, though significant events or disruptions may trigger shifts or changes.

Leaders play a pivotal role in shaping group dynamics by influencing the social environment within which employees interact and collaborate. As Wellman (2017) suggests, leaders function as key architects of the social fabric, shaping the norms, values, and practices that govern how individuals relate to one another in the workplace. In other words, leaders help determine what patterns of social interaction are valued and accepted in their organizations. The extent to which leaders engage in inclusive leadership behaviors can either reinforce or challenge the status quo, thereby influencing whether or not an inclusive culture takes root. When leaders actively demonstrate inclusive behaviors, such as soliciting diverse input, recognizing contributions from all team members, and addressing potential biases, they set the stage for justice, equity, diversity, and inclusion. Thus, it is the alignment between leadership actions and inclusive values that establishes a normative standard for behavior that can cascade throughout the organization (Kark et al. 2003; Mayer et al. 2009). As such, inclusive leadership is not only a matter of individual behavior, but also a key driver of cultural transformation (Nishii 2013).

Building on this perspective, Fiske's (1992) relational models theory further specifies four fundamental types of relational dynamics in organizations: communal sharing, authority ranking, equality matching, and market pricing. Each reflects a different approach to social relations and resource distribution. Understanding inclusive leadership as a set of enacted practices raises the question of how these actions shape group dynamics. Relational models theory provides a useful lens, and among the four relational modes, equality matching is particularly relevant: it emphasizes reciprocity and balanced exchanges, qualities that align closely with inclusive leadership practices. While all four relational models are relevant to understanding interpersonal dynamics, we argue that equality matching is nurtured through inclusive leadership behaviors in organizations.

Equality matching, defined as a pattern of social interaction recognizing distinct but equal contributions, balanced reciprocity, and shared decision making, ensures that opportunity and participation are fairly distributed (Zakharin and Bates 2023). Such practices align closely with inclusion, which centers on equal belonging and recognition of uniqueness (Shore et al. 2011). According to Fiske (1992), equality matching is grounded in the principles of balance and reciprocity, where employee contributions, rewards, and resources are distinct, yet equitably distributed. This model emphasizes fairness, mutual respect, and a shared sense of responsibility for maintaining equitable social relations. We argue that for organizations, equality matching explains how the development of inclusive leadership behaviors connects to changes in employee climate perceptions. When leaders prioritize inclusive behaviors, they exemplify equality, matching norms where individuals are encouraged to contribute on equal footing, and where the contributions of all members are recognized and valued. Such an approach is critical for changing

the collective sense of belonging within an organization, as it reinforces the idea that every individual has something valuable to offer and that no one is excluded based on arbitrary factors, such as status, background, or identity. Taken together, this lens implies that inclusive leadership is most visible when leaders enact behaviors that align with equality matching, specifically, behaviors that recognize uniqueness, strengthen belongingness, show appreciation, and support organizational efforts (Korkmaz et al. 2022).

First, recognizing uniqueness enhances equality matching by ensuring that each individual's perspectives and capabilities are seen as distinct, yet equitable. Uniqueness is important because, for there to be a truly balanced exchange, each member of the group must be acknowledged as distinct and able to offer valuable contributions. Therefore, leaders who affirm an individual's distinctiveness and highlight the unique value they bring are not only fostering uniqueness but also ensuring that all voices carry weight. This solidifies the principle of balanced reciprocity in equality matching, where every member's input is recognized in a way that reflects fairness and value, regardless of hierarchy or status (Fiske 1991). Second, and in parallel, showing appreciation reinforces equality matching by explicitly acknowledging employee efforts and accomplishments in a balanced and fair manner. Recognition and appreciation are essential for sustaining the equilibrium between what individuals contribute and the acknowledgment they receive in return. When leaders consistently show appreciation, they reinforce the principles of equality matching, such as fairness, balance, and reciprocity, which in turn normalize expectations of equitable treatment and help shape team and organizational norms.

Third, strengthening belongingness further embeds the principles of equality matching by ensuring that all members of the team experience cohesion and mutual recognition. Leaders who cultivate belonging foster a dynamic where each individual feels they have a rightful place within the group. This reflects equality matching, as leaders strive to maintain balance, preventing anyone from being marginalized or excluded from opportunities or decisions. Fourth, supporting organizational efforts extends equality matching beyond individual relationships, embedding fairness and equity into the larger organization. Inclusive leaders who champion an organization's mission of inclusion help ensure that policies and practices institutionalize principles of intentional, balanced reciprocity, entrenching them as organizational norms.

Together, these dimensions extend the influence of inclusive leadership beyond individual relationships to the broader organizational climate. As leaders plan and enact equality-matching principles, these behaviors diffuse through followers and organizations, normalizing reciprocity, balance, and fairness as shared expectations. Over time, this collective process establishes equality matching as a normative standard for interaction, shaping perceptions of an inclusive climate.

2.2 | Leveraging Equality Matching and Inclusion With Conversational Chatbots

Digital technologies are increasingly central to workplace dynamics, yet few are explicitly designed to advance diversity and

inclusion (Kelan 2021). Building on relational models theory, we suggest conversational chatbots can serve as a disruptive "jolt" (Wellman 2017) that reconfigures workplace dynamics. Wellman (2017) conceptualizes technology as a "jolt," a disruptive force that unsettles existing social structures and interaction patterns. While such disruption can be destabilizing, it also holds generative potential by opening space for new forms of relationality, including greater inclusion through equality matching. In short, by prompting leaders to plan, act, and reflect on inclusion, chatbots offer a distinctive conduit for translating inclusion theory into everyday practices.

We argue chatbots hold untapped potential as leader development tools for two reasons. First, they help lower barriers to conversations about inclusion. The discomfort often associated with sensitive topics can inhibit open dialogue, which is essential for cultivating inclusive environments (Bell and Hartmann 2007; Roberson 2006). Chatbots, by virtue of their nonhuman nature, provide a distinctive platform that allows individuals to express, process, and reflect on their emotions and aspirations without the fear of judgment (Lucas et al. 2014). This anonymity mitigates social inhibition, encourages candid and productive exchanges related to DEI (Lee et al. 2019), and helps normalize inclusion discussions, making these topics less daunting for leaders. Second, integrating chatbots into HRM practice, such as training and development, provides ongoing support for leaders and employees alike (Becker et al. 2025), ensuring systematic conversation around inclusion.

In the present studies, we designed the "Leader Success Bot," a chatbot developed on the principles of inclusion and relational models theory to teach leaders inclusive skills. We suggest that using such a chatbot for leader development will jolt leaders to enact the principles of equality matching, where all individuals, regardless of their position or background, are treated with equal consideration and afforded equal opportunities. Notably, well-designed chatbots also provide equitable access to information and resources (e.g., Wang et al. 2022), which is a key aspect of equality matching in organizations. Of course, any development program must include proven design elements for effective leader development programs. Therefore, we propose that systematically setting SMART (specific, measurable, achievable, relevant, and time-bound) daily inclusion plans with the Leader Success Bot will have a transformative effect, prompting leaders to intentionally focus on inclusion in their day-to-day actions (e.g., Weintraub et al. 2021). Research suggests that when individuals set specific and observable goals and plans, they are more focused, monitor progress, and adjust behaviors to meet those objectives (Gollwitzer 1999; Locke and Latham 2002; West et al. 2020).

Accordingly, leaders who are taught to set action plans designed around the four dimensions of inclusive leadership and principles of equality matching should engage in inclusive actions more consistently. As leaders plan, monitor, and reflect on their inclusive behavior through a chatbot, they become more mindful, reinforcing specific behaviors over time. These behaviors, in turn, should have ripple effects for leaders and their followers as the relational dynamics shift to become one of equality matching, where everyone is given the tools, attention, and resources they need to succeed. In this way, leaders who use the Leader Success Bot will not only improve their own sense of goal accomplishment as they plan, monitor, and adapt their inclusion action plans but also support the goal accomplishment of their subordinates.

Because equality matching operates as a shared relational model, the repeated practice of inclusive behaviors through chatbot-guided planning is also likely to extend beyond individual outcomes. As leaders and followers interact in ways that reflect inclusion action plans, these practices accumulate to form collective perceptions of uniqueness, belonging, and value, which are the defining features of an inclusion climate. Consequently, as leaders develop SMART inclusion plans, the chatbot will foster accountability and inclusion skill development, which will drive both goal accomplishment and inclusion climate. Therefore, the following hypotheses are proposed (see also Figure 1 for our theoretical model):
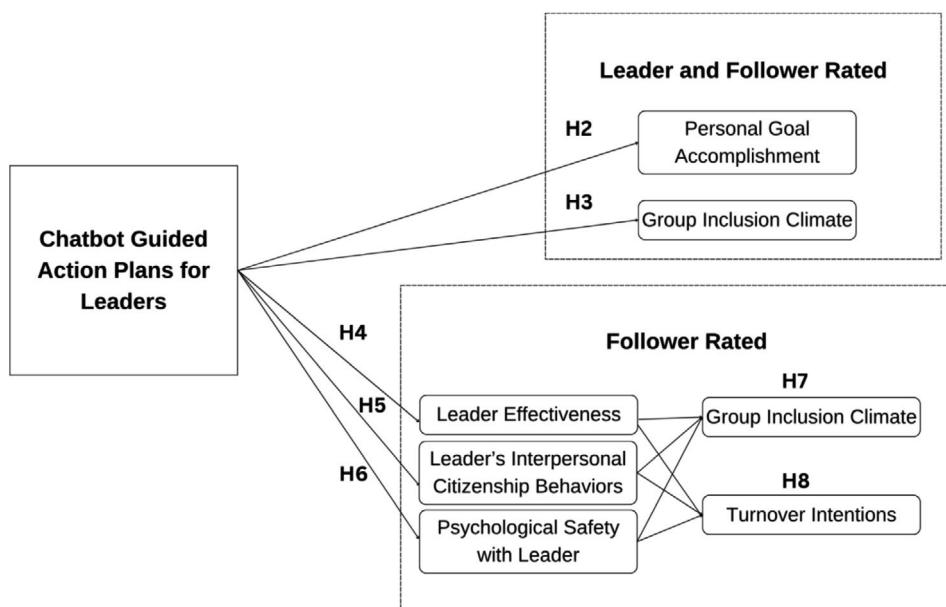
FIGURE 1 | Theoretical model.

Hypothesis 2. *The Leader Success Bot increases leaders' and followers' goal accomplishment over time.*

Hypothesis 3. *The Leader Success Bot increases leaders' and followers' perception of team inclusion climate over time.*

Furthermore, as the Leader Success Bot develops to set and enact daily inclusion action plans, the benefits may extend to other relational aspects of leadership and performance. From a relational models perspective, consistent enactment of inclusion action plans reinforces equality matching by normalizing balance, reciprocity, and mutual support in leader–follower interactions. One manifestation of this dynamic is the performance of interpersonal citizenship behaviors—voluntary, prosocial actions that contribute to the well-being and support of others (Lee and Allen 2002). Leaders who prioritize inclusion are more likely to offer assistance, adjust schedules, and demonstrate genuine concern for colleagues, thereby signaling that all members deserve recognition and support irrespective of their role (Kyei-Poku 2014; Shore et al. 2011). These behaviors enhance morale, strengthen trust, and reinforce the equality-matching norm that everyone's contributions matter.

Equality-matching processes also shape how followers evaluate their leaders. As leaders engage in visible acts of inclusion, they are more likely to be perceived as effective, since these behaviors enhance team dynamics, foster positive relationships, and bolster credibility (Triana et al. 2021). In other words, inclusion action plans do not merely produce prosocial acts but also build the foundation for perceived leader effectiveness by embedding principles of inclusion into daily interactions.

Finally, as leaders continually practice inclusion behaviors that model equality matching, they cultivate leader-specific psychological safety, where followers feel free to take interpersonal risks without fear of judgment or retaliation (Lehmann et al. 2023; Nembhard and Edmondson 2006). By ensuring that all voices are heard and valued equally, leaders create conditions in which employees feel secure to contribute new ideas, raise concerns, and collaborate openly. Collectively, this reasoning suggests that chatbot-guided inclusion action plans, by reinforcing equality matching in leader-follower interactions, will shape followers' perceptions of their leaders, enhancing evaluations of leader effectiveness, increasing recognition of interpersonal citizenship behaviors, and fostering leader-specific psychological safety. Accordingly, we propose the following three hypotheses (Figure 1):

Hypothesis 4. *The Leader Success Bot increases followers' perceptions of leader effectiveness over time.*

Hypothesis 5. *The Leader Success Bot increases followers' perceptions of leader interpersonal citizenship behaviors over time.*

Hypothesis 6. *The Leader Success Bot increases followers' perceptions of leader-specific psychological safety over time.*

Finally, we argue that inclusive leadership behaviors not only influence followers' immediate perceptions of their leaders but also extend to how followers interpret the broader work environment. Building on our theorizing above, we suggest chatbot-guided

action plans jolt the equality matching process by prompting leaders to show appreciation, highlight uniqueness, and foster belonging. In turn, these behaviors activate followers' perceptions of leader effectiveness, leader interpersonal citizenship behaviors, and leader-specific psychological safety, which function as proximal mediating mechanisms that translate chatbot-guided inclusion behaviors into more distal perceptions and outcomes.

Importantly, these proximal perceptions shape how followers construe their work group's inclusion climate. Individual followers form judgments of climate based on their own lived experiences of appreciation, uniqueness, and belonging (Nishii and Mayer 2009). Thus, when leaders are viewed as effective and prosocial, followers are more likely to generalize these relational experiences into broader perceptions that their team as a whole is inclusive. Equality matching provides the underlying logic for this process: repeated experiences of appreciation, reciprocity, and equitable treatment by the leader signal to followers that fairness and belonging are characteristic of their work context.

At the same time, these proximal perceptions carry implications for followers' relationships with the organization more broadly. When employees view their leaders as effective, supportive, and fair, they are more likely to feel valued and protected, which strengthens their engagement and reduces their intention to leave (Choi et al. 2015). In this way, chatbot-guided practices affect not only followers' direct experience with their leaders but also their broader perceptions of inclusion and their willingness to remain with the organization. Taken together, this reasoning suggests that leaders' action plans act as a critical conduit through which the Leader Success Bot influences follower outcomes, operating indirectly by jolting leader effectiveness, interpersonal citizenship behaviors, and leader-specific psychological safety.

Hypothesis 7. *The indirect effect of the Leadership Success Bot on follower perceptions of inclusion climate will be mediated by follower perceptions of leader effectiveness, leader interpersonal citizenship behaviors, and leader-specific psychological safety.*

Hypothesis 8. *The indirect effect of the Leadership Success Bot on follower turnover intentions will be mediated by follower perceptions of leader effectiveness, leader interpersonal citizenship behaviors, and leader-specific psychological safety.*

3 | Method

Studies for this paper were approved by the IRB of one of the authors' institutions. A Pilot Validation Study can be found in Appendix B. Study 1 was not pre-registered; however, we provide all data and code used to produce the results we present. Study 2 was preregistered at https://aspredicted.org/xczk-k78k.pdf. Qualitative data was analyzed through manual coding as well as with packages in Python: pandas, numpy, sci-kit learn, and BERTopic (Appendix A). Quantitative analyses were carried out in Stata (StataCorp, 2021, version 16.1) with mixed effects modeling using the "mixed" command with random intercepts based on leader ID. Following the recommendations

of Selig and Preacher (2008) and Preacher and Selig (2012), our mediation hypotheses are tested using the Monte Carlo method with 20,000 repetitions, with the covariance between path a and path b set to be zero.

Additionally, Studies 1 and 2 have inclusion criteria that can be seen in the posted study code as "if statements" in each model in the code and results in the Supporting Information. Specifically, data were retained if leaders interacted with the chatbot throughout the whole 2-week study to complete the post-test. Additionally, data were retained only if leaders' followers completed the pretest as well as either the mid-test, the post-test, or both. We used Stata's default of listwise deletion when variables were missing. Supporting Information can be found on the OSF repository for this project: https://osf.io/hkf9m/overview?view_only=4c7fb336f46b4ca28024c4059d5fdf7f.

3.1 | Developing Leader Inclusion: The Scalable Leader Success Bot

We developed the "Leader Success Bot," a conversational chatbot designed to cultivate daily inclusion action plans over a 2-week period. The bot uses state-of-the-art messaging technology to integrate validated measures of affect and structured planning of inclusion behaviors within engaging, user-centric interactions that include empathic responses, emojis, guided examples, and information on demand (Silva and Canedo 2022). Through buttons, images, emojis, and questionnaires, participants experience a fully interactive, immersive environment that promotes psychological engagement that is especially beneficial in long-term interventions. The design and implementation of the chatbot from a technical perspective, including front-end and back-end infrastructure as well as GitHub repositories, are provided in Appendix A. The corresponding code, documentation, and reference materials for replicating or adapting the chatbot in future research are available at the following link: https://github.com/Vindhya-Singh/chat-bot.

Figure 2 depicts an overview of the study design. By embedding participants in long-term, inclusive action planning with the Leader Success Bot, our scalable intervention fosters a level of psychological immersion and engagement that is challenging to achieve in traditional research settings. Upon connecting to the chatbot, leaders begin a two-week development program. Based on experience sampling techniques, each morning, participants are guided through behavior planning along two dimensions of inclusion (Korkmaz et al. 2022). In the evening, the chatbot

prompts leaders to report their current affect and reflect on their progress in implementing inclusion behaviors. Additionally, at key points in the intervention, the chatbot tasks leaders and their followers with completing a pre-test, a mid-test, and a post-test.

4 | Study 1: A Concurrent Mixed-Methods Study

Study 1 is broken into two components emerging from a concurrent mixed-methods design (Creswell and Creswell 2023). By combining qualitative and quantitative approaches, this design allows us to identify specific, observable inclusion behaviors embedded in leaders' action plans and examine how these behaviors shape both leader and follower experiences. Relevant to Hypothesis 1, the qualitative data captured by leaders' interactions with the Leader Success Bot are analyzed using a combination of content analysis and natural language processing techniques. Hypotheses 2–8 are tested using data provided by leaders and followers across a pretest, a mid-test, and a post-test. This comprehensive approach enhances explanatory power, offering deeper insights into the effectiveness of the Leader Success Bot.

4.1 | Participants

Leaders ($N = 348$) were recruited via Prolific to test the Leader Success Bot, a two-week chatbot-based training tool. To be eligible, participants had to be at least 18 years old, employed in a formal leadership role, and able to invite at least two subordinates to complete pre-, mid-, and post-tests. Of the initial sample, 141 leaders fully completed the two-week development program, and 93 (62.8%) also provided follower data ($N = 296$). Leaders averaged 7.74 direct reports (SD = 9.79), were aged 21–64 years (M = 39.31), and 37.39% identified as racial minorities. The sample of leaders was 46.96% women, 52.17% men, and 0.87% non-binary. Most (90.6%) held an undergraduate or graduate degree. Organizational levels included 39% mid-level managers, 10% senior/executive leaders, and ~50% low-level managers, with an average of 7.18 years of leadership experience. Followers ranged from 18 to 73 years (M = 32.97), with 47.30% identifying as racial minorities and 48.99% as women.

4.2 | Procedure

Every morning for 2 weeks, the Leader Success Bot trained leaders to develop specific inclusion action plans aimed at fostering two dimensions of inclusion (Korkmaz et al. 2022). The development of action plans was operationalized through the setting of SMART inclusion goals, making each action specific,
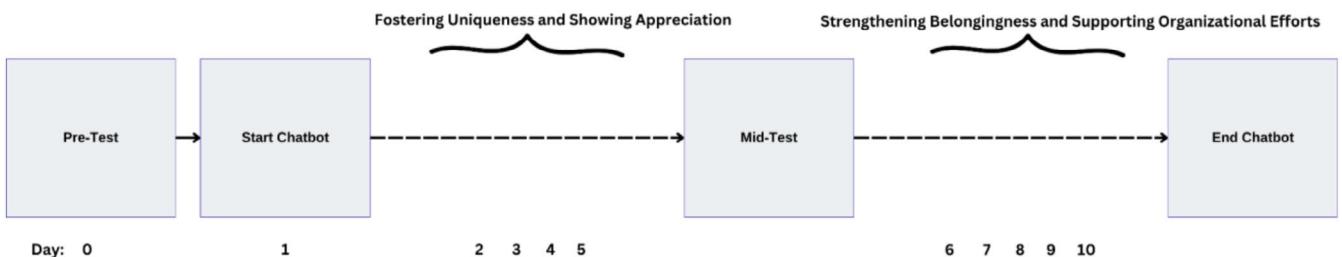

FIGURE 2 | Overview of study design.

measurable, achievable, relevant, and time-bound. Action planning was divided into two phases. In the first week, the chatbot guided leaders to set daily plans to foster uniqueness or show appreciation to their followers (Figure 2). For instance, the chatbot guided leaders in setting up SMART action plans to encourage uniqueness (e.g., "I will show concern for the employee's feelings in today's team meeting") (Ye, Wang, and Li 2019) or to show appreciation (e.g., "I will affirm our new hire's contributions to the project in the team meeting today") (Qi et al. 2019). In the second week, leaders followed a similar process, setting SMART action plans to strengthen belongingness (e.g., "I will suggest options for a team-building event at today's team lunch") (Ahmed et al. 2021) or to support organizational diversity, equity, and inclusion efforts (e.g., "I will discuss with [team member] how inclusion aligns with our organization's vision during today's coffee break") (Luu 2022) (Figure 2).

4.3 | Measures

4.3.1 | Leader Development Stage

To model changes over time, each survey response was coded according to the stage of the study: pretest (time = 0), mid-test (time = 1), or post-test (time = 2). This variable represents the number of weeks (0–2) leaders had engaged in setting inclusion action plans through the chatbot. Higher values indicate greater exposure to the program and, by extension, later stages of leader growth.

4.3.2 | Inclusion Action Plans

Leaders developed daily inclusion action plans during the two-week Leader Success Bot training. Using the SMART framework, leaders created goals in Week 1 to foster uniqueness or show appreciation, and in Week 2 to strengthen belongingness or support DEI initiatives. Each morning, the chatbot prompted leaders to set a specific inclusion action plan, and each evening, leaders reported on their progress. The resulting 3211 text-based action plans constituted a qualitative dataset of observable inclusion behaviors for analysis.

4.3.3 | Goal Accomplishment

Participants evaluated their goal accomplishment over the previous week using items from the PERMA profiler of well-being developed by Butler and Kern (2016). The items were "How much of the time do you feel you made progress towards accomplishing your goals?," "How often did you achieve the important goals you set for yourself?," and "How often were you able to handle your responsibilities?" Likert responses range from 1 - never to 10 - always. Cronbach's $\alpha = 0.89$.

4.3.4 | Work Group Inclusion

Participants rated their work group's inclusion climate using the 10-item scale developed by Chung et al. (2020). The measure includes two dimensions - uniqueness and belonging - each

with five items that combine into a composite measure. Example items include "I am treated as a valued member of my work group" and "People in my work group listen to me even when my views are dissimilar." Likert responses range from 1 - strongly disagree to 5 - strongly agree. Cronbach's α for inclusion = 0.95.

4.3.5 | Turnover Intentions

Participants rated turnover intentions using a four-item scale adapted from Colarelli (1984). Items include, "I intend to look for a new job with another organization within the next year," "I frequently think about quitting my job and leaving this organization," "I would like to get a new job in another organization," and "I am actively looking for a job with another company." Likert responses range from 1 - strongly disagree to 5 - strongly agree. Cronbach's $\alpha = 0.89$.

4.3.6 | Interpersonal Citizenship Behaviors

Followers rated the frequency of interpersonal citizenship behaviors of their leader using the eight-item measure developed by Lee and Allen (2002). Example items include, "My leader shows genuine concern and courtesy toward coworkers, even under the most trying business or personal situations," "My leader willingly gives their time to help others who have work-related problems," and "My leader gives up time to help others who have work or nonwork problems" The items range from 1 - never to 7 - always. Cronbach's $\alpha = 0.95$.

4.3.7 | Psychological Safety

Followers rated their psychological safety with their leader. This measure of relationship-specific psychological safety, developed by Lehmann et al. (2023), uses two items, "In my leaders' presence, I can be my true self" and "In my leaders' presence, I feel free to express my opinions." Likert responses range from 1 - strongly disagree to 5 - strongly agree. The two-item Spearman–Brown reliability = 0.82.

4.3.8 | Leader Effectiveness

Followers provided summative evaluations of their leader by answering the following question, "To what extent do you wish your supervisor would become a better leader?" Likert responses ranged from 1 - not at all to 5 - a great deal.

4.3.9 | Controls

To assess the robustness of our findings, we re-estimated all hypothesis tests both with and without theoretically relevant control variables. Leader-level controls included age, gender, and years of leadership experience. We additionally accounted for hierarchical and demographic context by including fixed effects for each leader's organizational level (lower-level, mid-level, or senior/executive manager) and race.

As an additional robustness check, we incorporated follower demographic composition within each leader's team, specifically the proportion of women, the average age of followers, and the average follower tenure. Including these follower-level controls reduced the analytic sample of leaders by approximately 20% because of missing demographic data for some teams. The direction, magnitude, and significance of results remained consistent across model specifications. For parsimony, we report the models including only leader-level controls in the main text and provide results from analyses that incorporate follower controls in the online supplement (OSF repository).

4.4 | Results

4.4.1 | Advancing a Taxonomy of Inclusive Leadership Behaviors From Leader Action Plans

We analyzed qualitative chatbot messages containing leaders' inclusion action plans using a two-step process. First, we conducted a directed content analysis of roughly half (1600) of the leaders' inclusion action plans. This approach is a systematic method for interpreting and categorizing qualitative data based on a priori theory (Hsieh and Shannon 2005). Drawing on prior research on inclusive leadership and foundational theoretical frameworks on inclusion (e.g., Shore et al. 2011; Randel et al. 2018), we extended and refined the taxonomy of inclusive behaviors performed by real-life leaders. Second, we analyzed the identified inclusive behaviors using natural language processing (NLP) techniques such as topic modeling to verify and refine the results of the content analysis performed by the authors (Green et al. 2023; Leeson et al. 2019).

Two researchers reviewed the data together to gain an initial understanding and code action plans using the dimensions of inclusion and categories identified in previous research (e.g., supporting employees as individuals and sharing decision-making) (Korkmaz et al. 2022). These predefined codes served as a basis, while behaviors that did not align with the framework were flagged for further examination. Collaboratively, we categorized 200 behaviors, refining and defining a coding scheme through discussion. Each researcher then independently applied this coding scheme to an additional 200 behaviors, holding review meetings to address discrepancies and make adjustments (Schreier 2012). The remaining 1200 action plans were then independently coded to ensure mutual exclusivity across all subcategories. The results of content analysis are presented in Table 1.

Next, we employed topic modeling, an NLP technique, to supplement the results of the content analysis. While the content analysis allows us to systematically categorize inclusion actions based on predefined criteria, topic modeling can provide additional insights by identifying latent themes in the textual data that are not immediately apparent, enhancing the validity of our findings. By running the BERTopic model (Grootendorst 2022) on leaders' action plans, we confirmed that the categories identified in the content analysis were exhaustive and aligned with the data's underlying structure. Thus, topic modeling served as a quality check on our coding process (Leeson et al. 2019). For detailed topic modeling results, see Appendix A.

We developed Hypothesis 1 stating that inclusion action plans will mirror four dimensions of inclusive leadership based on theory. However, because our analysis relied on qualitative content analysis and topic modeling, we do not treat this as a formal statistical test but rather as an examination of whether the hypothesized dimensions emerged inductively. Altogether, results from content analysis and topic modeling on leaders' inclusion plans indeed align closely with the four dimensions of inclusion identified by our theory (e.g., Korkmaz et al. 2022). Critically, we translate leaders' qualitative action plans into a taxonomy that includes new behaviors corroborated by the linguistic features of nouns and verbs that emerged in leaders' chatbot messages. In doing so, we provide the literature with a concrete set of behaviors emerging from leaders' everyday practice as well as theories of inclusive leadership. These results suggest the Leader Success Bot helps leaders plan and enact inclusive behaviors, which we predict will, in turn, help leaders learn and develop over time.

4.4.2 | Leader Development Over Time: Evaluating the Impact of the Leader Success Bot

Quantitative analyses were conducted in three stages to assess leader development over time. To begin, we tested for attrition bias by comparing (a) leaders initially recruited versus those who completed the chatbot interactions and surveys, and (b) leaders who completed the leader portion of the study but did not secure follower participation versus those whose followers did participate. One-way ANOVAs revealed no significant differences in age or leadership experience between these groups (all $p > 0.40$, partial η^2s ≤ 0.01). Likewise, logistic regression analyses further indicated that there were no significant differences in gender (all $p > 0.50$). Next, we examined the effects of the Leader Success Bot on goal accomplishment and work group inclusion using ratings provided by both leaders and followers at pre-, mid-, and post-test. We then extended these analyses to follower ratings of leader interpersonal citizenship behaviors (ICB), leader-specific psychological safety, and overall leader effectiveness. Finally, we tested indirect effects of the Leader Success Bot on work group inclusion and turnover intentions, examining whether these effects were mediated by follower-rated ICBs, leader-specific psychological safety, and leader effectiveness.

Means, standard deviations, and correlations are in Table 2. Table 3 contains the results of hypothesis testing. Hypotheses 2 and 3 proposed that the Leader Success Bot would improve leader and follower goal accomplishment (Hypothesis 2) and work group inclusion (Hypothesis 3). For leaders, results show a significant average increase in reported goal accomplishment over the course of the study ($\gamma = 0.611$, $p < 0.001$). Likewise, a similar positive effect was found for followers' reports of goal accomplishment ($\gamma = 0.356$, $p < 0.001$), supporting Hypothesis 2. Turning to direct effects of the Leader Success Bot on inclusion, results show that leaders' interacting with the bot was positively related to both leaders' and followers' work group inclusion climate scores over time ($\gamma = 0.055$, $p < 0.05$), supporting Hypothesis 3. When looking at follower ratings of leaders, Hypotheses 4–6 proposed that the Leader Success Bot would improve follower ratings of leader effectiveness (Hypothesis 4), ICBs (Hypothesis 5), and leader-specific psychological safety (Hypothesis 6) over time. Our findings show that the Leader Success Bot did not lead to

TABLE 1 | Results of content analysis for the observable inclusive behaviors.

Dimensions of inclusion	Category	Taxonomy of inclusive behaviors

Fostering uniqueness	Supporting employees as individuals	– *Cultivate employee-centered dialogue*
		  – Schedule regular one-on-one check-ins
		  – Ask questions about employees' feelings, interests, and expectations
		  – Acknowledge employees' interests and expectations
		  – Show interest in employees' cultural background and experiences
		  – Follow up on past conversations
		– *Exhibit availability and accessibility*
		  – Implement open-door policy or have scheduled office hours to drop in without an appointment
		  – Make time for unplanned meetings if needed
		  – Be visibly present in the workplace
		  – Maintain various communication channels (e.g., email, instant messaging, and team collaboration tools)
		– *Provide emotional support*
		  – Engage in active listening
		  – Validate employees' emotional responses
		  – Show empathy
		  – Offer encouragement

	Promoting diversity	– *Facilitate difficult conversations on sensitive topics*
		  – Encourage open dialogue and sharing of diverse perspectives
		  – Create safe spaces for discussions
		  – Provide resources for additional support
		  – Encourage peer mentorship and allyship
		– *Support employee autonomy and flexibility*
		  – Solicit employees' input regularly
		  – Implement employees' suggestions
		  – Offer flexible work arrangements
		  – Encourage decision-making autonomy in tasks and projects

	Empowering employees	– *Be a role model in self-awareness*
		  – Acknowledge and reflect on own biases
		  – Invite feedback regularly
		  – Accept constructive criticism
		  – Admit own mistakes openly
		  – Treat employees' mistakes as learning opportunities
		– *Promote work–nonwork balance*
		  – Encourage employees to focus on their health and well-being
		  – Encourage employees to take mental health days
		  – Encourage employees to pursue hobbies outside of work
		  – Refrain from contacting employees outside of work hours
		  – Encourage employees to set boundaries between work and personal life

	Contributing to employees' learning and development	– *Support skill development*
		  – Offer guidance on tasks relevant to the employee's role
		  – Encourage participation in training opportunities relevant to the employee's role
		  – Tailor tasks based on employees' skills and aspirations
		  – Offer hands-on opportunities to practice new skills
		  – Create a culture of continuous learning
		– *Provide mentorship*
		  – Offer individualized career advice
		  – Provide personalized developmental feedback
		  – Create personalized development plans considering employees' career aspirations, strengths, and unique learning preferences
		  – Offer job rotation or cross-departmental projects

(Continues)

TABLE 1 | (Continued)

Dimensions of inclusion	Category	Taxonomy of inclusive behaviors

Strengthening belongingness	Ensuring equity	– *Ensure equal access to opportunities*
		  – Use transparent and consistent criteria in hiring, performance evaluation, and promotion
		  – Regularly review these criteria
		  – Provide equitable access to training and resources
		  – Establish safe reporting mechanisms
		– *Foster team cohesion*
		  – Organize regular team bonding activities
		  – Organize virtual or in-person social events (e.g., team lunches, happy hours, or virtual coffee breaks)
		  – Organize inclusive holiday celebrations
		  – Allocate time each day for team interactions
		  – Encourage team members to share personal updates in group settings
		– *Promote respectful and effective interactions*
		  – Address microaggression and discrimination
		  – Address conflicts quickly and constructively
		  – Acknowledge and validate different perspectives
		  – Define and adhere to the rules of respectful interaction (e.g., listen without interrupting)
		  – Distribute rewards fairly
		– *Create a welcoming environment*
		  – Use inclusive language
		  – Ensure employees are included in relevant conversations
		  – Schedule meetings during regular hours
		  – Encourage equal speaking turns in team meetings
		  – Adjust meeting times for different time zones

	Building relationships	– *Foster team cohesion*
		  – Organize regular team bonding activities
		  – Organize virtual or in-person social events (e.g., team lunches, happy hours, or virtual coffee breaks)
		  – Organize inclusive holiday celebrations
		  – Allocate time each day for team interactions
		  – Encourage team members to share personal updates in group settings
		– *Promote respectful and effective interactions*
		  – Address microaggression and discrimination
		  – Address conflicts quickly and constructively
		  – Acknowledge and validate different perspectives
		  – Define and adhere to the rules of respectful interaction (e.g., listen without interrupting)

	Sharing decision-making	– *Encourage employees' involvement*
		  – Involve team members in setting team goals and making decisions
		  – Organize brainstorming sessions to solicit employees' input
		  – Emphasize teamwork in decision outcomes
		  – Encourage open discussions before finalizing decisions
		– *Foster transparent decision-making*
		  – Share relevant information openly
		  – Build consensus
		  – Provide reasons for decisions
		  – Gather feedback to refine future decision-making

Showing appreciation	Recognizing efforts and contributions (in team settings)	– *Celebrate contributions verbally*
		  – Affirm individual contributions in team meetings
		  – Encourage peer recognition within the team
		  – Celebrate small wins and name contributors during team calls
		  – Share examples of exceptional work at team meetings
		  – Thank team members regularly for their hard work and dedication
		– *Document recognition in writing*
		  – Write and share personalized appreciation notes or emails
		  – Create an "Appreciation Board" for team contributions
		  – Post appreciation messages in team chat channels
		  – Send thank-you notes after major milestones

TABLE 1 | (Continued)

Dimensions of inclusion	Category	Taxonomy of inclusive behaviors

	Celebrating publicly (in organizational settings)	– *Praise achievements in organizational settings*
		  – Praise team members' accomplishments during organizational meetings
		  – Implement "Monthly Innovation Spotlight" or "Employee of the Month" initiatives
		  – Recognize team members in company newsletters or internal social media platform
		  – Create and share an "Employee Spotlight" segment in team newsletters
		– *Organize special events to honor successes*
		  – Organize team lunches or coffee breaks
		  – Arrange team outings as a reward for team achievements
		  – Set up virtual or in-person appreciation ceremonies
		  – Celebrate work anniversaries and/or personal milestones

	Offering tangible rewards and growth opportunities	– Nominate employees for awards and recognitions – Present certificates or trophies to employees for significant contributions – Provide financial bonuses or incentives for achieving specific performance goals – Provide extra time off as a reward for exceptional contributions – Sponsor attendance at conferences or workshops – Provide access to professional development courses – Offer company-sponsored trips or experiences as recognition for significant accomplishments

Supporting organizational efforts	Being open to organizational change	– *Support change for inclusion*
		  – Facilitate discussions around DEI topics and organizational change
		  – Invest in technology and resources that support inclusion
		  – Pay attention to new opportunities
		  – Lead by example in embracing change
		– *Address resistance*
		  – Listen to concerns and collaborate to find solutions
		  – Seek feedback from diverse members
		  – Communicates clearly and transparently about the reasons for change
		  – Create safe spaces for open dialogue on DEI challenges
		  – Proactively address potential roadblocks
		  – Uphold integrity

	Promoting organizational mission on inclusion	– Regularly communicate the organization's commitment to inclusion in team meetings, newsletters, or presentations – Align the organization's core values with its commitment to inclusion – Explain how inclusion is related to organizational mission and vision – Regularly review and adjust the organizational practices – Involve employees from underrepresented groups in key organizational developments
	Advocating for DEI Initiatives	– Support participation in external networks or affinity groups – Initiate and participate in diversity training or DEI workshops – Provide resources and tools for employees to engage in DEI topics – Encourages organizational members to enact inclusive behaviors – Establish mentorship programs for underrepresented groups within the organization – Track the organization's DEI progress

changes in follower ratings of leader effectiveness ($\gamma = -0.082$, $p = 0.123$) but did lead to changes in reported ICBs ($\gamma = 0.175$, $p < 0.001$) and leader-specific psychological safety ($\gamma = 0.112$, $p = 0.007$). Thus, Hypotheses 5 and 6 were supported, while Hypothesis 4 was not. Finally, Hypotheses 7 and 8 predicted that the changes caused by Leader Success Bot's in follower-rated inclusion climate (Hypothesis 7) and follower turnover intentions (Hypothesis 8) would be mediated by improvements in leader effectiveness, ICBs, and leader-specific psychological safety. While there was no change in follower perceptions of leader effectiveness, results show a significant indirect effect of the Leader Success Bot on work group inclusion through changes in ICBs (Indirect effect = 0.0273; 95% CI = 0.0105, 0.0483) and psychological safety (Indirect effect = 0.0571; 95% CI = 0.0239,

0.0939), providing partial support for Hypothesis 7. For turnover intentions, we see a similar pattern of significant indirect effects through ICBs (Indirect effect = −0.035; 95% CI = −0.0652, −0.0122) and leader-specific psychological safety (Indirect effect = −0.0199; 95% CI = −0.0467, −0.0017), providing partial support for Hypothesis 8.

4.5 | Study 1 Discussion

Study 1 offers an initial demonstration of how inclusive leadership can be both developed and meaningfully observed through the structured use of a chatbot-based training. By analyzing leaders' action plans and triangulating those insights with

TABLE 2 | Means, standard deviations, and correlations from Study 1.

		M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Leader development stage	0.95	0.81	1.00												
2	Goal accomplishment	6.91	1.86	0.19	1.00											
3	Inclusion climate	4.07	0.78	0.04	0.56	1.00										
4	Interpersonal citizenship behaviors	5.13	1.3	−0.08	0.05	−0.09	1.00									
5	Leader-specific psychological safety	4.19	0.94	0.10	0.43	0.55	−0.28	1.00								
6	Leader effectiveness	2.52	1.32	0.10	0.47	0.64	−0.21	0.66	1.00							
7	Follower turnover intentions	2.23	1.14	−0.02	−0.41	−0.55	0.24	−0.35	−0.33	1.00						
8	Leader age	41.59	0.94	0.00	0.01	0.01	−0.06	−0.10	−0.11	−0.07	1.00					
9	Woman leader	0.39	0.49	0.00	−0.15	−0.18	−0.13	−0.04	−0.06	0.14	0.32	1.00				
10	Years of leadership experience	9.40	3.88	0.03	0.02	0.12	−0.20	0.10	0.16	−0.07	0.46	0.02	1.00			
11	Proportion of women followers	0.48	0.39	0.01	−0.16	−0.10	−0.06	−0.10	−0.11	0.08	0.24	0.54	0.09	1.00		
12	Followers average tenure	5.51	4.50	0.02	−0.13	−0.13	−0.07	−0.10	−0.01	0.04	0.21	0.21	0.26	0.18	1.00	
13	Followers average age	33.71	9.37	0.00	−0.07	−0.05	0.01	−0.11	0.01	0.07	0.33	0.19	0.24	0.04	0.68	1.00

TABLE 3 | Results from Study 1 quantitative analysis.

Variable	Leader goal accomplishment				Follower goal accomplishment				Inclusion climate			
	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE
Leader development stage	0.611	0.081	0.611	0.081	0.356	0.095	0.346	0.094	0.055	0.026	0.054	0.026
Leader age			0.062	0.025			0.001	0.024			0.004	0.01
Leader gender			−0.879	0.307			−0.476	0.0307			−0.243	0.122
Leadership experience			−0.051	0.037			−0.016	0.038			0.013	0.015
Intercept	6.351	0.169	4.837	0.942	6.599	0.168	6.926	0.932	4.052	0.064	3.96	0.376
Var (Leader ID)	1.654		1.18		1.131		0.898		0.279		0.207	
Var (Residual)	1.222		1.223		2.409		2.402		0.309		0.309	

Variable	Leader effectiveness				ICBs				Leader-specific psychological safety				Inclusion climate				Turnover intentions			
	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE
Leader development stage	−0.082	0.053	−0.083	0.053	0.175	0.05	0.172	0.05	0.112	0.042	0.107	0.0418	−0.016	0.029	−0.0215	−0.029	0.049	0.057	0.053	0.057
Leader age			0.024	0.019			−0.038	0.021			−0.024	0.013			0.012	0.007			−0.043	0.012
Leader gender			−0.262	0.02374			−0.069	0.0252			−0.127	0.157			−0.125	0.086			0.368	0.151
Leadership experience			−0.055	0.029			0.042	0.031			0.047	0.019			−0.003	0.011			0.028	0.019
Leader ICBs													0.156	0.03	0.159	0.029	−0.2	0.057	−0.205	0.054
Leader-specific psychological safety													0.326	0.039	0.335	0.39	−0.177	0.075	−0.194	0.074
Intercept	2.548	0.127	2.07	0.0723	5.063	0.124	6.405	0.0772	4.131	0.085	4.852	0.481	1.912	0.154	1.474	0.316	3.99	0.288	5.505	0.562
Var (Leader ID)	0.991		0.708		0.985		0.858		0.379		0.276		0.099		0.061		0.286		0.151	
Var (Residual)	0.743		0.74		0.658		0.656		0.464		0.463		0.231		0.232		0.86		0.865	

Note: Fixed effects for leader race level in the organizational hierarchy were included in all models with controls. Coefficients for each individual fixed effect can be found on the OSF repository.

follower reports, we were able to extend and refine a taxonomy of daily inclusive behaviors while also capturing evidence of leader growth across key interpersonal outcomes. Importantly, the use of follower ratings provided a valuable external lens, helping to address concerns around self-report bias and demonstrating broader impacts on the social climate of work groups. While Study 1 establishes initial construct boundaries and developmental potential, further work is needed to test the behavioral dimensions more rigorously. Accordingly, Study 2 was designed to replicate and extend these findings in a new sample, using experimental methods to assess the causal effects of specific inclusive behaviors derived from the taxonomy established in Study 1.

5 | Study 2: A Replication and Extension

5.1 | Participants and Procedure

The procedure of Study 2 replicated that of Study 1 with several extensions. Specifically, we added additional measures to the pre-, mid-, and post-tests. The first measure assessed how frequently leaders engaged in the 21 inclusive behaviors identified in the taxonomy developed in Study 1 (Table 1). The second measure assessed the frequency of inclusive behaviors identified in prior leader development research. The third measure assessed leaders' reactions to using the chatbot over time. In addition, we collected information on leaders' education level in the pretest and included education fixed effects in our robustness checks to account for potential differences related to educational attainment.

Leaders ($N = 298$) were recruited via Prolific to test the Leader Success Bot using the same eligibility criteria as Study 1. Of the initial sample, 101 leaders completed the two-week chatbot conversation, and 53 (52.4%) also provided follower data. Leaders averaged 7.32 direct reports (SD = 12.04), were aged 20–62 years (M = 39.03), and 24.53% identified as racial minorities. The sample of leaders was 47.17% women ($N = 25$), 50.94% men ($N = 27$), and one participant preferred not to report their gender. Most (67.90%) held an undergraduate or graduate degree. Organizational levels included 28.3% mid-level managers, 11.32% senior/executive leaders, and 54.72% low-level managers, with an average of 7.66 years of leadership experience. Followers ranged from 18 to 64 years (M = 34.20), with 29.67% identifying as racial minorities and 59.34% as women.

5.2 | Measures

5.2.1 | Inclusive Leader Behaviors

Followers documented the frequency at which their leader engaged in inclusive behaviors over the previous week using two measures. First, participants completed a 21-item measure capturing the inclusive leader behaviors that emerged from Study 1. Example items included "My leader cultivates employee-centered dialogue (listens actively, asks open questions)," "My leader supports change for inclusion (advocates for equity)," and "My leader facilitates difficult conversations on sensitive topics."

$\alpha = 0.97$. Second, we adapted a six-item measure developed by Kossek et al. (2024) to refer to leaders. The original measure assessed the degree to which an individual perceived they used inclusive behaviors with colleagues. Example items include "My leader uses language that is gender inclusive when interacting with colleagues," "My leader uses language that is inclusive of colleagues' diverse cultural backgrounds," "My leader takes action to intervene as an ally, if they observe microaggressions occurring at work." $\alpha = 0.95$. Likert-type items for both measures were rated on a scale from 1 (never) to 7 (always).

5.2.2 | Reactions

Leaders provided their reactions to the Leader Success Bot using a 9-item measure developed by Kossek et al. (2024) to capture employee reactions to diversity training programs. Example items include "The chatbot was effective," "I would recommend this chatbot to others," and "The chatbot activities stimulated my learning." Likert-type responses ranged from 1 (strongly disagree) to 5 (strongly agree), $\alpha = 0.93$.

5.3 | Results

Means, standard deviations, and correlations can be seen in Table 4. The results of hypothesis testing are presented in Table 5. As with Study 1, prior to testing hypotheses, we conducted tests of attrition bias. Overall, results showed that attrition bias is not a pressing concern ($p > 0.20$). In one test, the difference in leader age between leaders who completed the leader portion of the study and secured follower participation versus those whose followers did not participate was trending ($p = 0.097$). Next, we assessed leader development over time, as demonstrated by changes in outcome variables captured before leaders began setting inclusion action plans (the pre-test) and those same measures captured at the mid-test and the post-test. Hypothesis 2 proposed that over time, leaders' use of the Leader Success Bot would increase the goal accomplishment of leaders themselves as well as their followers. Likewise, Hypothesis 3 proposed that over time, the Leader Success Bot would increase collective perceptions of a team's inclusion climate. For leaders, results showed a significant average increase in reported goal accomplishment over the course of the study ($\gamma = 0.494$, $p < 0.001$). Likewise, a similar positive effect was found for followers reports of goal accomplishment ($\gamma = 0.422$, $p < 0.001$), supporting Hypothesis 2. Work-group inclusion climate showed an increase over the course of the study ($\gamma = 0.101$, $p < 0.01$), supporting Hypothesis 3.

Hypotheses 4–6 proposed that over time, leaders' use of the Leader Success Bot would increase leader effectiveness (Hypothesis 4), leader ICBs (Hypothesis 5), and leader-specific psychological safety (Hypothesis 6). As in Study 1, results show a slightly different pattern than was seen in Study 1. Specifically, results of Study 2 show that over time, the Leader Success Bot increased follower ratings of leader ICBs ($\gamma = 0.191$, $p < 0.005$). However, unlike Study 1, there was a significant change in leader effectiveness over the course of the study ($\gamma = 0.149$, $p < 0.005$), but a change in leader-specific psychological safety was trending ($\gamma = 0.092$, $p < 0.1$). Thus,

TABLE 4 | Study 2 correlations, means, and standard deviations.

Variable		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Leader development stage	0.93	0.082	1.00													
2	Goal accomplishment	7.07	1.77	0.21	1.00												
3	Inclusion	4.12	0.75	0.11	0.46	1.00											
4	Leader effectiveness	3.92	1.15	0.12	0.31	0.38	1.00										
5	Leader ICBs	5.58	1.12	0.16	0.41	0.49	0.54	1.00									
6	Leader-specific psychological safety	4.34	0.83	0.10	0.31	0.57	0.44	0.69	1.00								
7	Follower turnover intentions	2.47	1.15	−0.07	−0.29	−0.52	−0.30	−0.22	−0.37	1.00							
8	Leader inclusion behaviors	5.70	1.06	0.16	0.43	0.59	0.60	0.88	0.74	−0.31	1.00						
9	Leader age	38.86	9.97	0.01	0.20	0.20	0.33	0.23	0.21	−0.13	0.27	1.00					
10	Woman leader	0.44	0.5	−0.01	−0.01	−0.11	0.17	0.05	−0.02	0.03	−0.01	0.14	1.00				
11	Years of leadership experience	8.33	7.22	−0.01	0.22	0.19	0.27	0.14	0.17	−0.06	0.18	0.62	0.05	1.00			
12	Proportion of women followers	0.57	0.4	0.01	−0.09	−0.15	0.08	0.04	−0.01	0.14	0.00	−0.01	0.35	0.00	1.00		
13	Followers average tenure	6.01	6.06	−0.03	0.03	−0.03	0.07	0.06	0.15	−0.10	0.08	0.23	0.06	0.26	−0.05	1.00	
14	Followers average age	34.67	9.47	−0.01	0.04	−0.04	0.12	0.12	0.05	−0.03	0.09	0.50	0.24	0.18	0.18	0.60	1.00

Study 2 shows support for Hypotheses 4 and 5, and limited support for Hypothesis 6.

Finally, turning to mediation effects proposed in Hypotheses 7 and 8, results show a significant effect of the Leader Success Bot on work group inclusion through ICBs (Indirect effect $= 0.0499$; 95% CI $= 0.0184, 0.0885$) and Leader Effectiveness (Indirect effect $= 0.0069$; 95% CI $= 0.0015, 0.0143$), providing partial support for Hypothesis 7. For turnover intentions, we only see significant indirect effects through leader effectiveness (Indirect effect $= -0.041$; 95% CI $= -0.0709, -0.0117$), providing partial support for Hypothesis 8.

5.4 | Exploratory Analysis

To further illustrate the efficacy of the Leader Success Bot, we tested the changes over time in the three additional variables in an exploratory fashion. These measures were informed by the results from Study 1, while also extending to capture leaders' reactions to the Leader Success Bot over time. Exploratory analysis mirrored those of Hypotheses 1–6, with the caveat that we only asked followers to report on the frequency of leader inclusion behaviors, and we asked leaders to report on their reactions to the chatbot. The results of exploratory analyses can be found in Table 6. Results show that followers reported an increase in the inclusive leadership behaviors outlined in Study 1 ($\gamma = 0.176$, $p < 0.01$). Moreover, results suggest that inclusive leader behaviors identified in other research on leader training were trending in a positive direction ($\gamma = 0.107$, $p < 0.10$). This suggests that even beyond the initial taxonomy developed in Study 1, leaders set flexible inclusion action plans that are broad in scope. Finally, leaders also reported more positive reactions to the chatbot as the study progressed ($\gamma = 0.216$, $p < 0.001$), suggesting that the longer they used the tool, the more satisfied they were with their experience (Ely et al. 2010).

6 | General Discussion

In an era where societal divisions seem increasingly pervasive, the need for leaders to foster inclusion in the workplace has never been more critical (Shen et al. 2009; Triana et al. 2021). Existing literature has demonstrated inclusion hosts benefits for organizations and their employees (for a review, see Triana et al. 2021), yet lacks practical, actionable guidance. This presents a challenge for HR managers and leaders, who are left unsure how to translate the concept of inclusion into concrete actions that meaningfully impact their teams without backfiring. As not all leaders endorse DEI initiatives, we focus on how carefully designed technology can meet them where they are, nudging self-selected behaviors that foster appreciation, uniqueness, and belonging while avoiding prescriptive directives.

Grounded in relational models theory and contemporary inclusive leadership frameworks, the present research develops and tests a novel approach to build capacity for inclusion using a conversational chatbot. The Leader Success Bot, a tool for developing leaders by logging daily inclusion action plans and reflections, was successfully deployed in two samples. Using content analysis and NLP techniques, we advanced a taxonomy

TABLE 5 | Results from Study 2 quantitative analysis.

Variable	Leader goal accomplishment				Follower goal accomplishment				Inclusion climate			
	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE
Leader development stage	0.494	0.113	0.553	0.119	0.422	0.105	0.442	0.105	0.101	0.034	0.104	0.034
Leader age			0.02	0.024			−0.008	0.025			0.006	0.01
Leader gender			0.493	0.349			0.126	0.358			−0.051	0.143
Leadership experience			0.032	0.029			0.082	0.031			0.014	0.012
Proportion of women followers			−0.584	0.432			−0.817	0.046			−0.315	0.179
Average follower tenure			0.024	0.036			−0.019	0.039			0.001	0.015
Average follower age			−0.016	0.023			0.019	0.024			−0.002	0.009

Variable	Leader effectiveness				ICBs				Leader-specific psychological safety				Inclusion climate				Turnover intentions			
	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE
Leader development stage	0.149	0.054	0.158	0.054	0.191	0.057	0.202	0.057	0.092	0.051	0.098	0.049	0.028	0.038	0.024	0.036	−0.04	0.067	−0.033	0.067
Leader age			0.021	0.016			0.004	0.158			0.001	0.010			−0.003	0.009			0.005	0.014
Leader gender			−0.109	0.224			−0.045	0.223			0.029	0.139			−0.077	0.125			−0.085	0.195
Leadership experience			0.021	0.019			0.028	0.019			0.024	0.012			0.004	0.010			0.017	0.017
Proportion of women followers			−0.303	0.282			−0.211	0.282			−0.176	0.182			−0.132	0.160			−0.145	0.254
Average follower tenure			−0.036	0.024			−0.018	0.024			0.022	0.015			0.012	0.014			−0.039	0.021
Average follower age			0.006	0.149			0.001	0.015			−0.012	0.001			0.000	0.008			0.000	0.013
Leader effectiveness													0.097	0.044	0.101	0.044			−0.247	0.079
Leader ICBs													0.261	0.048	0.221	0.052	0	0.083	0.032	0.092
Leader-specific psychological safety													0.047	0.013	0.270	0.061	−0.068	0.022	−0.424	0.11
Intercept	3.699	0.143	2.012	0.987	5.255	0.137	3.478	0.986	4.22	0.069	2.936	0.634	1.918	0.238	2.049	0.580	4.045	0.396	4.812	0.925
Var (Leader ID)	0.832		0.255		0.702		0.240		0.261		0.052		0.195		0.068		0.37		0.118	
Var (Residual)	0.455		0.459		0.512		0.513		0.414		0.384		0.215		0.197		0.692		0.681	

Note: Fixed effects for leader race, education, and level in the organizational hierarchy were included in all models with controls. Coefficients for each individual fixed effect can be found on the OSF repository.

TABLE 6 | Results from Study 2 exploratory analysis.

Variable	Inclusive leader behaviors				Inclusive behaviors Kossek				Leader reactions			
	y	SE	y	SE	y	SE	y	SE	y	SE	y	SE
Leader development stage	0.175	0.054	0.189	0.054	0.107	0.063	0.124	0.063	0.216	0.044	0.236	0.047
Leader age			0.004	0.016			0.005	0.019			−0.007	0.013
Leader gender			−0.036	0.224			−0.247	0.276			−0.088	0.183
Leadership experience			0.025	0.019			0.012	0.023			0.013	0.015
Proportion of women followers			−0.229	0.282			0.188	0.346			−0.311	0.226
Average follower tenure			0	0.024			0.001	0.029			−0.002	0.019
Average follower age			−0.002	0.014			−0.004	0.018			0.019	0.012
Intercept	5.348	0.013	3.543	0.986	5.459	0.151	3.72	1.211	3.621	0.094	2.347	0.785
Var (Leader ID)	0.636		0.253		0.849		0.406		0.294		0.176	
Var (Residual)	0.459		0.467		0.625		0.618		0.211		0.217	

Note: Fixed effects for leader race, education, and level in the organizational hierarchy were included in all models with controls. Coefficients for each individual fixed effect can be found on the OSF repository.

of observable, specific inclusion behaviors that align with established inclusion dimensions. Critically, when leaders systematically set inclusion action plans guided by the Leader Success Bot, both the leaders themselves and their followers are better able to accomplish their goals. As leaders develop inclusive behaviors, their followers feel more psychologically safe and notice their leaders' behaviors. Thus, conversational chatbots hold the potential to "jolt" normative behaviors aligned with equality matching, creating more enduring, meaningful, and impactful inclusive environments.

6.1 | Contributions to Theory and Practice

This research contributes to the literature on inclusive leadership by extending Korkmaz et al.'s (2022) foundational framework. Whereas Korkmaz et al. identified key dimensions of inclusive leadership, our work translates these abstract principles into a comprehensive taxonomy of observable leader behaviors. By analyzing chatbot-elicited action plans, we validate the dimensions while specifying concrete practices through which leaders enact inclusion day-to-day. In doing so, we move the framework from a conceptual model to an empirically grounded behavioral template. Our focus on observable behaviors provides organizations with a practical roadmap for leader development and offers researchers a systematic foundation for assessing and refining inclusion practices.

We also contribute to theory by applying relational models theory to interpret how inclusive leadership behaviors shape leader and follower outcomes. In particular, equality matching (Fiske 1992) offers a useful lens for understanding our findings, as the chatbot's guidance encouraged leaders to enact practices of appreciation, belonging, and uniqueness

that align with equality-matching norms. By viewing our results through this lens, we highlight how repeated action planning and reflection can spark exchanges between leaders and followers that change psychological safety, ICBs, and perceptions of leader effectiveness. Moreover, we extend the reach of relational models theory by suggesting that technology can act as an intervention that changes relational norms. The chatbot promotes inclusive leadership cues into the workplace, thereby changing how leaders and followers experience their work, their relationship, and their environment, reorienting them towards positive and sustainable changes that improve employee retention. In this way, relational models theory provides the underlying logic for our observed findings while positioning inclusion as a relational process enacted through everyday leader behaviors.

As such, our research advances practice by contributing to the growing literature on chatbot-mediated workplace interventions. While chatbots are often criticized for depersonalizing relational dynamics (Fritts and Cabrera 2021), this research demonstrates how they can be employed in leader training and development to enhance inclusion climate and psychological safety. By utilizing a conversational chatbot, we investigate how technology can facilitate conversations around sensitive topics such as diversity and inclusion, offering leaders a nonjudgmental platform for self-reflection and progress tracking. Together, our results suggest that chatbot-mediated development programs have the potential to strengthen, rather than undermine, the creation of inclusive and equitable workplaces (Kelan 2021). As such, formal HR policies should integrate structured training programs that incorporate this technology, ensuring inclusion is not merely an abstract value but a tangible practice that can be measured, monitored, and reinforced without prescribing compliance mandates.

Finally, our studies advance methodology by employing a rigorous concurrent mixed methods approach that blends qualitative analysis of leader action plans with quantitative assessments of follower perceptions captured in a chatbot-mediated design. This design not only captures growth across 21 inclusion behaviors but also models how leader development unfolds over time. By pairing qualitative insights into leaders' strategies with statistical evidence of follower outcomes such as inclusion climate and turnover intentions, we provide a richer, more reliable account of how inclusive leadership is enacted and experienced. We offer a template for future research on digital training and leadership development, demonstrating the potential of chatbot-mediated data collection to enrich both theory and practice.

6.2 | Implications for HR Practice

Our findings underscore an important shift in how HR might approach inclusive leadership training and development. Demonstrating the efficacy of the Leader Success Bot in fostering intentional, daily inclusive behaviors, particularly those grounded in equality matching, suggests that HR can move inclusion from an abstract principle to a sustained organizational process. Rather than relying solely on structured, periodic training sessions, HR may benefit from incorporating conversational, action-oriented tools that provide leaders with real-time developmental support. Such tools encourage leaders to practice inclusion within the flow of work, transforming theoretical understanding into specific behaviors, such as checking in with individual team members to solicit input or ensuring equitable participation in decision-making. Embedding this form of digital coaching into daily routines enables scalable, personalized development while reducing dependence on external training interventions, thereby democratizing access to behavioral coaching across leadership levels.

The behavioral taxonomy of inclusive leader behaviors generated in this research also offers HR practitioners a more concrete means of assessing inclusion effectiveness. Traditional diversity and inclusion metrics often rely on annual engagement or climate surveys that capture employee perceptions but offer limited insight into the leader behaviors that drive those perceptions. By integrating behavioral data, such as the frequency of observable inclusive actions, into leadership evaluation and performance management systems, HR can more accurately assess inclusion as a behavioral competency. This shift from perceptual to behavioral measurement signals that inclusion is a core leadership responsibility with tangible performance expectations, not an aspirational or peripheral goal.

Finally, the observed improvements in follower inclusion climate, psychological safety, and reduced turnover intentions demonstrate that inclusive leader behaviors have direct implications for talent management and retention. In competitive labor markets, environments characterized by belonging and psychological safety are integral to the employee value proposition. By equipping leaders with scalable, daily mechanisms to foster inclusion, HR can proactively strengthen organizational culture, enhance commitment, and mitigate turnover costs. In this way, the consistent, small-scale, equitable exchanges promoted by the Leader Success Bot serve as the building blocks of an inclusive and sustainable organizational climate, reinforcing inclusion as both a developmental and strategic priority for HR.

6.3 | Limitations and Future Directions

While our research demonstrates the promise of conversational chatbots in fostering inclusive leadership, several limitations warrant consideration. First, consistent with prior intensive longitudinal studies (Gabriel et al. 2019), both studies experienced participant attrition over time. This suggests that sustained engagement may require organizations to focus on enhancing user experience through contextually relevant prompts, strategic reminders, or other features, prior research has shown can impact employee experience (Malik et al. 2023). Future research should explore design features that support continued participation and examine individual differences in responsiveness to chatbot training. Of particular importance are the areas of ethics and data privacy. The use of employee data for purposes beyond the leader's development, such as in personnel evaluation, may impact the efficacy of chatbot tools.

Additionally, while the chatbot facilitated inclusion action planning over two weeks, further research is needed to assess the durability of behavior change. Research on implementation intentions suggests that "if–then" planning can promote not only immediate action but also the formation of lasting behavioral routines (Gollwitzer 1999). Consistent with research highlighting the importance of reflection for inclusive leadership (Wölk et al. 2025), our results suggest that inclusive behaviors initiated through chatbot interactions may become automated over time. Future longitudinal studies should test the extent to which these effects are sustained and embedded in leaders' practices.

A critical area for future research concerns the broader sociopolitical context in which inclusion efforts unfold. Despite the widely documented benefits of inclusion, recent public discourse underscores how even well-intentioned DEI initiatives can provoke backlash, erode brand equity, and compel organizational leaders into reactive postures (Sitzmann et al. 2024; Prasad and Śliwa 2024). As Leslie (2019) has noted, the effectiveness of DEI approaches often hinges on rhetorical framing. Value-based appeals to inclusion and equity may resonate within certain organizational cultures, but can backfire in others, particularly when perceived as politically charged or disconnected from local concerns. These dynamics suggest that inclusive leadership requires a contingent, context-sensitive approach that balances moral imperatives with strategic considerations (Wölk et al. 2025). While our chatbot provides a promising, low-risk environment for leaders to plan and refine inclusive behaviors, a direct exploration of backlash is beyond the scope of our current paper. Future research should examine how such tools cause (or mitigate) backlash to DEI.

Relatedly, one of the most promising aspects of our chatbot is its potential to lower the barriers that often prevent leaders from engaging with sensitive topics (e.g., Sabour et al. 2023). Many hesitate to enter DEI conversations due to discomfort or fear of

saying the wrong thing (Figueroa et al. 2024). By offering a safe, anonymous environment for reflection and learning, the chatbot may normalize inclusion dialogue and support leaders in examining their own biases and behaviors without fear of judgment. The built-in reflection also provides opportunities to learn and practice inclusive language in a supportive setting, fostering greater self-awareness and more confident communication. We hope future scholarship explores these opportunities directly. Finally, while our chatbot focused on inclusion, the architecture and underlying theory are adaptable to other leadership domains (e.g., power and authority, conflict resolution, and change management). Fiske (1992) posits that other relational models (authority ranking, market pricing, or communal sharing) may be triggered depending on context, norms, and behavior. Future research should examine how different technologies cue distinct relational models, and with what consequences.

7 | Conclusion

Inclusion takes continual practice that must be systematically planned and reflected in HR policies and everyday leadership. Our research shows that leaders who intentionally build inclusive behaviors into their daily actions by recognizing uniqueness, showing appreciation, fostering belonging, and supporting organizational efforts create a culture where inclusion becomes a lived reality for followers. Our Leader Success Bot provides a scalable training tool for leaders to plan, reflect on, and refine their inclusive behaviors, ensuring that inclusion is actively measured and reinforced. By offering a safe, nonjudgmental space for reflection, the chatbot helps leaders practice inclusive communication. In turn, inclusion helps facilitate goal accomplishment, inclusion climate, and psychological safety in teams.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are openly available in OSF: Chatting Towards Inclusivity at https://osf.io/hkf9m/overview?view_only=4c7fb336f46b4ca28024c4059d5fdf7f.

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Appendix A

Design of the Chatbot: Additional Information on the Design and Development of the Leader Success Bot

The Leader Success Bot guides leaders to set daily inclusion behavioral plans. The front end of the bot focuses on two main platforms for user interaction and data collection: Qualtrics and Telegram. These platforms are chosen for their large and diverse user bases, allowing for robustness, efficient interaction, and handling large-scale surveys with thousands of participants without performance issues. While Prolific is used to recruit participants for Studies 1 and 2, Qualtrics is used to collect data from surveys for both studies. The script-based Telegram chatbot is used for real-time conversational interaction (action-planning and reflection) and administering the Qualtrics surveys during various stages.

The back-end infrastructure is built on a robust and scalable stack, ensuring smooth operation and accurate data collection. The core components include a MongoDB database (for storing user interactions with the chatbot) and a Heroku server setup (for hosting the chatbot application), which is optimized for handling the data and user interactions.

Our script-based chatbot is programmed using JavaScript and JSON, facilitating automated interaction on Telegram (Figure A1). The code to design, implement, and host the Leader Success Bot is open-sourced and can be easily accessed by anyone at: https://github.com/Vindhya-Singh/chat-bot.

To participate, leaders were required to connect to the chatbot for two work weeks, develop inclusion action plans in the morning, reflect on their affect and action-plan progress in the evening (both at the time of their own choosing), and complete questionnaires. Before (pre-test), halfway through (mid-test), and after the leader development program (post-test), participants completed a Qualtrics survey, administered via the chatbot, to report their weekly action-plan accomplishments and inclusion climate (Figure A2).

The Leader Success Bot helps leaders create SMART (Specific, Measurable, Achievable, Relevant, and Time-bound) inclusion action plans. During the interaction, the Leader Success Bot provides detailed examples and offers on-demand information to explain each inclusion dimension in depth, supporting leaders in developing specific, observable inclusion behaviors. The chatbot first guides them to set daily plans for recognizing uniqueness and showing appreciation to their team members. After a week, leaders and their direct reports take a Mid-Test Qualtrics survey, the hyperlink to which is administered via the bot. In the second week, the bot shifts focus to plans for strengthening belonging and supporting organizational efforts. The experiment concludes with a final Post-Test Qualtrics survey (delivered by the bot).

Study 1: Additional Information on Analyzing Specific, Observable Inclusion Behaviors Using Natural Language Processing (NLP) Techniques Topic Modeling

To confirm that the results of our content analysis did not miss any essential themes, we ran the BERTopic model (Grootendorst 2022) on the daily inclusion action plans set by the leaders while interacting with our Leader Success Bot. Unlike the previous topic modeling methods, which used the TF-IDF (Term Frequency–Inverse Document Frequency) method, the BERTopic method uses the c-TF-IDF method, a class-based variant of TF-IDF. The method's intuition is straightforward. Typically, applying TF-IDF across a set of documents highlights the relative importance of words within and across those documents. Instead of considering a set of documents, c-TF-IDF considers all documents within a single category (e.g., a cluster) before applying TF-IDF. The outcome is a consolidated "document" for each topic or category. This approach yields TF-IDF scores that reveal key terms specific to each topic or category. In our case, documents refer to the leaders' inclusion action plan data collected via our chatbot.

We considered all the inclusion action plans set by the leaders who interacted with our chatbot for the topic modeling analysis. This ensures that the topics revealed by topic modeling are exhaustive, serving as a method to quality check our content analysis process (Leeson et al. 2019). The inclusion action plans, originally stored as text in a MongoDB database, were preprocessed to prepare them for topic analysis. We cleaned the data by removing numbers, URLs, special characters, and emojis using Python's regular expressions. We also filtered for valid responses, which were defined as having at least five words and following the SMART method. Additionally, we removed common stop words to improve the efficiency and relevance of our analysis. Stop words are common, frequently occurring words in a language that often have little semantic meaning or importance on their own. Therefore, removing them improves the efficiency and relevance of the analysis and model performance. This preparation allowed us to train the BERTopic model, which identified 15 distinct topics (Figure A3).

Altogether, the thoroughness of the directed content analysis is validated with the results of topic modeling. The content analysis effectively captures the full spectrum of inclusion-related themes. The emerging topics and the associated topic words underscore that all dimensions of inclusion have been addressed, reinforcing the reliability and exhaustiveness of the analysis. For instance, "Appreciate Team Efforts" emphasizes gratitude and recognition, with terms like "thank," "appreciation," and "thank you notes" being highly scored. Topics like "Fostering Uniqueness" and "Equal Voices" emphasize individuality and equal representation within the team. Words like "unique," "strengths," and "voice" suggest that during the action-planning process, leaders emphasized both the uniqueness of each team member and the importance of equitable participation in discussions. "Mission and Vision" and "Affirm Contributions" reflect broader organizational values, highlighting terms associated with inclusion-related organizational missions.

A list of all Python packages and their versions used in the analysis can be found in the online repository in the "requirements.txt" file.

Appendix B

Field Pilot Validation Study

Participants and Procedure

In our pilot investigation, we rolled out the Leader Success Bot in a snowball sample of 48 fully employed MBA students from a university in the Western United States over a period of 12 work days. Participants were recruited from courses in Leadership and Organizational Behavior in an MBA program and received extra credit for their participation. To participate, leaders were required to connect to the chatbot for 2 work
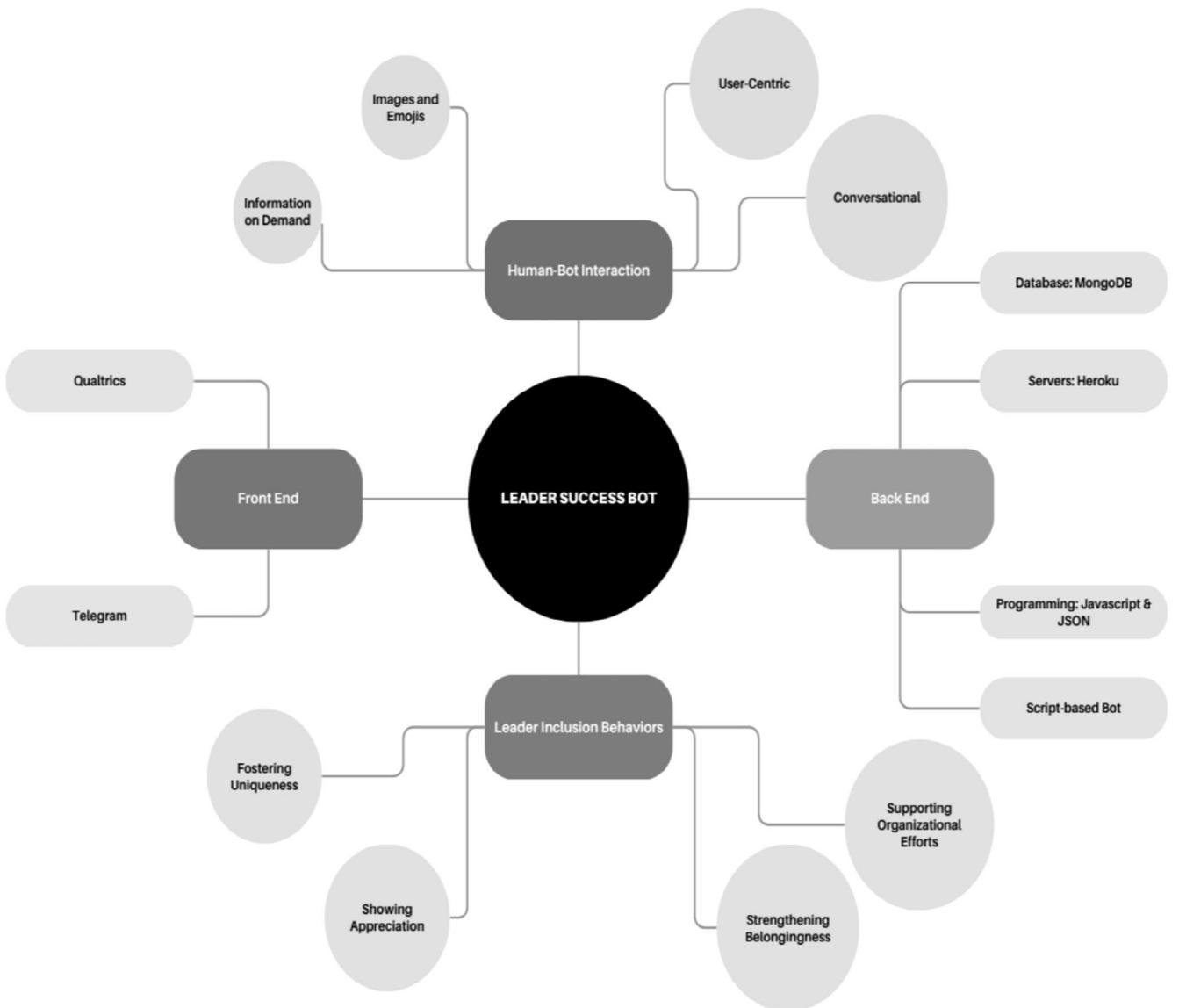
FIGURE A1 | Design and implementation of the Leader Success Bot.
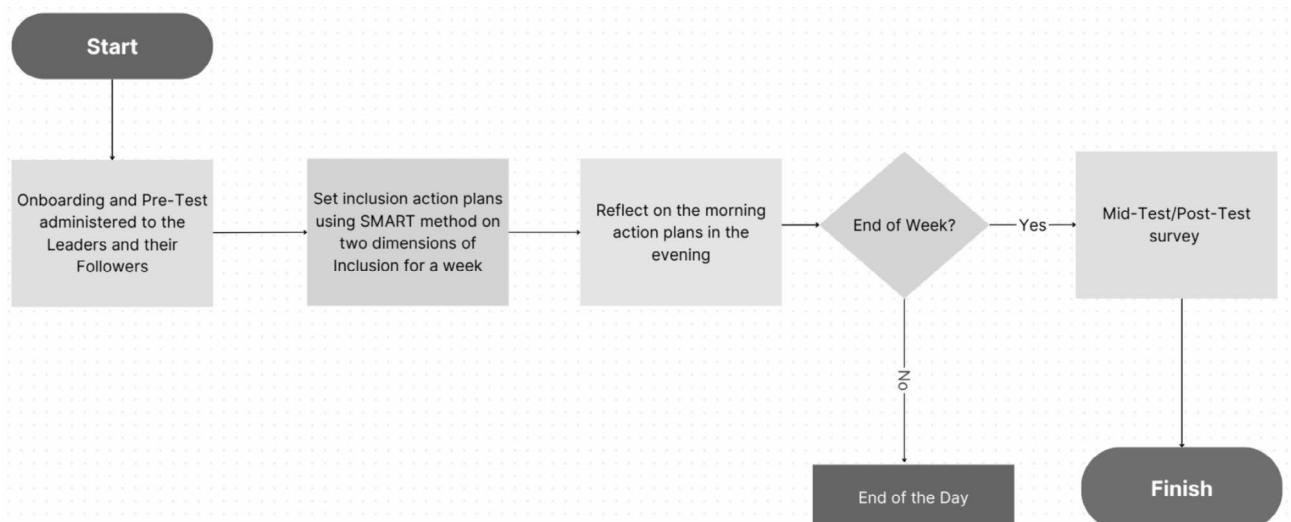
FIGURE A2 | Interaction procedure followed by the Leader Success Bot.

weeks, develop daily inclusion action plans, reflect on their affect and goal progress, and complete questionnaires. Before, halfway through, and after the development program, participants completed a Qualtrics survey, administered via the chatbot, to report their weekly goal accomplishment and inclusion climate.

The chatbot guided leaders through the process of setting SMART inclusion action plans for each inclusion dimension, provided detailed examples, and offered on-demand information to support leaders in developing specific, observable inclusion actions. The aim of the pilot study was to ensure the usability and effectiveness of the chatbot-mediated design in real-world settings. Forty-eight leaders provided a total of 3237 chatbot messaging responses, in addition to Qualtrics surveys. These responses offered initial evidence that supports the validation of our conversational chatbot as a tool for fostering inclusion in the workplace. By capturing real-time text messages while guiding participants through daily settings of inclusion action plans and reflection, the pilot study enabled a highly controlled and dynamic examination of the "lived experiences" of the leaders involved (Rosen et al. 2016).

Pilot Validation Evidence

The results of the pilot field study indicate that the Leader Success Bot functioned well, receiving positive feedback from users. Process checks suggest the bot was effective in guiding users to develop inclusion action plans. For example, leaders planned the following actions to foster uniqueness: "I want to encourage one of my employees to talk about their background and how it contributes to the diversity in our workplace." and "I will prioritize scheduling training for my team members for today's meeting." For strengthening belongingness, leaders set to implement the following specific inclusion behaviors: "I will host a virtual coffee chat today at 3 PM, inviting all team members to join. My goal is to have at least 10 participants share their experiences and connect over common interests, fostering a sense of community and belonging within the team." and "Today, I will check in with three team members individually to ask for their input on how we can improve collaboration and ensure everyone feels valued, aiming to gather at least two actionable suggestions from each conversation by the end of the day."
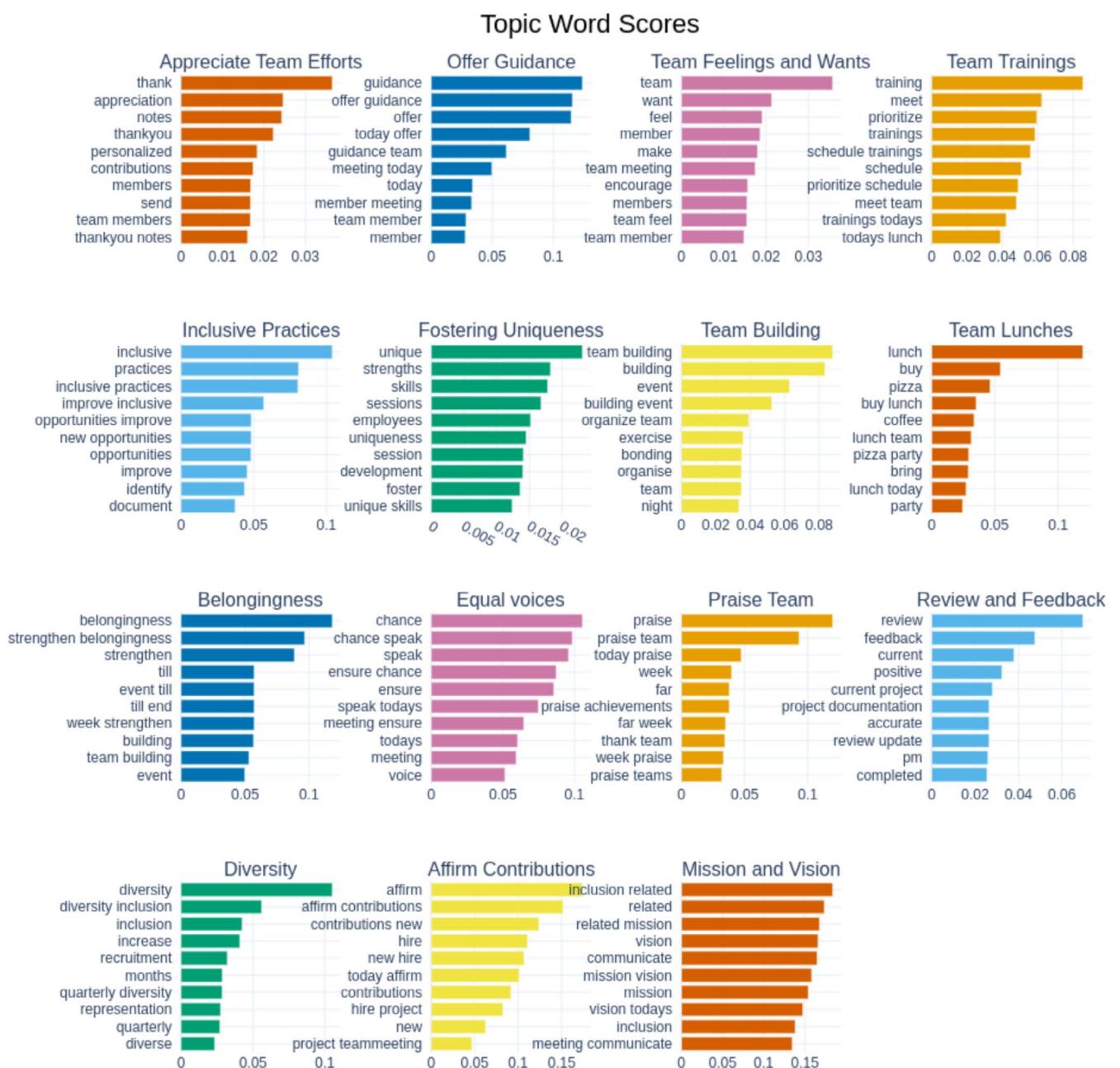
FIGURE A3 | Results obtained from topic modeling.

To show appreciation to their team members, leaders set out to do the following: "I will verbally recognize [team member] today for her organizational and time management skills." and "I will show appreciation to [team member] for all the hard work she has been doing with a gift card to her favorite restaurant." For supporting organizational inclusion efforts, leaders established the following inclusion behaviors: "I will explain to [team member] how [our] inclusive practices benefit her and the team." and "I will communicate with [a team member] how inclusion is part of our mission and we take it seriously." Additionally, in this initial field sample leaders' use of the Leader Success Bot was positively correlated with leaders' self-reported levels of inclusion ($r = 0.51$, $p < 0.001$).