

The influence of age-based faultlines on team performance: Examining mediational paths

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Abstract

In a sample of 60 branches of a bank, we examine the influence of age-based faultlines on team performance. Specifically, we propose a model with four mediational paths in the age-based faultline-team performance link. Using a time-lagged design with three data-collection points, we found that task conflict, team reflexivity, and negative team mood mediated the negative relationship between age-based faultline strength and team performance. The results reveal the value of examining different mediational paths to explain the negative impact of teams' demographic faultlines on team performance, and the need to integrate both task-related and affective aspects of team work in order to improve our understanding about how the influence of team faultlines develops. Furthermore, our findings offer managers practical guidance for reducing faultline effects on team performance.

Keywords: demographic faultlines; age-based faultlines; relationship conflict; task conflict; team reflexivity; negative team mood.

1. Introduction

Organizations increasingly rely on work teams to meet new demands in a changing environment (Ye, Wang, & Guo, 2019). Thus, there has been a surge in research on how these teams should be composed to foster high performance levels, especially in terms of demographic attributes (e.g., Díaz-Fernández, González-Rodríguez, & Simonetti, 2020). Age diversity has recently received attention, due to the fact that a longer work life is increasing age diversity within organizational teams (Jungmann, Wegge, Liebermann, Ries, & Schmidt, 2020). Employees whose ages largely differ must work together, and managers must deal with generational differences between team members. Thus, there is growing concern about the

effects of this increase in age diversity on team performance (Schneid, Isidor, Steinmetz, & Kabst, 2016).

The use of the team faultline perspective allows to investigate the alignment of team members' age with other demographic attributes; this perspective may account for some influences on team processes and outcomes that cannot be explained by age diversity alone (Wegge & Meyer, 2020). Therefore, in this study, we investigate the influence of *age-based faultlines* on team performance by focusing on the alignment between team members' age and gender in order to examine the strength of age-based faultlines. Specifically, we examine a *dormant* faultline (Thatcher & Pattel, 2012), that is, the potential faultlines based on the aforementioned attributes (i.e., age and gender).

Extant research on team faultlines has failed to show consistent results about the impact of demographic faultlines on team processes and outcomes (Zhang & Liu, 2019). Some studies have found that team faultlines reduce team cohesiveness, creativity, and performance (e.g., Kwon & Lee, 2020; Pearsall, Ellis & Evans, 2008; Rico, Molleman, Sánchez-Manzanares, & Van der Vegt, 2007), whereas other studies have shown that team faultlines increase team learning behavior, performance, and satisfaction (e.g., Gibson & Vermeulen, 2003; Lau & Murnighan, 2005; Przybilla & Wiesche, 2020). However, the distinction between the types of subgroups defined by faultlines might help to shed light on this inconsistency (see Carton & Cummings, 2012, for a review). According to Carton and Cumming (2013), two subgroup types are important to consider: *identity-based subgroups*, which would be formed according to the tenets of social identity (Tajfel & Turner, 1986), and *knowledge-based subgroups*, which would be formed according to the tenets of information processing (Galbraith, 1974). Based on Carton and Cumming's (2013) theory, identity-based subgroups within the team would have the potential to harm team performance through the conflicts and tensions among members of different subgroups. However, knowledge-based subgroups would have the potential to benefit

team performance through information-elaboration processes (see Carton & Cummings, 2012, for a review). As we stated above, we examine a potential (dormant) faultline, where researchers assume that the mechanisms of self-categorization, social identity, and similarity-attraction operate to form identity-based subgroups within the team based on certain attributes (e.g., age and gender; Thatcher & Patel, 2012). Thus, in the present study, based on the conflicts associated with *identity-based subgroups* defined by an age-based faultline, we expect to find a negative indirect relationship between age-based faultlines and team performance.

Although faultline theory (Lau & Murnighan, 1998) points to intra-team conflict as one of the presumable main mechanisms in transmitting negative faultlines' influence, empirical evidence in this regard is not consistent¹. Whereas some studies have found a positive relationship between demographic faultlines and task and relationship conflict (e.g., Pearsall et al., 2008), the mediating role of both types of conflict in the faultlines-performance link is not well established (e.g., Bezrukova, Thatcher, & Jehn, 2007; Li & Hambrick, 2005), suggesting the need to identify the underlying mechanisms shaping the influence of intra-team conflicts triggered by faultlines on team performance (Choi & Sy, 2010). Therefore, in addition to clarifying the role of intra-team conflict in the faultlines-performance link, the purpose of the present study is to empirically test a model that goes beyond task and relationship conflict to integrate potential new intervening processes (i.e., team reflexivity) and emergent states (i.e., negative team mood). This effort has important theoretical implications because by revealing additional key intervening variables, we can better understand why demographic faultlines influence team performance. From a practical point of view, disentangling these mechanisms can

¹ Please, note that the only article, to our knowledge, with a meta-analysis of demographic faultlines research (Thatcher & Patel, 2012) was retracted.

suggest ways to attenuate the dysfunctional influence of demographic faultlines based on age and gender on team functioning.

Our model simultaneously involves four mediating mechanisms (see Figure 1). First, we consider that relationship conflict may elicit negative mood responses (Ilies, Johnson, Judge, & Keeney, 2011), which in turn can influence team performance (González-Romá & Gamero, 2012). Thus, we examine the mediating role of two sequential mediators: relationship conflict (i.e., the shared perception of “interpersonal incompatibilities among group members”, Jehn, 1994, p. 224) and negative team mood (negative mood shared by team members). In this regard, the *affective path* is defined by the demographic faultline–relationship conflict–negative team mood–team performance causal chain. Second, research has acknowledged that task conflict (i.e., awareness of differences in opinions and perspectives among team members about the tasks being performed, Jehn & Mannix, 2001) may disrupt team reflexivity (i.e., the extent to which teams reflect on and modify their functioning, West, 2000; Tjosvold, Hui, & Yu, 2003), which in turn has been associated with better performance (Hoegl & Parboteeah, 2006). Thus, we also examine the mediating role of a *task-related path*, captured by the demographic faultline–task conflict–team reflexivity–team performance causal chain. Third, considering that negative team mood may also influence team reflexivity (Konradt, Otte, Schippers, & Steenfatt, 2016), we propose a *first mixed mediational path*, where the demographic faultline–relationship conflict–negative team mood–team reflexivity–team performance causal chain is examined. And fourth, drawing on previous studies examining the relationship between team reflexivity and affective responses (Chen, Bamberger, Song, & Vashdi, 2018), we propose a *second mixed mediational path*, defined by the demographic faultline–task conflict–team reflexivity–negative team mood–team performance causal chain.

Our study makes a number of contributions to the literature. First, by addressing four different mediational paths in the age-based faultlines-team performance link, we offer a more

fine-grained explanation for why demographic faultlines are negatively related to team performance through team conflict (e.g., Choi & Sy, 2010; Jehn & Bezrukova, 2010). In this regard, to the best of our knowledge, this is the first study to combine and articulate team processes (i.e., relationship conflict, task conflict, and team reflexivity) with emergent mood states (i.e., negative team mood). Second, several researchers have highlighted the importance of integrating both the diversity and affect fields to understand and manage individuals' behavior in contemporary organizations (e.g., Ashkanasy, Härtel, & Daus, 2002). Therefore, it is surprising that mood states have been overlooked in faultline research. In other words, the relationship between faultline strength and relationship conflict has been widely studied (Thatcher & Patel, 2012), but research on the consequences of such conflicts in terms of (collective) mood reactions remains scant. Thus, we contribute to the faultline literature by integrating the team-level construct of team mood into the explanation of how age-based faultlines influence team processes and outcomes. Third, extant research has generally analyzed the consequences of age diversity by examining the dispersion of only this attribute within the team. Studies on age-based faultlines, however, have shown that examining age alignment along with other demographic attributes may be a fruitful area of future research to understand the consequences of age diversity within teams (e.g., Kunze & Bruch, 2010). Therefore, we add value to the age diversity literature by focusing on the alignment between team members' age and gender in examining the influence of the strength of age-based faultlines on team performance.

 INSERT FIGURE 1 ABOUT HERE

2. Theoretical background and hypotheses

In work teams split by an age-based faultline, the resulting subgroups within the team are formed by members who share the same age category, and the strength of the faultline is

determined by the similarities and differences within the resulting age subgroups, based on other demographic characteristics (e.g., gender, race, or educational level; Lau & Murnighan, 1998; Shaw, 2004). As we stated above, in the present study we focus on age-based faultlines, but in order to examine their strength, we also focus on how similar or different the age subgroups are in terms of gender. We considered gender because it is another relevant social category in faultline formation (Bezrukova, Jehn, Zanutto, & Thatcher, 2009). Gender is one of the most commonly used attributes in empirical studies on demographic faultlines (Thatcher & Patel, 2012). Moreover, according to Pelled, Eisenhardt and Xin (1999), gender is also one of the demographic attributes most likely to favor subdivisions because it is ‘impermeable’; that is, individuals cannot move in or out at will. Thus, by examining the alignment of age subgroups with gender, we focus on a more salient within-team division than if we had focused only on the age of team members. In addition, in the decade before the data collection, the studied organization incorporated many young university graduates (mostly women) with degrees in the fields of finance, business administration, and economics. This created groups of young women within branches who had to work with the groups of older men who had dominated the bank branches’ composition until then. Thus, an age-based faultline that also considers gender is highly relevant in our research context.

2.1. The affective path: The mediating role of relationship conflict and negative team mood

In strong-faultline teams, the social categorization processes that split a team into subgroups (in-group vs out-group) may lead subgroup members to exhibit intergroup bias and animosity toward members of the out-group (Bezrukova et al., 2007). As a result, different opinions and perspectives about team issues may be misinterpreted and viewed as criticism rather than neutral comments or constructive assessments (Lau & Murnighan, 2005). These misunderstandings often lead to negative attributions about members of other subgroups,

providing a basis for relationship conflict (Jehn, 1994). Thus, age-based faultlines are likely to increase relationship conflict within teams.

Following Karasek's (1979) job strain model, relationship conflict, a job demand, is positively related to job strain. One psychological indicator of job strain is negative affect (Ilies et al., 2011). Affect is often used as an umbrella concept that includes other more specific phenomena, such as emotions and moods. Moods, when compared with emotions, are weaker and more diffuse affective reactions whose effects are subtler and more pervasive. Moreover, they can be characterized as relatively enduring (several days or weeks). Emotions are more short-lived and stronger affective reactions. Whereas emotions have a clear trigger (e.g., sadness caused by a supervisor's reprimand), moods do not have a clear and explicit antecedent (Forgas, 1992). Although we do not deny the importance of emotions at work, in the present study we focused on moods because of their relative stability and global nature, and because they better capture the pervasive feelings employees experience at work (Barsade, 2002). In this study, we conceptualized team negative affect as negative moods (e.g., feeling tense, jittery, and anxious) shared by team members (González-Romá & Gamero, 2012). Research has consistently shown that stressful events such as arguments, interpersonal frustrations, and interpersonal conflict lead to negative mood states (e.g. Ilies et al., 2011). At the team level, research has also shown that team members who experience high shared levels of relationship conflict also experience high shared levels of negative mood (e.g., Gamero, González-Romá, & Peiró, 2008).

Moods influence performance through their influence on proximal motivation (see, Seo, Barrett, & Bartunek, 2004, for a review). Compared to employees in a positive mood, those in a negative mood see themselves as less self-efficacious and as making less progress toward goals, leading them to set lower goal levels for themselves (George & Brief, 1996). Thus, teams whose members are in a negative mood have lower levels of proximal motivation and, therefore, make

less effort on the tasks they are engaged in and abandon them sooner. All of this hinders team performance.

Based on these arguments, we posit that relationship conflict and negative team mood will transmit the influence of age-based faultline strength on team performance. As mentioned above, relationship conflict triggered by age-based faultlines will be positively related to negative team mood, which in turn will be negatively related to team performance. Together, these relationships will result in a negative indirect ‘effect’ of age-based faultline strength on team performance through the aforementioned mediators. Therefore, we hypothesize that:

Hypothesis 1: Age-based faultline strength has a negative indirect effect on team performance, transmitted through relationship conflict and negative team mood.

2.2. The task-related path: The mediating role of task conflict and team reflexivity

In teams split into subgroups by a strong faultline, when the whole team has a task to perform, in-group favoritism may lead some team members to conform to the opinions of their own subgroup about the team task, whereas they may be less willing to accept different opinions about the same task coming from other subgroups within the team (e.g., van Dick, van Knippenberg, Hägele, Guillaume, & Brodbeck, 2008). In addition, the psychological support found within their subgroups encourages them to state their shared view, even when it is contrary to the view held by members of other subgroups (Pickett, Silver & Brewer, 2002). Therefore, in teams with a strong faultline, task conflicts are likely to emerge.

Although it has been argued that task conflict may induce reflective behavior, research has also acknowledged that “it is how conflicts are managed, not conflict itself, that can contribute to team reflexivity” (Tjosvold et al. 2003; p. 144). From an information processing perspective (Carnevale & Probst, 1998; De Dreu & Weingart, 2003), task conflict increases cognitive load, which hinders complex thinking and information processing (De Clercq &

Belausteguigoitia, 2017; Jehn & Bezrukova, 2010). Moreover, key cognitive capabilities for reflexivity (e.g., attention; West, 2000) have to be used to deal with the conflict situation, rather than to process task-relevant information. Therefore, from this perspective, task conflict will hinder team reflexivity. Supporting this idea, Hinds and Mortensen (2005) found that task conflict was negatively related to spontaneous communication among team members. Similarly, Gamero et al. (2008) found that task conflict was negatively related to the extent to which team members interact by talking to each other about team issues, such as team goals, rules, and methods. Thus, we posit that task conflict is negatively related to team reflexivity.

However, increased reflection and a focus on constantly improving performance are likely to lead to higher levels of team performance (De Jong & Elfring, 2010). Openly discussing what was effective or ineffective in the team's prior experience helps team members to come up with better ideas to change their strategies and processes, and it allows them to learn from past mistakes (West, 2000). Consistent with this rationale, prior studies have offered ample support for the beneficial effects of reflexivity on team performance (e.g., Carter & West, 1998).

Based on these arguments, therefore, we posit that task conflict and team reflexivity act as intervening variables in the relationship between faultline strength and team performance. Specifically, task conflict triggered by age-based faultlines will be negatively related to team reflexivity, which in turn will be positively related to team performance. Together, these relationships will result in a negative indirect 'effect' of age-based faultline strength on team performance via the aforementioned mechanisms. Therefore, we hypothesize the following:

Hypothesis 2: Age-based faultline strength has a negative indirect effect on team performance, transmitted through task conflict and team reflexivity.

2.3 The first mixed path: The mediating role of relationship conflict, negative team mood, and team reflexivity

The two mixed paths we propose are based on the idea that negative mood and team reflexivity may be reciprocally related. As we explain below, there are theoretical arguments and empirical findings that support this reciprocal relationship. The first mixed path involves the “negative mood → team reflexivity” relationship.

According to the reflexivity literature, attention is the first stage in a team’s reflective processes (West, 2000). Negative moods, however, have long been known to narrow individuals’ attention, causing them to focus on the most threatening features of a situation (Hudlicka, 2003). This narrowing effect diminishes the number and scope of ideas when team members reflect on their objectives, strategies, and processes. In addition, negative moods have also been related to more rigid thinking, fixation on local rather than global features, and a more cautious approach to decision making (Pfaff, 2012). Thus, negative team mood is likely to have a negative influence on team reflexivity.

Thus, we surmise that relationship conflict, negative team mood, and team reflexivity transmit the influence of age-based faultline strength on team performance. As explained above, relationship conflict triggered by strong age-based faultlines will be positively related to negative team mood. This negative mood at the team level will be negatively related to team reflexivity, which in turn will be positively related to team performance. Together, these relationships will result in a negative indirect ‘effect’ of age-based faultline strength on team performance through the aforementioned mediators. Thus, we propose that:

Hypothesis 3: Age-based faultline strength has a negative indirect effect on team performance, transmitted through relationship conflict, negative team mood, and team reflexivity.

2.4 The second mixed path: The mediating role of task conflict, team reflexivity, and negative team mood

The second mixed path involves the “team reflexivity → negative mood” relationship. As we stated above, team reflexivity refers to the extent to which team members collectively reflect on the team’s objectives, strategies, and processes. In reflexive teams, team members develop shared meanings about team functioning and improvement by talking to each other, exchanging information, and openly discussing different opinions and perspectives about the team, in order to learn from past experiences and improving ways to achieve team goals (Widmer, Schippers, & West, 2009). These constructive team processes will help to reduce the negative mood shared by team members for several reasons. First, they facilitate collaborative team processes (such as confidence-building and mutual helping) among team members, which translates into more interpersonal support at the team level (Chen et al., 2018; Eddy, Tannenbaum, & Mathieu, 2013). This support should help to reduce negative team mood (Chen et al., 2018). Second, to the extent that team reflexivity involves addressing areas for improvement and executing plans for implementing specific improvements, it may increase team members’ sense of situational control, which in turn should be negatively related to negative team mood (Chen et al., 2018). Some empirical evidence provides indirect support for the negative relationship between team reflexivity and negative team mood. Carter and West (1998) showed that team reflexivity was positively related to an overall measure of teams’ positive affective well-being.

Thus, in this second mixed path, we suggest that task conflict, team reflexivity, and negative team mood transmit the influence of age-based faultline strength on team performance. As explained above, task conflict triggered by strong age-based faultlines will be positively related to team reflexivity. Team reflexivity will be negatively related to negative team mood, which in turn will be negatively related to team performance. Together, these relationships will result in a negative indirect ‘effect’ of age-based faultline strength on team performance through the aforementioned relationships. Thus, we propose the following:

Hypothesis 4: Age-based faultline strength has a negative indirect effect on team performance, transmitted through task conflict, team reflexivity, and negative team mood.

3. Method

3.1. Procedure and Sample

Our sample was composed of bank branches of a Spanish savings bank operating in the same Spanish metropolitan area. The bank branches fulfilled the work team requirements highlighted by Kozlowski and Bell (2003): a) members carried out important tasks for the broader organization and had objectives and work processes in common; b) functional relationships and proximity within each bank branch led team members to interact; c) to achieve their common goals, branch members had to coordinate with each other, showing the interdependence of their tasks; and d) within the organizational context in which the studied branches were embedded (the savings bank), each branch had its own identity (i.e., unique name and identification code) and distinctiveness. All the bank branches had similar characteristics and were operating in the same environment. Within bank branches, managers had more formal power and responsibility than the other branch members. Moreover, they played a linking role between the bank and the branch members, and they were the representatives of the bank management in the branches. Because differences between the roles of managers and those of the other branch members might have an influence on the development of hierarchical faultlines within branches and affect the team states, processes, and outcomes considered, we decided to exclude branch managers from our study and focus on the other branch members, whose jobs were hierarchically more homogeneous. Verbal informed consent was obtained before data collection. Participation was voluntary, and respondents' anonymity and confidentiality were guaranteed.

Data were gathered from bank branches at three time points between 2002 and 2003. Time 1 and Time 2 were separated by six months, and Time 2 and Time 3 by one year. Neither existing theory nor empirical evidence, to our knowledge, provides a good estimate of the appropriate time lag between measurements to capture causal relationships. In the present study, however, these time lags were mainly determined by the involved bank branches's availability. At Time 1, data were collected from 281 employees belonging to 67 teams (i.e., bank branches). However, for our analysis, we only selected teams with a 100% response rate at Time 1 because faultline strength is likely to be distorted when team size is not large (as in our case) and a small number of team members are missing (Choi & Sy, 2010). After applying this criterion, we kept a final sample composed of 251 members from 60 teams. At time 2, data were collected from the same 60 teams, and the response rate was 96.2%. From Time 1 to Time 2, we also computed the percentage of common subjects within teams (i.e., stability rate). The average stability percentage across teams was 89.18% (*Min* = 33.3%, *Max* = 100%). The distribution of team size was as follows: 1.7% had 3 members, 33.3% had 4 members, 35% had 5 members, 16.7% had 6 members, 5% had 7 members, 5% had 8 members, and 3.3% had 9 members. The indicator of team performance for all the study teams was provided by the branch manager at Time 3. Regarding age, at Time 1, 81.3% of the team members were 35 years old or less, 13.1% were between 36 and 45 years old, and 5.6% were 46 years old or more.

3.2. Measures

3.2.1. Age-based faultline strength. This variable was measured at Time 1 by using the faultline strength² (FLS) formula developed by Shaw (2004): $FLS = IA \times (1 - CGAI)$, where *IA* (*subgroup internal alignment*) is the extent to which members within a particular age subgroup are similar in gender; and *CGAI* (*cross-subgroup alignment*) is the extent to which team

² See Shaw (2004) for further information about how to calculate FLS.

members in different age subgroups are similar in gender (team managers were excluded from faultline calculation). The higher the FLS, the cleaner the team split into subgroups. We asked team members to indicate their age and gender. Given the small size of our sample teams and the need to ensure team members' anonymity, team members reported their age by choosing one of three response categories (1 = ≤ 35 years; 2 = between 36 and 45 years; and 3 = ≥ 46 years). Previous researchers have also used categorical variables to measure faultlines (Choi & Sy, 2010; Vandebek, Voordeckers, Lambrechts, & Huybrechts, 2016). Regarding age, there are also studies in which faultline strength has been obtained from a categorical age variable (e.g., Antino, Rico, & Thatcher, 2019; Kunze & Bruch, 2010). Moreover, there are faultline indexes solely for categorical variables (i.e., Shaw, 2010; Trezzini's Index of Polarized Multi-Dimensional Diversity, 2008). Of these indexes, according to a recent review of different measures of faultlines (Meyer & Glenz, 2013), the measure used in this study (i.e., Shaw's FLS measure) is an adequate index for measuring faultlines within teams, but it is also the best index for measuring faultlines with categorical variables.

3.2.2. Relationship conflict. We used four items adapted from Jehn's (1995) Intragroup Conflict Scale (5-point Likert-type scale 1 = *Never* to 5 = *Quite frequently*), at Time 2. A sample item is: "How frequently are there personal conflicts in your work team?" The team level Cronbach's α (using item means) was 0.96. We aggregated team members' scores on the relationship conflict scale and the other variables described below at the team level. Previously, within-team agreement was estimated. The average deviation³ (*AD*; Burke & Dunlap, 2002) value for relationship conflict was 0.34, suggesting a high level of agreement (the cut-off point is 0.83 for a 5-point response scale). Moreover, the values for the intraclass correlations

³ See Burke & Dunlap (2002) for further information about how to calculate this index.

coefficients⁴ $ICC[1]$ and $ICC[2]$ were 0.39 and 0.77, respectively, also justifying aggregation (Bliese, 2000). Finally, the one-way ANOVA results obtained ($F(59, 181) = 4.37, p < 0.01$) indicated that there were significant differences in average relationship conflict among teams, and supported the validity of this aggregated measure (Chan, 1998).

3.2.3. Task conflict. Task conflict was measured at Time 2 using six items taken from measures previously employed (Jehn, 1995; Shah & Jehn, 1993; Gamero et al., 2008), rated on a 5-point Likert-type scale (1 = *Never* to 5 = *Quite frequently*). A sample item is: “How frequently do members of your work team disagree about who should do what?” The team level Cronbach’s α was 0.95. Interrater agreement and ICCs ($AD = 0.33, ICC[1] = 0.36, ICC[2] = 0.74$) justified aggregation at the team level; and the one-way ANOVA results ($F(59, 181) = 3.89, p < 0.01$) indicated adequate between-team differentiation.

3.2.4. Negative team mood. This variable was measured at Time 3 by using the Affective Well-being Scale (Segura & González-Romá, 2003) rated on a 5-point Likert-type scale (1 = *Not at all* to 5 = *Very much*). Respondents are asked to indicate to what extent, in the past few weeks, their job has made them feel like each of the following adjectives: tense, jittery, anxious, calm, tranquil, and relaxed. Responses to the last three items were reverse-scored. The team level Cronbach’s α was 0.93. Interrater agreement and ICCs ($AD = 0.57, ICC[1] = 0.19, ICC[2] = 0.50$) justified aggregation across team members, and the one-way ANOVA results ($F(56, 178) = 1.96, p < 0.01$) indicated an adequate between-team differentiation.

3.2.5. Team reflexivity. We measured team reflexivity at Time 3 with the Task Reflexivity Scale (Carter & West, 1998) rated on a 6-point Likert-type scale (1 = *Strongly disagree* to 6 = *Strongly agree*). An item example is: “The methods used by the team to get the job done are often analyzed”. The team level Cronbach’s α was 0.96. The AD value for team

⁴ See Bliese (2000) for further information about how to calculate these coefficients.

reflexivity was 0.57, suggesting a high level of agreement (the cutoff point is 1 for a 6-point scale), and the values for $ICC[1]$ and $ICC[2]$ were 0.19 and 0.49, respectively, also justifying aggregation. The one-way ANOVA results ($F(56,177) = 3.22, p < 0.01$) indicated an adequate between-team differentiation.

3.2.6. Team performance. As an indicator of team performance at Time 3, we used a subjective measure. We asked branch managers to respond to a 2-item scale. One item was selected from the group performance scale (Jehn, Northcraft, & Neale, 1999): ‘How well do you think your work team performs?’ Branch managers answered on a 5-point Likert-type scale (1 = *Very badly* to 5 = *Very well*). The other item was as follows: ‘What is the quality of the work carried out by your team?’ Branch managers answered using a 5-point Likert-type scale (1 = *Quite poor* to 5 = *Very good*). The team level Cronbach’s α was 0.78.

Prior to testing our hypotheses, we conducted a confirmatory factor analysis at the team level to examine the distinctiveness of the four scales (relationship conflict, task conflict, negative team mood, and team reflexivity). Robust Maximum likelihood (RML) was chosen as the estimation method. We tested the fit of this four-factor model to the data and examined whether it fitted the data better than a one-factor model (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The expected four-factor model fitted our data reasonably well ($\chi^2_{\text{Satorra-Bentler}} = 283.986, df = 183, p < 0.01$; SRMR = 0.07; RMSEA = 0.09 CFI = 0.96; NNFI = 0.95), and all the items showed statistically significant factor loadings on their respective factors, whereas the one-factor model exhibited a poor fit ($\chi^2_{\text{Satorra-Bentler}} = 1017.794, df = 189, p < 0.01$; SRMR = 0.29; CFI = 0.65; NNFI = 0.61).

3.2.7. Controls. Team size and team tenure at Time 1, as reported by branch managers, were considered as control variables. We controlled for team size because it has been shown to be important for team processes and outcomes (e.g., González-Mulé et al., 2020), and larger teams have a greater potential for heterogeneity and subgroup formation (e.g., Shaw, 2004). We

also controlled for team tenure as it may influence team functioning (Smith, Smith, Olian, Sims, O'Bannon, & Scully, 1994). For example, more experienced teams are likely to have overcome initial problems caused by novelty, thereby experiencing less disruption and fewer delays in performance (Morgeson & DeRue, 2006). Team tenure was operationalized by asking team managers how many months team members had been working in the same team. Finally, to avoid possible confounding effects caused by other relevant demographic variables and “to compare the utility of the traditional diversity approach with that of the faultline model” (Lau & Murnighan, 2005, p.649), we also controlled for team heterogeneity in gender and age by using Blau's (1977) heterogeneity index.

3.3. Analysis

Before analyzing our data, the study variables were screened for missing data. There were three missing values (3.3%) in team tenure at Time 1, five missing values (5%) in both negative team mood and team reflexivity at Time 3, and seven missing values (11.6%) in branch managers' perceived team performance, also at Time 3. There were no missing values in the other variables. Although there is no agreement about how to handle missing data (Dedrick et al., 2009), Maximum Likelihood (ML) procedures using specialized algorithms (e.g., the expectation maximization (EM) algorithm; Dempster, Laird, & Rubin, 1977) have been pointed out by several simulation studies and reviewers of the missing data literature as one of the most satisfactory imputation approaches for dealing with missing data (e.g., Enders, 2001). Therefore, we imputed missing data using the EM algorithm. The descriptive statistics for the team tenure and team performance variables were nearly equal before and after imputation. Moreover, similar results were obtained when the same SEM models were conducted using only the cases with no missing observations. Thus, our imputation approach did not change our findings.

In order to test the research hypotheses, we conducted structural equation modelling (SEM) analysis; therefore, the coefficients of all the hypothesized relationships were estimated

simultaneously. SEM was carried out using Mplus 8 (Muthén & Muthén, 1998-2017) with robust maximum likelihood estimation. Considering the relatively small sample size at the bank branch level ($N = 60$) and the number of parameters to be estimated, relationships among observed variables were modelled. We tested a mediation model that comprised all the study hypotheses. We controlled for the effects of the control variables (team size, team tenure, gender heterogeneity, and age heterogeneity) by introducing these variables as covariates in the tested models. Five indicators were used to assess model fit: the chi-square statistic and its associated degrees of freedom, RMSEA, CFI, TLI, and SRMR.

To test the significance of the indirect effects involved in this model, we used Monte Carlo (MC) confidence intervals computed with the web utility provided by Selig and Preacher (2008). Four indirect effects were tested, corresponding to the four hypothesized indirect effects (affective, task-related, first mixed, and second mixed). For the affective indirect effect, the product of regression coefficients was $a_1 \cdot b_1 \cdot c_1$, where a_1 is the coefficient estimating the relationship between faultline strength and relationship conflict, b_1 estimates the relationship between relationship conflict and negative team mood, and c_1 is the coefficient estimating the relationship between negative team mood and team performance. For the task-related indirect effect, we estimated the product $a_2 \cdot b_2 \cdot c_2$, where a_2 is the coefficient estimating the relationship between faultline strength and task conflict, b_2 estimates the relationship between task conflict and reflexivity, and c_2 estimates the relationship between reflexivity and team performance. For the first mixed indirect effect, we estimated $a_1 \cdot b_1 \cdot d_1 \cdot c_2$, where a_1 , b_1 and c_2 estimate the aforementioned relationships, and d_1 is the coefficient estimating the relationship between negative team mood and reflexivity. Finally, for the second mixed indirect effect, we estimated $a_2 \cdot b_2 \cdot d_2 \cdot c_1$, where a_1 , b_1 and c_2 estimate the aforementioned relationships, and d_2 is the coefficient estimating the relationship between reflexivity and negative team mood (see Figure 1).

4. Results

Descriptive statistics and correlations among the study's team-level variables are displayed in Table 1.

 INSERT TABLE 1 ABOUT HERE

The study model with all the hypotheses showed satisfactory fit to the data (Satorra-Bentler $\chi^2 = 28.17$, $df = 22$, $p > 0.05$; RMSEA = 0.068; CFI = 0.950; TLI = 0.921; SRMR = 0.091)⁵. Thus, we proceeded to interpret the estimates obtained (see Figure 2) and test the study hypotheses. To evaluate the statistical significance of the parameter estimates, we used one-tailed tests, which are suitable for directional hypotheses (Wonnacott & Wonnacott, 1984).

 INSERT FIGURE 2 ABOUT HERE

The relationship between faultline strength and relationship conflict was positive and statistically significant ($a_1 = 2.98$, $p < 0.05$). However, relationship conflict was not related to negative team mood ($b_1 = 0.06$, $p > 0.05$), whereas negative team mood was negatively related to team performance ($c_1 = -0.32$, $p < 0.01$). The Monte Carlo (MC) confidence interval (CI) for the estimated indirect effect corresponding to the affective path ($a_1 \cdot b_1 \cdot c_1 = -$

⁵ As requested by one of the reviewers, we also estimated a model with gender-based FLS (instead of age-based FLS) as the predictor variable. The model presented an overall acceptable fit ($\chi^2 = 29.76$, $df = 22$, $p > 0.05$; RMSEA = 0.083; CFI = 0.952; TLI = 0.924; SRMR = 0.123), although it was worse than the fit of the hypothesized model. Moreover, the effect of gender-based FLS on relationship conflict and task conflict was not statistically significant ($a_1 = 0.82$, $p > 0.05$; $a_2 = 0.51$, $p > 0.05$), thus indicating that, in our sample the relevant faultline, was age-based.

0.06; 90% MC CI = [-0.25, 0.21]) included zero (Table 2). Thus, we concluded that Hypothesis 1, which assessed the affective path, was not supported.

Regarding the task-related path, as Figure 2 reveals, the relationship between faultline strength and task conflict was positive and statistically significant ($a_2 = 1.35, p < 0.05$). Additionally, task conflict was negatively related to team reflexivity ($b_2 = -0.84, p < 0.01$). However, the relationship between team reflexivity and team performance was not statistically significant ($c_2 = 0.01, p > 0.05$). Additionally, the Monte Carlo confidence interval for the estimated indirect effect corresponding to the task-related path ($a_2 \cdot b_2 \cdot c_2 = -0.01$; 90% MC CI = [-0.25, 0.11]) included zero (Table 2). Thus, we concluded that Hypothesis 2, which assessed the task-related path, was not supported.

In relation to the first mixed path, as previously stated, the relationship between faultline strength and relationship conflict was positive and statistically significant ($a_1 = 2.98, p < 0.05$); however, relationship conflict was not related to negative team mood ($b_1 = 0.06, p > 0.05$). Additionally, as Figure 2 shows, negative team mood was not related to team reflexivity ($d_1 = 0.07, p > 0.05$), and the relationship between team reflexivity and team performance was not statistically significant ($c_2 = 0.01, p > 0.05$). Finally, the Monte Carlo confidence interval for the estimated indirect effect corresponding to the first mixed path ($a_1 \cdot b_1 \cdot d_1 \cdot c_2 = 0.0001$; 90 MC CI% = [-0.02, 0.02]) included zero (see Table 2). Therefore, we concluded that Hypothesis 3 was not supported.

In relation to the second mixed path, as previously stated, the relationship between faultline strength and task conflict was positive and statistically significant ($a_2 = 1.35, p < 0.05$), and task conflict was negatively related to team reflexivity ($b_2 = -0.84, p < 0.01$). Additionally, as Figure 2 shows, team reflexivity was negatively related to negative team mood ($d_2 = -0.39, p < 0.05$), and the relationship between negative team mood and team performance was statistically significant ($c_1 = -0.32, p < 0.01$). Moreover, the Monte Carlo

confidence interval for the estimated indirect effect corresponding to the second mixed path ($a_2b_2d_2c_1 = -0.14$; 90% MC CI = $[-0.47, -0.002]$) did not include zero (see Table 2).

Therefore, we concluded that Hypothesis 4 was supported.

 INSERT TABLE 2 ABOUT HERE

Finally, none of the control variables considered were significantly related to team performance: team size ($\beta = 0.02, p > 0.05$), team tenure ($\beta = 0.002, p > 0.05$)⁶, age heterogeneity ($\beta = -0.51, p > 0.05$), or gender heterogeneity ($\beta = 0.40, p > 0.05$).

For a deeper comprehension of the indirect effects, we tested the hypothesized full-mediation model (M1) against an alternative partial-mediation model (M2). For this purpose, and to define M2, three additional paths were added to M1: 1) the path between faultline strength and team performance, 2) the path between relationship conflict and team performance, and 3) the path between task conflict and team performance. The goodness of fit indices for M2 were satisfactory (Satorra-Bentler $\chi^2 = 21.26, df = 19, p > 0.05$; RMSEA = 0.045; CFI = 0.982; TLI = 0.966; SRMR = 0.086), but only the added path between faultline strength and team performance was statistically significant ($\beta = -1.61, p < 0.05$). Relationship conflict ($\beta = 0.03, p > 0.05$) and task conflict ($\beta = -0.08, p > 0.05$) did not show a statistically significant relationship with performance. Moreover, the Satorra-Bentler chi-square statistic

⁶ As suggested by one of the reviewers, there might be a concern about the relationship between team tenure and team performance based on the idea that bad-functioning teams could show a higher level of member rotation. Thus, low team tenure could be a side-effect of bad team performance. However, the reported non-statistically significant correlation between our measures of team tenure and team performance ($r = .11, p > .05$; see Table 1) and the regression coefficient for this relationship in the tested model ($\beta = 0.002, p > 0.05$) suggest that these variables were not related in the study sample.

comparison indicated non-statistically significant differences between the two nested models, M1 and M2 ($\Delta\text{Satorra-Bentler}\chi^2 = 7.19$, $df = 3$, $p > 0.05$). Thus, we tested a second alternative partial-mediation model (M3). To define M3, only the path between faultline strength and team performance was added to M1. The goodness of fit indices for M3 were satisfactory (Satorra-Bentler $\chi^2 = 21.78$, $df = 21$, $p > 0.05$; RMSEA = 0.025; CFI = 0.994; TLI = 0.990; SRMR = 0.085), and as in the previous model (M2), the added path was statistically significant ($\beta = -1.60$, $p < 0.01$). This time, the Satorra-Bentler chi-square statistic comparison indicated statistically significant differences between the two nested models, M1 and M3 ($\Delta\text{Satorra-Bentler}\chi^2 = 7.43$, $df = 1$, $p < 0.01$). Lastly, we estimated the Monte Carlo confidence interval for the indirect effect (IE) corresponding to the second mixed path in the partial mediation model M3. The results obtained ($IE = -0.15$; 90% MC CI = [-0.53, -0.002]) showed that the confidence interval did not include zero. All these results together provide empirical evidence for the partial mediation effect of task conflict, team reflexivity, and negative team mood in the relationship between faultline strength and team performance.

5. Discussion

This study examined four indirect effects (i.e., affective, task-related, first mixed, and second mixed paths) to explain the relationship between age-based faultlines and team performance. We found that the indirect effect involving task conflict, team reflexivity, and negative team mood as sequential mediators (the second mixed path) was statistically significant (Hypothesis 4). Contrary to our expectations, relationship conflict was not directly related to negative team mood, and team reflexivity was not directly related to team performance (although it influenced team performance through negative team mood). Thus, we did not find support for the affective, task-related, and first mixed paths (Hypotheses 1, 2, and 3, respectively). Results indicated that the indirect effect of age-based faultline strength through task conflict, team

reflexivity, and negative team mood was, as expected, negative and statistically significant.

These results have several implications for theory, research, and practice that we consider below.

5.1. Implications for theory and future research

From a theoretical standpoint, our findings highlight that task conflict, team reflexivity, and negative team mood explain the negative influence of age-based faultline strength on team performance. Thus, our findings provide support for previous studies (e.g., Choi & Sy, 2010; Pearsall et al., 2008) that identified task conflict as a mediator in the relationship between faultline strength and team performance, but they also extend them by identifying team reflexivity, and an affective emergent state (i.e., negative team mood) as additional intervening mechanisms. These findings make a meaningful contribution to improving our understanding about why and how age-based faultline strength is indirectly related to subsequent team performance. According to our theoretical rationale, in teams with strong age-based faultlines, in-(sub)group favoritism is likely to lead to disagreements about the tasks being performed within the team. These continuous task conflicts, in addition, hinder team reflexivity by demanding attention and information processing. When team members reflect, however, the constructive and collaborative processes involved (i.e., open information exchange and discussion of different opinions and perspectives in order to learn from past experiences and improving ways to achieve the team goals) and an increased sense of situational control (Chen et al., 2018) help to reduce the negative mood shared by team members. Consequently, in teams with strong age-based faultlines, the level of negative mood would be higher, which in turn would lead to less effort and persistence on team tasks, thus diminishing team performance.

Second, our findings suggest that in order to fully understand the relationship between demographic faultlines and team performance, both task-related aspects (such as task conflict and reflexivity) and affect-related aspects (such as negative team mood) should be considered as potential mediating mechanisms. This means that the relationship between demographic

faultlines and team performance is probably more complex than researchers typically thought. In this regard, recent research reveals the importance of measuring activated team faultlines on top of dormant ones, and the consideration of alternative paths to understand how team faultlines influence team performance by threatening team justice climate and status conflict (Antino et al., 2019).

Third, a recent review on team reflexivity in teams highlighted the need “for future research to examine the role of affective emergent states in team reflexivity” (Konradt et al., 2016, p. 169). By showing that negative team mood is an intervening variable between team reflexivity and team performance, our study contributes to this area of research. Our findings suggest that certain affective emergent states can help to understand why reflexivity improves team performance.

One final implication of our findings is related to the role of time in the relationship between faultlines and their consequences. It has been argued that the salience and influence of demographic faultlines would decrease over time as team members interact and overcome their initial surface differences (Thatcher & Pattel, 2012). However, other authors consider that increasing conflicts and tensions in teams with strong faultlines may strengthen the existing demographic faultlines and extend their effects over time (Barkema & Shvyrkov, 2007). In our study, where the observed average team tenure in our sample at Time 1 was 34 months ($SD = 47.9$) and a time-lagged design was implemented, we found that age-based faultline strength influenced team performance eighteen months later. Moreover, this influence was both direct (an outcome we did not expect) and indirect (transmitted through task conflict, team reflexivity and negative mood). Overall, these findings suggest that the influence of faultline strength on the team processes, states, and performance indicators considered can persist over time.

5.2. Implications for practice

Considering that age-based faultline strength is related to both types of conflict and, especially, that team reflexivity and negative team mood play a mediational role in the relationship between age-based faultlines and team performance, team managers should ensure that team composition does not foster a strong age-based faultline. Team managers, however, are not always able to make decisions about team composition. In these cases, they should ensure that conflicts triggered by faultlines are adequately managed by modeling and stimulating behavioral patterns that show concern for the team as a whole, a preference for work within the team, reliance on team members, acceptance of team norms, and prioritization of team goals (DeChurch, Mesmer-Magnus, & Doty, 2013). This collectivistic conflict approach and the combination of task role assignments and goal structure strategies can repair conflict relationships and enhance affective outcomes and performance (Rico, Sánchez-Manzanares, Antino, & Lau, 2012), which can be particularly important in teams with strong age-based faultlines, as our study showed.

5.3. Limitations and strengths

The following limitations of the present study should be noted. First, the study sample size was small, reducing the power of the statistical analyses carried out. Future studies should test the relationships addressed here using a larger sample size. Second, data were gathered from a sample from just one bank, which limits the generalizability of our results. Moreover, we gathered data from only one type of teams (bank branches). Thus, future studies should replicate the findings reported here in samples of work teams operating in other sectors and from different banks or companies. Third, the data were collected in 2002 and 2003, which may raise concerns about the utility of these data and the generalizability of our findings to today's bank branches. Although we do not deny that the external environment and the involved savings bank have evolved, and newer bank members may belong to a different generation, the basic activities currently performed by the branches of this bank are similar to the ones they performed in 2002-

2003 (e.g., manage loans and mortgages, increase the number of clients, and run commercial campaigns) and have a similar structure. Based on these similarities, we think the analyzed data are still useful for studying the relationships between demographic faultlines, team states and processes and team performance in this type of work team. However, future studies should examine the relationships investigated here using more recent samples to ascertain whether the observed relationships still hold. Fourth, the scales used to measure task and relationship conflict (i.e., Jehn, 1995) focus on the frequency of conflicts within the team. However, to better ascertain the consequences of these conflicts for work team processes, states, and outcomes, it would be interesting to measure team conflict intensity as well, in order to provide a more comprehensive measure of team conflict. Future research should examine these two distinct aspects of intrateam conflict (i.e., frequency and intensity) in a single study and compare their importance as intervening variables in the link between faultlines and team outcomes. Fifth, branch managers' perceived team performance was measured with a two-item scale. Although short scales have been used by other researchers (e.g., van Dyck, Frese, Baer, & Sonnentag, 2005), their reduced number of items limits their content validity and can produce a halo effect in the measurement. Moreover, the assessment of team performance by branch managers may be biased because they are accountable for their teams' results. Therefore, future studies should replicate and complement the findings reported here using both an objective measure and a longer scale of team performance. Sixth, in the study sample, there is an overrepresentation of one of the age categories considered to measure age. As a result, there is a restriction of range in the faultline strength measure. Future studies should test the relationships addressed here in samples with greater age heterogeneity and operationalize age as a continuous variable. Finally, although our faultline measure allows us to focus specifically on the in-groups and out-groups of interest (i.e., the age-based subgroups), we only measured potential (or dormant) faultlines.

Therefore, future studies should complement our findings by examining the degree to which our relationships hold when faultline activation is also taken into account.

Beyond these limitations, our study also has some strengths. The variables involved in our model were measured at three different time points, allowing us to overcome the limitations associated with cross-sectional research. The use of a time-lagged design, in addition, made it possible to more rigorously test the hypothesized relationships (Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005). Moreover, collecting data from different informants (branch members and their managers) also contributed to decreasing the likelihood of our results being biased by common-method variance to some extent. Finally, even though our faultline measurement might be considered conservative because it did not include faultline perceptions (Antino, et al., 2019), we showed that the observed relationships persisted over time. As recent meta-analytic studies have shown, the effects of faultlines on team processes and outcomes tend to increase when their perceived nature is considered (Meyer, Glenz, Antino, Rico, & González-Romá, 2014), suggesting that stronger relationships could have been found if perceived faultlines had been measured.

5.4. Conclusion

Our study gives a fine-grained view of the mechanisms involved in the age-based faultline strength–team conflict–team performance link. The additional consideration of team reflexivity and team mood portrays a mixed path where the combination of task-related and affective aspects of teamwork explains the effects of task conflict triggered by team demographic faultlines on team performance. Thus, our work opens up avenues for future research and practice by considering the role of mood in explaining and managing the deleterious effects of strong demographic faultlines in general, and age-based faultlines in particular, on team performance.

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Table 1
Descriptive statistics and correlations for study variables

	1	2	3	4	5	6	7	8	9	Theo. Range	Emp. Range	<i>Md</i>	<i>M</i>	<i>SD</i>
1. Team size (T1)										--	3-9	5.0	5.18	1.32
2. Team tenure (T1)	0.15									--	0-300	20.6	34.0	47.9
3. Age heterogeneity (T1)	-0.06	0.12								0-1	0-0.76	0.46	0.42	0.20
4. Gender heterogeneity (T1)	0.03	-0.09	0.03							0-1	0-0.5	0.46	0.38	0.16
5. Faultline strength (T1)	0.24*	0.16	0.23*	0.09						0-1	0-0.36	0.00	0.02	0.07
6. Relationship conflict (T2)	0.01	0.18	0.12	-0.21	0.28*					1-5	1-4.5	1.63	1.74	0.74
7. Task conflict (T2)	0.07	0.12	0.02	-0.18	0.17	0.77**				1-5	1.3-4.3	2.03	2.17	0.56
8. Negative team mood (T3)	0.18	0.08	-0.04	-0.14	0.06	0.36**	0.42**			1-5	1.5-4.4	2.82	2.84	0.52
9. Team reflexivity (T3)	0.07	-0.04	0.04	0.31**	-0.08	-0.50**	-0.63**	-0.56**		1-5	1.3-5.2	4.12	4.04	0.73
10. Managers' perceived performance (T3)	0.04	0.11	-0.21	0.19	-0.25*	-0.25*	-0.25*	-0.39**	0.27*	1-5	3-5	4.00	4.03	0.42

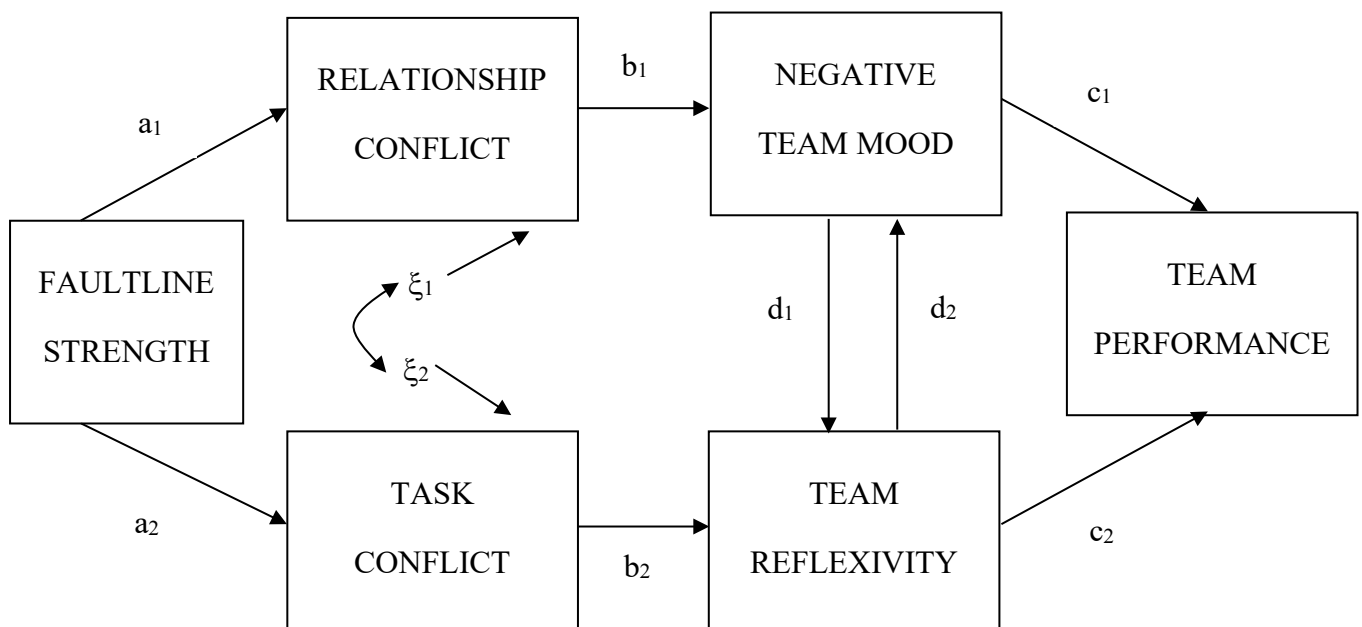
* $p < 0.05$ (one-tailed), ** $p < 0.01$ (one-tailed). Theo. = theoretical; Emp. = empirical. Md = median; M = mean; SD = standard deviation.

Table 2

Confidence intervals for indirect effects of faultline strength on team performance through affective, task-related, first mixed and second mixed paths

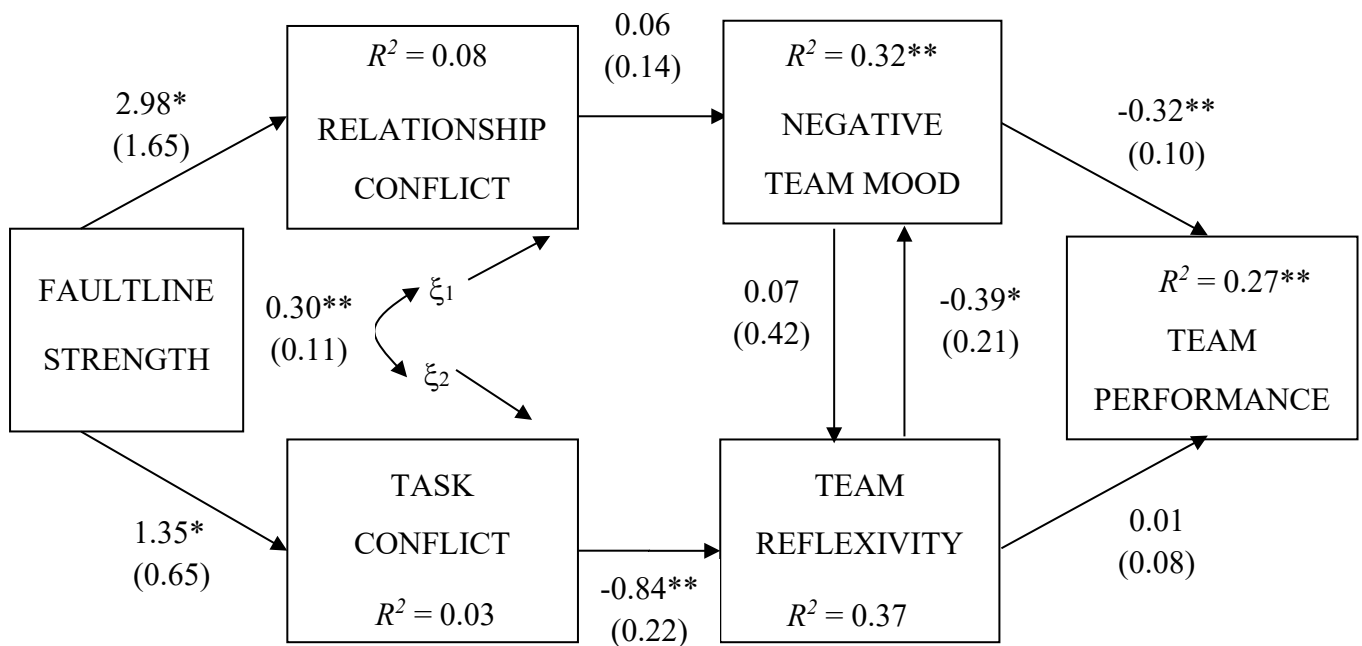
	Indirect effect		
	90% Lower limit	Estimate	90% Upper limit
Affective path	-0.25	-0.06	0.21
Task-related path	-0.25	-0.01	0.11
Fist mixed path	0.0001	-0.02	0.02
Second mixed path	-0.47	-0.14	-0.002

Figure 1.
The study research model



Note. Team size, team tenure, and team heterogeneity in gender and age were introduced as control variables.

Figure 2.
Parameter estimates for the study research model



Note. Coefficients are non-standardized. Standard errors are in brackets. R^2 represents the percentage of variance explained by the model for each endogenous variable. Control variables (team size, team tenure, and team heterogeneity in gender and age) are not depicted in this figure for clarity of the presentation.

$*p < 0.05$ (one-tailed), $**p < 0.01$ (one-tailed).