Master on Work, Organizational, and Personnel Psychology (WOP-P)

Team Autonomy and Team Effectiveness in an organizational context:

the mediating role of Supportive Behaviors

Work Research

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Abstract

Framework: More than ever, much of the work in organizations is accomplished in teams. Some teams are very successful, while others are confronted with a series of failures. There are many factors that can contribute to the success of a team. Studying which variables relate to team effectiveness is relevant and provides a framework of important scientific knowledge that contributes to a better understanding of groups in organizations with implications at the research and intervention level.

Purpose: This study aims to analyze the mediator role of team members' supportive behaviors in the relationship between team autonomy and team effectiveness, based on the Input-Mediator-Outcome-Input [IMOI] effectiveness model. Following a multidimensional approach of team effectiveness, the following criteria will be used: team performance, team viability, quality of group experience and team process improvement.

Methodology: This research is non-experimental, cross-sectional and adopts a group level analysis. The sample is composed by 535 participants from 90 teams, including 90 team leaders and 445 team members of 40 Portuguese organizations from different sectors. To analyze the data regression analysis was used, namely the product of coefficients method, proposed by MacKinnon, Lockwood, Hoffman, West and Sheets (2002).

Results: A positive and significant relationship between team autonomy and supportive behaviors which, in turn, is positively related to the four criteria of team effectiveness was found. The mediation model proposed, showing the indirect effect of team autonomy on team effectiveness through the role played by supportive behaviors was supported.

Conclusion: Highlighting the relationship between team autonomy and team effectiveness through the mediating role of supportive behaviors, this research contributes to enrich our knowledge on the antecedents of team effectiveness. Accordingly, this research also contributes to encourage organizations to incorporating autonomy into teams' design as a strategy to enhance supportive behaviors and team effectiveness.

State of Art

Teams[1] have become crucial for almost everything we do in modern life, particularly in organizations (Kozlowski & Ilgen, 2006). Teams became one of the answers to the complex and uncertain environment that we live in nowadays, and the need to innovate (Rico, de la Hera, & Tabernero, 2011). Work teams can be defined as groups composed at least by three members who were perceived by themselves and others as a team, and who interact regularly and interdependently to achieve a common goal (Cohen & Bailey, 1997). As a system of organizing and managing the work in organizations, teams aim to perform organizational relevant tasks, maintain a certain level of interdependence in terms of goals and tasks, and are inserted in an organizational context which limits their activity and influences the level of interaction with other teams in the organization (Kozlowski & Bell, 2013; Rico, de la Hera & Tabernero, 2011).

Organizations around the world have been shifting work, from individual jobs in functional centralized structures to teams embedded in more complex and decentralized network workflow systems (Kozlowski & Ilgen, 2006). The increased competition and the need for skill diversity, high levels of expertise, rapid response and adaptability, became pressures for organizations to adopt new organizational designs based on teams (Kozlowski & Ilgen, 2006; Rico et al., 2011). Teams must not be seen as an applicable solution for all contexts, because they need an environment that ensures the development of beliefs that support coordination, cooperation, communication and conflict management in order for the team to succeed (Salas, Shuffler, Thayer, Bedwell & Lazzara, 2014). However, they are a management system that is capable of providing diversity in knowledge, attitudes, abilities, skills and experience, whose integration makes it possible to offer rapid, flexible and innovative responses to the problems and challenges of organizations. Teams can be seen as a key element for the success of organizations, however, this success depends on the effectiveness of teams (Rico et al., 2011).

Team effectiveness is the core focus of many of the research on teams (Balkundi & Harrison, 2006; Mathieu, Maynard, Rapp & Gilson, 2008). Current team functioning

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[1] Following Cohen and Bailey (1997) and Mathieu, Hollenbeck, van Knippenberg and Ilgen (2017), the terms "team" and "group" will be used interchangeably throughout the text.

approaches, namely the IMOI model (Ilgen, Hollenbeck, Johnson & Jundt, 2005; Kozlowski and Ilgen, 2006), where we anchor our research, consider teams as complex adaptive systems, whose effectiveness depends on interactions between different inputs, processes, derived emerging states, mixed mediators and outcomes (Rico et al., 2011). Team autonomy, conceived as the control that the team has over task-related decisions (Haas, 2010), was identified as one of the primary characteristics that influence team effectiveness through team processes (Cohen & Bailey, 1997). Thus, team autonomy can be seen as an input of the teamworking functioning. Adopting the IMOI model, we can state that, as suggested by the literature (e.g., Chen, Neubaum Reilly, & Lynn, 2015; Cohen & Baley, 1997; Cohen & Ledford, 1994; Langfred, 2005) team autonomy (input) is related to team processes and team emergent states (mediators), which, in turn, are related to team effectiveness (output). Thus, to further our understanding on the role played by team autonomy on group functioning and effectiveness increasing the research on the team processes/emergent states that may act as mediators is required (Janz, Colquitt, & Noe, 1997). Supportive behaviors, a team process defined as the extent to which team members voluntarily provide assistance to each other when needed during the task accomplishment (Aubé & Rousseau, 2005), were found to mediate the relationship between diverse variables, like leadership (Pessoa, 2016) or team goal commitment (Aubé & Rousseau, 2005) and team effectiveness. As far as we know there are no studies that investigate the relationship between team autonomy and team effectiveness, having supportive behaviors as mediator. The present study aims to add knowledge on this issue. Specifically, in this study, based on the IMOI model approach (input, mediator, output, input) (Ilgen, Hollenbeck, Johnson, & Jundt, 2005), a mediation model will be tested where indirect and direct relationships between team autonomy (*input* variable) and team effectiveness (*output* variable, measured through four criteria: team performance, team viability, quality of group experience and team process improvement) are analyzed considering supportive behaviors as a mediating variable.

In order to accomplish the aim mentioned above, a literature review with a conceptual framework will be firstly offered focusing also on the relationships between all the variables in the study (team autonomy, supportive behaviors and team effectiveness). After the presentation of objectives, model under analysis and hypothesis we will focus on the empirical study. Key aspects namely sample characterization, data collection procedures,

measurement instruments description and its psychometric qualities and also the statistical procedures will be exhibited. The results and discussion are then presented, finishing with the main findings and contributions for research and intervention, pointing also the main limitations and suggestions for future research.

Team effectiveness in organizational teams

Nowadays, the success of organizations depends on a large scale on the effectiveness of teams (Wuchty, Jones, & Uzzi, 2007). Team effectiveness is often considered as the extent to which the group goals assigned by the organization are achieved and consequently measured by team performance (Langfred, 2000). However, team effectiveness can be conceived as "much more" than that. In fact, considering the multidimensionality of the construct, nowadays the researchers tend to define team effectiveness also in terms of team innovation, the consequences a group has for its members or the enhancement of a team's capability to perform effectively in the future (Aubé & Rousseau, 2005; Hackman, 1987; Rousseau & Aubé, 2010; Rico et al., 2011; Sundstrom et al., 1990).

Most of the current research conducted on team effectiveness is based on the IMOI Model (e.g., Dimas, Rebelo, & Lourenço, 2016; Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Mo & Xie, 2010). Although grounded on the I-P-O model, originally proposed by Mcgrath (1964), the IMOI model allows the incorporation of the temporal and recursive aspects imposed on teams and the adaptive and incremental learning processes that are crucial on their effectiveness. The IMOI model also breaks the simplified and unitary vision that the I-P-O model had on team processes, distinguishing between processes (actions people engage in to fulfill satisfactorily the team's task and the interaction between team members) and emergent states (mediating mechanisms that can be conceived as cognitive, motivational or affective states)[2]. The IMOI model assumes a multidimensional approach on effectiveness,

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[2]The distinction between emergent states and processes was originally proposed by Marks, Mathieu, and Zaccaro (2001). To those authors team processes may be defined as "members' interdependent acts that convert inputs to outcomes through cognitive, verbal, and behavioral activities directed toward organizing taskwork to achieve collective goals" and emergent states can be defined as "constructs that characterize properties of the team that are typically dynamic in nature and vary as a function of team context, inputs, processes, and outcomes"

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stating that it can be measured and operationalized through multiple criteria (Rico et al., 2011).

In this model, *inputs* refer to the prerequisites for the team to start working and often involve multi-level resources - individual, group and organizational. The team composition in terms of the individual characteristics of its members, the reward systems provided by the organization to the team, or the level of team autonomy constitute examples of inputs. *Mediators* are the set of psychosocial mechanisms that allows team members to combine the available resources to achieve the team's goal, and can be distinguished between processes (e.g., team conflict, team learning, supportive behaviors) and emergent states (e.g., trust, potency, cohesion) (Kozlowski & Ilgen, 2006; Rico et al., 2011). *Outputs* are the team results and can be operationalized through multiple criteria (e.g., team task performance, team satisfaction, team innovation) pertaining different dimensions (Kozlowski & Ilgen, 2006). In this regard, for example, authors such as Beaudin and Savoie (1995) and also Savoie, Larivière, and Brunet (2006), identified five dimensions: social (extent to which the group experience contributes to team members well-being); economic (it relates to efficiency, productivity and achieving the team/organization goals); politic (reputation and team's legitimacy of action over the external organizational parties); perennial (capacity to grow, adapt and viability of the group); and innovation (team's ability to be innovative and to achieve continuous process improvement). The last "I" in the IMOI Model, that stands for *input*, represents the cyclical nature of team functioning, through feedback mechanisms, meaning that an output always leads to a new input (Mathieu et al., 2008).

In this study, based on the IMOI model[3] we will analyze the relationship between team autonomy (input), and team effectiveness (output), considering the mediating role of supportive behaviors (team process/mediator). Following a multidimensional approach of team effectiveness, four criteria will be considered: team performance, team viability, quality of group experience and team process improvement. Team performance is the most frequent used criterion of team effectiveness since the purpose of a team is to produce a good or a service (De Dreu & Weingart, 2003; Ilgen, 1999). Quality of group experience enables the

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[3] Given the transversal nature of this study, we are aware that the potentialities of this model aren't fully explored.

assessment of whether team members have developed and maintained positive relationships while accomplishing the task and is important because a positive social environment is likely to be necessary for the psychological well-being of the team members (Aubé, Rousseau, & Tremblay, 2011). Team viability is related to the ability of the team to cope with internal and external changes, such as working with new equipment or integrating a new member in the team. Failing to cope with these changes may compromise task accomplishment (Aubé & Rousseau, 2005; Balkundi & Harrison, 2006). Team process improvement has received less attention than the other criteria, however is becoming increasingly a critical team outcome. This criterion implies removal of known process defects and deficiencies, replacing it with new practices that may increase productivity, quality of products and services, reduce delivery time and cut production costs (Fuller, Marler, & Hester, 2006 cit. in. Rousseau & Aubé, 2011). The use of these criteria in the empirical study of this research follows the Aubé and Rousseau (2005) and also Rousseau and Aubé (2010) approach, whom we anchor the effectiveness measure instruments used.

Autonomy in organizational teams

With the increasing of work teams and the increased incorporation of autonomy into their designs, studying autonomy in organizational teams has become crucial. As we already referred, team autonomy is related to the control that the team has over task-related decisions and can be defined as the extent to which a team has considerable discretion and freedom in deciding how to carry out tasks (Langfred, 2005; Stewart & Barrick, 2000). Autonomy in teams gives the employees the responsibility to make decisions related to task assignments, methods for carrying out their work and scheduling of activities (Cohen & Ledford, 1994). It is relevant to differentiate team autonomy from individual autonomy, because both coexist at the group level. Individual autonomy is the amount of freedom and discretion an individual has in carrying out assigned tasks. The team may have considerable discretion on deciding what tasks the group should perform and how to perform them (team autonomy), but individual members within the group may have little control over their own jobs (individual autonomy within the team). It is a combination of both team and individual autonomy that influences team performance (Langfred, 2000; Langfred, 2005).

Team autonomy can be seen in a *continuum*, where in one extreme, a high level of autonomy corresponds to a self-managed team, who has the discretion to elect their own leaders and organize their work, or even a self-designed team, where the team has autonomy to decide about the work and the management of their external relationships as a group unit. On the other extreme, a low level of autonomy corresponds to the "traditional" teams, where the work group is managed by a supervisor who is responsible for most of the decisions (Dimas et al, 2016). Janz, Colquitt and Noe (1997) enhance the fact that autonomy can differ in terms of "amount" but also in terms of "type" (e.g., autonomy over product decisions or autonomy over work process decisions). In this study, we will only focus on autonomy in terms of amount.

Autonomy in teams has shown many positive outcomes for groups and organizations, influencing team effectiveness in its different dimensions. Cohen and Ledford (1994) and also Langfred (2005) showed that by allowing employee self-regulation or self-control over changing conditions facing the group, team autonomy contributes to increase team performance. The referred authors also showed the influence of team autonomy on the employee quality of work life and Hackman and Oldham (1976) stressed the importance of team autonomy as one of the characteristics of *job design* responsible for motivation and satisfaction at work. In the same way, Cohen and Baley (1997) argue that team autonomy influences team effectiveness trough processes like communication and conflicts, and Langfred (2000) states that autonomy can be perceived as a sign of organizational support and trust in the team members, improving motivation. Therefore, beyond team performance, team autonomy is related to quality of group experience, which is the extent to which the relationships between team members are positive and promote their professional and personal development (Aubé, Rousseau, & Tremblay, 2011).

Allowing a flexible information processing, team autonomy also enhances the sense of responsibility and self-determination improving team creativity and team's ability to manage the work and adapt to change (Chen et al., 2015; Tatikonda & Rosenthal, 2000, cit. in Wang, 2013). In autonomous teams a decrease of shirking is also expectable, which will improve the ability of the team to adapt and function effectively over time, because employees will tend to have greater commitment and feelings of belonging to the group

(Pearce & Ravlin, 1987). Therefore, we can state that team autonomy has also an impact on team process improvement, the team's ability to enhance task outputs by innovation and by the introduction of new or refined practices (Rousseau & Aubé, 2010), and on the team viability.

Autonomy at the team level focuses the attention of the team members to the team as a unit, increasing the perceived group identity and the team members commitment to the team and its goal, motivating help behaviors between team members on accomplishing the task and overcoming difficulties (Langred, 2000). Thus, team autonomy tends to stimulate supportive behaviors among team members. Autonomy also allows individuals to realize how their actions relate to the goals for which the team is responsible. This makes the team members to abandon ineffective behaviors and to engage in more productive ones, such as recognize and encourage desirable behaviors, and discourage undesirable behaviors. Better ways of conflict handling, nonevaluative listening, use of active listening techniques and managing work in an effective and timely way can be effects of team autonomy (Leach, 2005). Supportive behaviors, a kind of behavioral processes reflecting "the enacted support that team members provide by choice to each other" (Aubé & Rousseau, 2005, p. 193) are, then, expected to be increased.

Relying on the premise that effectiveness depends heavily on the team members interpersonal competence and their ability to maintain healthy working relationships (Medsker & Campion's, 1998 cit. in Leach, 2005) and considering that supportive behaviors, as we will show in the next section, can contribute to increase team effectiveness, we can assume that this variable may act as a mediator in the relationship between team autonomy and team effectiveness.

Supportive behaviors in organizational teams

Aubé and Rousseau (2005) define supportive behaviors as the extent to which team members voluntarily provide assistance to each other when needed during the task accomplishment, considering that these behaviors reflect the support that team members

provide to each other[4]. The referred authors distinguish two kinds of supportive behaviors: instrumental and emotional. Instrumental support refers to the several types of tangible help a team member may provide (e.g. help with difficult tasks). Emotional support is related to the actions that team members do to make others feel appreciated and cared for, increasing their sense of self-worth (e.g. providing encouragement and positive feedback).

Although we follow Aubé and Rousseau (2005) approach, it should be noted that there are different designations regarding the kind of behaviors included in the label *supportive behaviors*. Some authors use *social support* which can be defined as a reciprocal relationship in which parties exchange valuable resources and captures the willingness of an employee to engage in extra role behaviors that help the team or other team members to accomplish their goals (van Mierlo et al., 2006). Other authors refer to *supportiveness,* which is seen as a group process that improves team effectiveness, encourages openness and smooth interpersonal relationships and is associated with open communication and lack of interpersonal conflict (Gladstein, 1984). Other similar concept we can find in the literature is b*ackup behaviors* that can be operationalized by assisting team members to perform their tasks, providing verbal feedback or coaching, helping teammate behaviorally in carrying out actions or assuming and completing task for a teammate (Marks, Mathieu, & Zaccaro, 2001). The term *cooperation,* which is a concept related to coordination and shared expectations regarding the appropriate behavior to adopt, leading to an optimal allocation of effort and resources that facilitates task accomplishment (Eby & Dobbins, 1997) is also used with a meaning similar to that attributed to the construct of supportive behaviors.

Supportive behaviors allow team members to deal efficiently with different events or situations that could decrease their will to contribute to task accomplishment. Therefore, supportive behaviors enable team members to complete a task in situations in which they would have difficulty doing it individually. This support also contributes to the improvement of social climate in work teams, boosting self-esteem, strengthen morale and providing a

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[4] Although supportive behaviors in organizational teams can be played by co-workers and by direct supervisors, in this study we will focus on the supportive behaviors provided by the co-workers.

sense of affiliation (Aubé & Rousseau, 2005). Team members who are committed to the team goals are likely to adopt more supportive behaviors, increasing team performance and the quality of group experience (Aubé & Rousseau, 2005). Support between team members helps individuals becoming more productive (Janz et al., 1997; MacKenzie, Podsakoff, & Fetter, 1991, 1993) and also helps the team to cope with internal and external changes that may occur, improving team viability (Aubé & Rousseau, 2005). Thus, we can argue that supportive behaviors tend to improve team effectiveness in its different dimensions.

Beyond the relationship between supportive behaviors and team effectiveness, the literature also suggests that supportive behaviors can act as mediators between diverse variables (e.g., team goal commitment, self-efficacy) and team effectiveness (Aubé & Rousseau, 2005; Pessoa, 2016). Since team autonomy relates to team effectiveness (Cohen & Ledford, 1994, Langfred, 2000; Langfred, 2005; Haas, 2010) and to higher levels of supportive behaviors (as we referred in the previous section), and, in turn, supportive behaviors lead to higher team effectiveness (Aubé & Rousseau, 2005; Janz et al., 1997; MacKenzie, Podsakoff, & Fetter, 1991, 1993), we can hypothesize that supportive behaviors can play a mediator role in the relationship between team autonomy and team effectiveness. This is the model under study on this research.

Objective, Model under analysis and research hypotheses

As previously referred, team autonomy can be seen as an input or a resource that motivates teams to make independent decisions that serve the best interests of their tasks. Autonomy given to teams enhance their responsibility and accountability over their work improving the team effectiveness (Haas, 2010). Therefore, team autonomy can be considered an antecedent of team effectiveness.

Team autonomy is also expected to affect supportive behaviors. Then, team autonomy is also an antecedent of supportive behaviors. Since, as we already showed in the previous section, supportive behaviors are likely to improve team effectiveness (Aubé & Rousseau, 2005), team autonomy and team effectiveness can occur via supportive behaviors. Therefore, supportive behaviors are group processes that are expected to act as mediators in the relationship between team autonomy (input) and the team effectiveness (output).

Based on the Input-Mediator-Output-Input model (IMOI) and adopting a multidimensional team effectiveness approach, the present study aims to analyze the mediating role of supportive behaviors in the relationship between team autonomy and team effectiveness. To achieve our objectives, we will test a mediation model including team autonomy as the input variable, supportive behaviors as the mediator and team effectiveness (measured by team performance, team viability, quality of group experience and team process improvement) as the output (Fig, 1).
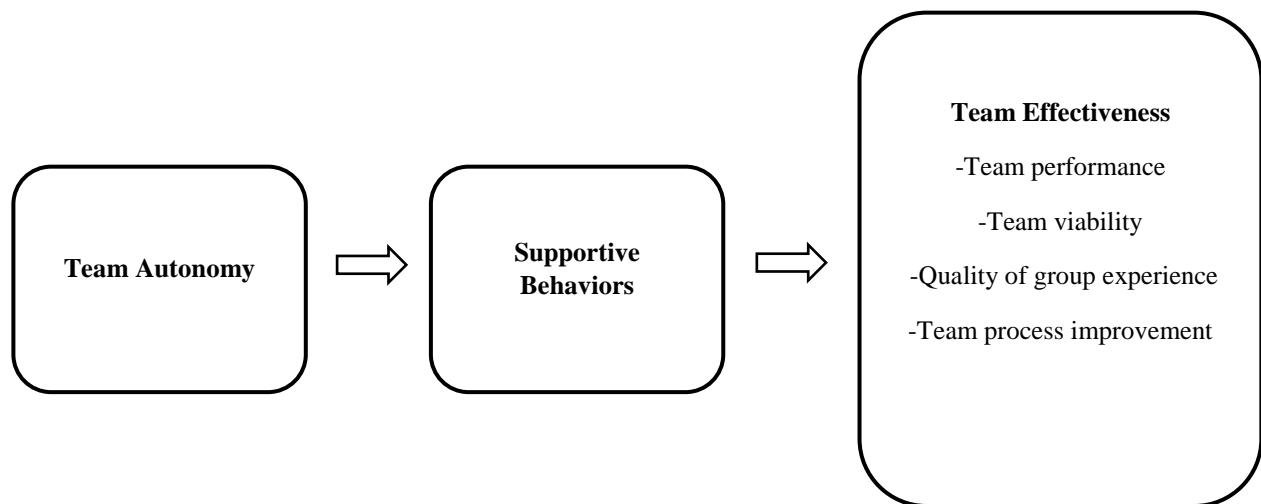

Figure 1. Model under analysis (Based on Ilgen et al., 2005; Kozlowski & Ilgen, 2006)

Regarding the presented model, we formulate the following hypothesis:

H1: Supportive behaviors mediate the relationship between team autonomy and team effectiveness, namely quality of group experience (H1a), team viability (H1b), team performance (H1c) and team process improvement (H1d).

Method

This research is non-experimental, cross-sectional and adopts a group level analysis.

Sample

Following Lourenço, Dimas and Rebelo (2014) and also Cohen and Bailey (1997), the criteria for considering and selecting teams for this research were: teams constituted at

least by 3 members (1), who perceived themselves and others as a team (2), who interact regularly, in an interdependent way, to accomplish a common goal (3). The sample was constituted by convenience sampling method, within a personal network of formal and/or informal contacts.

The sample was composed by of 535 participants from 90 teams (445 team members and 90 team leaders) working in 40 Portuguese organizations from different sectors: area of production (12.60%), technical areas (11.90%) and sales (11.20%). The organizations vary in size, being the sample composed by medium-sized organizations (42.20%), large and small-sized organizations (each correspond to 16.70%) and micro-sized organizations (14.40%).

Teams are composed by 3 to 27 members, with an average of approximately seven members per team ($M = 6.66$, $SD = 5.16$). The average team tenure was 9.22 years (min = 0.50; max = 26.00; $SD = 6.78$). The age of team members ranges from 18 to 67 years old ($M = 35.49$; $SD = 10.03$), being 226 females (50.80%) and 201 males (45.20%). The age of team leaders ranges from 18 to 67 years old ($M = 39.38$; $SD = 9.91$), being 28 females (31.10%) and 55 males (61.10%). Is important to note that 4.00% of team members and 7.80% of team leaders didn't give information regarding their sex. All leaders were direct supervisors of the teams being responsible for team management and not performing the team daily tasks.

Data collection procedures

The data was collected by our research team between November 2014 and April 2016.[5] Several companies were contacted, by phone or e-mail, explaining the research and asking for participation. The data collection was made with online and paper surveys, through convenience sampling combined with a snowball effect. After contacting the organizations, an e-mail containing a presentation letter (cf. Appendix A) was sent to the interested organizations in which was presented the research project (cf. Appendix B)[6], its possible

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[5] A special acknowledgment to my team research colleagues for their work on colleting the data that I'm using on this research.
[6] These were the documents used by the research team responsible for data collection. Since that at the time I wasn't part of the research team only my colleague's names appear in the documents.

impact and the type of collaboration and data collection that were intended. All participants provided their informed consent and the confidentiality and anonymity were guaranteed by the research team. The research team also assured to not make use of any individual result but only at a group level. In cases where the questionnaire was applied online, e-mail addresses of participants were not published in any circumstance. The data were collected from teams' leaders and teams' members. Teams' leaders responded to one questionnaire with 5 minutes duration, while teams' members responded to another type of questionnaire with 20 to 25 minutes duration. Teams' leaders answered the scales measuring Team Performance, Team Process Improvement and Team Viability. The scales measuring Team Autonomy, Supportive Behaviors and Quality of Group Experience were applied to the teams' members.

Measures

Team autonomy. The instrument used to measure this construct was the Portuguese version of the Team-Level Autonomy Scale (TLA), developed by Langfred (2005). This scale evaluates the perception of team members regarding the amount of autonomy the team has in several aspects of their work. Its Portuguese version was adapted by van Beveren (2015) who submitted the scale to confirmatory procedures (namely Confirmatory Factor Analysis). The author concluded that the scale showed validity evidences since the CFA pointed to a satisfactory adjustment between the data and the hypothetical one-dimensional model (χ^2=37.29, $p < .001$, gl = 13, CFI = .97, RMSEA = .09). The Cronbach's alpha for this scale corresponded to .93. Later, in a study conducted by Martins (2016) the scale showed a Cronbach's alpha of .90. For our sample, Cronbach's alpha is the same ($\alpha = .90$). The Portuguese version of TLA consists of seven items (e.g., "the team is free to decide on how to carry out tasks"). These items are responded through a Likert-type scale in which the lowest value (1) corresponds to "almost not applicable" and the highest value (5) corresponds to "applies almost completely" (cf. Appendix D). The TLA was responded by team members.

Supportive behaviors. This construct was measured through a scale developed by Aubé and Rousseau (2005) that evaluates both instrumental and emotional dimensions of supportive behaviors in a one-dimensional structure. Its Portuguese version was adapted by Pessoa (2016) and showed validity evidences through exploratory (Principal Component Analysis -

PCA) and confirmatory analyses (Confirmatory Factor Analysis - CFA). The CFA pointed to a satisfactory adjustment to the one-dimensional model [χ2 (4, N = 326) = 15.83, p = .003; CFI = .99; RMSEA = .10]. Cronbach's alpha value was .93. For our sample, Cronbach's alpha is the same (α = .93). The scale is composed by five items (e.g., "we help each other when someone is behind on their work") that are responded through a Likert-type scale in which the lowest value (1) corresponds to "almost not applicable" and the highest value (5) corresponds to "applies almost completely" (cf. Appendix D). This scale was responded by team members.

Team Effectiveness. To measure this construct the following instruments were used:

> ***quality of group experience.*** The Portuguese version of the Quality Experience Scale, developed by Aubé and Rousseau (2005), adapted by Albuquerque (2016). This scale evaluates the interpersonal/relational climate within the team. Evidences of validity were found through a study of the dimensionality of the scale using principal component analysis and the results pointed to a retention of one factor explaining 90.82% of the total variance. All items presented factor loadings above .94. Cronbach's alpha for this scale corresponded to .95. Aniceto (2016), also conducted a study with 117 teams and obtained a Cronbach's alpha of .94. Both referred authors didn't conduct confirmatory procedures because the scale has only 3 items, which implies a saturated model. Cronbach's alpha for our sample is .94. The scale is composed by three items (e.g., "within our team, the work climate is good"). These items are responded through a Likert-type scale in which the lowest value (1) corresponds to "I strongly disagree" and the highest value (5) corresponds to "I strongly agree" (cf. Appendix D).

A questionnaire responded by teams' leaders that involves the Portuguese versions of three scales:

> ***team performance scale***. Developed by Rousseau and Aubé (2010) and adapted to Portuguese language by Albuquerque (2016), who conducted a study of the dimensionality of the scale through principal component analysis. This scale assesses the team's performance through objective achievement, productivity, quality of work

and fulfillment of deadlines and costs. The results pointed to a structure of one factor explaining 58.75% of the total variance. All items presented factor loadings above .64. Cronbach's alpha for this scale corresponded to .81. Aniceto (2016) conducted a confirmatory factor analysis and the results showed a good fit between the data and the hypothetical one-dimensional model: [$\chi2$ (3) = 2.90, p = .41, CFI=1.00, RMSEA=.00]. The factor loadings of items were all above .50 and the Cronbach's alpha value was .83. For our sample, Cronbach's alpha is .84. The scale is composed by five items (e.g., "achievement of performance goals") and responded through a Likert-type scale in which the lowest value (1) corresponds to "very low" and the highest value (5) corresponds to "very high" (cf. Appendix C);

team process improvement scale. Also developed by Rousseau and Aubé (2010) and adapted by Albuquerque (2016), who conducted a study of the dimensionality of the scale through principal component analysis. This scale evaluates the use of new ways of working by the team, and its effects concerning issues as the team goals, productivity, quality of the work, accomplishment of deadlines and reduce of costs. The results pointed to a one-dimensional solution explaining 70.20% of the total variance. All items presented factor loadings above .82. Cronbach's alpha for this scale corresponded to .89. Aniceto (2016) conducted a confirmatory factor analysis that provided further strength to the usage of this scale with results that showed a satisfactory adjustment between the data and the hypothetical one-dimensional model: [$\chi2$ (4) = 6.43, p = .17, CFI=.99, RMSEA=.07]. The factor loadings of items were all above .71 and the Cronbach's alpha value was .86. In our sample, Cronbach's alpha is .85. The scale is composed by five items (e.g., new ways of working have helped to achieve performance goals) which is responded through a Likert-type scale in which the lowest value (1) corresponds to "almost not applicable" and the highest level (5) corresponds to "applies almost completely" (cf. Appendix C);

team viability scale. Developed by Aubé and Rousseau (2005) and also adapted to Portuguese language by Albuquerque (2016) who conducted the study of the dimensionality of the scale through principal component analysis. This scale measures the team's ability to adapt to changes, solve problems, integrate new

members and remain together in the future. The results pointed to a retention of one factor explaining 56.72% of the total variance. All items presented factor loadings above .68. Cronbach's alpha for this scale corresponded to .74. Aniceto (2016) also conducted a confirmatory factor analysis that provided further strength to the usage of this scale considering the results obtained: [χ^2 (2) = 1.88, p = .39, CFI=1.00 RMSEA=.00]. The factor loadings of items were all above .56 and the Cronbach's alpha value was .72. For our sample, the Cronbach's alpha is .75. The scale is composed by four items (e.g., "team members adapt themselves to changes in the workplace…"). The items are responded through a Likert-type scale in which the lowest value (1) corresponds to "almost not applicable" and the highest level (5) corresponds to "applies almost completely" (cf. Appendix C).

Results

Statistical Procedures:

The software used for statistical procedures was IBM SPSS Statistics 22. Firstly, missing-values from the data collected were analyzed. This procedure was only conducted for the team member's responses since no missing-values regarding the scales responded by team leaders were detected. The highest missing values percentage *per* case found in team members' database was 1.10%. Therefore, no cases were eliminated, because according to Bryman and Cramer (2004) only cases with more than 10% should be discarded.

To analyze the distribution pattern of non-answers and verify the hypothesis of the missing values being at random the Little's MCAR test was used. Since that for all the scales, their p-value is below the .05 level of significance, we rejected the hypothesis that the missing values are distributed at random. Hereupon, to replace missing values the Expectation-Maximization (EM) technique was used (Dempster, Laird, & Rubin, 1977).

Posteriorly, since the analysis is focused on the team level but the data were collected at individual level, the data from team members were aggregated to the teams through the calculation of the average scores obtained for each scale. The Average Deviation Index (AD_M), developed by Burke, Finkelstein and Dusig (1999) was used in order to justify this

procedure and to ensure the average scores could be safely used. The Table 1 shows that the mean for Team Autonomy ($M = 0.53$), Supportive Behaviors ($M = 0.48$) and Quality of Team Experience ($M = 0.40$) are below the cut off value of 0.83 (the cut off value regarding scales with 5 points). Thus, following authors such as Gamero, Gonzalez-Romá and Peiró (2008), we can conclude that data aggregation from individual to team level is viable.

Table 1 – Average Deviation Index (AD_M) for Team Autonomy, Supportive Behaviors and Quality of Team Experience

Scales	N	Minimum	Maximum	Mean	SD	Cutoff
Team Autonomy	90	0.00	1.36	0.53	0.23	0.83
Supportive Behaviors	90	0.00	1.35	0.48	0.26	0.83
Quality of Group Experience	90	0.00	1.33	0.40	0.27	0.83

Additionally, to justify data aggregation, the intra-class coefficient correlation ICC (1) and ICC (2) (Bliese, 2000) were calculated. The ICC (1) values for team autonomy, supportive behaviors and quality of group experience were .26, .23 and .23, respectively. For ICC (2) the values were .65, .60 and .59, respectively. All the values are near the values considered acceptable (Bliese, 2000; LeBreton, & Senter, 2008), which supports the data aggregation to the team level.

Hypothesis Testing

Previously to the hypothesis test, the correlations between the variables included in the model were analyzed. The variable "team size" was also included as a control variable, since the literature shows that team size can influence the functioning and the outputs of teams (Brewer & Kramer, 1986). Team size was operationalized as the number of team members.

The mediation model was tested using multiple regression analysis following the procedure proposed by the product of coefficients method of MacKinnon, Lockwood, Hoffman, West and Sheets (2002) According to the referred method, a mediation exists if (1) the predictor variable (X) is significantly associated with the mediator (M) (α being statistically significant); (2) the mediator is significantly associated with the criterion variable

(Y), after controlling for X (β statistically significant); and (3) the mediating effect is statistically significant (product of αβ is significant).

In table 2 is presented the results of the correlations between the variables of the study and including also the control variable.

Table 2 – Correlations, Means and Standard Deviations of variables under study

Constructs	N	M	SD	1	2	3	4	5	6	7
1.Team Autonomy	90	3.48	0.56	-						
2.Team Performance	90	4.05	0.58	.42***	-					
3.Team Viability	90	4.05	0.57	.33**	.61***	-				
4.Quality of Group Experience	90	4.06	0.56	.52***	.37***	.35**	-			
5.Team Process Improvement	90	3.88	0.63	.30**	.66***	.56***	.39***	-		
6.Supportive Behaviors	90	3.94	0.59	.61***	.50***	.42***	.85***	.47***	-	
7. Team Size	90	6.46	5.00	-.40**	-.06	-.08	-.32**	-.13	-.24*	-

Note: *p< .05 **p< .01 ***p<.001

According to table 2, we can see significant correlations between team autonomy, supportive behaviors and all the criteria variables. Team size, (control variable) correlates significantly (and negatively) with team autonomy, quality of group experience and supportive behaviors, which means that, in order to control its effect, team size will also be included in the regression analyses which include the supportive behaviors and the quality of group experience as DVs.

To test our hypothesis multiple regression analysis with mediation was conducted. Two regression models were used: one where supportive behaviors are regressed to team autonomy, and the second where team effectiveness is regressed to supportive behaviors after controlling for team autonomy. In the first regression model, hierarchical regression analysis was used with a two-step process since our control variable correlates with supportive behaviors (DV). The control variable was included in the first step and team autonomy was included in the second one. Table 3 shows that exists a positive and significant relationship between team autonomy and supportive behaviors ($\alpha = .61$, $p < .001$).

Table 3 – Hierarchical Regression Analysis of Team Autonomy as a predictor of Supportive Behaviors

Constructs	*B*	*SEB*	β	R^2	ΔR^2
Step 1				.06*	
Team Size	-.03	.01	-.24*		
Step 2				.37***	.31***
Team Size	.00	.01	.01		
Team Autonomy	.64	.10	.61***		

Note: *p< .05 **p< .01 ***p<.001

For the second regression model, the four criteria for *team effectiveness* were regressed to *supportive behaviors*, after controlling for *team autonomy*.

Since *team size* correlates with *quality of group experience*, in order to test H1a a hierarchical regression analysis was conducted. It was found a significant and positive relationship between supportive behaviors and quality of group experience (β = .84, $p < .001$). Therefore, considering that team autonomy showed a significant positive relationship with supportive behaviors, and supportive behaviors showed a significant positive relationship with quality of group experience after controlling for team autonomy, H1a was empirically supported (cf. Table 4).

Table 4 – Hierarchical Regression Analysis of supportive behaviors as a predictor of Quality of group experience

Constructs	*B*	*SEB*	β	R^2	ΔR^2
Step 1				.10**	
Team Size	-.04	.01	-.32**		
Step 2				.73***	.63***
Team Size	-.02	.01	-.13*		
Supportive Behaviors	.80	.07	.84***		
Team Autonomy	-.04	.07	-.04		

Note: *p< .05 **p< .01 ***p<.001

From this point, the control variable was dropped since it does not correlate with the other effectiveness criteria, namely: team performance, team viability and team process improvement. To test H1b, H1c and H1d standard regression analyses were conducted. Table 5 shows that as predicted, it was found a significant relationship between supportive behaviors and team viability (β = .34, $p =.006$), team performance (β = .39, $p = .001$), and team process improvement (β = .44, $p < .001$). Therefore, considering that team autonomy

showed a significant positive relationship with supportive behaviors, and supportive behaviors showed a significant positive relationship with each one of the team effectiveness criteria, the hypotheses H1b, H1c and H1d were supported.

Table 5 – Regression Analysis of the Mediating Role of Supportive Behaviors

Model	B	SEB	β	R^2
Dependent Variable: Team Performance				.27***
Team Autonomy	.19		.18	
Supportive Behaviors	.38	.12	.39**	
		.11		
Dependent Variable: Team Viability				.19***
Team Autonomy	.13		.13	
Supportive Behaviors	.33	.12	.34**	
		.12		
Dependent Variable: Team Process Improvement				.22***
Team Autonomy	.04		.04	
Supportive Behaviors	.48	.13	.44***	
		.13		

Note: *$p < .05$ **$p < .01$ ***$p < .001$

The estimated mediating effect for quality of group experience ($\alpha\beta = .51$), team performance ($\alpha\beta = .24$), team viability ($\alpha\beta = .21$) and team process improvement ($\alpha\beta = .27$) was statistically significant (P = Zα x Zβ = 78.67, $p < .05$; P = Zα x Zβ = 21.11, $p < .05$; P=Zα x Zβ = 18.01, $p < .05$; P = Zα x Zβ = 21.48, $p < .05$, respectively).

Considering that the direct or non-mediated effect of team autonomy on team effectiveness dimensions was not statistically significant we can state that supportive behaviors fully mediate the relationship between team autonomy and team effectiveness (quality of group experience: $\tau = -.04$, $p = .603$; team performance: $\tau = .18$, $p = .112$; team viability: $\tau = .13$, $p = .302$; team process improvement: $\tau = .06$, $p = .771$).

Discussion

This study intended to add knowledge on the literature regarding the mediating role of supportive behaviors in the relationship between team autonomy and team effectiveness. For that we hypothesized that supportive behaviors would mediate the relationship between team autonomy and four different team effectiveness criteria, namely team viability, team performance, quality of group experience and team process improvement.

Considering our mediation model, the relationship between team autonomy and supportive behaviors was firstly analyzed. Evidence was found that team autonomy predicts supportive behaviors among team members. Although there are not many research regarding the relationship between these two variables, the literature points to a positive relationship between them (Langred, 2000; Leach, 2005). Therefore, as expected, our results suggesting that team autonomy stimulates supportive behaviors reinforce the literature. When team members are left to work on its own, their perception of responsibility for the teams' results increases, making team members to work in a more cohesive and united way in order to accomplish the goals for which the team is responsible. These findings that present team autonomy as a relevant predictor of desirable behaviors such as supportive behaviors draw attention to the benefits of this construct and the importance of implementing autonomy in team's design.

Our hypothesis (H1) was supported, which is consistent with the literature. Hüffmeier and Hertel (2011) claim that social support within the team might be the most crucial explanation as well as a precondition for the success of self-managed and autonomous teams. Manz and Sims (1987) also state that when giving a team autonomy a team climate that encourages the expression of feelings and ideas characterized by supportive internal communications tends to emerge, promoting team effectiveness. Previous research has already showed some evidences that team autonomy is related to team effectiveness and its different dimensions (e.g. Cohen & Baley, 1997; Cohen & Ledford, 1994; Langfred, 2005), however this study goes further, showing that supportive behaviors is one of the team processes by which that relationship happens. Thus, for an autonomous team to be effective, team members must engage in supportive behaviors between each other. In other words,

supportive behaviors among team members will lead to quality of group experience (H1a), team viability (H1b), team performance (H1c) and team process improvement (H1d).

Although, the results show that supportive behaviors have a significant impact in all team effectiveness criteria, the effect is particularly stronger for quality of group experience. This might be due to the fact that quality of group experience is the extent to which the social climate within the team is positive (McGrath, 1991) and, according with the literature, supportive behaviors have been shown to improve the social climate within the team (Aubé & Rousseau, 2005). Therefore, this result is also convergent with the literature, since, these two constructs are similar. In fact, quality of group experience is related to the ability of the team members to maintain positive interactions between each other, and supportive behaviors are responsible to promote this kind of interactions.

Our findings also reveal that supportive behaviors fully mediate the relationship between team autonomy and team effectiveness. This means that team autonomy has an indirect effect on team effectiveness. This effect occurs through supportive behaviors. Therefore, team autonomy is relevant in order to build supportive behaviors among the team members that, in turn, contribute to increase team effectiveness. This reveals the strong power that supportive behaviors have in the teams functioning. Team autonomy triggers in the team members the need for engaging in behaviors that help the team to cope with problems and obstacles, that is supportive behaviors, conducting to team effectiveness.

Conclusions, Limitations, and Suggestions for Future Research

Given the growing emphasis of work teams in organizations it became crucial to understand the factors that influence their effectiveness. This study highlights the relevance of supportive behaviors in organizational teams, particularly regarding its impact on team effectiveness and its role as a mediating variable in the relationship between team autonomy and team effectiveness. It should be noted that this study sheds some light on a construct that hasn't received much attention so far, the supportive behaviors. Although Tardy (1985) introduced this concept a few decades ago, it hasn't been very present in the literature. It is desirable for organizations to focus on team effectiveness and constructs that affect it. Task interdependence, job design, team structure, team autonomy and leadership are some of the variables that have received attention in order to better understand how to make teams more

effective (Rico, de la Hera, & Tabernero, 2011). The supportive behaviors given by the supervisors and its relation to the team performance has also been a focus of attention (e.g. Manz & Sims, 1987). However, supporting employees, although it may include an informal component, is part of the formal role of the supervisors, and is often associated with disciplinary implications and the power differences limits the reciprocal character of supervisor-employee relation (Hüffmeier & Hertel, 2011). Supportive behaviors among team members is associated with many positive outcomes, such as shared leadership in the teams, better social climate, citizenship behaviors, higher self-esteem and motivation, and team effectiveness (Aubé & Rousseau, 2005; Carson at al, 2007; MacKenzie, 1991). That is, supportive behaviors among team members have desired implications for teams, organizations and workers. Thus, shifting attention to this construct is crucial.

Since most of the work in organizations nowadays is conducted by autonomous teams, this study is relevant mainly because it explores the relationship between some of the most important variables in the organizational context, introducing one that hasn't been very explored – supportive behaviors from the peers. Therefore, one of the strong contributions of this research was to study the supportive behaviors between team members, shifting the focus from the leader's role to the relationships between team members and how they influence team effectiveness. In this regard, this research didn't focus on the team's performance as the only effectiveness dimension. Instead, three other dimensions were added (team viability, quality of group experience and team process improvement) in order to explore different facets of effectiveness and have a more holistic and comprehensive model. This was also a relevant contribution of this study. Additionally, the fact that the results of this research regarding the relationship between team autonomy and supportive behaviors are convergent with previous studies is also a contribution, since it reinforces the literature, adding more evidences about this relationship.

Overall, our findings, showing that supportive behaviors have a powerful effect in the team effectiveness and act as a mediator in the relationship between team autonomy and team effectiveness contributes to add knowledge in the field of team research and, simultaneously, serves as a booster for further research.

At the intervention level, this study can help organizations, managers and team leaders to better manage their teams and rethink their strategies in order to incorporate more autonomy into the design of their teams and potentiate the benefits of this autonomy by promoting supportive behaviors between the team members. Hereupon, it also draws attention to the recognition of the importance of investing in strategies like teambuilding, to promote supportive behaviors and better relationships between team members, improving the team effectiveness.

In spite of the valuable insights this research has to offer, it also has some limitations. Given the cross-sectional nature of this study the possibility of inferring empirical causality is compromised and the whole potential of IMOI model wasn't fully explored. Other limitation of this study is the convenience sampling which limits the generalization of results. The fact that questionnaires based on the perceptions of individuals were used, may lead to social desirability bias since individuals may distort their answers in order to give a more favorable opinion about the group they belong. The fact that two sources of evaluation were used (team members and supervisors) may attenuate the negative impacts of this limitation, also contributing to minimazing the problem of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Additionally, the questionnaires were solely composed by multiple choice questions which limits the potential to collect more rich and valuable information about the teams. Should also be considered the fact that in this study the sample was composed only by Portuguese teams. Since the results might be different if subjects from other cultures were included, further research should focus on this issue.

To overcome the limitations here presented, future research should adopt a longitudinal design in order to fully explore all the potentialities of the IMOI model and to explore in a more accurate way the causality between the variables. It would also be important to use multimethod procedures to collect data, include more objective measures and diverse information sources, in order to limit bias and have more accurate data. For collecting more insightful and valuable information, the questionnaires should include open-ended questions. Extend this research to other samples and cultures could also improve the knowledge on the topic studied in this research.

Despite the contributions of this study, there are still some issues that should receive future attention. Since our study only explored team autonomy as a whole, not considering the level of freedom and independence of the individuals of the team to conduct their tasks, future research should analyze the role of individual autonomy among the team members. Indeed, in autonomous teams with high levels of individual autonomy, the emergence of supportive behaviors might be different from the findings stated here. Including other variables such as individual differences among team members, team cohesion or team trust, as moderators/mediators in the model analyzed might also be a good insight for further research on this topic.

Acknowledgements

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Appendix

Appendix A – Letter of Presentation

Appendix B – Research Project

Appendix C – Team Leader's Questionnaire

Appendix D – Team Member's Questionnaire

Appendix A

LETTER OF PRESENTATION

Coimbra, 02 de Abril de 2016

Exmo(a). Senhor(a),

Dirigimo-nos a V. Exa. na qualidade de investigadores da Universidade de Coimbra, onde nos encontramos a realizar estudos de mestrado.

No âmbito dos projetos de investigação que estamos a realizar na área de Psicologia das Organizações, do Trabalho e dos Recursos Humanos, sob a orientação da Prof.ª Doutora Isabel Dórdio Dimas, Prof. Doutor Paulo Renato Lourenço e Prof.ª Doutora Teresa Dias Rebelo, na Faculdade de Psicologia e de Ciências da Educação da Universidade de Coimbra, propomo-nos estudar alguns processos de funcionamento dos grupos/equipas de trabalho.

Para levar a cabo esta investigação pretendemos aplicar, durante o mês de Abril de 2016, em diversas organizações, um questionário a diversos grupos/equipas de trabalho e aos respetivos líderes (tempo estimado para preenchimento: 20 a 25 minutos).

Às organizações participantes nesta investigação fica garantido o direito ao anonimato e à confidencialidade dos dados, bem como a entrega, após a conclusão dos mestrados, de uma cópia das teses. Caso manifestem o desejo de obter informação sobre os resultados referentes à vossa Organização em particular, disponibilizamo-nos, igualmente, para facultar esse *feedback*. Consideramos que o benefício poderá ser mútuo, na medida em que, por um lado, a organização de V. Exa. promove a investigação de excelência em Portugal e, por outro, beneficia de informação em retorno, assente no tratamento e análises de dados com rigor metodológico e cientificamente fundamentados.

Gostaríamos de poder contar com a colaboração da vossa Organização para este estudo. Neste sentido, e para uma melhor apreciação da investigação e da colaboração solicitadas, teremos todo o gosto em explicar este projeto, de forma mais detalhada, através do meio de comunicação que considerem mais adequado.

Desde já gratos pela atenção dispensada, aguardamos o vosso contacto.

Com os melhores cumprimentos,

(P'la equipa de investigação)

Rua do Colégio Novo

Apartado 6153 - 3001-802, COIMBRA

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Appendix B

RESEARCH PROJECT

Mestrado em *Work, Organizational and Personal Psychology (WOP-P)*

Proposta de Colaboração em Investigação

Liderança, Processos e Eficácia dos Grupos

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1) Equipa responsável pelo projeto de investigação

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Orientação:

- Prof. Doutor Paulo Renato Lourenço

- Prof.ª Doutora Teresa Rebelo

- Prof.ª Doutora Isabel Dórdio Dimas

2) Introdução e Objetivos

A investigação sobre grupos em contexto organizacional é bastante extensa e diversificada. Existem, contudo, algumas áreas que se encontram insuficientemente estudadas, como é o caso das temáticas que são objeto do presente estudo. Desta forma, com este trabalho propomo-nos estudar a forma como processos/estados tais como os comportamentos de suporte, os comportamentos de aprendizagem e as relações existentes entre os membros do grupo se relacionam com a eficácia das equipas de

trabalho. Visamos, assim, contribuir para um melhor e mais profundo conhecimento relativo ao funcionamento dos grupos, bem como às condições que permitem potenciar a eficácia grupal.

Variáveis em estudo:

- Clima organizacional - conjunto de perceções partilhadas pelos trabalhadores de uma determinada organização;
- Aprendizagem grupal - processo que se caracteriza pela aquisição, partilha e integração do conhecimento por parte dos membros do grupo; ☐ Comprometimento afetivo - relação de vinculação que o trabalhador estabelece com a organização onde trabalha;
- Liderança Transformacional - traduz-se nos seguintes comportamentos: comunicar a visão, desenvolver os colaboradores, fornecer apoio, delegar poder e capacitar os colaboradores, ser inovador, liderar pelo exemplo e ser carismático;
- Comportamentos de suporte - grau em que os membros de cada equipa dão apoio uns aos outros, quando necessário, durante a realização de tarefas;
- Resiliência - num nível grupal, a resiliência traduz-se na capacidade de a equipa enfrentar e superar fracassos, contratempos, conflitos ou qualquer outra ameaça ao bem-estar da equipa;
- Autonomia - grau de liberdade de que as equipas dispõem para decidir como conduzir as suas tarefas.
- Eficácia grupal - desempenho, viabilidade, qualidade da experiência grupal e melhoria dos processos.

3) Amostra e participação das organizações

O estudo será realizado nos grupos/equipas de trabalho e os respetivos líderes desta organização.

Para que seja considerada uma equipa válida para este estudo é necessário que (1) seja constituída por três ou mais elementos, (2) os membros e o respetivo líder sejam reconhecidos e se reconheçam como equipa, (3) possuam relações de interdependência e (4) interajam regularmente tendo em vista o alcance de, pelo menos, um objetivo comum. A participação da organização no estudo consiste em possibilitar a recolha dos dados, isto é, da informação necessária à realização do estudo. Deste modo, obriga-se a proporcionar as condições necessárias à execução das atividades referidas. A recolha de dados decorrerá entre Dezembro de 2015 e Fevereiro de 2016, num período a acordar entre a equipa de investigação e a organização.

4) Formas de recolha da informação e tempo previsto

Na organização, será necessário efetuar:

a) O preenchimento de um questionário pelos membros das equipas de trabalho participantes no estudo (10-20 minutos).

b) O preenchimento de um questionário pelos líderes das equipas de trabalho (5 minutos). Os questionários poderão ser preenchidos online.

5) Direitos e obrigações da equipa de investigação

A equipa de investigação terá o direito de:

- Não fornecer quaisquer resultados do estudo caso haja interrupção da participação ou recolha incompleta de informação;
- Devolver os resultados do estudo somente na condição de a Organização aceitar que esses dados sejam devolvidos num formato que proteja a identidade dos participantes e que nunca sejam utilizados com a finalidade de avaliar o desempenho dos colaboradores envolvidos;
- Fornecer os resultados somente aquando da conclusão do estudo.

A equipa de investigação obriga-se a:

- Assegurar as condições que permitam e garantam o consentimento informado dos participantes;
- Garantir a confidencialidade e o anonimato de todos os dados recolhidos e cumprir as demais normas éticas que regulamentam a investigação na área da Psicologia;
- Recusar a entrega de dados e resultados individuais, quer referentes a trabalhadores da organização participante, quer referentes a outras organizações da amostra;
- Efetuar a recolha de dados de forma a causar o mínimo transtorno possível à organização e aos seus colaboradores.
- Não disponibilizar, em circunstância alguma, a listagem de endereços de e-mail que for fornecida para aplicação do questionário online.

A Coordenação da Equipa de Investigação

_____

Team Autonomy and Team Effectiveness in an organizational context: the mediating role of Supportive Behaviors.
Joana Alexandrino da Silva, University of Coimbra and University of Barcelona, 2018

Declaração de consentimento informado

Enquanto representante da Organização onde vai ser efetuada a recolha de dados no âmbito do projeto de investigação, declaro que tomei conhecimento e fui devidamente esclarecido/a quanto aos objetivos e aos procedimentos da investigação descritos neste documento. Declaro que aceito todos os direitos e obrigações enunciados e que autorizo de forma livre e informada a sua realização com colaboradores/as da organização que represento. ---------------------------------------

_____, ___ de _____ de 201

O representante,

_____

Appendix C

TEAM LEADER'S QUESTIONNAIRE

O presente questionário insere-se num estudo sobre os processos e os resultados dos grupos de trabalho, em contexto organizacional. As questões que se seguem têm como objectivo conhecer a forma como avalia a sua equipa de trabalho, em função de um conjunto de critérios.

Todas as respostas que lhe solicitamos são rigorosamente anónimas e confidenciais. Responda sempre de acordo com aquilo que pensa na medida em que não existem respostas certas ou erradas.

Leia com atenção as instruções que lhe são dadas, certificando-se de que compreendeu correctamente o modo como deverá responder. Certifique-se que respondeu a todas as questões.

Muito obrigado pela colaboração!

[Tempo estimado de preenchimento: 5 minutos]

PARTE 1

(Dados demográficos - para fins exclusivamente estatísticos)

Idade: _____ Sexo: M □ F □

Habilitações literárias: _____

Nº de trabalhadores da organização: _____

Tipo de organização: Micro □ Pequena □ Média □ Grande □

Sector de actividade da organização: _____

Há quanto tempo se formou a sua equipa? _____

Há quantos anos trabalha nesta organização? _____

Há quantos anos trabalha nesta equipa?_____

Função desempenhada: _____

Nº de elementos da sua equipa: _____

Qual é a principal actividade da sua equipa? [assinale a resposta]

□ Produção □ Comercial

□ Administrativa □ Gestão

□ Outra. Qual?_____

40

Avalie o desempenho da sua equipa de trabalho de 1 (muito baixo) a 5 (muito alto), em função dos seguintes indicadores (assinale com um x):

	1	2	3	4	5
1. Alcance dos objetivos de desempenho.					
2. Produtividade (quantidade de trabalho).					
3. Qualidade do trabalho realizado.					
4. Respeito pelos prazos.					
5. Respeito pelos custos.					

O conjunto das seguintes afirmações tem como objetivo **caracterizar a sua equipa de trabalho**. Neste sentido, diga, por favor, em que medida cada uma delas se aplica à equipa onde trabalha. Assinale com uma cruz (x) o valor que melhor se adequa ao que lhe é apresentado em cada afirmação, utilizando a seguinte escala:

1	2	3	4	5
Quase não se aplica	Aplica-se pouco	Aplica-se moderadamente	Aplica-se muito	Aplica-se quase totalmente

	1	2	3	4	5
1.Os membros da equipa adaptam-se às mudanças que ocorrem no seu ambiente de trabalho.					
2. Quando surge um problema, os membros desta equipa conseguem resolvê-lo.					
3. Os novos membros são facilmente integrados nesta equipa.					
4. Os membros desta equipa poderiam trabalhar juntos por um longo periodo de tempo.					

Para finalizar, pedimos-lhe que nos indique em que medida as afirmações seguintes se aplicam à sua equipa de trabalho, assinalando com uma cruz (x) o valor que melhor se adequa a cada afirmação, utilizando a seguinte escala:

41

1	**2**	**3**	**4**	**5**
Quase não se aplica	Aplica-se pouco	Aplica-se moderadamente	Aplica-se muito	Aplica-se quase totalmente

Os membros desta equipa têm implementado com sucesso novas formas de trabalhar…

	1	2	3	4	5
1. …para facilitar o cumprimento dos objetivos de desempenho.					
2. … para serem mais produtivos.					
3. … para produzirem trabalho de qualidade.					
4. … para diminuir o tempo de concretização das tarefas.					
5. … para reduzir custos.					

Appendix D

TEAM MEMBER'S QUESTIONNAIRE

> O presente questionário insere-se num estudo sobre os processos e os resultados dos grupos de trabalho, em contexto organizacional. As questões que se seguem têm como objectivo conhecer as opiniões e atitudes dos elementos de cada equipa no que diz respeito a algumas situações que podem acontecer no seio das mesmas.
>
> Todas as respostas que lhe solicitamos são rigorosamente anónimas e confidenciais. Responda sempre de acordo com aquilo que faz, sente ou pensa, não existindo respostas certas ou erradas.
>
> Leia com atenção as instruções que lhe são dadas, certificando-se de que compreendeu correctamente o modo como deverá responder. **Note que as instruções não são sempre iguais.** Antes de dar por finalizado o seu questionário, certifique-se de que respondeu a todas as questões.
>
> Muito obrigado pela colaboração!

[Tempo estimado de preenchimento: 20 a 25 minutos]

PARTE 1

(Dados demográficos - para fins exclusivamente estatísticos)

Idade: _____   Sexo: M □ F □

Habilitações literárias: _____

Há quantos anos trabalha nesta organização? _____

Há quantos anos trabalha nesta equipa?_____

Do total de horas que trabalha por dia, quantas dessas horas, aproximadamente, trabalha em

interacção com os seus colegas de equipa? _____

Função desempenhada: _____

PARTE 2

(Autonomia)

São, em seguida, apresentadas algumas afirmações relativas ao seu grupo de trabalho. Neste

sentido, diga, por favor, em que medida cada uma delas se aplica à equipa onde trabalha.

Assinale com uma cruz (x) o valor que melhor se adequa ao que lhe é apresentado em cada afirmação, utilizando a seguinte escala:

1	2	3	4	5
Quase não se aplica	Aplica-se pouco	Aplica-se moderadamente	Aplica-se muito	Aplica-se quase totalmente

	1	2	3	4	5
1. A quipá é livre de decidir como realizar o seu trabalho.					
2. A equipa é livre para escolher o(s) método(s) a utilizar no desenvolvimento do trabalho.					
3. A quipá pode escolher como conduzir o processo de trabalho.					
4. A equipa pode decidir quando realizar as diversas tarefas.					
5. A equipa tem controlo na calendarização do trabalho da equipa.					
6. A equipa tem controlo sobre a sequência das tarefas da equipa.					
7. A equipa tem poder para decidir os seus objetivos.					

(Comportamentos de Suporte)

As afirmações que se seguem referem-se a diferentes comportamentos que podem acontecer no seio da sua equipa de trabalho. Pedimos-lhe que indique em que medida acontecem na sua equipa, assinalando com uma cruz (x), o valor que melhor se adequa ao que lhe é apresentado em cada afirmação, utilizando a seguinte escala:

1	2	3	4	5
Quase não se aplica	Aplica-se pouco	Aplica-se moderadamente	Aplica-se muito	Aplica-se quase totalmente

	1	2	3	4	5
1. Ajudamo-nos uns aos outros quando alguém fica para trás no seu trabalho.					
2. Cooperamos uns com os outros para cumprir as tarefas.					
3. Encorajamo-nos mutuamente para realizarmos um bom trabalho.					
4. Reconhecemos e valorizamos as contribuições de cada membro para a realização das tarefas.					
5. Preocupamo-nos com os sentimentos e com o bem-estar dos outros membros.					

(Qualidade da experiência grupal)

Relativamente às relações na sua equipa de trabalho, pedimos-lhe que indique em que medida concorda ou discorda das seguintes afirmações, assinalando com uma cruz (x) a opção que melhor se adequa, utilizando a seguinte escala:

1	2	3	4	5
Quase não se aplica	Aplica-se pouco	Aplica-se moderadamente	Aplica-se muito	Aplica-se quase totalmente

	1	2	3	4	5
1. Na nossa equipa, o clima de trabalho é bom.					
2. Na nossa equipa, as relações são harmoniosas.					
3. Na nossa equipa, damo-nos bem uns com os outros.					