DOI: 10.2478/orga-2024-0006

Having Each Other's Back: The Mediating Role of Supportive Behaviours in the Relationship Between Team Autonomy and Team Effectiveness

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Background and Purpose: Incorporating autonomy in teams has been an increasingly popular practice, but the mechanisms that make autonomous teams effective still need to be completely understood. Adopting a multidimensional approach to team effectiveness, the aim of this study was to analyse the mediating role of team members' supportive behaviours in the relationship between team autonomy and team effectiveness (team performance, team viability, quality of group experience and team process improvement).
Methods: This research adopts a group-level analysis with a sample of 90 teams of 40 organisations from different sectors. Regression analysis was used to analyse the data, namely the product of the coefficients method.
Results: A positive relationship between team autonomy and supportive behaviours, which, in turn, is positively related to the four criteria of team effectiveness, was found, suggesting that supportive behaviours are a team process that explains the relationship between team autonomy and team effectiveness.
Conclusion: This research enriches our knowledge of the antecedents of team effectiveness and explains the mechanisms through which team autonomy relates to team effectiveness, encouraging organisations to incorporate autonomy into teams' design to enhance supportive behaviours and team effectiveness.

Keywords: *Work teams, Team autonomy, Team effectiveness, Supportive behaviours, Quality of group experience, Team performance*

1 Introduction

Teams have become crucial for almost everything we do in modern life, particularly in organisations (Kozlowski & Ilgen, 2006). Cohen and Bailey (1997) define work teams as groups of at least three members who are perceived by themselves and others as a team and who interact regularly and interdependently to achieve a common goal. As a system of organising and managing the work, using teams became one of the answers to the complex and uncertain environment we live in nowadays by fos-

Received: 20th February 2023; Accepted: 10th August 2023

tering innovation in organisations (Rico et al., 2011) and maximising the value of their human capital. Teams can provide diversity in knowledge, attitudes, abilities, skills and experience, and their integration makes it possible to offer rapid, flexible, and innovative responses to the problems and challenges organisations face nowadays. Teams can be seen as a key element for the success of organisations; however, this success depends on the effectiveness of teams (Rico et al., 2011).

Team effectiveness is the core focus of much of the research on teams. However, there is still much to uncover regarding modern-day teams' arrangement and effectiveness. 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 (Cohen & Bailey, 1997; van Zijl et al., 2019). Incorporating autonomy in team design has become an organisation's new guiding star, promising increased creativity, innovation, and productivity (Hoegl & Parboteeah, 2006). However, what exactly are the mechanisms that make autonomous teams effective? We intend to shed some light on this issue.

Our study is grounded on the I-P-O model (McGrath, 1984), which suggests that different team interaction processes influence team results, such as team efficiency and team performance (Wang, 2018). In this model, different inputs (individual, team and organisational factors) directly affect team interaction processes, affecting the team outputs. Considering the I-P-O framework in this study, we intend to test a mediation model where team autonomy will be considered an input of team functioning, supportive behaviours (a team process) will be the mediator and team effectiveness will be the output variable.

Several authors agree that team autonomy can be seen as an input of team functioning (Cohen & Bailey, 1997; van Zijl et al., 2019). Autonomy in teams focuses the team member's attention on the team as a unit, increasing the perceived group identity and the team members' commitment to the team and their goals. Team autonomy motivates helping behaviours among team members in order to accomplish the task and overcome difficulties (Langfred, 2000). Therefore, supportive behaviours between team members are expected to increase in autonomous teams. Supportive behaviours, 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 several variables and team effectiveness, like leadership (Pessoa et al., 2018) or team goal commitment (Aubé & Rousseau, 2005).

Moreover, Campion et al. (1993) found that cooperation and social support are related to the functioning of effective work groups. Therefore, helping behaviours and positive social interactions, called supportive behaviours in this study, may enhance team effectiveness. Relying on the premise that effectiveness depends heavily on team members' interpersonal competence and their ability to maintain healthy working relationships (Medsker & Campion, 1998 cit. in Leach, 2005) and considering that supportive behaviours can contribute to increasing team effectiveness, we can assume that this variable may act as a mediator in the relationship between team autonomy and team effectiveness.

This research brings several contributions to the literature. First, focusing on the relationship between team autonomy and team effectiveness, considering the role of supportive behaviours contributes to explaining how team design characteristics may affect team effectiveness. Furthermore, as far as we know, no studies investigate the relationship between team autonomy and team effectiveness with supportive behaviours as mediators. Second, when it comes to supportive behaviours, the literature mainly focuses on the supportive actions of the team leader (Pessoa et al., 2018), and there needs to be more studies that rely on team members' supportive behaviours. The present study also adds knowledge to help fill this gap. Third, our research studies how these characteristics relate to team effectiveness criteria in a field setting with organisational work groups. Focusing on real groups as productive units in organisations is also an added value of this study. Finally, this research contributes to the research line, which adopts a multidimensional team effectiveness approach, including four different team effectiveness criteria.

At the intervention level, our research contributes to helping managers and team leaders understand better how they can increase the effectiveness of their teams based on a team design characterised by team autonomy.

2 Literature Review

2.1 The mediating role of team supportive behaviours in the relationship between team autonomy and team effectiveness

With the increasing need for more flexible, innovative, and agile organisational structures, companies have found new ways of distributing authority between those who do the work and those who are in managerial positions, raising the popularity of concepts such as autonomous and empowered teams (Moe et al., 2021). Team autonomy can be defined as the extent to which a team has considerable discretion and freedom in deciding how to carry out tasks (Langfred, 2005). Autonomy in teams gives the employees the responsibility to make decisions related to task assignments, methods for carrying out their work and scheduling activities (Cohen & Ledford, 1994).

Autonomy has shown many positive outcomes for groups and organisations, influencing team effectiveness in

different dimensions. Cohen and Ledford (1994) and Langfred (2005) showed that by allowing employee self-regulation or self-control over changing conditions facing the group, team autonomy contributes to increasing team performance, which can be defined overall as the extent to which a team accomplishes its goal or mission (Devine & Philips, 2001). Cohen and Ledford (1994) also showed the influence of team autonomy on employees' quality of work life. 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. Therefore, beyond team performance, team autonomy is related to the 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 et al., 2011). As it allows flexible information processing, team autonomy also enhances the sense of responsibility and self-determination, improving team creativity and the team's ability to manage the work and adapt to change (Chen et al., 2015). In autonomous teams, a decrease in shirking is also to be expected because employees will tend to have greater commitment and feelings of belonging to the group, which will improve the ability of the team to adapt and function effectively over time (Pearce & Ravlin, 1987). Therefore, we can state that team autonomy has 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 team viability, which can be defined as the team's ability to adapt to changes and deal with the challenges of a dynamic environment (Aubé & Rousseau, 2005). To sum up, previous research points to a positive relationship between team autonomy and different criteria of team effectiveness, namely team performance, team viability, quality of group experience and team process improvement.

Supportive behaviours in teams can be defined as the extent to which team members voluntarily provide assistance to each other when needed during the task accomplishment, considering that these behaviours reflect the support that team members provide to each other (Aubé & Rousseau, 2005). Over the years, different scholars have found evidence of the positive relationship between team autonomy and supportive behaviours. Langfred (2000) pointed out that autonomy at the team level focuses the team member's attention on the team as a unit, increasing group identity and members' commitment to the team and motivating helping behaviours between team members to accomplish the task and overcome difficulties. Better ways of conflict handling, non-evaluative listening, use of active listening techniques, and managing work in an effective and timely way can also be effects of team autonomy (Leach, 2005). Choi and Cho (2019) found that teams with more autonomy have greater trust and collaboration, even in virtual teams. Thus, we can state that team autonomy is an antecedent of supportive behaviours among team members.

Supportive behaviours allow team members to deal efficiently with different events or situations that could decrease their will to contribute to task accomplishment, enabling team members to complete a task in situations where they would have difficulty doing it individually. Supportive behaviours improve the social climate in work teams, boosting self-esteem, strengthening morale and providing a sense of affiliation (Aubé & Rousseau, 2005). Team members committed to the team goals are likely to adopt more supportive behaviours, increasing team performance and the quality of group experience (Aubé & Rousseau, 2005). Support between team members helps individuals become more productive (Janz et al., 1997). Also, it helps the team to cope with internal and external changes that may occur, improving team viability (Aubé & Rousseau, 2005). Jassawalla and Sashittal (2006) also found that different dimensions of collaboration in teams are associated with learning increasingly more complex ways of thinking and behaving and with higher levels of efficiency and effectiveness in product innovation processes. In this way, we can state that collaboration and support between team members are related to the capacity of teams to enhance existing processes and find innovative ways to improve team outcomes, defined as team process improvement (Kirkman et al., 2004). Considering the previous findings, we can argue that supportive behaviours improve team effectiveness in different dimensions.

Since team autonomy is related to team effectiveness (Langfred, 2005; Haas, 2010) and to higher levels of supportive behaviours, and, in turn, supportive behaviours lead to higher team effectiveness (Aubé & Rousseau, 2005; Janz et al., 1997), we can hypothesise that supportive behaviours can play a mediating role in the relationship between team autonomy and team effectiveness. Therefore, in this study, based on the I-P-O model, we will test a mediation model including team autonomy as the input variable, supportive behaviours 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)

Accordingly, we formulate the following hypothesis:

H1: Supportive behaviours 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).

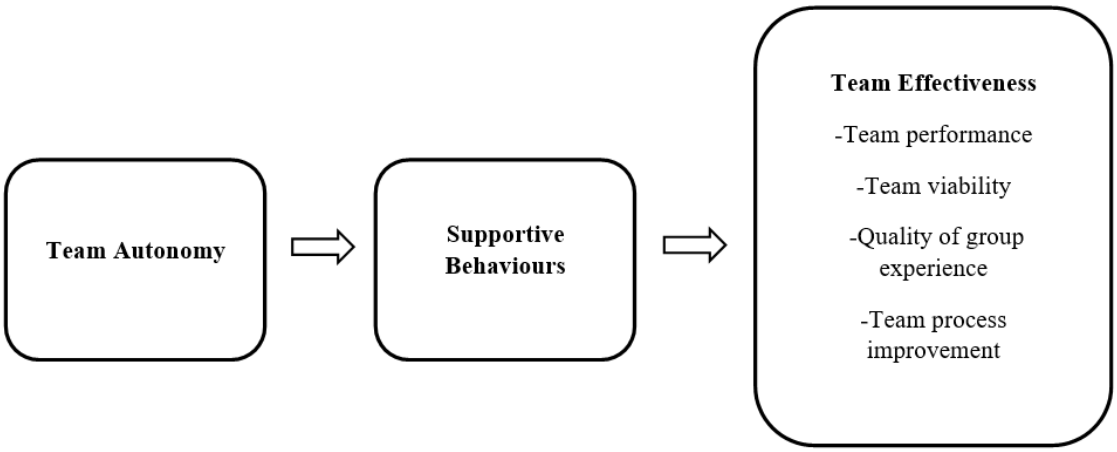

Figure 1: Model under analysis (Based on (Ilgen et al., 2005; Kozlowski & Ilgen, 2006)

3 Method

3.1 Sample

This research adopts a group-level analysis. Following Cohen and Bailey (1997), the criteria for considering and selecting teams for this research were: teams should be constituted at least by three members (1) who perceive themselves and others as a team (2) and 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 of 90 teams (comprising 445 team members and 90 team leaders) working in 40 Portuguese organisations. The organisations vary in size, with the sample being composed of medium-sized organisations (42.20%), large and small-sized organisations (each corresponding to 16.70%) and micro-sized organisations (14.40%).

Teams comprise three 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), 226 being female (50.80%) and 201 male (45.20%). The age of team leaders ranges from 18 to 67 years old (M = 39.38; SD = 9.91), 28 being female (31.10%) and 55 male (61.10%). It should be noted that 4% of team members and 7.80% of team leaders did not give information regarding their gender. All leaders were direct supervisors of the teams, responsible for team management and not performing the team's daily tasks.

3.2 Data collection procedures

Several companies were contacted by phone or e-mail, explaining the research and asking for participation. The data was collected with online and paper questionnaires using convenience sampling combined with a snowball effect. Participation in the study was voluntary, and the research team followed the ethical research principles. All participants provided their informed consent and had the right to desist; confidentiality and anonymity were guaranteed, and the research team assumed the commitment to use the data only for scientific purposes.

A multisource approach was implemented in data collection to reduce the risk of common method variance (Podsakoff et al., 2012). The data was collected from team leaders and team members. Team leaders answered the scales measuring team performance, process improvement, and viability. The scales measuring team autonomy, supportive behaviours and quality of group experience were applied to the team members.

3.3 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) and adapted by van Beveren et al. (2017). This unidimensional scale evaluates team members' perceptions regarding the amount of autonomy the team has in several aspects of their work. For our sample, Cronbach's alpha is .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

answered on 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".

Supportive behaviours.

This construct was measured using a scale that Aubé and Rousseau (2005) developed that evaluates both instrumental and emotional dimensions of supportive behaviours in a one-dimensional structure. Its Portuguese version was used by Pessoa et al. (2018). For our sample, Cronbach's alpha is .93. The scale is composed of five items (e.g., "we help each other when someone is behind on their work"), answered on 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".

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) and used by Paolucci et al. (2018). This scale evaluates the interpersonal/relational climate within the team. Cronbach's alpha for our sample is .94. The scale is composed of three items (e.g., "within our team, the work climate is good"). These items are responded on a Likert scale in which the lowest value (1) corresponds to "I strongly disagree", and the highest value (5) corresponds to "I strongly agree".

Team performance scale: a scale developed by Rousseau and Aubé (2010) and used by Paolucci et al. (2018). This scale assesses the team's performance through objective achievement, productivity, quality of work and fulfilment of deadlines and costs. For our sample, Cronbach's alpha is .84. The scale is composed of five items (e.g., "achievement of performance goals") and answer on a Likert-type scale in which the lowest value (1) corresponds to "very low" and the highest value (5) corresponds to "very high".

Team process improvement scale: scale also developed by Rousseau and Aubé (2010) and used by Paolucci et al. (2018) that evaluates the use of new ways of working by the team and its effects concerning issues such as the team goals, productivity, quality of the work, accomplishment of deadlines and reduce of costs. In our sample, Cronbach's alpha is .85. The scale is composed of five items (e.g., new ways of working have helped to achieve performance goals), which is responded on 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".

Team viability scale: scale developed by Aubé and Rousseau (2005) and also used by Paolucci et al. (2018) measures the team's ability to adapt to changes, solve problems, integrate new members and remain together in the future. For our sample, the Cronbach's alpha is .75. The scale is composed of four items (e.g., "team members adapt themselves to changes in the workplace…"). The items are answered on 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".

4 Results

4.1 Statistical procedures

The software used for statistical procedures was IBM SPSS Statistics 22. Firstly, missing values from the data collected were analysed. This procedure was only conducted for the team members' responses since no missing values regarding the scales answered by team leaders were detected. The highest percentage of missing values per case found in the 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 analyse the distribution pattern of non-answers and verify the hypothesis of the missing values being random, Little's MCAR test was used. In all the scales, the p-value is below the .05 significance level, so we rejected the hypothesis that the missing values are randomly distributed. Hereupon, to replace missing values, the expectation-maximisation (EM) technique was used.

Since the analysis is focused on the team level, but the data were collected at the individual level, the data from team members were aggregated to the teams by calculating the average scores obtained for each scale. The average deviation index (ADM), developed by Burke et al. (1999), was used to justify this procedure and ensure the average scores could be safely used. Table 1 shows that the mean for team autonomy (M = 0.53), supportive behaviours (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 five points proposed by the authors). Thus, following authors such as Gamero et al. (2008), we can conclude that data aggregation from individual to team level is viable.

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 behaviours, 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), which supports the data aggregation at the team level.

Table 1: Average deviation index (ADM) for team autonomy, supportive behaviours and quality of team experience

Scales	N	Minimum	Maximum	Mean	SD	Cut-off
Team Autonomy	90	0.00	1.36	0.53	0.23	0.83
Supportive Behaviours	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

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 Behaviours	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

Table 3: Hierarchical regression analysis of team autonomy as a predictor of supportive behaviours

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

4.2 Hypothesis testing

Previously to the hypothesis test, the correlations between the variables included in the model were analysed. The variable "team size" was also included as a control variable since the literature shows that team size can influence teams' functioning and outputs (Hülsheger et al., 2009). Team size was operationalised as the number of team members obtained from team leaders.

The mediation model was tested using multiple regression analysis following the procedure proposed by the product of coefficients method of MacKinnon et al. (2002). According to this 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 is statistically significant); and (3) the mediating effect is statistically signifi-

cant (product of αβ is significant).

Table 2 presents the correlations between the variables of the study, including the control variable. We can see significant correlations between team autonomy, supportive behaviours and all the team effectiveness criteria variables. Team size (control variable) correlates significantly (and negatively) with team autonomy, quality of group experience and supportive behaviours, which means that, in order to control its effect, team size will also be included in the regression analyses with supportive behaviours and the quality of group experience as a criterion.

Table 4: Hierarchical regression analysis of supportive behaviours 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 Behaviours	.80	.07	.84***		
Team Autonomy	-.04	.07	-.04		

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

Table 5: Regression analysis of the mediating role of supportive behaviours

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

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

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

For the second regression model, the four criteria of team effectiveness were regressed to supportive behaviours after controlling for team autonomy. Since team size correlates with the quality of group experience, in order to test H1a, a hierarchical regression analysis was conducted. A significant and positive relationship was found between supportive behaviours and quality of group experience ($\beta = .84$, $p < .001$). Therefore, considering that team autonomy showed a significant positive relationship with supportive behaviours, and supportive behaviours showed a significant positive relationship with quality of group experience after controlling for team autonomy, H1a was empirically supported (Table 4).

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 a significant relationship between supportive behaviours and team viability ($\beta = .34$, $p = .006$), team performance ($\beta = .39$, $p = .001$), and team process improvement ($\beta = .44$, $p < .001$) after controlling for team autonomy. Therefore, considering that team autonomy showed a significant positive relationship with supportive behaviours, and supportive behaviours showed a significant positive relationship with each one of the team effectiveness criteria, the hypotheses H1b, H1c and H1d were supported.

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 ($P = Z\alpha \times Z\beta = 78.67$, $p < .05$; $P = Z\alpha \times Z\beta = 21.11$, $p < .05$; $P = Z\alpha \times Z\beta = 18.01$, $p < .05$; $P = Z\alpha \times Z\beta = 21.48$, $p < .05$, respectively).

Considering that the relationship of team autonomy with team effectiveness dimensions was not statistically significant when supportive behaviours entered into the equations (Table 5), we can state that supportive behaviours 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: $\tau = .06$, $p = .771$).

5 Discussion

This study examined the mediating role of supportive behaviours in the relationship between team autonomy and team effectiveness. To this end, we hypothesised that supportive behaviours would mediate the relationship between team autonomy and four different team effectiveness criteria: team viability, team performance, quality of group experience and team process improvement.

Considering our mediation model, firstly, the relationship between team autonomy and supportive behaviours was analysed. Evidence was found that team autonomy predicts supportive behaviours among team members. Although there is not much research regarding the relationship between these two variables, the literature points to a positive relationship between them (Choi & Cho, 2019; Langfred, 2000; Leach, 2005). Therefore, as expected, our results suggesting that team autonomy stimulates supportive behaviours add more evidence to this relationship. When team members are left to work independently, their perception of responsibility for the team results increases, making team members work more cohesively and collaboratively to accomplish the goals for which the team is responsible.

Our hypothesis (H1) was supported. 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 characterised by supportive internal communications tends to emerge, promoting team effectiveness. Previous research has already shown some evidence 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 behaviours are one of the team processes by which that relationship happens. Indeed, our findings reveal that supportive behaviours 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 behaviours. In other words, team autonomy increases team supportive behaviours among team members, which, in turn, increases quality of group experience (H1a), team viability (H1b), team performance (H1c) and team process improvement (H1d).

This reveals the power that supportive behaviours have in the team's functioning. Team autonomy triggers the need in the team members to engage in behaviours that help the team to cope with problems and obstacles, that is, supportive behaviours, leading to team effectiveness.

This study takes a step forward in understanding team mechanisms that promote effectiveness in autonomous

teams and brings attention to a construct that has not been greatly explored in research – supportive behaviours between team members – showing its strong relationship with team functioning.

6 Conclusions

Research on team effectiveness has been the focus of the investigation of teams. Due to its complexity, the number of variables and different interactions we can combine might always be present. Autonomous teams are a current trend popularised by technological organisations that tend to incorporate agile and flexible work methods into their teams (Annosi & Brunetta, 2018; Moe et al., 2021). The need to respond to unexpected hazards, find innovative solutions, and build resilience also makes organisations explore new team designs and management methods, such as autonomous teams (Poth et al., 2020). Considering this, studying the mechanisms that make autonomous teams a valuable solution for organisations is of great interest.

Supportive behaviours were chosen as a mediator variable to uncover the potential of a variable that has not been fully explored in the literature. Although Tardy (1985) introduced this concept a few decades ago, it has yet to be very present in research; our results support its potential. These findings, presenting team autonomy as a relevant predictor of supportive behaviours, draw attention to the benefits of this construct and the importance of implementing autonomy in team design to make teams more effective.

7 Implications for research

This study includes a construct that has not been greatly explored in the literature – supportive behaviours from peers. The support given by the supervisors and its relationship to team performance has been a focus of attention in research (e.g., Dimas et al., 2018; Manz & Sims, 1987), so shifting the focus from the leader's role to the relationships between team members and how they influence team effectiveness is a major contribution for research. In the same way, regarding measuring team effectiveness, this research goes further since a focus on team performance was not the only effectiveness criterion. Instead, three other criteria were added (team viability, quality of group experience and team process improvement) to explore different facets of effectiveness and have a more holistic and comprehensive model. Additionally, the fact that the research results regarding the relationship between team autonomy and supportive behaviours are convergent with previous studies is also a contribution since it reinforces the literature, adding more evidence about this relationship.

8 Implications for practice

This study can help organisations, managers and team leaders to manage their teams better and optimise their full potential to respond to current organisational challenges. Providing more autonomy to the team by allowing team members to decide how to carry out their work or letting the team make work-related decisions autonomously are simple strategies that can be implemented. However, providing autonomy is insufficient to guarantee effectiveness because several factors can interfere with the team's functioning, such as team members' personality traits or cultural differences (Gonzalez-Mulé et al., 2019; Stel, 2017). Considering that supportive behaviours make autonomous teams more effective, investing in team-building activities and fostering healthy and cohesive relationships among team members might be valuable strategies to potentiate good team functioning.

9 Limitations and directions for future research

Despite the insights this research offers, it also has some limitations. Given the cross-sectional nature of this study, the possibility of inferring empirical causality is compromised. Future research should adopt a longitudinal design to explore the causality between the variables more accurately. Another limitation of this study is the convenience sampling, which limits the generalisation of results. The sample was composed only of Portuguese teams, and since the results might be different if subjects from other cultures were included, further research should focus on this issue. Thus, including other variables such as personality traits or cultural differences as moderators/mediators in the model analysed could also bring valuable insights for further research on this topic. The questionnaires based on the individuals' perceptions may lead to social desirability bias since individuals may distort their answers to give a more favourable opinion about the group to which they belong. However, evaluating the responses at the group level mitigates the social desirability bias since several people assessed the same phenomenon (Podsakoff et al., 2012). Two sources of evaluation were used (team members and supervisors), which may attenuate the negative impacts of this limitation and also contribute to minimising the problem of common method bias (Podsakoff et al., 2012). Different procedures were also implemented to reduce common method bias: the anonymity of respondents was ensured to reduce apprehension over the evaluation; previously validated scales were used, constituted by concise, simple, and specific items (i.e., items are not ambiguous and have no overlap for the different constructs) and the scales were separated with specific instructions provided for each scale (Podsakoff et al., 2012).

Our study only focused on team autonomy and did not consider the level of freedom and independence of the individuals in the team to conduct their tasks. Future research should analyse the role of individual autonomy among the team members. Indeed, in autonomous teams with high levels of individual autonomy, the emergence of supportive behaviours might be different from the findings stated here. The variety of skills among the team members also plays a role in the team functioning (Moe et al., 2021). Analysing how this diversity of skills interferes with team autonomy and supportive behaviours would also be of great interest to better understand how to select individuals for effective teams. Replicating this study with virtual teams might also be a valuable contribution to a better understanding how team dynamics change in a remote work setting and how we can better manage these teams. Although the results of this study cannot be generalised for virtual working settings, some researchers have pointed out that team autonomy can also benefit virtual teams. Robert and You (2018) found that autonomy can facilitate satisfaction and boost performance in virtual teams. Choi and Cho (2019) state that team autonomy in virtual teams will promote trust and collaboration among team members, leading to improved performance. Considering the current organisational challenges, mainly dominated by remote working practices, incorporating autonomy in teams might also help them cope with the challenges of the virtual working setting.

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Imeti drug drugega v mislih: posredovalna vloga podpornih vedenj v odnosu med avtonomijo in učinkovitostjo tima

Ozadje in namen: Vključevanje avtonomije v time je vse bolj priljubljena praksa, vendar je treba še popolnoma razumeti mehanizme, ki naredijo avtonomne time učinkovite. Z uporabo večdimenzionalnega pristopa k učinkovitosti timov je bil cilj te študije analizirati posredovalno vlogo podpornih vedenj članov timov v odnosu med avtonomijo in učinkovitostjo timov (učinkovitost timov, sposobnost preživetja timov, kakovost skupinske izkušnje in izboljšanje procesa timov).
Metoda: V vzorec je bilo vzetih 90 timov iz 40 organizacij iz različnih sektorjev. Za analizo podatkov je bila uporabljena regresijska analiza, in sicer metoda produkta koeficientov.
Rezultati: Ugotovljena je bila pozitivna povezava med avtonomijo timov in podpornimi vedenji, ki so po drugi strani pozitivno povezani s štirimi merili učinkovitosti timov, kar nakazuje, da so podporna vedenja proces ekipe, ki pojasnjuje razmerje med avtonomijo in učinkovitostjo timov.
Zaključek: Raziskava obogati naše znanje o učinkovitosti timov in pojasnjuje mehanizme, preko katerih se avtonomija timov nanaša na njihovo učinkovitost, kar spodbuja organizacije, da vključijo avtonomijo v oblikovanje ekip, da bi izboljšale podporna vedenja in učinkovitost ekipe.

Ključne besede: *Delovni timi, Avtonomija timov, Učinkovitost timov, Podporna vedenja, Kakovost skupinske izkušnje, Uspešnost timov*