

Empirical Research Paper

The consequences of shared leadership on job demands and job resources in project teams

Marion Karppli^{a,b,*}, Ursula Hyrkkänen^a, Markku Jokisaari^b^a Turku University of Applied Sciences, Finland^b University of Turku, Finland

ARTICLE INFO

Keywords:

Shared leadership
Consequences
Job demands
Job resources
Project teams

ABSTRACT

Shared leadership has been identified as an important form of team-centric leadership that complements vertical leadership practices in project teams. It has been connected with many positive outcomes on team performance and effectiveness, and it has been reported to enhance team members' job satisfaction. However, less is known about how team members experience the consequences of shared leadership. Hence the aim of our study was to explore how shared leadership consequences are experienced amongst project team members, and how these consequences are related to job demands and resources. We conducted a qualitative study with 31 participants from 15 project teams from private and public sector. The data was analysed with a lens of job demands-resources (JD-R) theory to capture how team members perceive shared leadership consequences, and how these experiences are reflected as job demands and resources. We found that project team members' experiences of shared leadership consequences were reflected as increasing hindrance and challenge demands, and as enhancing job resources. Our findings bring new knowledge on shared leadership consequences and highlight both the benefits and cautions of these consequences for project teams.

1. Introduction

Leadership is one of the most researched areas in social sciences, and it has long been considered as one of the key contributors for organisational effectiveness (Yukl, 2012). Besides being important for organisations, leadership accounts for team performance and individual team members' well-being, since leadership is connected with employees' work engagement and performance (Belle, 2014; Breevaart et al., 2014; Katou et al., 2022). Leaders' motivating, inspiring, and encouraging behaviour has been found to positively affect employee job satisfaction and motivation (Judge and Piccolo, 2004). Leadership in teams can be understood as being based on formal hierarchical leader role in which the team leader leads the team members, or as horizontally shared among team members (Hollenbeck et al., 2012).

Besides formal hierarchical leadership, the team-centric leadership phenomenon has raised interest amidst project leadership researchers in recent years (Abson et al., 2024; Karppli et al., 2024; Müller et al., 2023). Shared leadership, also referred to as collective or distributed leadership, is conceptualised as a dynamic and emergent team process that changes over time (Kozlowski et al., 2016). Shared leadership emerges

in teams as team members actively take over leadership roles, without being assigned to leadership roles by teams' formal leader (Wassenaar and Pearce, 2017, 169). Shared leadership is informal and evolving phenomenon (Avolio et al., 2009) affected by the operational environment of the team (Carson et al., 2007) and the tasks at a given time (Serban and Roberts, 2016). In this study, the focus was on shared leadership as an informal and voluntary team process (Wassenaar and Pearce, 2017, 169) that is often used in positioning within shared leadership research. The research exploring shared leadership in projects has increased, and several positive consequences on teamwork have been reported, such as improved performance and increased creativity (Wu et al., 2020); however, less is known about shared leadership consequences on project team members' job demands and resources.

Specifically, research on the consequences of shared leadership has predominantly focused on team performance and functioning, while largely overlooking its implications for job demands and resources (Wu et al., 2020; Zhu et al., 2018; Scott-Young et al., 2019). Job demands-resources (JD-R) theory distinguishes characteristics of work into job demands and job resources (Bakker and Demerouti, 2017). For

* Corresponding author. Turku University of Applied Sciences, and University of Turku Joukahaisenkatu 3, 20520, Turku, Finland.

E-mail address: marion.karppli@turkuamk.fi (M. Karppli).

<https://doi.org/10.1016/j.plas.2025.100203>

Received 21 May 2025; Received in revised form 6 November 2025; Accepted 9 November 2025

Available online 11 November 2025

2666-7215/© 2025 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

teamwork, identifying these job characteristics is important since challenge demands and job resources feed into team members' motivation, engagement and further to team performance (Mäkikangas et al., 2016). Additionally, job characteristics play an important role in initiating health impairment and motivational processes (Bakker and Demerouti, 2017).

Project work as such imposes various job demands and resources for project team members. Project work embeds challenging and multifaceted situations for team collaboration and project leadership. The challenges arise from complexity of work, temporality, the multi-project environment, and team members who join the team from diverse backgrounds (Aramo-Immonen et al., 2012; Kalff, 2022; Turner and Müller, 2003). Many team members who are assigned to teamwork, such as project team members, are simultaneously engaged to more than one team (O'Leary et al., 2011). This multi-project environment increases job demands and limits resources for employees, leading to the experience of job strain, reduced job engagement, and work-related overload among team members (Margolis, 2020). These contextual factors create a challenging and demanding work environment for projects (Xia et al., 2022), thereby making project teams a fruitful area for exploring shared leadership consequences.

However, although there is knowledge about the job characteristics in project teams, there is less knowledge as to what extent extra-role behaviour such as shared leadership among team members is related to their job resources and demands. Also, existing knowledge on how team members experience shared leadership consequences on their job demands and resources when they have taken leadership roles is lacking. We also lack understanding of how team members experience shared leadership consequences on job demands and resources when other team members' have taken over leadership roles. It is important to identify the consequences on team members' job demands since identifying consequences on undesirable demands can help to mitigate them. Additionally, team members motivation, learning and performance can be enhanced by identifying consequences on job demands and resources. Our empirical study responds to this gap by exploring how project team members experience the consequences of shared leadership as well as how these experiences are related to job demands and resources. As a result, we answered the following research questions: 1) *How are the consequences of shared leadership experienced by project team members related to their job demands and resources?* and 2) *How are these experiences of shared leadership consequences related to team members themselves and the project team?*

This study represents continuation research conducted by Karppi et al. (2024), who explored event chains that facilitate shared leadership emergence. Furthermore, this study is based on same interview data that was used in the study by Karppi et al. (2024). However, previous research (Karppi et al., 2024) identified the event chains from which shared leadership emerged, whereas this present study focuses on team members' experiences of the consequences of shared leadership. Our focus is on the consequences that unfold once shared leadership has emerged. We analysed these consequences through job demands-resources theory (Bakker and Demerouti, 2017), to capture both the negative and positive consequences of shared leadership on project teams and their members. By addressing the team members' experiences of shared leadership consequences, our research contributes to project leadership research, which is currently lacking the research on the consequences on job demands and resources as experienced by project team members. By exploring the consequences through the lens of job demands and resources, our study sheds light on how the consequences are experienced in terms of job demands and resources.

2. Theoretical framework

2.1. Shared leadership and its positive and negative consequences

Shared leadership has received increasing attention in research (Wu

et al., 2020), offering a perspective on emergent leadership among team members as a complement to vertical leadership in teams. Emergent leadership refers to leadership behaviour executed by team members who do not have formal leadership authority (Hanna et al., 2021). Instead of focusing on the actions or traits of one leader, shared leadership is seen as an emergent and dynamic, team-centric influence process (Pearce and Conger, 2003), in which leadership responsibilities and actions are shared amongst team members (Carson et al., 2007). Shared leadership is considered as a relational and temporal phenomenon, involving multiple individuals enacting in leadership roles, and a phenomenon that changes over time (Contractor et al., 2012). This dynamic nature is crucial for understanding how leadership evolves within teams. In project management research, shared leadership has obtained less emphasis (Scott-Young et al., 2019). However, research on balanced leadership has paid attention to combining vertical and shared leadership such as vertical and shared leadership changes along the project progress, guided by the decisions of project manager (Müller et al., 2018). Shared leadership differs from balanced leadership as shared leadership can emerge without formal leaders' actions and anyone in the team can emerge as a leader. Nevertheless, saying that, sharing leadership in project teams may require authority of project manager (Müller et al., 2023), such as members may need encouragement and support from project manager to take leadership responsibilities (Müller et al., 2018). The recent insights on how shared leadership emerges in project teams reflect that project manager holds a role in orchestrating shared leadership (Abson et al., 2024; Karppi et al., 2024; Müller et al., 2023).

Several studies in the leadership literature have concluded that shared leadership is positively associated with improved team performance (Fausing et al., 2015; Nicolaides et al., 2014; Zhu et al., 2018), team effectiveness (Wang et al., 2014), team creativity (Lee et al., 2015), and team satisfaction (Serban and Roberts, 2016). Shared leadership has been found to be positively connected with self-reported performance (Choi et al., 2017) and performance measured by supervisors (Pearce and Sims, 2002). Hoch and Dulebohn (2013) suggested in their theoretical work that shared leadership contributes positively to the well-being of team member and improves the control of internal team conflicts, potentially leading to enhanced team performance. Robert and You (2018) explored the moderating impact of shared leadership in facilitating team members' job satisfaction and found that shared leadership strengthened the relationship between employee trust and job satisfaction. Shared leadership is also connected with individual and team learning, especially in a psychologically safe environment and when team members operate with variable jobs (Liu et al., 2014). Wood and Fields (2007) found that managerial teams consisting of members who share leadership responsibilities have lower levels of conflict and stress as well as higher levels of team member satisfaction. Edelmann et al. (2023) concluded that high-quality peer leadership, such as shared leadership, relates positively to work satisfaction and team effectiveness, and negatively to burnout.

Despite shared leadership being connected with many positive consequences, it may also bring negative outcomes. Chen and Zhang (2023) found in their review that shared leadership may lead to power confusion, stress related to team member roles, and the withholding of knowledge. They concluded that formal team leaders may experience motivational declines and confusion with regard to their leader roles. Teams may be affected by low decision-making abilities, responsibility dispersion, and creativity declines (Chen and Zhang, 2023). Kaur (2013) concluded that as shared leadership has positive consequences on team innovation through greater idea innovation and higher team effectiveness, it may have negative outcomes such as difficulties to reach team consensus when there is no designated leader. In summary, positive outcomes are that shared leadership increases job satisfaction and trust, whereas negative outcomes such as stress, conflicts and team collaboration deterioration have been found.

2.2. Job demands-resources in exploration of job characteristics

The theory of job demands and resources (JD-R) (Bakker and Demerouti, 2007, 2017; Demerouti et al., 2001) is vastly known amongst a variety of fields in understanding the job characteristics and their relations to employee motivation, performance and well-being at work. Job demands encompass the physical, psychological, social, or organisational aspects of a job that require sustained physical, psychological, cognitive or emotional effort or skills, leading to certain physiological or psychological costs. Examples of demands include high work pressure, an unfavourable physical environment, and emotionally challenging interactions (Bakker and Demerouti, 2007). Furthermore, job demands can be distinguished into hindrance demands and challenge demands (LePine et al., 2005). Hindrance demands are work conditions or job requirements involving great and undesirable constraints, which hinder employee's capacity to obtain desired goals (Cavanaugh et al., 2000). These hindrance demands can include work-related overload, role conflicts, role overload, and role ambiguity, and these demands are considered as bad stressors (Bakker and Demerouti, 2017; Bakker et al., 2005). Conversely, challenge demands are requirements that necessitate effort but have the potential to foster personal development and to enhance employee achievements (Podsakoff et al., 2007). These challenge demands can include high levels of workload, challenging responsibilities, and time pressure, and they are considered as positive stressors, as they embed rewards such as professional development and growth (Bakker and Demerouti, 2017).

JD-R theory states that job resources are the physical, psychological, social, or organisational aspects of a job. These resources facilitate the achievement of work goals, reduce job demands and their associated physiological and psychological costs, stimulate personal growth, learning, and development. Since JD-R theory addresses the aspect that job resources play a significant role in motivating employees, and job resources lead to high work engagement, low cynicism and high performance, job resources are essential not only for managing job demands but also for their inherent value (Bakker and Demerouti, 2007). In more detail, job resources include job security, career opportunities and compensation, and job resources may derive from interpersonal and social relations, supervisor and co-worker support, as well as from team climate. Role clarity and participation in decision-making are job resources related to the organisation of work, and skill variety, task identity, task significance, autonomy and performance feedback resources related to job tasks (Bakker and Demerouti, 2017). In addition to job resources, JD-R theory encompasses personal resources, which are defined as the beliefs employees have about their control over the work environment, including aspects of self-efficacy and optimism. Employees with high levels of optimism and self-efficacy foresee that positive things will occur and believe they can resolve unpredictable events. The JD-R theory suggests that job demands and resources depend on the job characteristics and on the individual doing the work, and a balance between demands and resources contributes to overall work well-being and performance (Bakker et al., 2017). Central to JD-R theory is the interaction between job demands and resources, and how this relationship leads to job strain and motivation. Job resources play a central role in buffering the impact of job demands on experienced job strain (Demerouti and Bakker, 2011).

2.3. The consequences of shared leadership on team members' job demands and resources

The research on shared leadership consequences specifically on project team members' job demands and resources is scarce. However, a few empirical studies have been conducted in leadership research, in which shared leadership was found to increase job demands by contributing to team members role stress (Wang and Peng, 2022). In addition to role stress, earlier research indicates that shared leadership has positive consequences for teams such as enhanced team members'

job satisfaction and decreased work-related stress (Robert and You, 2018; Wood and Fields, 2007; Edelman et al., 2023). In addition, shared leadership can strengthen teams' psychological safety (Wang and Peng, 2022), which can be considered as a job resource. Shared leadership can also enhance trust in teams, as sharing leadership involves social exchange, that provides the foundation for team trust (Drescher et al., 2014). Evans et al. (2021) found that when peer engagement is low in teams, shared leadership reduces individual team members' enjoyment and team performance. Nonetheless, these findings may not generalize to project teams as the studies were conducted among permanent teams or work groups.

In project management research, work-related demands and job stressors have been explored in several studies (Aguilar Velasco and Wald, 2022). Project work with long working hours, tight deadlines, and inadequate balance between work and family are identified as job stressors causing occupational stress (Bowen et al., 2014). Role constraints and work overload are project managers' job stressors (Lattrich and Büttgen, 2020), and prolonged stress can lead to emotional exhaustion, cynicism and diminished sensations of task accomplishment (Pinto et al., 2014). Xia et al. (2022) explored hindrance and challenge demands in construction projects and found that engaged project managers have the potential to strive for effective project performance, whereas strained project manager exhibit less likely extra-role behaviour. In addition to job demands, the job resources available to project team members have been examined. Aguilar Velasco and Wald (2025) identified coworker and family support, along with psychological capital as factors that help mitigate the detrimental consequences of project work. Self-efficacy and optimism have likewise been investigated as job resources within project teams (Novieto and Kportufe, 2021; Dolfi and Andrews, 2007). These previous empirical works have examined job characteristics in project teams, whereas our study expands understanding on how consequences of team-centric leadership can be experienced as job demands and resources.

The research examining the relationships between leadership and job demands and resources in project teams remains limited; however, some studies on formal leaders' leadership style and team members' affective experiences have been conducted. Nauman et al. (2022) found that servant leadership within project teams enhances work engagement and reduces work withdrawal. Similarly, transformational leadership behaviour among project leaders have been linked to lower levels of burnout and increased personal resources, and greater work engagement (Katou et al., 2021). Furthermore, contemporary leadership that integrates authentic and transformational leadership has been associated with higher job satisfaction among project team members (Kerdngern and Thanitbenjasith, 2017). Koch and Schermuly (2021) found that agile project management functions as a buffer to alleviate stress caused by emotional exhaustion due to unfinished tasks. From project leadership perspective, projects as a work context are a challenging due to multiple factors such as diverse team, complex and interdependent tasks and dynamic situations (Atkinson et al., 2006), which can increase job demands. In addition, project leaders face broader expectations from the organisations and the wider community (Whyte et al., 2022). As projects are increasingly expected to deliver added value and foster innovation, horizontal, dynamic leadership practices throughout project lifecycle have been proposed as means to meet these expectations (Levitt et al., 2024).

However, shared leadership consequences on job demands and resources specifically in project teams has not been previously examined. Since job demands and resources are connected with employees' well-being and productivity (Bakker and Demerouti, 2017; Guest, 2017), the knowledge about consequences of shared leadership on job demands and resources has the potential to increase the value of shared leadership. It is therefore important to explore how the experiences of shared leadership consequences are related to job demands and resources. Furthermore, project leadership research that has explored team members' job demands and resources primarily focuses on negative aspects

such as stress and hindrance demands, and less on the project work as a job resource. In our empirical research, we focused on exploring project team members' experiences on the consequences of shared leadership through the lens of JD-R theory, thereby covering both job demands and resources. We contribute to project leadership research by bringing insights on shared leadership consequences on hindrance and challenge demands and personal and job resources.

3. Research methods

Deriving from our relativist ontology and subjectivist epistemology (Moon and Blackman, 2014), this qualitative research explored project team members' subjective experiences on the consequences of shared leadership. Our qualitative approach complements existing knowledge on the consequences of shared leadership, which currently relies strongly on quantitative research (Scott-Young et al., 2019; Wang et al., 2014). The chosen approach enabled reaching the interviewees' experiences bounded in projects' real-life events and subjective meanings (Miles and Huberman, 1994). We focused on team members' experiences and their interpretations of the consequences of shared leadership and utilised JD-R theory (Bakker and Demerouti, 2017) as a lens to capture consequences on job demands and resources. Despite the fact that JD-R theory has largely been utilised in quantitative research, there is evidence of its usability also in qualitative approaches (Chua et al., 2024; Whitsed et al., 2025). Given that shared leadership may deliver consequences at multiple levels (Scott-Young et al., 2019), the analysis was conducted within individual and team levels. JD-R theory has evolved from focusing solely on the individual level to encompassing demands and resources also at the team levels (Bakker et al., 2023), which makes JD-R theory comprehensive enough to address the aims of our study.

3.1. Data collection

Our research was a part of shared leadership research project conducted in Finland in 2021–2023. We collected interview data from five large organisations, of which three operated in businesses of Medical Industry and Financing Services, and two in Public Services. These organisations joined the research project due to their needs to develop project management practices. The organisations involved had vast project organising operations, and they were all engaged in international collaborations, either in global businesses or in international development projects. Two of the organisations had ownership abroad. The number of employees ranged from 350 to over 1000.

Altogether, our study included 31 participants: 7 were project managers and 24 were team members, representing 15 different project teams. The interviewees worked in a variety of project types; nine in new product development projects, 12 in investment projects, eight in internal development projects and one in a research project (Table 1.). The majority of the projects included were traditional project manager-led teams, a few agile (SCRUM) teams, but no megaprojects were included. The project goals the teams worked for were heterogenous, varying from the development of online services and the promotion of sustainable development to extensive procurement projects for production lines and the development of medical equipment. Interviewees worked as project managers or in team member positions. Purposive sampling was implemented, and the participants were selected for interviews by project owners or people in other leader positions in the respective organisations. They were asked to select projects that had recently been initiated, with ten to fifteen team members in the core team.

The selected study participants received detailed research information and privacy statements, and their voluntary participation was inquired about before interviews. Once the voluntary participation was confirmed, the project researchers conducted face-to-face or remote interviews. Most of the interviews were conducted in Finnish, and all

Table 1
Research data.

Organization	Project ID and type	Number of interviews	Interviewees' role in team	Duration of the interviews
Medical Industry A	MIA1, New Product Development	4	Project Manager Three team members	47–62 min
	MIA2, Investment Project	4	Project Manager Three team members	31–53 min
	MIA3, Investment Project	5	Project Manager Four team members	35–56 min
	MIA4, Internal Development Project	7	Project Manager Six team members	34–59 min
Medical Industry B	MIB5, New product development	1	Team member	55 min
	MIB6, New product development	1	Project Manager	54 min
	MIB7, New product development	1	Team member	52 min
	MIB8, New product development	1	Team member	60 min
	MIB9, New product development	1	Team member	42 min
Financing Services	FS1, Investment Project	1	Team member	50 min
	FS2, Investment Project	1	Team member	49 min
Public Services A	PSA1, New Product Development	1	Team member	56 min
	PSA2, Internal development Project	1	Project Manager	66 min
	PSA3, Investment Project	1	Project manager	45 min
Public Services B	PSB4, Research Project	1	Team member	48 min
Total number of interviews		31		

were recorded for transcripts. The interviews were semi-structured, including themes of project teams' shared goals, leadership and responsibilities, project events and team performance. In the research project, we aimed at exploring shared leadership in project teams and asked team members to memorise disruptive events (Morgeson, 2005) to identify the emergence of shared leadership (Karppi et al., 2024). In addition to these events, we asked more detailed questions, such as “How did these events affect team leadership or team members' behaviour?”, “How did these events change team collaboration or goal achievement?” and “How did these events affect your well-being?” The interviews lasted from 31 to 66 min. The interviews were recorded and transcripts pseudonymised to ensure the confidentiality of participants in the analysis phase.

3.2. Data analysis

Analysis initiated inductively as two researchers read the transcripts and marked all the quotations in which the interviewees talked about shared leadership in their project teams and the corresponding consequences. In the analysis, we followed shared leadership conceptualisation by Wassenaar and Pearce (2017, 169) and Carson et al. (2007), who

define shared leadership as an emergent, dynamic and voluntary team process that involves team members taking leadership roles exceeding their pre-defined roles. Moreover, these leadership roles were considered as actions, that account for the goals of the project. As project teams often operate under the direction of a formal project manager, we also included quotations in which the project manager had stepped back, allowing the team to pursue goals independently. In project leadership literature, project manager's role in orchestrating leadership within teams has been raised up when team-centric leadership has been discussed (Müller et al., 2018, 2023). Since our data included a few agile teams, we focused carefully on interpreting interviewees' voluntary leadership-taking stories, in which the members of agile teams exceeded their own roles. Assuring the interviewees talked about shared leadership consequences, we connected the consequences to events that initiated shared leadership (Karppi et al., 2024), and focused on consequences once leadership had been shared. To ensure the interviewees described the consequences of shared leadership and no other types of extra-role behaviour, only the quotations that were linked to shared leadership as described above were included in the analysis. In more detail, the consequences were preceded by interviewees' phrases, such as "Leadership and responsibilities changed here" A_27, "From that point, I took over, and ..." A_12, and "Once leadership was shared, then ..." A_15. The initial phases of data analysis were executed with an Atlas.ti program.

Once the quotations related to consequences were identified, analysis shifted into the abductive phase, in which we utilised JD-R theory (Bakker and Demerouti, 2017) to capture the consequences on job demands and resources. We organised the quotations into four categories according to JD-R theory: hindrance demands, challenge demands, personal resources and job resources (Figs. 1 and 2.). The distinction between hindrance and challenge demands is context-dependent, whereas in one context challenge hindrance may appear as hindrance demand (Bakker and Sanz-Vergel, 2013; Searle and Auton, 2015). We therefore decided to include all the quotations in which the interviewee described negative consequences on themselves or for the team into the hindrance demands category. For the challenge demand category, we included the quotations in which the interviewee described increased demands with potentials for professional growth. In the analysis, we

focused on team members' experiences on shared leadership consequences. The team members reflected their experiences at the individual level, and they also perceived shared leadership consequences affected at team-level job demands and resources (Figs. 1 and 2). JD-R theory focuses on the individual's experiences with regard to job demands and resources; however, shared leadership has consequences at the individual and team levels (Scott-Young et al., 2019). Therefore, during the analysis we coded the consequences in accordance with these two levels, depending on the interviewees' perceptions. Considering project teams as our research context and recognising that shared leadership is a team-level phenomenon (Kozlowski et al., 2016), the consequences of shared leadership extend beyond individual team members.

Next, in the abductive phase, several iterations between the data and JD-R (Bakker and Demerouti, 2017) lens were made to conclude the team members' experiences of shared leadership consequences on job demands and resources. Regular researcher triangulation (Denzin and Lincoln, 1994) discussions were conducted to ensure transparent and coherent analysis. The triangulation discussions facilitated the analysis of uncertain and ambiguous consequences and helped to clarify how the interviewees interpreted the consequences. The discussions begun by introducing and discussing the uncertainties, then reflecting interpretations with the JD-R theory and original interview transcripts. Tables 2 and 3 illustrate how the team members' experiences of shared leadership consequences were linked to job demands and job resources.

Additionally, during the analysis process, we found direct quotations referring to the consequences for improved team performance or goal achievement. However, as our focus was on consequences on job demands and resources, we excluded these consequences from further analysis.

4. Findings

Our findings on the consequences of shared leadership on job demands and resources are delineated for individual team members and the project team. The findings are enriched by data extracts in *italics*.

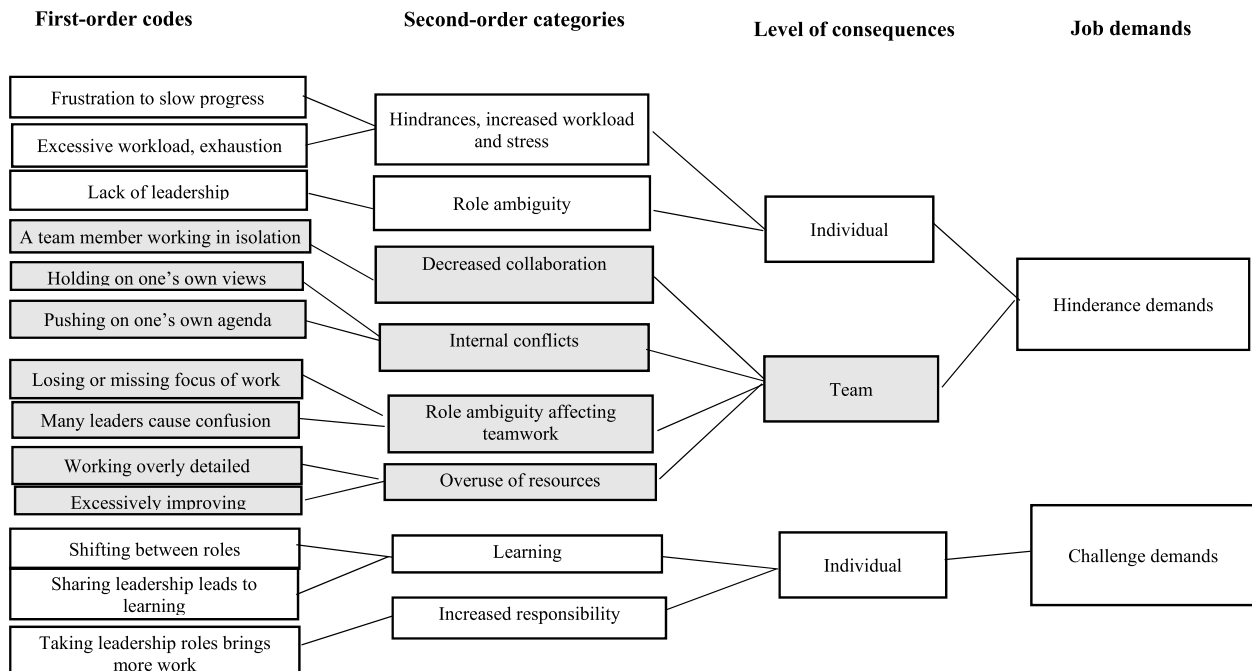


Fig. 1. The consequences of shared leadership on job demands.

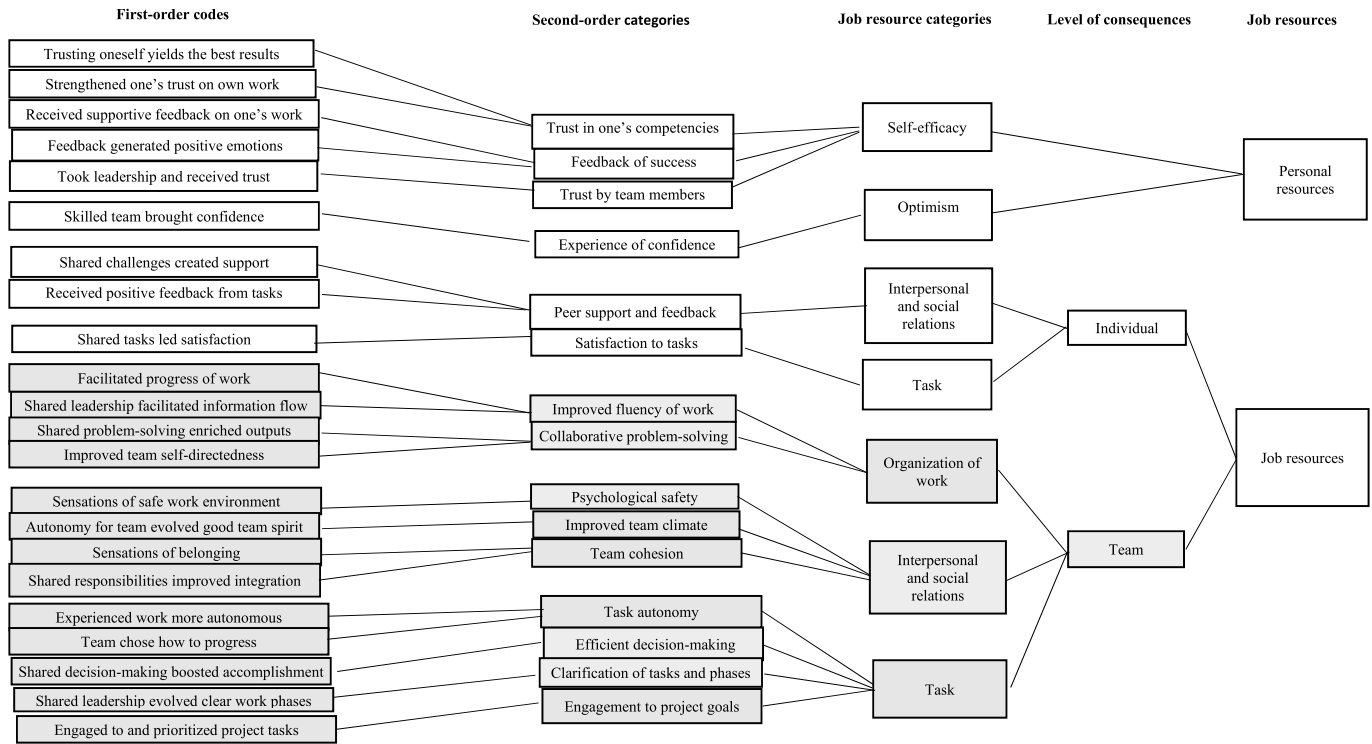


Fig. 2. The consequences of shared leadership on personal and job resources.

4.1. Consequences of shared leadership on team members' job demands and resources

Our first findings consisted of consequences that team members experienced as job demands, either hindrance or challenge demands (Fig. 1). They experienced that shared leadership led to increases in their workload and stress, which were reflected as increased demands without reflections on later rewards, therefore being hindrance demands. This emerged in situations of project manager turnover or in other absences in which a team member had voluntarily taken more responsibilities on leading the project: “[consequences] on well-being in such a manner that work is sometimes done late at night, it has affected sleep, and the workload is huge” [A_79]. A team member took responsibility for leading the project, or some parts of the project, and led to experiences of increased workload and sensations of caused excessive loading and difficulties in establishing a balance between work and non-work life. Besides this, team members experienced role ambiguity as a consequence of shared leadership. In cases where project manager had passed the leadership role to the team, and the team did not have a clear vision of task and expectations, the team members experienced confusion and misunderstandings. Having leadership roles shared for the team without a designated leader led to experiences of increased hindrance demands, as one project team member said: “It causes a lot of confusion and idleness, because we don’t really know who to ask” [A_75]. Overall, if leadership was shared without a clear vision or goals of the task at hand, team members experienced role ambiguity, which was combined with experiencing increased workload.

Second, project team members experienced shared leadership leading to increased job demands, which were later rewarded as professional growth; and they perceived these demands as challenges. They had taken voluntary leadership roles or additional responsibilities, which required them to shift between various roles; besides accomplishing their pre-defined task, they had to manage with additional, often challenging tasks. They needed to provide more input, which appeared as increased job demands. However, their extra effort was rewarded as their professional expertise was strengthened with new responsibilities.

This reflected the consequences of shared leadership, where team members experienced that increased work demands, although challenging, were positive in nature. An example of a team member who had taken extra responsibilities whilst experiencing these in positive manner and knowing that the extra effort would be paid off later: “I have a huge workload now: to some extent I feel like fighting ... I’ll take over this job, so that I can do this job afterwards. And of course it’s rewarding” [A_73]. Many team members sensed that taking over a leadership role in project teams naturally increased responsibilities, which was occasionally undesirable due to many other responsibilities. Despite this, they experienced these increased demands in a positive manner, thus being challenge demands, since they considered that these extra efforts will be paid back in the future. A team member interpreted shared leadership experiences from working in a large network project: “Shared leadership means that the responsibility brings more work, and that is what people are afraid of ... it should be discussed that people are aware that it doesn’t necessarily mean a big burden on themselves” [B_491]. Taking responsibility over one’s own role was seen as important in achieving project goals, especially in large network projects. Project team members perceived that increased work demands should be discussed in project teams, so that the team shares the understanding of the consequences, which are not necessarily simply increasing the workload.

Besides shared leadership consequences for team members’ job demands, our findings suggest, that sharing or taking over leadership roles can strengthen team members’ experiences of personal and job resources (Fig. 2.). Project team members explained that once leadership was shared for the team, they experienced that they were trusted by the project manager, and they sensed enhanced trust in their own capabilities of executing good-quality performance. This was linked to strengthening their self-efficacy, which was connected with strengthening team members’ personal resources. Additionally, succeeding in these situations led to increased autonomy and trust by others: “Confidence in my doings has increased, and it has again increased my autonomy: teammates come to me to ask things ... trust brings more freedoms” [B_442]. Once a team member had taken leadership responsibilities, they received positive feedback from their peers, and they experienced this as

Table 2

Team members' experiences of shared leadership linked to job demands.

Example from data	First order codes	Second-order categories	Level of consequences	Job Demand-Resource category
<i>When the leadership has been shared [in teams], but they just postpone and postpone their actions ... if they don't do their job, why should I? A_26</i>	Frustration to slow progress	Hindrances, increased workload and stress	Individual level hindrance demand	Hindrance demand
<i>Leadership and roles are not clear now. It's like we are drifting without a direction. I wish I knew who to turn to, instead of having to ask three different people to figure out what comes next. A_80</i>	Lack of leadership	Role ambiguity		
<i>We don't expect tasks to be done alone [when leadership is shared], but it sometimes does. We've even had to say, 'Hold your horses, you don't have to.' This can be partly damaging because a text [deliverable] might be produced at a terrible speed, and then it's full of typos and other mistakes A_129</i>	A team member working in isolation	Decreased collaboration	Team level hindrance demand	
<i>He [who took leadership] holds very firmly to his own views. It has become a bit like this, maybe I couldn't say conflict, but it's been a bit like, well." A_137</i>	Holding on one's own views	Internal conflicts		
<i>When you share leadership, people come up with new ideas, or proposal for better ways or just volunteer to do something different. Sometimes it is possibly a good thing but a problem also,</i>	Losing or missing focus of project work	Role ambiguity affecting teamwork		

Table 2 (continued)

Example from data	First order codes	Second-order categories	Level of consequences	Job Demand-Resource category
<i>because they would not focus on their own [project] tasks. A_108</i>				
<i>Once you have given responsibility to the team, they may improve and improve to get it [project output] perfect. It doesn't have to be perfect, because otherwise we'll run out of time and money. A_7</i>	Working overly detailed	Overuse of resources		
<i>It [sharing leadership of the project] was a good learning experience for me because it was my first machine project, and I got to see a bit of the process with him, and I learned from it. A_46</i>	Sharing leadership led learning	Learning	Individual level challenge demand	Challenge demand
<i>You need to understand, that we are all leaders here. If you want that the project succeeds, you must take more responsibility. You need to engage in shared goals and take responsibility. B_492</i>	Taking leadership roles brings more work	Increased responsibility		

becoming entrusted team members. Sharing leadership for the team and accomplishing tasks with success brought team members to experience confidence in the project team. These experiences of confidence were interpreted as increased control over their project work. Sensations of control over the working environment and optimism are important factors in personal resources, and team members experienced these as a consequence of shared leadership.

Shared leadership strengthened team members' job resources through increased peer support and peer feedback. Once the responsibilities were shared for the whole team – not only for one specific team member – shared leadership enhanced the peer support experienced by an individual team member. Collective responsibilities fostered team members to take over responsibilities, which further led to positive and supportive feedback from peers: “Afterwards he [the project manager] came to say that it was nice that you had a voice ... I have been in similar situations, and I felt that I had to participate, that others would join in” [A_90]. Team members' job resources were strengthened in these kinds of situations in which they had taken extra responsibilities, and the tasks had been completed successfully, which further led to positive

Table 3

Team members experiences of shared leadership linked to job resources.

Example from data	First-order codes	Second-order categories	Job resource categories	Level of consequence	Job resources
<i>When you are experienced and you're capable of taking more responsibility, you know that you're the best person to make the decision ... [to voice the direction the team should take]. A_73</i>	Trusting oneself yields the best results	Trust in one's competencies	Self-efficacy	Individual level	Personal resources
<i>Personally, I feel that everything's well in our team, we have skilled people around here who can take leadership and solve any issues. A_58</i>	Skilled team brought confidence	Experience of confidence	Optimism		
<i>The team members changed, so I had to encourage everyone to start talking and working together [towards team goals] ... I've received such good feedback [from leadership responsibilities], I've been helpful, and I have done more than what could be expected; clearly, I do more than I should do, and it is appreciated. A_139</i>	Received positive feedback from tasks	Peer support and feedback	Interpersonal and social relations		Job resources
<i>Leadership was shared for us and then we tried share the teams' workload in the way that you can ... I can't do the validation documents, but I can help by archiving them and doing the follow-up documentation, and stuff like that. A_52</i>	Facilitated progress of work	Improved fluency of work	Organisation of work	Team level	
<i>They've given you the space to make decisions: that's in the background ... we have sort of a safety net behind us – we can try different things, whether it succeeds or doesn't. A_50</i>	Sensations of safe work environment	Psychological safety	Interpersonal and social relations		
<i>In this case [leadership shared for the team] we didn't have the time pressure, I always come back to the same thing, but it sort of gave us freedom. A_40</i>	Experienced work more autonomous	Task autonomy	Job task related to resources		

peer feedback.

Project managers described situations in project work in which they had shared leadership for the team, and the team had worked very hard to accomplish the given tasks. As the project team succeeded, the project manager experienced positive emotions: *"I had kind of a good feeling that something in this team has really fallen into place: they are so committed, and have completed all we agreed and more"* [B_378]. Project managers experienced satisfaction and fulfilment, as leadership had been shared for the team, and the team had invested extra effort for the project. In addition to positive emotions experienced by the project manager, the project team members also experienced satisfaction and excitement. The effort was rewarded once the project team successfully completed a challenging situation in which they figured out new solutions: *"It's been really nice to hear when team members tell excitedly [about results]; it brings a feeling that, okay, we are progressing ... And they find something new. That it has been terribly nice and rewarding"* [B_490]. Additionally, sharing leadership with the project team was acted as a venue for a project manager to attain professional growth. The project manager learned to trust the project team as the latter achieved the specific tasks and made progress without the project manager's input. The team had exceeded expectations which made the project manager experience satisfaction and fulfilment.

4.2. Consequences of shared leadership on the project team

In our findings, several experiences of shared leadership consequences were reflected at the project team level. First, shared leadership was experienced to increase the hindrance job demands. Project team members experienced that shared leadership led to decreased team collaboration. Team members could withdraw to work in isolation if responsibilities were excessively shared, which led to experiences of deteriorated team collaboration. An example of a case when a team member pushed on tasks alone, described by another team member: *"I worry that it leads to not getting others to join in, or someone not daring to say hey, you might be missing something"* [A_30]. Internal conflicts arose when team members took too much of the lead over their own agenda and neglected the larger scale goals of the project. An example of such a conflict, as described by a team member: *"[He]even bypassed the project manager: I think it's not a good thing that there are conflicting requests and needs"* [A_113]. Aside from the situation for individual team members, role ambiguity was experienced as affecting the whole project team if there were too many leaders therein and the plurality of roles in teams confused and deteriorated the work. This was experienced, for example, when a project manager had stepped back and shared the leadership for

the team, and too many team members took leadership roles causing confusion for the team: *"When there are too many leaders, there is a lot of confusion"* [C_241]. Role ambiguity was also experienced when the project manager was absent, and none took the lead. Additionally, shared leadership was experienced to enable the overuse of project resources. Once leadership was shared, the skilled and ambitious team members tended to use excessive quantities of project hours for perfect outputs, even though the product was already sufficient and ready from the project perspective. Allocating excessive resources to tasks exceeding project scope focus will, in the long run, increase the team's workload. Our data did not consist of shared leadership consequences that team members perceived as challenge demands for the team.

Secondly, our findings identified several consequences of shared leadership for the project team which were related to job resources. Team members experienced, that shared leadership improved the fluency of work and fed into collaborative problem-solving. These factors are related to improved organisation of work, which were considered as job resources. In many cases, the project manager had shared the leadership for the team, and they noticed how the team worked smoothly towards the project goals: *"I'm kind of glad that the team is the way it is – that it doesn't really matter if I'm gone, the project doesn't collapse or stop"* [B_388]. Project work became fluent when leadership was shared. The fluency of the work resulted from the optimal utilisation of the team's expertise, which facilitated the team's collective participation in decision-making and problem-solving. Shared leadership facilitated team collaboration and workload sharing as team members volunteered to take over minor tasks to support goal achievement. Team members felt that shared leadership in the team facilitated not only the progress of work, but also improved information flow, enriched the project outputs, and enhanced the team's self-directedness.

The findings showed that shared leadership was perceived to strengthen team members' interpersonal and social relations. Psychological safety was experienced in project teams when leadership was shared, and the team environment was created to support team members' leadership actions, as one team member noted: *"It is a chance for you to make decisions and to push forwards ... you can influence, you have the chance, but there is a safety net to catch you if you fail"* [A_50]. Once the decision power was shared for the whole project team, it led to experiences of the team's autonomy, which affected team climate in a positive manner. Shared leadership made team members experience improved integration of the team members and facilitated sensations of belonging. These shared leadership consequences were linked to improved team cohesion. Team members experienced that when leadership is shared, it enhanced team cohesion, increased the enjoyment of work, and

contributed to overall team performance.

Project team members experienced that shared leadership enhanced task autonomy, improved the team's decision-making, clarified projects' tasks and phases, and strengthened the engagement to project goals. The freedom to decide how tasks were completed and how to progress were experienced as a resource that also improved the teams' decision-making processes. Team members experienced that taking leadership in unclear situations by specifying what the project team is working for clarified the tasks which were further contributed to the team as a job resource. Our findings also showed that in taking responsibilities over one's pre-designed tasks, project team members were active not only in contributing to project success but also showed deep engagement with the project goals: *"We share the goal we are moving towards, and if it requires I'll do the testing if the project requires, even that is not my job"* [A.81]. Additionally, shared leadership clarified tasks and project phases for the whole team, for example, when a team member delved into creating a task-oriented detailed schedule for the whole team.

5. Discussion

In our study we capitalized on JD-R theory to examine team members' experiences on the consequences of shared leadership in terms of job demands and resources. Furthermore, we explored how these consequences were reflected both at the individual and team levels. We aimed at exploring how team members experience and interpret the consequences connected with situations in which leadership was shared for the team, or the team members had taken leadership roles exceeding their own roles. We found several shared leadership consequences for job demands and resources, which were reflected at both the individual and team levels. While the majority of shared leadership research highlights its consequences on team performance (Scott-Young et al., 2019; Wu et al., 2020; Zhu et al., 2018), our findings extend this body of knowledge by revealing consequences of shared leadership on job demands and resources. Below we discuss our main theoretical contributions; first, shared leadership consequences on team members and project teams, and second, the shared leadership consequences on job demands and resources.

5.1. Shared leadership consequences on project team members and the team

The first main contribution of our study is the identification of shared leadership consequences on job demands and resources for the project team members, and for the project team. The distinction between individual and team level consequences was more implicit than explicit, since interviewees' perceptions reflected their own experiences in relation to the project team. We found consequences on both job demands and resources, which were partially contradictory at both the individual and team levels.

First, we found that project team members experienced shared leadership consequences as increasing hindrance demands, more specifically as increased workload and stress. Project team members are often highly motivated and engaged with their work, which may lead to excessive workload and stress as a team member takes leadership roles and additional responsibilities to strive for successful project outcomes. These situations need to be addressed with caution, because if excessive workload is prolonged, it can initiate a health impairment process and result in deterioration of health that can lead to burnout (Bakker and Demerouti, 2007). Despite the many positive consequences associated with shared leadership (Wu et al., 2020), our findings underscore the need for caution in prolonged situations where hindrance demands arise as a consequence of shared leadership. Being an active and dedicated team member in taking leadership roles is a double-edged sword: team effectiveness may be enhanced, but if excessive workload and stress are prolonged, this may lead not only to burnout and team member absenteeism but also have negative outcomes on team productivity (An

et al., 2019). Xia et al. (2022) found that stressed project managers will not undertake additional responsibilities, whereas project managers who experience psychological well-being demonstrate effective leadership behaviour. Previous research has examined the detrimental consequences of project work, such as job stressors, role overloads and burnout (Aguilar Velasco and Wald, 2025; Lattrich and Büttgen, 2020; Pinto et al., 2014). Our findings expand this understanding by suggesting that also sharing leadership may lead to increased hindrance demands, particularly when uncertainty regarding work roles or leadership responsibilities are prolonged. Therefore, to avoid the negative consequences of shared leadership in project teams, the goals of the work and specific roles should be clear whenever leadership roles are being shared.

We found that at the team level, shared leadership was experienced as increasing hindrance demands in terms of decreased team collaboration, increased internal conflicts and role ambiguity. Controversially, we also found that shared leadership was experienced as enhancing job resources by improving collaborative problem-solving, team cohesion and team climate. Previous studies have found knowledge-withholding, role ambiguity, and stress when leadership is shared (Chen and Zhang, 2023), similarly increased job demands are reported as a consequence of egocentric work behaviour (Ellis et al., 2011). However, previous studies have concluded that shared leadership is connected with lesser team conflicts (Bergman et al., 2012) and improvements in team collaboration (Mathieu et al., 2015). The reasons behind our contradictory findings may lie in situational interpretations of shared leadership consequences. Whereas Bergman et al. (2012) and Mathieu et al. (2015) explored teams in general and by using survey methods, our research retrospectively inquired into the subjective experiences that project team members had interpreted from situations in which leadership had been shared. Shared leadership, being a valuable form of organising project work, may lead to experiences of increased hindrance demands for the team if leadership is shared too excessively, and team members interpret this sharing as allowing isolated work or excessively improving work performance. In highlighting the project goals in relation to resources available and each team member's role in achieving the goals, the roles are specified, and consequently, the disadvantageous shared leadership consequences in project teams can be controlled.

Second, besides increased hindrance demands among team members, shared leadership was experienced as increasing team members' challenge demands. Sharing leadership facilitated team members to expand their roles, learn, and experience full satisfaction once completing tasks. Team members experienced satisfaction and fulfilment and foresaw that the project team was engaged with work, as they had completed their shared responsibilities once leadership had been shared. Although our study did not identify explicit quotations referring to work engagement as a state of full energy, enthusiasm and immersion in work (Bakker and Demerouti, 2017), the team members described situations that suggested experiences related to work engagement. An example of this situation was when shared leadership led the team to appear to be fully satisfied and energized for the completion for assigned tasks. According to the JD-R theory, work engagement is considered as an outcome of personal and job resources (Bakker and Demerouti, 2017), and it is known that engaged employees actively seek opportunities for enhancing their job resources by crafting their job demands (Harju et al., 2021). This may explain why team members had differentiated interpretations of shared leadership consequences. The ones who already were engaged with their work considered shared leadership consequences as challenge demands and interpreted shared leadership as a means to increase their job demands. In addition to this, work engagement is a desirable state of mind, as it is positively connected with creativity, innovation and team performance (Rafiq et al., 2023; Tu et al., 2023); being thus beneficial for project teams working in a variety of organisational contexts.

Thirdly, shared leadership was experienced to enhance team members' personal and job resources which were reflected as improved

fluency of work, enhanced problem-solving and social relationships within teams. Additionally, participants described that sharing leadership led to positive cycles of action, as they first completed additional tasks successfully, experiencing competence and fulfilment. Experiences of competence form a basis of psychological well-being alongside with autonomy and sense of belonging (Ryan and Deci, 2001). Experiences of competence can be fostered when leadership is shared, and team members take over challenging tasks and complete them successfully. Such successful task completion may lead to supportive feedback from peers, which in turn strengthens the collaborative team climate. Although we did not explicitly examine the chains of consequences related to shared leadership, the experiences described by team members suggest the presence of reinforcing cycles that enhance job resources.

5.2. Shared leadership consequences on job demands and resources in project teams

The second contribution of our study extends the understanding of shared leadership consequences to cover job demands and resources within project teams. Previous research has identified that certain types of formal leadership, such as transformational or empowering leadership style, contributes to employees' job demands and resources (Tummers and Bakker, 2021). Our findings showed that leadership also as a team-centric and informal phenomenon, i.e. shared leadership, was experienced to increase job demands and resources. Interestingly, we found that shared leadership consequences were experienced both in a negative light as increasing hindrance demands, and in a positive light as increasing challenge demands, or as enhancing job resources. Previous research has found that job demands might function differently as hindrances or challenges for different individuals (Bakker and Sanz-Vergel, 2013). We speculate with following explanations for these findings. First, these different experiences might perhaps stem from team member's different work orientations. The work orientations can be either instrumental, in which team member motivation derives from external rewards, or intrinsic, in which fulfilment stems from mastery of work itself (Demerouti et al., 2012). Team members who are intrinsically motivated value the opportunities and gain fulfilment from the job, and they may crave for increased challenges and therefore experience shared leadership consequences as challenge demands. In contrast, team members driven by other forms of motivation may interpret the increased responsibilities resulting from shared leadership as hindrance demands.

Second, the differences in experiences of hindrance and challenge demands can perhaps stem from team characteristics or various project phases. The current research states that perceiving working conditions depends on the individual employee, the work context, and situational factors (Bakker and Demerouti, 2017). Team members reflected their experiences on shared leadership consequences in relation to specific events occurring during the project life span. These events change team functioning (Morgeson, 2005) and may affect differently team members' work. We did not explicitly distinguish perceptions between project managers and team members; therefore, the shared leadership consequences may be experienced differently. Previous research states that individual perceptions and experiences of shared leadership vary, and the differences are shaped by interpersonal dynamics, roles and the context (Abson and Schofield, 2022). Also, the project phase in which shared leadership occurred may also contribute to whether the identified demands were experienced as hindrance or challenge demands. Approaching deadline milestones are often challenging phases, which may have influenced how team members experienced shared leadership consequences.

Additionally, our study found that shared leadership was experienced as enhancing job resources. Job resources are important work characteristics, that contribute to employee motivation and performance (Bakker and Demerouti, 2017), therefore being essential

resources also for project teams. In our study, sharing leadership in project teams was experienced as strengthening team members' self-efficacy and optimism; self-efficacy was enhanced through trusting on own competence and being trusted by others. Our findings are in line with Drescher et al. (2014), who concluded that shared leadership may enhance trust, since team members are exposed to positive social exchange as they influence each other, thereby providing grounds for intragroup trust. Nevertheless, our research extends the understanding of the relationship between trust and shared leadership. Experiences of being trusted by team members is an important job resource, similar to experiences of having a skilled team around that contributes to confidence on current project situations. All these were perceived as resources, which derived from situations in which leadership was shared. As known, project teams operate in uncertain and complex environments (Atkinson et al., 2006), and optimism and self-efficacy as job resources can serve as a balancing factor against the psychological strain caused by challenge demands (Bakker and Sanz-Vergel, 2013). Therefore, sharing leadership within project teams may function as an important mechanism for fostering self-efficacy and optimism and maintaining team effectiveness.

Lastly, sharing leadership was experienced as a resource through enhanced interpersonal and social relations. Social relations are important job resources in teams (Bakker and Demerouti, 2017; Sonnentag et al., 2023), but when working in complex and often multi-project environments (O'Leary et al., 2011), the process of building trust and having good social relationships might be difficult. Project team members often come from diverse backgrounds, they may represent divergent organisations with their own priorities and underlying goals (Sydow and Braun, 2018). Shared leadership requires multiple contextual antecedents to emerge, such as team cohesion, trust and shared purpose of work (Abson and Schofield, 2022; Carson et al., 2007). However, when the team environment is coherent enough for shared leadership, it can further enhance interpersonal and social relationships, which are important job resources.

6. Practical implications

We suggest project practitioners to communicate both the benefits and disadvantages of taking leadership roles. Team members may be reluctant to take leadership if that is understood only as increased responsibilities. Shared leadership was experienced to have many positive consequences such as improved decision-making, confidence, autonomy and improved fluency of work, to mention few. Clarifying the benefits of taking over leadership roles can potentially facilitate shared leadership leading not only to improved team performance (Wu et al., 2020), but also to team members' enhanced job resources, motivation and team performance. Uncertain situations occur in project life span (Wied et al., 2021), and if these uncertain situations prolong and project team continues with unclear responsibilities, team members can get overloaded and stressed. That may potentially lead to team members undergoing a health impairment process (Bakker and Demerouti, 2017). Project team members tend to be highly motivated towards reaching the goals and taking over responsibilities beyond their official roles. This engagement can be a double-edged sword if high hindrance demands prolong without sufficient recovery. However, shared leadership in project teams can evolve multiple positive consequences for team members and the whole team, which strengthen personal and job resources, being buffers for the demanding project phases. Identifying these consequences project practitioners can gain understanding of teams' capabilities along project life span.

7. Limitations and future research

We acknowledge the following study limitations. First, we collected our data retrospectively, which can affect the interpretations participants have on shared leadership and its consequences. Secondly, many

of the interviews were conducted in the medical industry context, which needs to be considered when interpreting the findings. However, during the data analysis, no such field specific consequences emerged. Thirdly, the data represents experiences from employees working in Finnish organisations and therefore, the specific working culture inherent may have affected our findings. Moreover, when interpreting the findings, it is important to note that the research was conducted in the context of project teams, and therefore the results are not directly generalizable for permanent teams. Despite semi-structured interviews being a suitable method for exploring shared leadership, for future research, adding observations would potentially reveal additional information on the dynamics of shared leadership. Future research would benefit from exploring shared leadership consequences further on team members' well-being at work within various industries and organisational environments. Also, the inclusion of personal demands would possibly bring more detailed insights on the discussion of shared leadership consequences. Moreover, our research identified the consequences on job demands and resources, but the further connections between shared leadership and well-being at work would advance the shared leadership research.

8. Conclusion

Our findings highlight that shared leadership can be experienced as increasing both hindrance and challenge demands. The negative consequences of shared leadership can be avoided by clarifying the goals of the work and team members' roles in achieving them. The challenge demands experienced are not inherently negative, since they embed possibilities for professional growth and learning. Also, our findings identified several shared leadership consequences that were experienced as enhancing job resources. Participants perceived that shared leadership strengthened their self-efficacy and optimism: they experienced satisfaction and fulfilment when completed tasks, in which leadership was shared. The findings also show that shared leadership contributed to project teams' job resources, as shared leadership facilitated the work-flows, improved team decision-making and strengthened interpersonal and social relations, in addition to enhancing task accomplishment. In conclusion, sharing leadership in project teams can help balance between job demands and resources, which are key characteristics of work that influence employee motivation and performance.

CRedit authorship contribution statement

Marion Karppi: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Writing – original draft, Writing – review & editing. **Ursula Hyrkkänen:** Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Writing – review & editing. **Markku Jokisaari:** Conceptualization, Data curation, Funding acquisition, Methodology, Supervision, Writing – review & editing.

Funding

This research was supported by The Finnish Work Environment Fund (grant numbers: 210136, 210149 and 240556).

Declaration of competing interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

Acknowledgements

We extend our sincerest appreciation to the organisations and project teams who generously participated in this research project. Your contribution was essential to the successful completion of this study.

Data availability

The authors do not have permission to share data.

References

- Abson, E., Schofield, P., 2022. Exploring the antecedents of shared leadership in event organisations. *J. Hospit. Tourism Manag.* 52, 439–451. <https://doi.org/10.1016/j.jhtm.2022.08.003> [Article].
- Abson, E., Schofield, P., Kennell, J., 2024. Making shared leadership work: The importance of trust in project-based organisations. *Int. J. Proj. Manag.* 42 (2), 102575. <https://doi.org/10.1016/j.ijproman.2024.102575>, 102575.
- Aguilar Velasco, M.M., Wald, A., 2022. The dark side of projectification: a systematic literature review and research agenda on the negative aspects of project work and their consequences for individual project workers. *Int. J. Manag. Proj. Bus.* 15 (2), 272–298. <https://doi.org/10.1108/jmpb-05-2021-0117>.
- Aguilar Velasco, M.M., Wald, A., 2025. Mitigating the negative aspects of project work: the roles of psychological capital and coworker and family support. *Project Leadership. Soc.* 6, 100176. <https://doi.org/10.1016/j.plas.2025.100176> [Article].
- An, N., Qiang, M., Wen, Q., Jiang, H., Xia, B., 2019. Contribution of project managers' capability to project ending performance under stressful conditions. *Eur. Manag. J.* 37 (2), 198–209. <https://doi.org/10.1016/j.emj.2018.04.001> [Article].
- Aramo-Immonen, H., Jaakkola, H., Keto, H., 2012. Multicultural software development: the productivity perspective. *Comput. Eng. : Concepts, Methodol. Tools. Appl.* 3, 1081–1098 [Chapter].
- Atkinson, R., Crawford, L., Ward, S., 2006. Fundamental uncertainties in projects and the scope of project management. *Int. J. Proj. Manag.* 24 (8), 687–698. <https://doi.org/10.1016/j.ijproman.2006.09.011> [Article].
- Avolio, B.J., Walumbwa, F.O., Weber, T.J., 2009. Leadership: current theories, research, and future directions. *Annu. Rev. Psychol.* 60 (1), 421–449. <https://doi.org/10.1146/annurev.psych.60.110707.163621> [Article].
- Bakker, A.B., Demerouti, E., Euwema, M.C., Barling, J., 2005. Job resources buffer the impact of job demands on burnout. *J. Occup. Health Psychol.* 10 (2), 170–180. <https://doi.org/10.1037/1076-8998.10.2.170> [Article].
- Bakker, A.B., Demerouti, E., Sanz-Vergel, A., 2023. Job demands-resources theory: ten years later. *Ann. Rev. Organ. Psychol. Organ. Behav.* 10 (1), 25–53. <https://doi.org/10.1146/annurev-orgpsych-120920-053933> [Article].
- Bakker, A.B., Demerouti, E., 2007. The job demands-resources model: state of the art. *J. Manag. Psychol.* 22 (3), 309–328. <https://doi.org/10.1108/02683940710733115> [Article].
- Bakker, A.B., Demerouti, E., 2017. Job demands-resources theory: taking stock and looking forward. *J. Occup. Health Psychol.* 22 (3), 273–285. <https://doi.org/10.1037/ocp0000056> [Article].
- Bakker, A.B., Sanz-Vergel, A.I., 2013. Weekly work engagement and flourishing: the role of hindrance and challenge job demands. *J. Vocat. Behav.* 83 (3), 397–409. <https://doi.org/10.1016/j.jvb.2013.06.008> [Article].
- Belle, N., 2014. Leading to make a difference: a field experiment on the performance effects of transformational leadership, perceived social impact, and public service motivation. *J. Publ. Adm. Res. Theor.* 24 (1), 109–136. <https://doi.org/10.1093/jopart/mut033> [Article].
- Bergman, J.Z., Rentsch, J.R., Small, E.E., Davenport, S.W., Bergman, S.M., 2012. The shared leadership process in decision-making teams. *J. Soc. Psychol.* 152 (1), 17–42. <https://doi.org/10.1080/00224545.2010.538763> [Article].
- Bowen, P., Edwards, P., Lingard, H., Cattell, K., 2014. Occupational stress and job demand, control and support factors among construction project consultants. *Int. J. Proj. Manag.* 32 (7), 1273–1284. <https://doi.org/10.1016/j.ijproman.2014.01.008> [Article].
- Breevaart, K., Bakker, A., Hetland, J., Demerouti, E., Olsen, O.K., Espevik, R., 2014. Daily transactional and transformational leadership and daily employee engagement. *J. Occup. Organ. Psychol.* 87 (1), 138–157. <https://doi.org/10.1111/joop.12041> [Article].
- Carson, J.B., Tesluk, P.E., Marrone, J.A., 2007. Shared leadership in teams: an investigation of antecedent conditions and performance. *Acad. Manag. J.* 50 (5), 1217–1234. <https://doi.org/10.5465/amj.2007.20159921> [Article].
- Cavanaugh, M.A., Boswell, W.R., Roehling, M.V., Boudreau, J.W., 2000. An empirical examination of self-reported work stress among U.S. managers. *J. Appl. Psychol.* 85 (1), 65–74. <https://doi.org/10.1037/0021-9010.85.1.65> [Article].
- Chen, W., Zhang, J.-H., 2023. Does shared leadership always work? A state-of-the-art review and future prospects. *J. Work-Appl. Manag.* 15 (1), 51–66. <https://doi.org/10.1108/JWAM-09-2022-0063> [Article].
- Choi, S.B., Kim, K., Kang, S.-W., 2017. Effects of transformational and shared leadership styles on employees' perception of team effectiveness. *SBP (Soc. Behav. Pers.)* 45 (3), 377–386. <https://doi.org/10.2224/sbp.5805> [Article].
- Chua, J.L., Mougammadou, Z., Lim, R.B.T., Tung, J.Y.M., Sng, G.G.R., 2024. In the shoes of junior doctors: a qualitative exploration of job performance using the job-demands resources model. *Front. Psychol.* 15, 1412090. <https://doi.org/10.3389/fpsyg.2024.1412090> [Article].
- Contractor, N.S., DeChurch, L.A., Carson, J., Carter, D.R., Keegan, B., 2012. The topology of collective leadership. *Leadersh. Q.* 23 (6), 994–1011. <https://doi.org/10.1016/j.leaqua.2012.10.010> [Article].
- Demerouti, E., Bakker, A.B., 2011. The Job Demands–Resources model: Challenges for future research. *SA J. Ind. Psychol.* 37 (2). <https://doi.org/10.4102/sajip.v37i2.974>. (Accessed 23 May 2011).

- Demerouti, E., Bakker, A., Fried, Y., 2012. Work orientations in the job demands-resources model. *J. Manag. Psychol.* 27 (6), 557–575. <https://doi.org/10.1108/02683941211252428>.
- Dolfi, J., Andrews, E.J., 2007. The subliminal characteristics of project managers: An exploratory study of optimism overcoming challenge in the project management work environment. *Int. J. Proj. Manag.* 25 (7), 674–682. <https://doi.org/10.1016/j.ijproman.2007.02.002>.
- Denzin, N.K., Lincoln, Y.S., 1994. *Handbook of Qualitative Research*. Sage Publications, Inc.
- Demerouti, E., Bakker, A.B., Nachreiner, F., Schaufeli, W.B., 2001. The job demands-resources model of burnout. *J. Appl. Psychol.* 86 (3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499> [Article].
- Drescher, M.A., Korsgaard, M.A., Welp, I.M., Picot, A., Wigand, R.T., Kozlowski, S.W.J., 2014. The dynamics of shared leadership: building trust and enhancing performance. *J. Appl. Psychol.* 99 (5), 771–783. <https://doi.org/10.1037/a0036474> [Article].
- Edelmann, C.M., Boen, F., Stouten, J., Broek, G., Vande, Fransen, K., 2023. The advantages and disadvantages of different implementations of shared leadership in organizations: a qualitative study. *Leadership* (London, England) 19 (6), 467–507. <https://doi.org/10.1177/17427150231200033> [Article].
- Ellis, A.P.J., Pearsall, M.J., Parks, C.D., 2011. Reducing the negative effects of stress in teams through cross-training: a job demands-resources model. *Group Dyn.* 15 (1), 16–31. <https://doi.org/10.1037/a0021070> [Article].
- Evans, K., Sanner, B., Chiu, C.-Y. (Chad), 2021. Shared leadership, unshared burdens: how shared leadership structure schema lowers individual enjoyment without increasing performance. *Group Organ. Manag.* 46 (6), 1027–1072. <https://doi.org/10.1177/1059601121997225> [Article].
- Fausing, M.S., Joensuu, T.S., Lewandowski, J., Bligh, M., 2015. Antecedents of shared leadership: empowering leadership and interdependence. *Leader. Organ. Dev. J.* 36 (3), 271–291. <https://doi.org/10.1108/LODJ-06-2013-0075> [Article].
- Guest, D.E., 2017. Human resource management and employee well-being: towards a new analytic framework. *Hum. Resour. Manag. J.* 27 (1), 22–38. <https://doi.org/10.1111/1748-8583.12139> [Article].
- Hanna, A.A., Smith, T.A., Kirkman, B.L., Griffin, R.W., 2021. The emergence of emergent leadership: a comprehensive framework and directions for future research. *J. Manag.* 47 (1), 76–104. <https://doi.org/10.1177/0149206320965683>.
- Harju, L.K., Keltiainen, J., Hakanen, J.J., 2021. The double-edged sword of job crafting: the effects of job crafting on changes in job demands and employee well-being. *Hum. Resour. Manag.* 60 (6), 953–968. <https://doi.org/10.1002/hrm.22054> [Article].
- Hoch, J.E., Dulebohn, J.H., 2013. Shared leadership in enterprise resource planning and human resource management system implementation. *Hum. Resour. Manag. Rev.* 23 (1), 114–125. <https://doi.org/10.1016/j.hrmr.2012.06.007> [Article].
- Hollenbeck, J.R., Beersma, B., Schouten, M.E., 2012. Beyond team types and taxonomies: a dimensional scaling conceptualization for team description. *Acad. Manag. Rev.* 37 (1), 82–106. <https://doi.org/10.5465/amr.2010.0181> [Article].
- Judge, T.A., Piccolo, R.F., 2004. Transformational and transactional leadership: a meta-analytic test of their relative validity. *J. Appl. Psychol.* 89 (5), 755–768. <https://doi.org/10.1037/0021-9010.89.5.755> [Article].
- Kalff, Y., 2022. Managing projects as a mode of temporal ordering. *Performative organising of time and temporality in projects*. *Int. J. Manag. Proj. Bus.* 15 (1), 82–101. <https://doi.org/10.1108/IJMPB-05-2021-0132> [Article].
- Karppi, M., Aramo-Immonen, H., Hyrkkänen, U., Jokisaari, M., 2024. Emergence of shared leadership in project teams: the role of events. *Project Leadership. Soc.* 5, 100145. <https://doi.org/10.1016/j.plas.2024.100145> [Article].
- Katou, A.A., Koupkas, M., Triantafyllidou, E., 2021. Job demands-resources model, transformational leadership and organizational performance: a multilevel study. *Int. J. Prod. Perform. Manag.* 71 (7), 2704–2722. <https://doi.org/10.1108/ijppm-06-2020-0342>.
- Katou, A.A., Koupkas, M., Triantafyllidou, E., 2022. Job demands-resources model, transformational leadership and organizational performance: a multilevel study. *Int. J. Prod. Perform. Manag.* 71 (7), 2704–2722. <https://doi.org/10.1108/IJPPM-06-2020-0342> [Article].
- Kaur, A., 2013. Shared leadership: good or bad for team innovation? *Acad. Manag. Proc.* <https://doi.org/10.5465/ambpp.2013.11810abstract>.
- Kerdngern, N., Thanitbenjasith, P., 2017. Influence of contemporary leadership on job satisfaction, organizational commitment, and turnover intention. *Int. J. Eng. Bus. Manag.* 9, 1847979017723173. <https://doi.org/10.1177/1847979017723173>.
- Koch, J., Schermuly, C.C., 2021. Managing the crisis: how COVID-19 demands interact with agile project management in predicting employee exhaustion. *Br. J. Manag.* 32 (4), 1265–1283. <https://doi.org/10.1111/1467-8551.12536> [Article].
- Kozlowski, S.W.J., Mak, S., Chao, G.T., 2016. Team-centric leadership: an integrative review. *Ann. Rev. Organ. Psychol. Organ. Behav.* 3 (1), 21–54. <https://doi.org/10.1146/annurev-orgpsych-041015-062429>.
- Latratch, K.-K., Büttgen, M., 2020. Project leaders' control resources and role overload as predictors of project success: developing the job demands-resources model. *Bus. Res. (Göttingen)* 13 (2), 767–788. <https://doi.org/10.1007/s40685-020-00115-z> [Article].
- Lee, D.S., Lee, K.C., Seo, Y.W., Choi, D.Y., 2015. An analysis of shared leadership, diversity, and team creativity in an e-learning environment. *Comput. Hum. Behav.* 42, 47–56. <https://doi.org/10.1016/j.chb.2013.10.064> [Article].
- LePine, J.A., Podsakoff, N.P., LePine, M.A., 2005. A meta-analytic test of the challenge stressor-hindrance stressor framework: an explanation for inconsistent relationships among stressors and performance. *Acad. Manag. J.* 48 (5), 764–775. <https://doi.org/10.5465/AMJ.2005.18803921> [Article].
- Levitt, R., Pollack, J., Whyte, J., 2024. Leadership and the dynamics of projects: Ray Levitt's insights on project leadership. *Proj. Leadership Society* 5, 100131. <https://doi.org/10.1016/j.plas.2024.100131>.
- Liu, S., Hu, J., Li, Y., Wang, Z., Lin, X., 2014. Examining the cross-level relationship between shared leadership and learning in teams: evidence from China. *Leadersh. Q.* 25 (2), 282–295. <https://doi.org/10.1016/j.leaqua.2013.08.006> [Article].
- Mäkikangas, A., Kinnunen, U., Feldt, T., Schaufeli, W., 2016. The longitudinal development of employee well-being: a systematic review. *Work & Stress* 30 (1), 46–70. <https://doi.org/10.1080/02678373.2015.1126870>. (Accessed 12 January 2016).
- Margolis, J., 2020. Multiple team membership: an integrative review. *Small Group Res.* 51 (1), 48–86. <https://doi.org/10.1177/1046496419883702> [Article].
- Mathieu, J.E., Kukenberger, M.R., D'Innocenzo, L., Reilly, G., 2015. Modeling reciprocal team cohesion-performance relationships, as impacted by shared leadership and members' competence. *J. Appl. Psychol.* 100 (3), 713–734. <https://doi.org/10.1037/a0038898> [Article].
- Miles, M.B., Huberman, M., 1994. In: Huberman, A.M. (Ed.), *Qualitative Data Analysis: an Expanded Sourcebook*, 2. Sage [Book].
- Müller, M., Bodea, C.N., Radujković, M., 2023. A process framework of shared leadership emergence in product development project teams. *Project Leadership Soc.* 4, 100104. <https://doi.org/10.1016/j.plas.2023.100104> [Article].
- Müller, R., Sankaran, S., Drouin, N., Vaagaasar, A.-L., Bekker, M.C., Jain, K., 2018. A theory framework for balancing vertical and horizontal leadership in projects. *Int. J. Proj. Manag.* 36 (1), 83–94. <https://doi.org/10.1016/j.ijproman.2017.07.003>.
- Moon, K., Blackman, D., 2014. Guide to understanding social science research for natural scientists. *Conserv. Biol.* 28 (5), 1167–1177. <https://doi.org/10.1111/cobi.12326> [Article].
- Morgeson, F.P., 2005. The external leadership of self-managing teams. *J. Appl. Psychol.* 90 (3), 497–508. <https://doi.org/10.1037/0021-9010.90.3.497>.
- Nauman, S., Musawir, A.U., Malik, S.Z., Munir, H., 2022. Servant leadership and project success: unleashing the missing links of work engagement, project work withdrawal, and project identification. *Proj. Manag. J.* 53 (3), 257–276. <https://doi.org/10.1177/87569728221087161> [Article].
- Nicolaides, V.C., LaPort, K.A., Chen, T.R., Tomassetti, A.J., Weis, E.J., Zaccaro, S.J., Cortina, J.M., 2014. The shared leadership of teams: a meta-analysis of proximal, distal, and moderating relationships. *Leadersh. Q.* 25 (5), 923–942. <https://doi.org/10.1016/j.leaqua.2014.06.006> [Article].
- Novieto, D.T., Kpofute, G.S., 2021. Work-family conflict and project performance of construction professionals in a developing country: testing the mediating-moderating effect of project management self-efficacy. *Eng. Construct. Architect. Manag.* 29 (9), 3331–3344. <https://doi.org/10.1108/ecam-01-2021-0074>.
- O'Leary, M.B., Mortensen, M., Woolley, A.W., 2011. Multiple team membership: a theoretical model of its effects on productivity and learning for individuals and teams. *Acad. Manag. Rev.* 36 (3), 461–478. <https://doi.org/10.5465/AMR.2011.61031807> [Article].
- Pearce, C.L., Conger, J.A., 2003. *Shared Leadership: Reframing the Hows and Whys of Leadership*, first ed. SAGE Publications, Incorporated. <https://doi.org/10.4135/9781452229539> [Book].
- Pearce, C.L., Sims, H.P., 2002. Vertical versus shared leadership as predictors of the effectiveness of change management teams. *Group Dyn.* 6 (2), 172–197. <https://doi.org/10.1037/1089-2699.6.2.172> [Article].
- Pinto, J.K., Dawood, S., Pinto, M.B., 2014. Project management and burnout: implications of the demand-control-support model on project-based work. *Int. J. Proj. Manag.* 32 (4), 578–589. <https://doi.org/10.1016/j.ijproman.2013.09.003> [Article].
- Podsakoff, N.P., LePine, J.A., LePine, M.A., 2007. Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, and withdrawal behavior: a meta-analysis. *J. Appl. Psychol.* 92 (2), 438–454. <https://doi.org/10.1037/0021-9010.92.2.438> [Article].
- Rafiq, M., Farukh, M., Attiq, S., Shahzad, F., Khan, I., 2023. Linking job crafting, innovation performance, and career satisfaction: the mediating role of work engagement. *Work* 75 (3), 877–886. <https://doi.org/10.3233/WOR-211363> [Article].
- Robert, L.P., You, S., 2018. Are you satisfied yet? Shared leadership, individual trust, autonomy, and satisfaction in virtual teams. *J. Ass. Infor. Sci. Technol.* 69 (4), 503–513. <https://doi.org/10.1002/asi.23983> [Article].
- Ryan, R.M., Deci, E.L., 2001. On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annu. Rev. Psychol.* 52 (1), 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141> [Article].
- Scott-Young, C.M., Georgy, M., Grisinger, A., 2019. Shared leadership in project teams: an integrative multi-level conceptual model and research agenda. *Int. J. Proj. Manag.* 37 (4), 565–581. <https://doi.org/10.1016/j.ijproman.2019.02.002> [Article].
- Searle, B.J., Auton, J.C., 2015. The merits of measuring challenge and hindrance appraisals. *Anxiety Stress Coping* 28 (2), 121–143. <https://doi.org/10.1080/10615806.2014.931378> [Article].
- Serban, A., Roberts, A.J.B., 2016. Exploring antecedents and outcomes of shared leadership in a creative context: a mixed-methods approach. *Leadersh. Q.* 27 (2), 181–199. <https://doi.org/10.1016/j.leaqua.2016.01.009> [Article].
- Sonnentag, S., Tay, L., Neshor Shoshan, H., 2023. A review on health and well-being at work: more than stressors and strains. *Pers. Psychol.* 76 (2), 473–510. <https://doi.org/10.1111/peps.12572> [Article].
- Sydow, J., Braun, T., 2018. Projects as temporary organizations: an agenda for further theorizing the interorganizational dimension. *Int. J. Proj. Manag.* 36 (1), 4–11. <https://doi.org/10.1016/j.ijproman.2017.04.012> [Article].
- Tu, Y., Hong, Y., Jiang, Y., Zhang, W., 2023. Fighting the war for talent: examining a multi-level model of talent inducement, work engagement, and creativity in teams. *Manag. Organ. Rev.* 19 (5), 910–931. <https://doi.org/10.1017/mor.2023.30> [Article].

- Tummers, L.G., Bakker, A.B., 2021. Leadership and job demands-resources theory: a systematic review. *Front. Psychol.* 12. <https://doi.org/10.3389/fpsyg.2021.722080>, 722080–722080.
- Turner, J.R., Müller, R., 2003. On the nature of the project as a temporary organization. *Int. J. Proj. Manag.* 21 (1), 1–8. [https://doi.org/10.1016/S0263-7863\(02\)00020-0](https://doi.org/10.1016/S0263-7863(02)00020-0) [Article].
- Wang, D., Waldman, D.A., Zhang, Z., 2014. A meta-analysis of shared leadership and team effectiveness. *J. Appl. Psychol.* 99 (2), 181–198. <https://doi.org/10.1037/a0034531> [Article].
- Wang, H., Peng, Q., 2022. Is shared leadership really as perfect as we thought? Positive and negative outcomes of shared leadership on employee creativity. *J. Creativ. Behav.* 56 (3), 328–343. <https://doi.org/10.1002/jocb.532> [Article].
- Wassenaar, C.L., Pearce, C.L., 2017. Shared leadership. In: Antonaki, S.J., Day, D.V. (Eds.), *The Nature of Leadership*. Sage, London. <https://doi.org/10.4135/9781506395029>.
- Whitsed, C., Girardi, A., Fitzgerald, S., Williams, J., 2025. Exploring academic staff engagement in a time of crisis and change through the lens of a multilevel job demand-resources analysis. *J. High Educ. Pol. Manag.* 47 (1), 1–19. <https://doi.org/10.1080/1360080X.2024.2371076> [Article].
- Whyte, J., Naderpajouh, N., Clegg, S., Matous, P., Pollack, J., et al., 2022. Project leadership: A research agenda for a changing world. *Proj. Leadership Society* 3, 100044. <https://doi.org/10.1016/j.plas.2022.100044>.
- Wied, M., Oehmen, J., Welo, T., Pikas, E., 2021. Wrong, but not failed? A study of unexpected events and project performance in 21 engineering projects. *Int. J. Manag. Proj. Bus.* 14 (6), 1290–1313. <https://doi.org/10.1108/LJMPB-08-2020-0270> [Article].
- Wood, M.S., Fields, D., 2007. Exploring the impact of shared leadership on management team member job outcomes. *Baltic J. Manag.* 2 (3), 251. <https://doi.org/10.1108/17465260710817474> [Article].
- Wu, Q., Cormican, K., Chen, G., 2020. A meta-analysis of shared leadership: antecedents, consequences, and moderators. *J. Leader. Organ. Stud.* 27 (1), 49–64. <https://doi.org/10.1177/1548051818820862> [Article].
- Xia, N., Ding, S., Yuan, J., 2022. The impact of a challenging work environment: do job stressors benefit citizenship behavior of project managers? *Int. J. Proj. Manag.* 40 (3), 205–217. <https://doi.org/10.1016/j.ijproman.2022.01.007> [Article].
- Yukl, G., 2012. Effective leadership behavior: what we know and what questions need more attention. *Acad. Manag. Perspect.* 26 (4), 66–85. <https://doi.org/10.5465/amp.2012.0088> [Article].
- Zhu, J., Liao, Z., Yam, K.C., Johnson, R.E., 2018. Shared leadership: a state-of-the-art review and future research agenda. *J. Organ. Behav.* 39 (7), 834–852. <https://doi.org/10.1002/job.2296> [Article].