

Hope, goal-commitment and -stress mediating between collaborative leadership, financial resources and performance

Hope, goal-commitment and -stress mediation

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Abstract

Purpose – Combining the goal-setting and job demands-resources (JD-R) theories, we examine how two project resources, collaborative project leadership and financial project resources, enhance high project performance in community-academic health partnerships.

Design/methodology/approach – With a sequential explanatory mixed-method research design, data were collected through a survey ($N = 318$) and semi-structured interviews ($N = 21$). A hypothesised three-path mediation model was tested using structural equation modelling with bootstrapping. Qualitative data were examined using thematic analysis.

Findings – Project workers' hope, goal-commitment and -stress: (1) fully mediate the hypothesised relationship between highly collaborative project leadership and high project performance; and (2) partially mediate the relationship between financial project resources and high project performance. The qualitative data corroborate and deepen these findings, revealing the crucial role of hope as a cognitive-motivational facilitator in project workers' ability to cope with challenges.

Practical implications – Project leaders should promote project workers' goal commitment, reduce their goal stress and boost project performance by securing financial project resources or reinforcing workers' hope, e.g. by fostering collaborative project leadership.

Originality/value – The findings contribute to the project management and JD-R literature by considering the joint effects of project workers' hope and two commonly studied project resources (collaborative project leadership and financial project resources) on high project performance. Moreover, we demonstrate the

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importance of the goal-setting and JD-R theories for understanding complex health-promotion projects connecting academic to community work.

Keywords Project performance, Collaborative project leadership, Financial project resources, Hope, Goal commitment, Goal stress, Goal-setting theory, Job demands-resources theory

Paper type Research paper

1. Introduction

Health projects are increasingly delivered through community-academic health partnerships (CAHPs) to address complex community health issues (Drahota *et al.*, 2016). However, the complexity of such cross-sectoral, goal-directed partnerships prevents many academic and community actors from collaborating effectively or sustaining the long-term commitment and resource investment necessary for project success (Coates and Mickan, 2020). Therefore, to enhance the chance of those projects reaching their ambitious goals or delivering lasting health impacts on the communities, it is vital to understand the mechanisms that can boost project performance and success (Stenkamer *et al.*, 2020). Given that the performance of CAHP projects heavily relies on the complex behaviours of all actors involved, they are eminently suited to be examined through an Organisational-Behavioural (OB) lens to understand the intra- and extra-personal dynamics driving high project performance (Smith *et al.*, 2021).

To date, however, little research attention has been paid to understanding the human dynamics in promoting high performance in these complex projects (Stenkamer *et al.*, 2020). In particular, we lack integrative frameworks that consider the relative influence of staff in collaborative working environments (Williams and Radnor, 2022), as well as explanations how individuals' cognitive and motivational mechanisms, together with other resources, contribute to high project performance (Scott and Boyd, 2020). In a recent study, Gredig *et al.*, (2021) lamented the negligence of intrapersonal factors that may influence project success, such as project workers' perception of financial project resource sufficiency and goal commitment.

Collaborative project leadership (Shu and Wang, 2021), sufficient financial project resources (Smith *et al.*, 2021; Coates and Mickan, 2020) and project workers' goal commitment (Coates and Mickan, 2020) are the most commonly assumed antecedents of high CAHP project performance. However, *how* these factors may jointly contribute to high project performance from a CAHP *project worker's perspective* remains unclear (Stenkamer *et al.*, 2020), especially given that stressful and demanding project work may also cause burnout, staff turnover and hamper project workers' performance (Gredig *et al.*, 2021). Therefore, this paper investigates how two types of entirely different (yet presumably interrelated) project resources, namely collaborative project leadership and sufficient financial project resources, may affect collective project performance in CAHP settings through intrapersonal project workers' resources, namely hope, goal-commitment and -stress, as additional conduits of high project performance.

To establish a comprehensive framework to unravel such dynamics, we draw on both goal-setting (Locke and Latham, 2019) and the job demands-resources (JD-R) theories (Bakker and Demerouti, 2014, 2017). Combining both theoretical frameworks, of which the former is cognitive-based and the latter motivational-based, we elucidate the human route from project resources to project performance. Specifically, we argue that *hope* facilitates workers' perceived ability to identify pathways in goal attainment as a *cognitive* resource (Gallagher and Lopez, 2018); *and* induces engagement, psychological well-being and high work performance as a *motivational* resource (Schaufeli and Taris, 2014). Hence, hope can function as a mediator catalysing the mechanisms towards high project performance by fostering project workers' goal commitment and mitigating stress. Thus, we aim to enhance our understanding of how collaborative project leadership and financial project resources may affect individual project workers' goal commitment, goal stress and partnership project performance through hope. This paper addresses two questions using a sequential

explanatory mixed-method research design: *What are the effects of (a) highly collaborative project leadership and (b) sufficient financial project resources on project performance? To what extent are these relationships mediated by project workers' (a) hope, (b) goal commitment and (c) goal stress?*

Hope, goal-
commitment
and -stress
mediation

The contribution of this research is three-fold: firstly, guided by hypotheses derived from goal-setting and JD-R theories, it contributes to project management research by empirically addressing the effects of two key project resources on project performance and their mediating mechanisms in enhancing workers' productivity and performance. Secondly, by introducing the concept of hope, we unpack a novel cognitive-motivational mediator that explains the relationships between collaborative project leadership, financial project resources, project workers' goal-commitment and -stress and project performance. Lastly, through importing OB theory-based variables to project management, we demonstrate the practical relevance of goal-setting and JD-R theories for understanding complex partnership projects connecting academic and community work.

2. Literature review

2.1 Goal-setting theory

Goal-setting theory (Locke and Latham, 2019) posits that goals are central to work motivation since they prompt individuals to pursue objectives by strengthening their determination, persistence and the strategies to achieve these objectives (Locke and Latham, 2006). Therefore, goal commitment, an individual's determination to reach a goal, is vital for high performance (Hollenbeck and Klein, 1987). While CAHPs are essentially goal-directed project settings formed upon shared interests, project workers' goal commitment is fundamentally intrinsic and resides at the intrapersonal level (Scott and Boyd, 2020). However, the competitive resource environments and demanding working conditions make it challenging for workers to fully commit themselves to the projects (Gredig *et al.*, 2021). Hence, identifying the mechanisms that can enhance their commitment and lower their stress level in goal pursuit is crucial for improving project performance (Foy *et al.*, 2019).

Goal-setting literature has primarily focused on cognitive aspects (Locke and Latham, 2019), neglecting other individual-level resources that boost project workers' goal commitment, mitigate goal stress and facilitate goal attainment (Scott and Boyd, 2020). The theory also fails to explain how individual differences may influence workers' coping strategies when experiencing intense demands that may impede goal pursuit (Clements and Kamau, 2018). We further draw on the well-established, motivational-based JD-R model to address these limitations and explain the motivational resources required to sustain individual project workers' goal commitment, to reduce goal stress and to promote their performance in complex project contexts.

2.2 JD-R theory

According to the JD-R theory, an individual's job performance, health and well-being can be influenced by two psychological pathways: motivational and health-impairment processes (Bakker and Demerouti, 2014, 2017). Job resources, which refer to the physical, psychological, social and organisational factors that enhance work goal achievement and personal growth, can increase job performance, workers' motivation, engagement and commitment and buffer the stressful impact of high job demands (Schaufeli and Taris, 2014). Contrarily, high job demands may cause exhaustion, stress and burnout, ultimately hindering job performance (Katou *et al.*, 2021).

Given its broad motivational nature and wide applicability, the JD-R theory allows us to explore more intrapersonal factors that drive people's attitudes and behaviours in goal-directed, partnership project settings (Schaufeli and Taris, 2014). Provided the motives for

project workers' actions range from external resources to more intrinsic personal inclinations (Bakker and Demerouti, 2017), we propose that the theory further complements goal-setting theory by combining the motivational and psychological mechanisms driving high project performance (Clements and Kamau, 2018).

2.3 Hypotheses development

To develop our hypotheses, we draw on the goal-setting and JD-R theories and extant project management literature on the antecedents of high project performance. More specifically, we examine the juxtaposition of two pivotal project resources (i.e. collaborative project leadership and financial project resources) on cognitive-motivational resources (hope), project workers' goal commitment, goal stress and project performance.

2.3.1 Collaborative project leadership and financial project resources for high project performance. Collaborative leadership is an important enabler of partnership project performance and sustainability (Vangen and Huxham, 2003; Boone et al., 2020), characterised by embracing, empowering, involving and mobilising project actors' active participation. By taking a heterarchical, democratic approach, collaborative project leadership facilitates transparent decision-making and productive interactions among diverse stakeholders (Cramm et al., 2011). It also bridges cultures, perspectives, or values and strengthens project workers' involvement and contribution toward project goals (Alexander et al., 2011). In doing so, it has a motivational spill-over effect on other workers (Mayan et al., 2017) and boosts overall collaborative functioning (Shu and Wang, 2021).

Securing adequate financial project resources is another critical factor for high project performance that is often overlooked (Smith et al., 2021). Sufficient financial project resources enable project workers to acquire the space, equipment, goods and staff necessary to support operational activities associated with partnership goal fulfilment (Boone et al., 2020). However, many partnership projects struggle to sustain themselves financially; highly competitive grant environments and short funding periods also force them to prioritise short-term, measurable outcomes over long-term, sustainable solutions (Drahota et al., 2016). Furthermore, a lack of secured funding often leads to inadequate time and resources for meaningful engagement between academic and community partners (Neuhann and Barteit, 2017), hence threatening their project performance (Gredig et al., 2021). Consequently, we hypothesise that collaborative project leadership and financial project resources go hand in hand in determining project performance:

- H1. Collaborative project leadership (a) and financial project resources (b) are positively related to project performance.

2.3.2 Mediation of project workers' hope between collaborative project leadership/financial project resources and project performance. Besides more traditional human (e.g. collaborative project leadership) and economic resources (e.g. financial project resources), (intra)personal resources (e.g. individuals' sense of control or influence on environments), may offer insights into the mechanisms that enhance partnership performance (Coates and Mickan, 2020). In particular, *hope* is a proven intrapersonal resource that drives work performance (Tüzün et al., 2018). Hope, which represents an individual's motivation to succeed in goal attainment by generating possible approaches to resolve obstacles and challenges (Luthans et al., 2007), predicts goal-directed performance by reinforcing goal-directed efforts (Gallagher and Lopez, 2018). Workers with greater hope are more capable of attaining goals effectively by finding alternative approaches and bypassing obstacles (e.g. a lack of resources or personnel) (Snyder et al., 2000).

Some OB scholars have identified the predictors of hope (Gallagher and Lopez, 2018). For instance, effective leadership can indirectly improve followers' work engagement and job performance by awakening their hopeful thinking (Gallagher and Lopez, 2018); by creating abundant job resources for team members to deal with job challenges and demands

(Bakker and Demerouti, 2017); and by motivating project workers to anticipate uncertainties and resolve difficulties (Nixon *et al.*, 2012; Khosravi *et al.*, 2020). In line with those findings, Alexander *et al.* (2011) highlighted that collaborative project leadership facilitates workers' coordination and experimentation of innovative strategies for problem-solving in community health care alliances. Likewise, sufficient financial project resources offer project workers the freedom to explore alternative ways to perform activities necessary for goal attainment (Arrieta *et al.*, 2017). Hence, we expect that highly collaborative project leadership and sufficient financial project resources will stimulate project workers' ability and motivation to carve out creative, innovative ways in goal pursuit (i.e. hope) and improve their project performance in collaborative partnership settings. Thus, we hypothesise:

H2. Project workers' hope mediates the relationships between both (a) collaborative project leadership and project performance and (b) financial project resources and project performance.

2.3.3 Mediation of project workers' goal commitment and -stress between collaborative project leadership/financial project resources and project performance. While increasing team motivation and performance, job resources can also mitigate individual-level negative health outcomes such as strain (Schaufeli and Taris, 2014). In CAHPs, collaborative project leadership garners project workers' commitment, promotes participation and enhances partnership success (Boone *et al.*, 2020). Leadership stimulates the synergy among project workers and their commitment to the project, ameliorating the impact of threats to the project's success (Mayan *et al.*, 2017). Equally, sufficient financial project resources safeguard project workers' commitment toward attaining goals and effective performance (Scott and Boyd, 2020). It secures the investment of materials, daily expenses, staff and time necessary for effective engagement and partnership operations (Arrieta *et al.*, 2017). Contrarily, an absence of collaborative project leadership or a hiatus of financial project resources can disturb project workers' ability to pursue goals, leading to strain and frustration (LeClair *et al.*, 2018). It can also stall a partnership project's progress in goal achievement, decrease project workers' goal commitment (Mayan *et al.*, 2017) and increase the chance of undesirable outcomes such as burnout, work overload, disengagement, high staff turnover, or even partnership failure (Neuhann and Barteit, 2017). Thus, we propose that project workers' goal commitment and -stress mediate the relationships between the two key project resources and CAHP project performance:

H3. Project workers' (a) goal commitment; and (b) goal stress mediate the relationship between collaborative project leadership and project performance; and project workers' (c) goal commitment; and (d) goal stress mediate the relationship between financial project resources and project performance.

2.3.4 Inconsistent mediation of hope between collaborative project leadership/financial project resources, project workers' goal commitment and -stress. Work-environment and job-related factors can influence workers' performance by affecting their adaptability, commitment and motivation (Diamantidis and Chatzoglou, 2019). Like most project settings, partnership projects are typically dynamic, complex and highly uncertain (Smith *et al.*, 2021). Consequently, project workers not only experience the pressure to deliver project outcomes within tight deadlines and limited resources (LeClair *et al.*, 2018), but also need to adapt to unexpected events (e.g. diminishing resources and changes in leadership) (Nixon *et al.*, 2012). Such events might negatively influence their perceptions of work conditions, invoke goal stress and lower their commitment to the projects. Indeed, while insufficient financial project resources can hinder project workers from performing the activities necessary to fulfil project objectives (Arrieta *et al.*, 2017), frequent leadership changes or a

vacuum in task coordination can overwhelm the workers (Neuhann and Barteit, 2017), hindering their ability to cope with goal stress (Foy *et al.*, 2019).

Nevertheless, workers can still cope with stressors effectively and stay engaged (in subsequent coping thoughts and actions) through high hope (Gallagher and Lopez, 2018). Drawing on the dual psychological pathways of JD-R theory (Bakker and Demerouti, 2014), we assume project workers' hope mediates *positively* between collaborative project leadership/financial project resources and project goal commitment in the motivational pathway (i.e. high collaborative project leadership/adequate financial project resources increase workers' hope, which then increases project goal commitment). Meanwhile, since stress can be reduced through high hope (Wen *et al.*, 2021), we propose that hope can *negatively* mediate between the two project resources and project goal stress in the health-impairment pathway (i.e. highly collaborative project leadership/adequate financial project resources increase workers' hope and then hope decreases project goal stress). This results in an inconsistent mediation, where "at least one mediated effect has a different sign than other mediated or direct effects" (MacKinnon *et al.*, 2007, p. 600). Thus, we propose:

H4. CAHP project workers' hope mediates the relationship between:

- (1) collaborative project leadership and goal commitment (positively);
- (2) collaborative project leadership and goal stress (negatively);
- (3) financial project resources and goal commitment (positively); and
- (4) financial project resources and goal stress (negatively).

2.3.5 Mediation of goal-commitment and -stress between project workers' hope and project performance. Individuals may experience strain when there is an imbalance between job demands and resources (Bakker and Demerouti, 2017), notably when there are high job demands and low job control over their tasks (Bakker and Demerouti, 2014). As such situations are typical in health partnerships (Mayan *et al.*, 2017), individual project workers must often exert cognitive and motivational effort to cope with them (Igel *et al.*, 2018).

JD-R research has increasingly shown that hope can mitigate the adverse effects of high job demands on burnout and reinforce the positive effects of job resources on work engagement (Schaufeli and Taris, 2014). Hope can directly improve workers' job satisfaction, work happiness and organisational commitment and indirectly enhance work performance (Luthans *et al.*, 2007). Additionally, hopeful people are better at envisioning a promising future, pursuing goals in the face of overwhelming obstacles (Gallagher and Lopez, 2018). Moreover, they tend to respond to external challenges and implement effective coping strategies better, therefore experiencing less stress, higher commitment and more success in identifying plausible means to reach their goals (Snyder *et al.*, 2000). They can also bring positive, motivating energy to the group (Pleeging *et al.*, 2022). Indeed, highly committed project workers are vital for the success and survival of collaborative projects, as they actively steer the projects despite situational constraints (Arrieta *et al.*, 2017). Hence, we hypothesise that people with a higher level of hope tend to report higher overall project performance since they are better at managing stress due to high project goal demands and staying committed to project goal attainment. We propose:

H5. Project workers' (a) goal commitment; and (b) goal stress mediate between their hope and project performance.

2.3.6 Three-path mediations of collaborative project leadership, financial project resources to project performance via hope, goal-commitment and -stress. By combining the propositions of both goal-setting and JD-R theories, we propose that both collaborative project leadership and

financial project resources reinforce project workers' hope, reducing their goal stress due to high project goal demands, boosting their commitment toward project goal pursuit and resulting in better project performance. Hence, we hypothesise the following three-path mediations:

- H6. Project workers' hope and (a) goal commitment; and (b) goal stress mediate the relationships between collaborative project leadership and project performance in a series. Project workers' hope and (c) goal commitment; and (d) goal stress mediate the relationships between financial project resources and project performance in a series.

Hope, goal-
commitment
and -stress
mediation

3. Methodology

This study adopts a sequential explanatory mixed-method research design (Fetters *et al.*, 2013) and consists of two phases. In phase I, a survey targeting academic and community actors working in the health and social care disciplines and CAHP partnerships in the German-speaking regions of Europe was disseminated. In phase II, semi-structured, qualitative interviews were conducted with an independent sample of project leaders working in different, ongoing or recently completed German CAHP projects.

3.1 Quantitative study

3.1.1 Data collection. A self-administered online survey was disseminated between June and September 2019 as part of a larger quantitative study. Given the absence of a list of all CAHP project workers in German-speaking regions of Europe, 8,422 potential respondents were randomly drawn from a list of academic and community actors working in the health and social care disciplines obtained through screening the websites of all higher education institutions and CAHP partnerships in Germany, Austria and the German-speaking cantons of Switzerland. Only individuals who participated in (ongoing or recently completed) CAHP projects (between 2017 and 2019) were included for analysis to minimise potential recall bias. As a result, out of 578 individuals who completed the survey (response rate of 6.9%), 322 of them (56%) were eligible for analysis. After removing four responses due to missing values and detecting no extreme outliers using Mahalanobis distance (Grentzelos *et al.*, 2021), the data of 318 participants were analysed. The average age of the sample was 43.9 (SD = 11.8). Females represented 50.3% ($n = 160$) of the total sample. Majority of participants were from Germany (66.3%, $n = 211$), followed by Switzerland (8.2%, $n = 26$), Austria (6.3%, $n = 20$), Others (0.6%, $n = 2$) and Not Specified (18.6%, $n = 59$). Most participants were from academia (77.4%, $n = 207$) and have a managerial role in their projects (69.8%, $n = 222$) (Table 1).

3.1.2 Measures. The survey (available in German and English languages) assessed project workers' self-rated hope, collaborative project leadership, sufficiency of financial project resources, project goal commitment, goal stress (due to excessive project goal demands) and project performance, as well as demographic questions. The descriptive statistics, correlations and reliabilities of the variables are shown in Table 2.

3.1.3 Project performance. The degree of project performance was assessed with a 4-item scale adapted from the Collaboration Assessment Tool developed by Marek *et al.* (2015). A sample item is "How successful is this project in implementing strategies to address project goals and objectives?" ($\alpha = 0.80$). Answers ranged from 0 (*not at all successful*) to 10 (*extremely successful*).

3.1.4 Project workers' hope. Hope (4-items) was measured with the validated, short version of the Psychological Capital Questionnaire (PCQ-12) (Avey *et al.*, 2011). The items were slightly adjusted to allow respondents to rate on project work ($\alpha = 0.78$). A sample item is "If I should find myself in a jam at project work, I could think of many ways to get out of it". Answers ranged from 1 (*strongly disagree*) to 6 (*strongly agree*) on a Likert scale.

3.1.5 Collaborative project leadership. Collaborative project leadership (4-items) was measured with a validated, short version of the Partnership Self-Assessment Tool (PSAT-S)

IJPPM

Age (mean (SD))	44 (11.80)
<i>Gender (N (%))</i>	
Female	160 (50.3%)
Male	143 (45.0%)
<i>Country of residence (N (%))</i>	
Germany	211 (66.3%)
Switzerland	26 (8.2%)
Austria	20 (6.3%)
United States/United Kingdom	2 (0.6%)
Not specified	59 (18.6%)
<i>Organisation type (N (%))</i>	
Research/University	207 (77.2%)
University hospital	28 (10.4%)
Non-governmental organisation	12 (4.5%)
Professional association	3 (1.1%)
Government authority	5 (1.9%)
Healthcare and social welfare facilities	8 (3.0%)
Business/Industry	3 (1.1%)
(Health) insurance	2 (0.8%)
<i>Role in project (N (%))</i>	
Managerial	222 (69.8%)
Non-managerial	96 (30.2%)

Table 1.
Sample characteristics
($N = 318$)

	M	SD	1	2	3	4	5	6
1. Project performance	7.23	1.42	(0.80)					
2. Project workers' goal stress	2.32	0.71	-0.38***	(0.74)				
3. Project workers' goal commitment	4.41	0.55	0.37***	-0.27***	(0.69)			
4. Project workers' hope	4.75	0.73	0.29***	-0.33***	0.29***	(0.78)		
5. Financial project resources	3.66	0.80	0.21***	-0.19**	0.07	0.13*	(0.75)	
6. Collaborative project leadership	3.36	1.06	0.26***	-0.27***	0.13*	0.30***	0.19**	(0.79)

Table 2.
Descriptive statistics, correlations and reliabilities of study variables

Note(s): $N = 318$; $M =$ Mean; $SD =$ Standard Deviation
Cronbach's alphas are in parentheses along the diagonal. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(Cramm *et al.*, 2011). A sample item is "How would you rate the leadership in this project regarding inspiring or motivating project participants?" ($\alpha = 0.79$). Answers ranged from 1 (*poor*) to 5 (*extremely good*) on a Likert scale.

3.1.6 Financial project resources. The sufficiency of financial project resources for staffing, equipment and goods and physical space (3-items) was measured with the original validated version of the Partnership Self-Assessment Tool (PSAT) (Weiss *et al.*, 2002). A sample item is: "To what extent does the project have the money for staffing it needs to work effectively?" ($\alpha = 0.75$). Answers on a Likert scale ranged from 1 (*nothing of what it needs*) to 5 (*everything of what it needs*).

3.1.7 Project goal commitment. The 5-item goal commitment scale was used to assess project workers' goal commitment (Klein *et al.*, 2001). A sample item is: "It is hard to take this (these) project goal(s) seriously" ($\alpha = 0.69$). Responses are provided on a five-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

3.1.8 *Project goal stress.* Project goal stress (due to excessive project goal demands) (4-items) was measured with a scale validated in German contexts (Lee *et al.*, 1991; Putz and Lehner, 2002). A sample item is “I find working towards my goals in this project to be very stressful” ($\alpha = 0.74$). Responses ranged from 1 (*almost never*) to 5 (*almost always*).

3.2 Qualitative study

3.2.1 *Data collection.* To deepen our understanding of the quantitative findings, we then conducted an independent qualitative investigation to examine *what* contextual challenges CAHP project workers encountered and *how* they coped with those challenges. We performed purposive sampling to identify ongoing German CAHP projects that consisted of at least one academic researcher and at least one community representative with the common aim to achieve specific health-related goal(s) (Drahota *et al.*, 2016). Using publicly available contact details from CAHP projects’ websites, leaders of eligible CAHP projects were invited for interviews since they knew the most about the project structure, project workers’ behaviours and project performance. Project leaders were included regardless of their gender, leadership experiences and backgrounds. Out of 118 CAHP project leaders invited, 21 project leaders (response rate = 18%, 14 females and 7 males) participated in the semi-structured interviews. The number of participants was determined based on iterative data collection and analysis, where the data collection process ended when saturation was reached (Morse, 2000). None of the interviewees participated in the quantitative part of this paper. The interviews were conducted virtually between April and November 2020 and lasted between 30 and 60 min. They were audio-taped with the consent of interviewees and transcribed verbatim. Interviews conducted in German were then translated into English by native German-English speakers.

Interviewees were asked to describe the objectives of their most engaged, ongoing CAHP project, evaluate its overall performance and reflect on the leadership style. They were also asked to comment on any major challenges faced in the project, their subsequent reactions and factors that have helped them cope with the challenges.

3.2.2 *Quantitative analyses.* All quantitative analyses were conducted using R, version 4.0.3. We performed reliability, correlation and confirmatory factor analyses and tested the hypotheses using structural equation modelling with bootstrap procedures and latent variables. The model fits were presented with the following indices: Chi-square (χ^2), degree of freedom (*df*), ratio of χ^2 to degrees of freedom (χ^2/df) ≤ 3 , comparative fit index (CFI) ≥ 0.90 (reasonable)/.95 (acceptable), root mean square error of approximation (RMSEA) (95% CI) < 0.06 (0.00 - 0.08) and standardised root mean square residual (SRMR) ≤ 0.08 (Schreiber, 2017).

3.2.2.1 *Test for common-method variance.* We adopted the single-common-method factor approach to evaluate the effect of common-method variance (Podsakoff *et al.*, 2003). A common factor, consisting of the first-order common variance factor derived from principal component analysis, was added to the full model. After adding this factor, we observed no significant increase in the R^2 value of project performance (from 0.407 to 0.409). Thus, no substantial common-method bias was limiting this study.

3.2.2.2 *Hypotheses testing.* We tested the hypotheses using structural equation modelling (SEM) with latent variables. The indirect effects of collaborative project leadership and financial project resources on project performance through project workers’ hope, goal-commitment and -stress were tested using bootstrap procedures ($N = 1000$).

3.2.3 *Qualitative analyses.* We followed Braun and Clarke’s (2006) well-established six steps to thematic analysis using VERBI Software (2021). We examined the data iteratively: data, potential themes and theoretical arguments were constantly compared and re-coded, discarding or collapsing similar codes (Gioia *et al.*, 2012). Relying on participants’ wordings, we obtained first-order, second-order and overarching themes (Gioia *et al.*, 2012). The process proceeded until additional data offered no new insights, giving us confidence that we had reached saturation (Morse, 2000). The final data structure is presented in Figure 1.

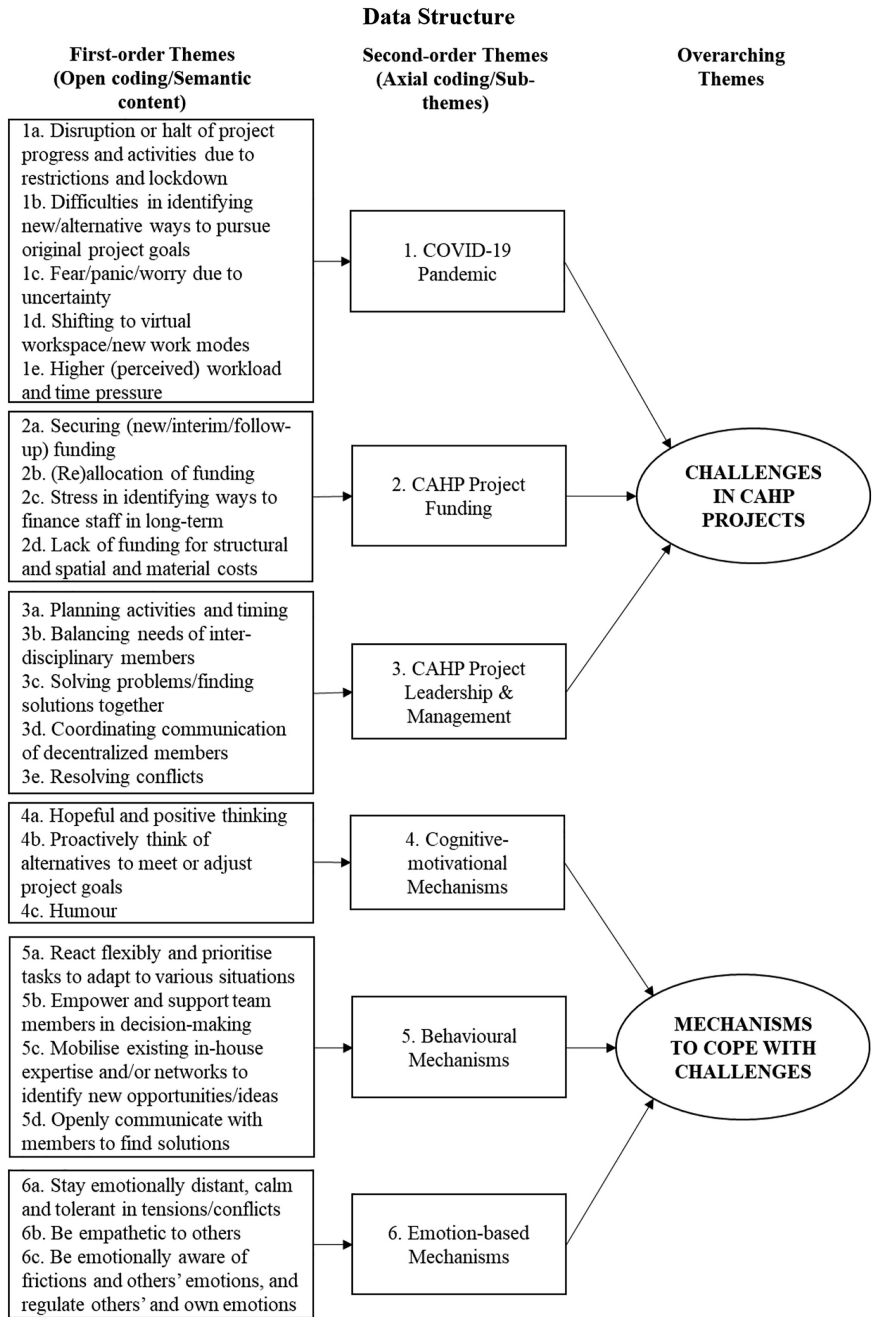


Figure 1. Data structure

4. Results

4.1 Quantitative findings

Descriptive statistics and correlations of the study's variables are reported in Table 2. Project performance relates negatively to project workers' goal stress ($r = -0.38, p < 0.001$) and is positively correlated to their goal commitment ($r = 0.37, p < 0.001$), hope ($r = 0.29, p < 0.001$), financial project resources ($r = 0.21, p < 0.001$) and collaborative project leadership ($r = 0.26, p < 0.001$).

4.1.1 Test of measurement model. We performed confirmatory factor analyses and compared the nested models with the hypothesised, six-factor model using Chi-square difference tests. The results showed a reasonable fit for a six-factor model ($\chi^2(260) = 453.895, \chi^2/df = 1.746, CFI = 0.922, TLI = 0.910, RMSEA = 0.048, SRMR = 0.051$) (Table 3). Compared to other nested models, such as a one-factor model ($\chi^2(275) = 1514.408, \chi^2/df = 5.507, CFI = .501, TLI = 0.456, RMSEA = 0.118, SRMR = 0.103$), the six-factor model had the best fit ($\Delta\chi^2(15) = 1060.50, p < 0.001$).

4.1.2 Hypotheses testing. We tested hypothesis 1 by examining the direct effects of (a) collaborative project leadership and (b) financial project resources on project performance, respectively. The model shows an acceptable goodness-of-fit: $\chi^2(99) = 177.522, \chi^2/df = 1.793, CFI = 0.953, RMSEA = 0.050$ and $SRMR = 0.047$ (see, Table 4). The direct effect of collaborative project leadership on project performance is not significant ($\beta = 0.075, 95\% \text{ btCI} = [-0.049, 0.227]$), while that of financial project resources is ($\beta = 0.444, 95\% \text{ btCI} = [0.243, 0.687]$) (Table 5). Hence, H1a was not supported, while H1b was supported.

Hypothesis 2 stated that CAHP project workers' hope mediates the relationship between (a) collaborative project leadership; (b) financial project resources and project performance. The fit statistics of the model to test this mediation were: $\chi^2(98) = 172.519, \chi^2/df = 1.76, CFI = 0.956, RMSEA = 0.049, SRMR = 0.044$. Both paths for collaborative project leadership ($\beta = 0.033, 95\% \text{ btCI} = [0.006, 0.082]$) and financial project resources to project performance ($\beta = 0.042, 95\% \text{ btCI} = [0.012, 0.106]$) were significant. Hence, both hypothesis 2a and 2b were accepted.

Hypothesis 3 stated that while CAHP project workers' (a) goal commitment and (b) goal stress both mediate the relationships between collaborative project leadership and project performance; their (c) goal commitment and (d) goal stress mediate the relationships between financial project resources and project performance. The fit statistics of this model were: $\chi^2(179) = 336.569, \chi^2/df = 1.88, CFI = 0.907, SRMR = 0.056$ and $RMSEA = 0.055$. The effect of collaborative project leadership on project performance via goal commitment was not significant ($\beta = 0.018, 95\% \text{ btCI} = [-0.008, 0.069]$), while that through goal stress was significant ($\beta = 0.031, 95\% \text{ btCI} = [0.003, 0.083]$). H3a was not supported while H3b was. The mediation effects of project workers' goal commitment between financial project resources and project performance ($\beta = 0.058, 95\% \text{ btCI} = [0.019, 0.145]$) and that of goal stress were both positive and significant ($\beta = 0.068, 95\% \text{ btCI} = [0.014, 0.170]$). Thus, H3c and H3d were supported.

Hypothesis 4 stated that while CAHP project workers' hope mediates between collaborative project leadership and (a) goal commitment (positively); and (b) goal stress (negatively); their hope also mediates between financial project resources and (c) goal commitment (positively); and (d) goal stress (negatively). The fit statistics of this model were: $\chi^2(179) = 335.406, \chi^2/df = 1.873, CFI = 0.915, SRMR = 0.052$ and $RMSEA = 0.053$. The results show that CAHP project workers' hope mediates positively between collaborative project leadership and goal commitment ($\beta = 0.064, 95\% \text{ btCI} = [0.026, 0.147]$); and negatively between collaborative project leadership and project goal stress ($\beta = -0.048, 95\% \text{ btCI} = [-0.105, -0.018]$). Similarly, project workers' hope mediates positively between financial project resources and goal commitment ($\beta = 0.080, 95\% \text{ btCI} = [0.031, 0.204]$); and negatively between financial project resources and goal stress ($\beta = -0.060, 95\% \text{ btCI} = [-0.125, -0.021]$). Thus, H4a, H4b, H4c and H4d were supported.

Table 3.
Results of nested model comparisons

Model		χ^2	df	χ^2/df	CFI	TLL	RMSEA	SRMR	χ^2 test difference
1	Baseline: 6-factor model (PP, CL, FR, Hope, GC, GS)	453,895	260	1.746	0.922	0.910	0.048	0.051	Preferred Model
2	5-factor model (PP, CL + FR, Hope, GC, GS)	707,634	265	2.67	0.822	0.798	0.072	0.080	$\Delta\chi^2(5) = 253.74$ ***
3	4-factor model (PP, CL + FR + Hope, GC, GS)	989,636	269	3.679	0.710	0.677	0.091	0.082	$\Delta\chi^2(9) = 535.74$ ***
4	3-factor model (PP, CL + FR + Hope + GC, GS)	1164,901	272	4.283	0.641	0.604	0.101	0.092	$\Delta\chi^2(12) = 711.01$ ***
5	2-factor model (PP, CL + FR + Hope + GC + GS)	1301,114	274	4.749	0.587	0.547	0.108	0.097	$\Delta\chi^2(14) = 847.22$ ***
6	1-factor model (PP + CL + FR + Hope + GC + GS)	1514,408	275	5.507	0.501	0.456	0.118	0.103	$\Delta\chi^2(15) = 1060.50$ ***

Note(s): PP = Project Performance; CL = Collaborative Project Leadership; FR = Financial Project Resources; Hope = Project Workers' Hope; GS = Project Workers' Goal Stress; GC = Project Workers' Goal Commitment. *** $p < 0.001$

Hope, goal-commitment and -stress mediation

Hypotheses	Hypotheses testing	χ^2	<i>df</i>	CFI	RMSEA	SRMR
H1	a. CL → PP b. FR → PP	177.522	99	0.953	0.050	0.047
H2	a. CL → Hope → PP b. FR → Hope → PP	172.519	98	0.956	0.049	0.044
H3	a. CL → GC → PP b. CL → GS → PP c. FR → GC → PP d. FR → GS → PP	336.569	179	0.907	0.056	0.055
H4	a. CL → Hope → GC b. CL → Hope → GS c. FR → Hope → GC d. FR → Hope → GS	335.406	179	0.915	0.052	0.053
H5	a. Hope → GC → PP b. Hope → GS → PP	243.458	113	0.914	0.060	0.059
H6	a. CL → Hope → GC → PP b. CL → Hope → GS → PP c. FR → Hope → GC → PP d. FR → Hope → GS → PP	474.279	261	0.914	0.049	0.058

Note(s): CL = Collaborative Project Leadership; PP = Project Performance; FR = Financial Project Resources; Hope = Project Workers' Hope; GC = Project Workers' Goal Commitment; GS = Project Workers' Goal Stress

Table 4. Fit statistics of the structural models

Hypotheses	Hypotheses testing	β	SE	95% BtCI		Results
				Lower	Upper	
H1a	CL → PP	0.075	0.067	-0.049	0.227	Not supported
H1b	FR → PP	0.444	0.111	0.243	0.687	Supported
H2a	CL → Hope → PP	0.033	0.019	0.006	0.082	Supported
H2b	FR → Hope → PP	0.042	0.022	0.012	0.106	Supported
H3a	CL → GC → PP	0.018	0.019	-0.008	0.069	Not supported
H3b	CL → GS → PP	0.031	0.020	0.003	0.083	Supported
H3c	FR → GC → PP	0.058	0.028	0.019	0.145	Supported
H3d	FR → GS → PP	0.068	0.040	0.014	0.170	Supported
H4a	CL → Hope → GC	0.064	0.028	0.026	0.147	Supported
H4b	CL → Hope → GS	-0.048	0.021	-0.105	-0.018	Supported
H4c	FR → Hope → GC	0.080	0.039	0.031	0.204	Supported
H4d	FR → Hope → GS	-0.060	0.026	-0.125	-0.021	Supported
H5a	Hope → GC → PP	0.130	0.054	0.045	0.277	Supported
H5b	Hope → GS → PP	0.172	0.072	0.061	0.350	Supported
H6a	CL → Hope → GC → PP	0.018	0.011	0.005	0.054	Supported
H6b	CL → Hope → GS → PP	0.013	0.008	0.003	0.041	Supported
H6c	FR → Hope → GC → PP	0.023	0.014	0.006	0.068	Supported
H6d	FR → Hope → GS → PP	0.017	0.011	0.004	0.046	Supported

Note(s): CL = Collaborative Project Leadership; PP = Project Performance; FR = Financial Project Resources; Hope = Project Workers' Hope; GC = Project Workers' Goal Commitment; GS = Project Workers' Goal Stress

Table 5. Results of hypotheses testing

We tested [hypothesis 5](#) on the mediation effects of CAHP project workers' (a) goal commitment; (b) and goal stress between their hope and project performance, respectively. The fit statistics of this model were: $\chi^2(114) = 256.283$, $\chi^2/df = 2.25$, CFI = 0.906, SRMR = 0.063 and RMSEA = 0.069. The results show significant mediation effect of project workers' goal commitment between hope and project performance ($\beta = 0.130$, 95%

btCI = [0.045, 0.277]); as well as goal stress ($\beta = 0.172$, 95% btCI = [0.061, 0.350]). Both H5a and H5b were supported.

We tested hypothesis 6 on the three-path mediation effects of collaborative project leadership and financial project resources on project performance through hope, goal-commitment and -stress, respectively. The fit statistics of this model were: $\chi^2(261) = 462.033$, $\chi^2/df = 1.77$, CFI = 0.916, SRMR = 0.049 and RMSEA = 0.055. The path from collaborative project leadership to project performance via hope and goal commitment was significant ($\beta = 0.018$, 95% btCI = [0.005, 0.054]), so did the path via hope and goal stress ($\beta = 0.013$, 95% btCI = [0.003, 0.041]). The path from financial project resources to project performance via hope and goal commitment was also significant ($\beta = 0.023$, 95% btCI = [0.006, 0.068]), so was the path via hope and goal stress ($\beta = 0.017$, 95% btCI = [0.004, 0.046]). Therefore, the four three-path mediation paths proposed in this study (H6a, H6b, H6c and H6d) were supported. The graphical representation of the full hypothesised path model is presented in Figure 2.

4.2 Qualitative findings

To better understand and ultimately corroborate our quantitative findings, we explored *what* challenges CAHP project workers faced and *how* they coped with these challenges to perform in their projects. Below we discuss some themes and illustrative quotes (presented with pseudonyms to protect interviewees' identities).

4.2.1 Research question 1: What challenges did CAHP project workers face? Several respondents mentioned the COVID-19 pandemic and securing project funding as key challenges to tackle. For instance, their project progress and activities were interrupted, making coordination or fieldwork engagement difficult: "Certain things that we cannot do (. . .), participatory inspections and so on (. . .) we are now suspending that." (Nelson).

Some participants had to change or adjust their project goals due to the pandemic: "We have, of course, adjusted some of the goals, maybe even reduced them. (. . .) we must now set realistic new targets to take the pressure off a bit." (Lily)

We must, of course, assume that we will have to achieve our goals as usual if we want to continue to promote our work. (Olivia)

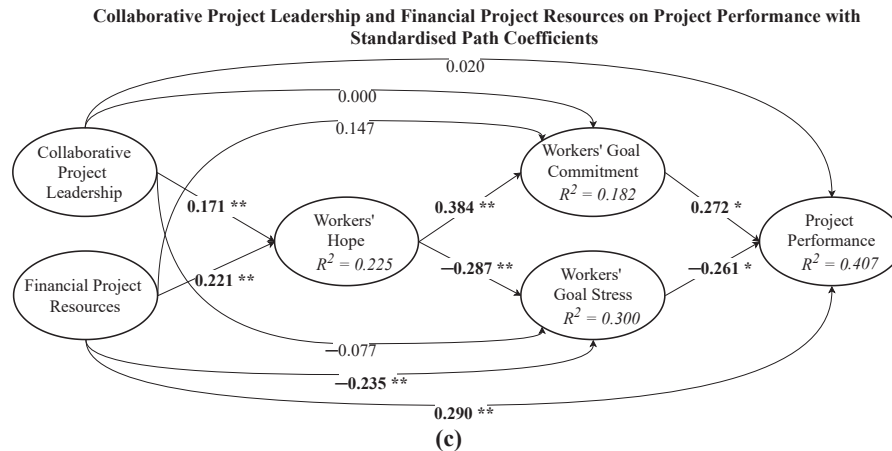
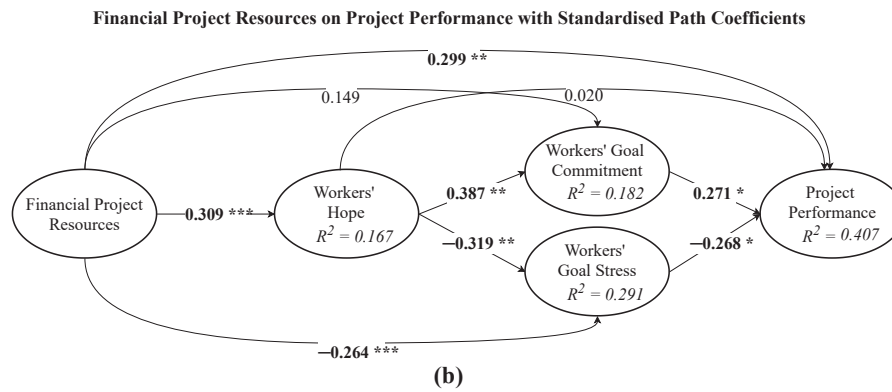
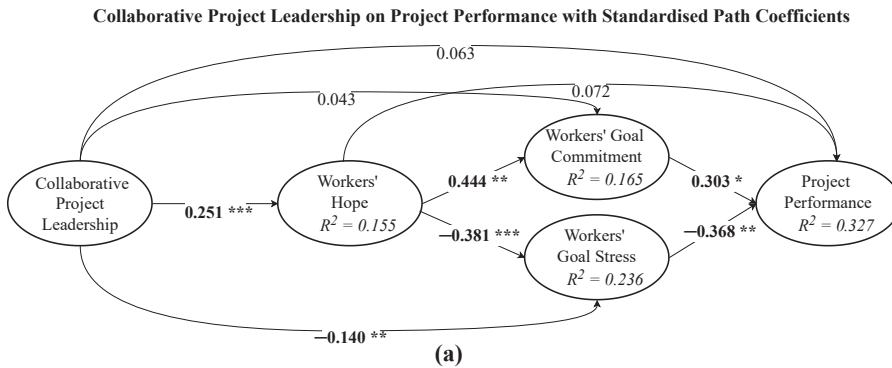
Others experienced difficulties in securing project continuation funding. For example, one respondent highlighted the stress to divert her energy from executing the current project when she had to apply for follow-up projects to secure jobs for her staff: "We have to look at where we can accommodate the staff and how we design the follow-up application. (. . .) when you have a three-year project, after two years, you already have to design the follow-up project; otherwise (. . .), you will have a gap. (. . .) That is a heck of a job." (Helen)

In contrast, project workers with secured funding seemed much relaxed in recruiting the staffing necessary for attaining project goals: "In the beginning, the impetus was certainly the political will and the provision of funds (. . .) I'm well equipped to get things moving. I believe that the intensity of our current work would not have been possible without this staffing." (Tina)

Despite these challenges, respondents mentioned how collaborative style of leadership facilitated the project team to address the challenges: "All of a sudden people were talking to each other much, much more and were also supporting each other, asking questions, thinking, brainstorming together: (. . .) "Damn, how do we do that now? Do you have an idea? How can we do it?" (Olivia)

Okay, then we'll do it differently and we'll still do it well. It's not all bad now (. . .) we just go the other way. And if that doesn't work either, we have done enough. (Nelson)

4.2.2 Research question 2: how did project workers cope with these challenges to perform well in their projects? Respondents noted various ways of reacting to the above challenges. For example, a few respondents relied on *cognitive-motivational mechanisms* to motivate



Note(s): The observed variables are omitted for simplicity. * $p < 0.05$, ** $p < 0.01$

Figure 2. A Three-path mediation model of: (a) Collaborative project leadership on project performance with standardised path coefficients, (b) Financial project resources on project performance with standardised path coefficients, (c) Collaborative project leadership and financial project resources on project performance with standardised path coefficients

themselves and others in goal pursuit via demonstrating hopeful, positive thinking and humour:

For most of them [the management team] the battle cry was: “We can’t let this pandemic stop us now.” (...) And I think this is true for any project (...). It’s mainly about this (...): “We won’t (...) let

this pandemic stop us from talking, or we won't let our goals get in the way, but we'll continue, even if it means that certain things have to be changed". (Olivia)

In any case, this is a chance! (. . .), because a common enemy was identified, namely this damn virus (. . .) that really said something: "Okay, the situation is now as it is and somehow we have to see that everything is still going on and that we will finish this project". And all of a sudden, there was greater willingness to work together to sort it out and to somehow go further than before. (Olivia)

I find humour critical because there are enough rainy days that you really have to say, "okay, that is nothing, but we take it all with humour." (. . .) humour is a very effective tool when using it correctly; because it keeps the ball rolling and we don't end up in depression. (Elaine)

Some respondents reacted through *behavioural mechanisms* and mobilised their networks to solve the impasse: "*You have to improvise a bit, you have to experiment; you have to try out what works (. . .) in which way you can achieve something (. . .) regardless of these unfortunate circumstances, in projects you often encounter resistance, or you find new situations that you didn't expect.*" (Max)

What I think has helped me a lot (. . .) I simply had many contacts in different places. (Kelly)

Respondents who reported high project performance also noted the importance of *emotion-based mechanisms* to react to others' or their own emotions with great understanding and empathy to perform well: "*understanding (. . .) to take away a bit of fear, to give a bit of calming effect on the people for whom this was a very, very difficult change, which brought them much anxiety.*" (Olivia)

What they contribute to the success of the project is not only their work performance but also the way they carry people along. That such people are also naturally (. . .) so empathic and so charismatic, that they can also take team members with them. All of a sudden, you have such a pulling effect. And then, the project flies. (Olivia)

Overall, the above quotes indicated how highly collaborative project leadership and sufficient financial project resources facilitated project workers to cope with project challenges and perform well, i.e. through brainstorming solutions and making decisions collaboratively; conveying hopeful thinking within the project team; ensuring sufficient project funding to sustain staffing; and removing the stress or fear that divert workers' from reaching project goals.

5. Discussion

Through a sequential explanatory mixed-method design, this study has explored how two key project resources, namely collaborative project leadership and financial project resources, may impact project performance through key cognitive-motivational mediating mechanisms as hope, goal-commitment and -stress. Below we detailed the specific theoretical and practical contributions of this study.

5.1 Research implications

5.1.1 The significant effects of collaborative project leadership and financial project resources on enhancing workers' hope and lowering project goal stress. This study has combined two well-established theories in OB, namely goal-setting and JD-R theories, to explain how key project resources like collaborative project leadership and financial project resources may influence CAHP project performance via enhancing project workers' hope, goal commitment and lowering their goal stress. Our quantitative results reveal that collaborative project leadership and financial project resources show similar and significant indirect effects on project performance. Together, they explain a higher degree of variance on both hope ($R^2 = 0.225$) and workers' project goal stress ($R^2 = 0.300$) than collaborative project leadership or financial project resources alone (see, [Figure 2](#)). This finding suggests that the

combination of both resources can remarkably boost CAHP project performance through fostering project workers' hope and reducing their project goal stress.

5.1.2 The cognitive-motivational mechanism in enhancing CAHP project performance. Our qualitative findings also add depth to these results by explaining the importance of collaborative project leadership in facilitating multi-directional information exchange, proactive brainstorming and collaborative decision-making among project teams based on shared goals. Highly collaborative project leadership, in turn, encourages project workers to identify or create alternative pathways to address the challenges and pursue the intended project goals, even during the COVID-19 pandemic. Similarly, financial project resources ensure project workers possess the staffing and equipment needed to achieve the project goals and perform well in the CAHP projects. Furthermore, the qualitative findings validate the roles of project workers' hope, goal-commitment and -stress as crucial mechanisms between the two key project resources and project performance. The importance of feeling hopeful is particularly evident during the COVID-19 pandemic since its disruptive changes forced many project workers to adapt and identify alternative solutions for goal pursuit. In line with previous research on hope, this study shows how hopeful thinking and acting can be a key mechanism motivating project workers to search for alternative ways to reach project goals despite the increased environmental uncertainty or setbacks affecting their projects (Mayan *et al.*, 2017). Since workers' hope can be contagious (Pleeging *et al.*, 2022), hopeful project workers can motivate peers' proactive efforts and commitment and relieve peers' stress or fear by reinforcing confidence, conveying positive emotions and using humour (Gallagher and Lopez, 2018). Subsequently, hopeful project teams also demonstrate greater creativity in problem-solving and mutual support, which enable better goal attainment. These results support Schaufeli and Taris' (2014) propositions that personal resources are highly related to job resources and can buffer the adverse effects of high job demands, enhancing the positive effects of available job resources on job engagement.

5.1.3 Different routes of the two project resources on boosting productivity and performance. Collaborative project leadership and financial project resources also act differently in improving productivity and project performance. Consistent with previous research, we found that having sufficient financial project resources reduces project workers' stress in pursuing goals within the project timeframe (LeClair *et al.*, 2018) and boosts project performance by shaping their collaborative efforts (Gredig *et al.*, 2021). Similarly, we show how sufficient funding improves project workers' productivity and project performance by securing staffing and allowing them to focus better on the project work and goal pursuit (Boone *et al.*, 2020). In contrast, participants did not comment on or mention collaborative project leadership in relation to project performance (see, Figure 2). This could be because collaborative project leadership tends to indirectly influence workers' project performance by affecting their behaviour, motivation and mental well-being, such as enhancing their hope, goal-commitment and reducing their goal stress levels (Bakker and Demerouti, 2017) (see, H4a, H4b, H6a and H6b in Table 5), or promoting their adaptability, proactivity and efficiency in decision-making and problem-solving (Shu and Wang, 2021).

5.2 Spill-over effects of workers' hope on enhancing project productivity and performance

Another important finding is that CAHP project workers' hope may have a spill-over effect on other workers' emotional states. Echoing the positive ways whereby emotional regulation and empathy work (Khosravi *et al.*, 2020), employees' hope can motivate colleagues' engagement, relieve stress and boost team efficiency in problem-solving and performance (Gallagher and Lopez, 2018). Particularly when anxiety and uncertainty are high, people with high hope tend to have better emotional regulation skills or empathy to manage their own and other team members' emotions with calmness and relieve others' fear and anxiety

(Pleeging *et al.*, 2022). In turn, they stimulate others' engagement, productivity and flexibility in problem-solving and improving project performance (Khosravi *et al.*, 2020). As previous research shows, project leaders' empathy may predict performance indirectly (Alexander *et al.*, 2011). Hence, it might be a critical factor contributing to other project workers' goal commitment, goal stress relief and success in complex partnership projects.

5.3 Theoretical implications

These findings offered various theoretical contributions. Firstly, through combining the complementary cognitive-based goal-setting and motivational-based JD-R theories, we extend current project management research by demonstrating the cognitive and motivational effects and underlying mediating mechanisms of collaborative project leadership and financial project resources on enhancing individual project workers' productivity and performance in complex partnership project settings (Scott and Boyd, 2020).

Secondly, by drawing attention to project workers (Williams and Radnor, 2022) and examining their hope as both an intra- and inter-personal catalyst in this particular job setting, we unveil the powerful mediating role that hope has between collaborative project leadership, financial project resources, workers' goal commitment and -stress and project performance. In doing so, we contribute to positive organisational scholarship in which hope has been widely illustrated as a crucial cognitive-motivational resource for high work performance (Gallagher and Lopez, 2018). Indeed, collaborative project leadership and a sense of sufficient financial project resources may reinforce workers' hope that project goals are achievable regardless of the path chosen. Thus, a high level of hope among workers can act as an intervening variable (Paulhus *et al.*, 2004), reinforcing their project engagement, suppressing the unavoidable goal stresses and driving high project performance.

Lastly, while most research has demonstrated the effects of job demands and resources on work performance in single-national, organisational settings (Rattrie *et al.*, 2020), the influences of workers' both goal-commitment and -stress on performance in inter-agency, partnership project settings have been under-examined (Scott and Boyd, 2020). Thus, this paper contributes to both goal-setting and JD-R literature by extending their (combined) use to multi-organisational settings.

5.4 Practical implications

5.4.1 Enhancing CAHP workers' productivity and performance by securing financial project resources. Our findings suggest that financial project resources can, both directly and indirectly, boost project workers' productivity and project performance. In particular, our results unravel the indirect, yet significant and beneficial cognitive-motivational effects of financial project resources on reducing workers' goal stress; and, at the same time, enhancing workers' efficiency in problem-solving and project goal pursuit by boosting their hope and goal commitment. Hence, regardless of the projects' thematic focuses or structures, project leaders should always secure financial project resources to enhance workers' productivity and performance in CAHP projects.

5.4.2 Reinforcing workers' hope by staffing hopeful workers, offering hope development training and fostering collaborative project leadership. Our findings support that hope is a crucial (intra)personal resource that helps project workers successfully adapt or react to unexpected project challenges or changes (Arrieta *et al.*, 2017) and stay committed to goal pursuit amid adversity and uncertainties (Pleeging *et al.*, 2022). The spill-over effect of high hope on others can act in and around collaborative projects, promoting the project teams' ability to contribute to higher team productivity and performance in goal attainment (Gallagher and Lopez, 2018). Thus, notably when financial project resources are scarce, CAHP network or organisational leaders should staff more hopeful leaders and workers to

bring positivity into a project. Providing scenario planning training can also foster project leaders' and workers' conscious, rational yet hopeful thinking and emotional regulation skills. Alternatively, promoting collaborative project leadership can enhance workers' hope, which then strengthens their commitment to goal pursuit, mitigates the risks of goal stress or burnout while working in challenging CAHP project environments and indirectly improving project performance (Gallagher and Lopez, 2018).

5.5 Limitations and future research implications

In terms of this study's limitations: we examined only *collaborative* project leadership given its close relevance to high project performance in CAHPs (Alexander *et al.*, 2011). However, different leadership styles might evoke different mechanisms in CAHP projects than hope and positive goal dynamics (Nixon *et al.*, 2012). For example, *transformational* leadership may improve followers' work engagement (Katou *et al.*, 2021), while *collective* leadership reinforces cohesion and synergy (Mayan *et al.*, 2017). Therefore, future research should investigate the ingredients of the best possible leadership style(s) on partnership project workers' performance. Moreover, future (ideally, longitudinal) research should investigate the collective effects of various leadership styles and account for the possible individual and contextual differences at the partnership project/team level.

Apart from cognitive-motivational factors, the qualitative study has also pointed to the significance of project workers' emotion regulation skills on relieving other workers' stress/fear, facilitating engagement and improving performance. Particularly during difficult times, such skills can shape a project's climate, reinforcing project workers' hope, motivation, well-being and performance (Bakker and Demerouti, 2017; Foy *et al.*, 2019). Since difficulties arise in most complex project settings, future studies should examine the impacts of project workers' emotion regulation skills on project performance.

This study has a cross-sectional nature and relies on individual self-reflections of leaders and workers from specific types of German-speaking, cross-sectoral projects. While our mixed-method research design enables the investigation of several factors influencing the performance of heterogeneous projects at the individual level, it is subjected to common-method bias and cannot examine the causality among the variables examined. Despite the measures taken to limit the concerns of common-method variance and even though the qualitative data deepen and corroborate the quantitative results, future field studies should start testing the assumed causality and examining the reported dynamics with objective performance measures using multi-level analysis (Smith *et al.*, 2021; Marek *et al.*, 2015).

6. Conclusion

This study highlights collaborative project workers' hope as a significant cognitive-motivational mediator between collaborative project leadership/sufficient financial project resources and project performance through reinforcing goal commitment and relieving goal stress. The results harmonise with Shannon K. Butcher's (2009: 236) idea about hope: "A person can do incredible things if he or she has enough hope". Future research should further explore the strategies that reinforce collaborative project leadership, financial project resources and project workers' hope in increasingly complex partnership project settings, including the role of their emotion regulation skills on project performance and the causality among the here examined variables.

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Hope, goal-
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