

Appendix I. Included qualitative studies

Authors (Year)	Country	Purpose	Methods and material	Main results
Adams et al. (2021)	Malaysia	To explore school principals' management practices, their leadership styles, and the challenges they encountered during the Covid-19 pandemic.	Questionnaires with open-ended questions to principals (n=32).	School leaders cited instruction-based and distributed leadership as crucial during the pandemic. The principals were mainly instructional in their leadership, but some of them practised distributed leadership by appointing subject specialists to lead the other teachers during the transition to distance education.
AlMazrouei (2021)	Australia	To investigate the effect of the Covid-19 virus and the impact of the quarantine in public sector of Australia.	Structured interviews with managers (n=50).	Organisations experienced positive effects, such as increased creativity and initiative and negative effects, such as decreased satisfaction with work teams, during the Covid-19 pandemic. The results showed a decline in face-to-face interaction, despite the increased use of video-conferencing technology. Furthermore, it was found that isolation was thought to negatively affect employees' satisfaction with their teams.
AlMazrouei & Zacca (2021)	Australia	To investigate the impact of the lockdown on employees working from home.	Structured interviews with employees (n=60).	The effects of the lockdown have been significant for many employees. Several employees questioned their productivity when working from home, citing stress caused by constant news about the virus and its dangers. Managers spoke of losing control over their employees, finding it harder to keep an eye on employees despite opportunities to monitor their work performance online.
Bjärntoft et al. (2021)*	Sweden	To identify key areas for promoting good work environment and health among office employees with flexible work arrangements.	8 focus group interviews (n=45).	Organisations should focus on adapting working conditions to flexible working arrangements to promote health and well-being. These adjustments include a common vision in the organisation, leadership behaviour, common rules within the workgroup and developing technical conditions for working flexibly.
Bosua et al. (2013)*	Australia	To investigate whether the ability to telework fosters an individual's wellbeing, which in turn increases an individual's productivity.	Interviews with managers and employees in six organisations, and diary study (n=28).	The results indicate that remote work requires a different management strategy where frequent meetings, clear milestones and task deadlines are crucial. Trust and a self-motivated attitude are also important aspects for promoting a productive work environment from both the manager's and the employee's perspective.
Chafi et al. (2022)	Sweden	To identify the needs and challenges in remote and hybrid work and the potential for a sustainable future work environment.	Focus group interviews/workshops with employees and managers (n=33) and interviews with photo-elicitation (n=20).	To achieve the expected individual and organisational benefits of hybrid work, employers are expected to provide support and flexibility and reshape the physical and digital workplaces to suit the new and diverse needs of employees. Managers struggled to find balance relinquishing control while providing support and fulfilling their work environment responsibilities. To ensure the health and well-being of remote workers, managers have a crucial role to e.g., provide support and encouragement.

Charalampous et al. (2021)*	UK and Australia	To explore the impact of the remote e-working experience on employees' well-being.	Interviews with remote workers (n=40).	Remote work affects individuals' affective, cognitive, social, professional and psychosomatic well-being. However, the same arrangement does not suit everyone. Furthermore, a trustful organisational culture seems to play a fundamental role in developing relationships between employees and supervisors.
Collins et al. (2016)*	UK	To explore social support relationships that exist between permanent teleworkers and their office-based colleagues and supervisors.	Interviews with managers and employees (n=33).	Full-time teleworking was decisive in shaping the relationship between teleworkers and office-based colleagues. Over time, however, a sense of social distance developed. It is necessary to consider the complex, dynamic relationship between teleworkers, managers, and office-based colleagues to understand how teleworkers perform their work and organise their social support mechanisms.
Cooper & Kurland (2002)*	USA	To compare the impact telecommuting has on public and private employees' perceptions of professional isolation.	Interviews with managers, telecommuters and non-telecommuters (n=93).	The telecommuting employees limited their telecommuting frequency as they feared becoming professionally isolated. The amount of professional isolation of telecommuters depends on the degree to which they miss out on developmental activities, such as mentoring, networking and informal learning while working at home.
Delfino & van der Kolk (2021)	Italy	To examine the impact of remote working, management control practices and employee responses during the Covid-19-crisis.	Interviews with employees (n=15).	While some managers seemed to switch almost "automatically" to more restrictive types of control such as monitoring, the study shows how such changes can produce unintended consequences such as stress and opportunistic "reputation management". Employees react to the new forms of control by participating in voluntary visibility practices.
Efimov et al. (2020)*	Germany	To study the use of health-oriented self- and employee leadership in virtual teams from the perspective of virtual leaders.	Interviews with virtual leaders (n=13).	Five behaviours constituting health-oriented leadership were identified: trust-building activities, health-oriented communication, support in boundary setting, face-to-face meetings, and delegation of decision-making authority and responsibility.
Felstead et al. (2003)*	UK	To explore the implications of home-located working for processes of managerial control	Interviews with managers and employees in 13 organisations (n=202).	When employees work from home, the foundations of conventional management strategies are threatened as visibility and presence are eroded. The absence of some or all members of the workforce can pose a major problem for managerial control. It can create rifts in teams between workplace-based employees, who are always present, and home-based employees.
Hascher et al. (2021)	Schweiz	To study Swiss primary teachers' professional well-being during lockdown caused by the Covid-19 pandemic.	Interviews with teachers (n=21).	High workload, social distancing, and feelings of lack of competence and self-efficacy were among the most problematic aspects of distance learning and associated with reduced professional well-being. Factors that supported teachers in maintaining their well-being were, e.g., leadership support and clear work structures. High-quality school leadership that helps structure and organise distance learning appeared to be key to teacher well-being.

Konradt et al. (2000)*	Germany	To develop a concept based on health circles to improve the well-being of teleworkers.	3 "health-circle"-sessions with teleworkers (n=17).	The introduction of remote workplaces requires supporting activities at the personal and organisational levels to minimise and prevent stress and maladjustment. Typical problems were technical problems with the home-based computer, time management, communication with supervisors, colleagues and customers and feelings of isolation.
Kurland & Cooper (2002)*	USA	To examine challenges related to telecommuting, focusing on how managerial monitoring strategies link to telecommuters' professional isolation concerns.	Interviews with managers, telecommuters, and non-telecommuters (n=53).	Managers' fears of losing control when employees telecommute seem unfounded. Managers maintain control over employees outside the workplace through various behavioural and production strategies and rarely adapt these strategies for use when employees telecommute. Furthermore, organisations inadequately train telecommuters, non-commuters and their managers on telecommuting, which can cause misunderstandings and miscommunication. Telecommuters are also most likely to perceive themselves as isolated when they telecommute frequently, expect to do so for a long time, have been with the organisation for a short time, and/or want to be promoted.
Lee (2021)	Singapore	To investigate the psychological safety, organisation support and emotion in the workplace during the transition from office to home working during the COVID-19 pandemic crisis.	Questionnaire with open-ended questions (n=131).	The social comparison of emotional resources affects employees' emotions and psychological safety. Employees who experienced flexibility and emotional support received high psychological safety, while control through detail management, lack of trust and employment contract conflicts lead to low psychological safety.
Longmuir (2021)	Australia	To examine the ways that Australian school leaders made sense of and responded to situations of crisis and uncertainty that resulted from the COVID-19 global pandemic.	Interviews with school leaders (n=8).	Leaders' work was complex and important during the pandemic, and leaders prioritised compassionate and humanising goals at this time. The leaders mobilised communication methods that were both reassuring and open, and honest. Promisingly, these leaders looked optimistically to a post-pandemic future that might build on the disruptions that seemed threatening and dangerous but became comprehensible in ways that could open up new opportunities.
Montreuil & Lippel (2003)*	Canada	To address occupational health issues associated with home based telework.	6 case studies. Interviews with teleworkers in six organisations (n=63).	Teleworkers in the study considered this way of life to have overall health benefits. Three highlights explain the teleworkers' enthusiasm for this lifestyle: elimination of the inconveniences associated with commuting (time and stress) between home and work, reduction of certain environmental risks present in the office, frequent interruptions by colleagues or supervisors) and promotion of conditions that make it easier to balance work and family demands. Most teleworkers who participated in the study felt less tired. Most teleworkers were satisfied with the management they received but felt more independent than office staff. Others complained about response

lag and saw the interaction with the supervisor as unsatisfactory.

Ruiller et al. (2019)*	France	To study how management practices can help to maintain adequate levels of perceived proximity for a dispersed team's members	Interviews with human resources directors, managers and teleworkers. (n=22).	The study identified two emerging e-leadership roles. The "e-communication mode" signals leadership reestablishment in distance situations based on the e-leader's personality influencing team members in terms of communication and organisational behaviours and the "Control Management Mode" which is based on goals in a situation of remoteness, illustrated by managers who regulate the work done by the remote team to monitor the goals without sharing the remote work experience.
Schwarz-müller et al. (2018)*	Germany	To study how the digital transformation change work design and leadership.	Open-ended questionnaire to digitalization experts (n=49).	The survey revealed several themes of change in work design and leadership due to the digital transformation. For example, the changing relationship between work and private life and changes resulting from the use of information and communication technology. Digitization changes competence requirements as well as performance measurement and management. Furthermore, employees take on more responsibility and leaders show a more individualized leadership style and team- and network-oriented leadership behaviours.
Senthanar et al. (2021)*	Canada	To explore access to flexible work arrangements and organisational climate on the health and well-being of white-collar, urban professionals.	Interviews with employees (n=8).	There was an informal understanding between workers and management that workers needed to be flexible enough to allow work demands to intrude on life outside of work and, secondarily, to practice flexible work arrangements where work was permitted. While workers were aware of this loosening of the boundaries between home and work, many associated working longer and harder with career advancement.
Shipman et al. (2021)	USA	To explore the impact COVID-19 induced telework has on job satisfaction, mental well-being and aspects of organisational commitment.	Interviews with employees (n=20).	There are four things managers and senior management can do to reduce teleworking challenges for employees. 1) Increase bilateral communication and find creative ways to improve social exchange between and among employees. 2) Ensure transparent and fair expectations about roles and responsibilities are clearly articulated to reduce employee confusion and stress. 3) Provide technical resources and training for employees. 4) Provide employees with opportunities for emotional and mental support.
Thornton (2021)	New Zealand	Study effective leadership practices of school leadership during an on-going pandemic.	Interviews with principals of secondary schools (n=18).	The study highlights five effective leadership practices: 1) prepare for crises by detecting signals and reacting appropriately, 2) show empathy and prioritise the well-being of all stakeholders, 3) communicate frequently and effectively using a variety of media, 4) lead collaboratively by involving others in leadership, and 5) seize opportunities to learn at all stages of the crisis.

Tietze & Nadin (2011)*	UK	To explore changes to obligations characterising the exchange relationships of homeworkers who make the transition from office to home-based working.	Interviews with employees at three occasions (n=7). Longitudinal design.	Working from home seems to be a "win-win" situation for employers and employees. The findings also suggest that managers need to carefully consider the impact of home working, not only in relation to those making the transition but also to those who remain in the office, with feelings of resentment from office-based staff potentially creating a new set of problems for managers to manage.
Varshney (2021)	India	To analyse the impact of COVID-19 on the psychology of employees working in private organisations.	Interviews with employees (n=22).	Participants experienced psychological stress, social disconnection and loneliness during the lockdown. The empathic role of the manager/leaders had failed during these turbulent times and employees had openly expressed the lack of understanding and support from their superiors.
Weideman & Hofmeyr (2020)*	South Africa	To explore the influence of flexible work arrangements (FWA) on employee engagement.	Interviews with subject matter experts and employees from six organisations (n=23).	There is a positive relationship between flexible working and employee engagement and employee well-being. Disadvantages of FWA included communication breakdowns and lack of fairness, which can result in various negative outcomes.
Yarberry & Sims (2021)	USA	To examine the impact of working in a virtual/remote environment as a consequence of COVID-19.	Interviews with 8 remote workers.	Virtual mentoring is critical to providing emotional support, creating opportunities for dialogue, helping employees find work-life balance, implementing a reward system, and enhancing remote employees' overall sense of well-being and belonging..

Note: * data collected before the Covid-19 pandemic

Appendix II. Included quantitative studies

Authors (Year)	Country	Population	Leadership	Outcome	Association
Amano et al. (2021)	Japan	Representative sample of employees in various organisations, of which 3776 worked from home	Support from manager	Work engagement	Yes
Azizah et al. (2020)	Indonesia	120 university lecturers	Transformational leadership	Work satisfaction	Yes
			Transactional leadership	Work performance	Yes
Baker et al. (2006)*	Australia	50 employees in various organisations working from home	Trust from manager	Work satisfaction	Yes
				Work performance	Yes
Bartsch et al. (2021)	Germany	206 employees in service companies (media, insurance, consultancy, education)	Relation-oriented leadership	Tension (individual)	No
				Tension (group)	Yes (-)
			Task-oriented leadership	Work performance (individual)	No
				Tension (individual)	No
		Tension (group)	No		
			Work performance (individual)	No	
Bhumika (2020)	India	180 employees in various organisations	Participative leadership	Exhaustion	Yes
Bregenzer & Jimenez (2021)*	Schweiz, Germany, Austria	1412 employees in various organisations	Health promotive leadership	Stress	Yes (-)
Chaudhary et al. (2022)	Australia, Denmark, India, UK, USA	810 IT professionals in virtual teams of international IT companies	E-leadership	Emotional well-being	Yes
Chu et al. (2022)	China (Hong Kong)	500 full-time employees	Trust from manager	Stress	No
				Happiness	No
				Work performance	No
Da et al. (2022)	Norway	306 employees working from home within the scientific, technical, and administrative services and health and social services, and 269 employees within the same occupations working on-site	Support from manager	Symptoms of burnout	Yes (-)
				Work engagement	No

Dolce et al. (2020)	France	716 employees in various organisations	Toxic leadership	Exhaustion	Yes
Gamel Aboelmaged & Mohamed El Subbaugh (2012)*	Egypt	199 employees in various companies	Support from manager	Work satisfaction	Yes
				Work performance	Yes
Gerards et al. (2018)*	The Netherlands	656 employees in various organisations	Transformational leadership	Work engagement	Yes
Golden (2006)*	USA	294 remote workers in a high-technology company	LMX	Work satisfaction	Yes
Golden & Veiga (2008)*	USA	375 remote workers in a high-technology company	LMX	Work satisfaction	Yes
				Work performance	Yes
Guidetti et al. (2022)	Italy	1578 hybrid workers and 364 on-site workers (administrative university employees) from 22 universities	Support from manager	Exhaustion	Yes
Ibrahim (2014)*	Malaysia	879 school employees	E-leadership	Work satisfaction	Yes
Ibrahim & Othman (2019)*	Malaysia	1033 primary and secondary school employees	E-leadership	Work satisfaction	Yes
				Work performance	Yes
Johnson et al. (2021)	USA	245 female employees in higher education	Support from manager	Stress	No
Karácsony (2021)	Slovakia	709 employees in various organisations	Support from manager	Work satisfaction	Yes
Karani & Mehta (2021)	India	239 employees in sales department of the consumer durable industry	Support from manager	Work engagement	Yes
Kelley & Kelloway (2012)*	USA	392 employees in various organisations of which 241 were geographically close to their manager while 151 were geographically remote	Transformational leadership	Well-being	Yes
				Work satisfaction	Yes
				Work satisfaction	Yes
Košir et al. (2022)	Slovenia	964 teachers working from home	Support from manager	Work satisfaction	Yes
				Stress	Yes (-)
Krug et al. (2021)	Germany	363 employees in various	Identity entrepreneurship	Work satisfaction	Yes

		organisations	Identity impresarioship	Symptoms of burnout Work satisfaction Symptoms of burnout	Yes (-) No No
Kumar et al. (2022)	India	301 employees in various organisations working from home	Support from manager	Well-being	Yes
Kuruzovich et al. (2021)*	USA	184 employees in various organisations	LMX	Work satisfaction Work performance	Yes Yes
Lamprinou et al. (2021)	Greece	64 remote workers and 147 on-site workers in various organisations	Support from manager	Symptoms of burnout	Yes (-)
Madlock (2013)*	USA	177 employees in various organisations working from home	Servant leadership Motivational language of managers: Direction-giving Empathetic Meaning-making	Symptoms of burnout Work satisfaction Work satisfaction	Yes (-) Yes No
Nguyen & Tran (2021)	Vietnam	206 employees in various small and medium-sized enterprises	Support from manager	Work engagement	Yes
Nielsen et al. (2019)*	Various countries	822 remote workers in various organisations	Health promotive leadership	Self-rated health	Yes
Platts et al. (2022)	UK	623 employees in various organisations	Quality of leadership Support from manager	Stress Symptoms of depression Stress Symptoms of depression	Yes (-) Yes (-) Yes (-) Yes (-)
Shockley et al. (2022)	USA	471 remote workers in various organisations	Communication expectations of manager	Symptoms of burnout Work performance (quantity) Work performance (quality)	No Yes Yes
Spagnoli et al. (2020)	Italy	339 technical and administrative personnel at a university	Authoritarian leadership	(Techno-)Stress	Yes
Staples et al. (1998)*	North America	376 remote workers in various organisations	Role modelling	Work satisfaction Stress Work performance	Yes No Yes
Whitford & Moss (2009)*	North America and Australia	165 employees in various organisations	Visionary leadership Personal recognition Visionary leadership	Work engagement Work engagement Work satisfaction	Yes Yes Yes

Personal recognition	Work satisfaction	Yes
Visionary leadership	Work performance	No
Personal recognition	Work performance	No

Note: * data collected before the Covid-19 pandemic