REVIEW



Towards remote leadership in health care: Lessons learned from an integrative review

Anja Terkamo-Moisio¹ | Suyen Karki¹ | Mari Kangasniemi² | Johanna Lammintakanen³ | Arja Häggman-Laitila^{1,4}

Correspondence

Anja Terkamo-Moisio, Department of Nursing Science, University of Eastern Finland, P.O. Box 1627, FI-70211 Kuopio, Finland.

Email: anja.terkamo-moisio@uef.fi

Funding information

This review is conducted as part of 'The More Remotely—work in social and health care is changing project', which is funded by The Ministry of Social Affairs and Health of Finland and European Social Fund.

Abstract

Aim: To gather and synthesize current empirical evidence on remote leadership and to provide knowledge that can be used to develop successful remote leadership in health care.

Design: A integrative literature review with an integrated mixed methods design.

Data Sources: The literature search was carried out between February and March 2019 in the CINAHL, Medline (Ovid), PsycInfo, Scopus, SocIndex, Web of Science and Business Source Elite (EBSCO) databases.

Review Methods: An integrative review was conducted to identify relevant studies published from 2010 to 2019. Of the 88 eligible studies, 21 studies met the inclusion criteria and were selected for the final review. The included studies were analysed using mixed methods synthesis, more specifically, data-based convergent synthesis.

Results: The performed analysis identified three main themes: characteristics of successful remote leadership; enhancing the leader-member relationship; and challenges in remote leadership. The first theme included the following sub-themes: remote leader characteristics; trust; communication; and leading the team culture. The second theme covered the importance of organizing regular face-to-face meetings, clear communication policies and the connection between positive team spirit and good remote leader-member relationship, while the third theme emphasized leader- and member-related challenges for remote work.

Conclusions: As none of the identified studies had been conducted in a health care setting, future remote leadership research must also specifically consider the health care context. This will be pivotal to exploring how remote work can foster a safe workplace culture, empower health care workers, increase job satisfaction and improve patient outcomes.

Impact: Remote leadership has rarely been studied in the health care context. Trust, communication, team spirit and a leader's characteristics are central to remote leadership, a finding which is useful for re-evaluating and improving the current culture at health care organizations.

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2021 The Authors. Journal of Advanced Nursing published by John Wiley & Sons Ltd.

¹Department of Nursing Science, University of Eastern Finland, Kuopio, Finland

²Department of Nursing Science, University of Turku, Turku, Finland

³Department of Health and Social Management, University of Eastern Finland, Kuopio, Finland

⁴City of Helsinki, Social and Health Care, Helsinki, Finland

KEYWORDS

health care leadership, health care services, integrative review, literature review, nurse leader, nurse manager, remote leadership

1 | INTRODUCTION

Globalization and disruptive digital technologies have dramatically changed organizational structures (Machado & Brandão, 2019), with decentralization becoming increasingly commonplace in many organizations, including those operating in the health care sector (Bloom et al., 2010; Bossert & Beauvias, 2002; Costa-Font & Turati, 2018). In a decentralized organization, decision-making occurs across all levels and is spread evenly throughout the organization (Bloom et al., 2010). In a geographically dispersed organization, employees and their leaders work in a remote environment, either in similar time zones or across different time zones (Sutanto et al., 2011; Zimmermann et al., 2008). The terms remote leadership, virtual leadership and e-leadership are currently used interchangeably in the literature (Avolio et al., 2014; Kelley & Kelloway, 2012; Liao, 2017). A simple definition for remote leadership would be the management of remote teams or units with the conscious consideration of social-emotional factors, communication policies, organizational practices and technological solutions (Cowan, 2014). This leadership approach can be considered as a social influence process that is mediated by advanced information technologies which alter individuals' attitudes, behaviours and performance (Avolio et al., 2014).

Previous literature has described remote leadership in the context of international (Angeleanu et al., 2016), governmental (Yudha & Susanto, 2019) and educational organizations (Arnold & Sangrà, 2018). In general, only a few reviews have specifically covered remote leadership. These reviews have described the operational definition, theoretical framework, as well as conduct and impacts of remote leadership (Avolio et al., 2009, 2014; Cortellazzo et al., 2019; Van Wart et al., 2019). However, reviews related to virtual education and physician remote leadership have highlighted the need to research remote leadership from the health care perspective (Barnett et al., 2012; Keijser et al., 2016). Therefore, this review fills the current knowledge gap by evaluating the current empirical evidence on successful remote leadership and discussing the results in the context of health care.

2 | BACKGROUND

Due to the lack of face-to-face (FTF) interactions in geographically dispersed teams, several studies have highlighted how important an effective communication strategy is to remote leadership (Cowan, 2014; Hill & Bartol, 2016; Hill et al., 2009; Malhotra et al., 2007; Martins et al., 2004; Zigurs, 2003). Advances in digital technologies have enabled leaders and team members to interact remotely via various communication channels such as e-mail, instant messaging or video conferencing (Berry, 2011). These technologies allow

collaboration across long distances and are already widely used in health care (Bhaskar et al., 2020; Schutte-Rodin, 2020). This demonstrates that personnel are aware of how remote work can improve an organization's ability to respond to rapid organizational, societal or environmental changes. However, little is known about contemporary remote leaders' abilities. This topic should be actively researched, as improved digitalization and the decentralization of organizations have strengthened remote work opportunities across numerous fields, including health care (Bossert & Beauvias, 2002; Lapão, 2017). Health care organizations can benefit from remote leadership and decentralization in terms of improved overall health outcomes, reduced costs and the ability to hire experts for patient care (Emery et al., 2012; Rothschild & Lapidos, 2003; Sharpp et al., 2019).

The growing need for remote leadership is the result of several parallel and progressive changes, for example heightened demand for cost-effective services and a global shortage of personnel, especially in rural areas (Costa-Font & Turati, 2018; Institute of Medicine, 2012; May et al., 2011; Moran et al., 2014). The speed of the shift to remote leadership has been accelerated by the global pandemic in 2020. Furthermore, advances in digitalization during the last decade have changed individuals' perceptions and expectations of work, including various novel competences that are associated with a successful remote work environment (Konttila et al., 2019; Vallo Hult et al., 2019).

3 | THE REVIEW

3.1 | Aims

This integrative review aims to gather and synthesize the current empirical evidence on remote leadership from various fields of science, with the underlying objective of providing knowledge that can be used to develop successful remote leadership in health care. The research was guided by the following questions:

- 1. Which characteristics are common to successful remote leadership?
- How can the leader-member relationship be enhanced in the remote context?
- 3. What kind of challenges have been identified in remote leadership?

3.2 | Design

This review employed an integrated mixed methods design proposed by Sandelowski et al. (2006). This approach considers findings

from qualitative and quantitative studies to be complementary in that they confirm and extend the presented knowledge. Further, this review follows the Enhancing Transparency in the Reporting of Syntheses of Qualitative Research (ENTREQ) guidelines and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, Moher et al., 2009) checklist for quantitative studies (Flemming et al., 2018).

3.3 | Search methods

During the first phase, we based our research questions on the results of preliminary literature searches. During the second phase, which lasted from February to March 2019, a literature search was conducted in seven databases: CINAHL; Medline (Ovid); PsycInfo; Scopus; SocIndex; Web of Science; and Business Source Elite (EBSCO). The research team created a search strategy, including terms related to virtual- and e-leadership, that was consistent with the definition of remote leadership and consulted an information specialist to ensure that the strategy would be adequate for identifying relevant articles. Studies that were peer-reviewed and published between 2010 and 2019 in either English, German or Finnish were included in this review (Table 1). Additionally, studies had to include an abstract to be included in the research.

3.4 | Search outcome

The search yielded a total of 4087 studies that were transferred to RefWorks citation manager. After the removal of duplicates, two authors (ATM, SK) independently screened titles and abstracts (n = 2242) while considering the inclusion and exclusion criteria (Table 1). This resulted in 88 studies being selected for full-text assessment, after which a total of 21 studies met the inclusion criteria (Figure 1). Any discrepancies about the selection of studies were resolved by consulting another author (AHL).

3.5 | Quality appraisal

During the third phase (Whittemore & Knalf, 2005), all of the included papers were assessed for quality. Two authors ATM; SK) independently evaluated the studies using two different appraisal tools: the Centre for Evidence-based Management for quantitative studies (Centre for Evidence-based Management, 2014) and the Critical Appraisal Skills Programme for qualitative studies (Critical Appraisal Skills Programme, 2018). Both appraisal tools were used in the case of mixed methods research. The final evaluation of each study was based on comparisons of both authors' independent assessments. The evaluations were based on responses to questions that were related to research quality (Tables S1 and S2). None of the identified studies were excluded due to low assessed research quality. Furthermore, the possible methodological limitations of the identified studies did not have an impact on the interpretation of the findings.

3.6 | Data abstraction

During the fourth phase (Whittemore & Knalf, 2005), data from the included studies were extracted and summarized in table form (Table 2, Table S3). Extracted data included information such as study country, aims, context, sample, applied methodology, data collection and analysis and results.

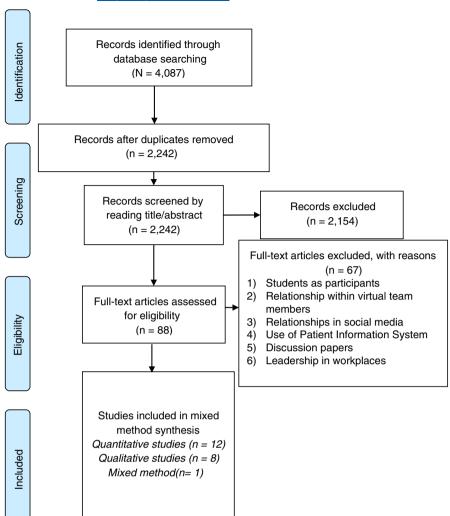
3.7 | Synthesis

The included studies were analysed using mixed methods synthesis, more specifically, data-based convergent synthesis was applied (Noyes et al., 2019; Sandelowski et al., 2006). The findings from qualitative and quantitative studies were synthesized to address the same research question. Quantitative findings were transformed into qualitative findings to facilitate integration. The findings were then examined inductively and organized into categories and themes based on

TABLE 1 Databases search strategy

Databases	Search terms	Inclusion criteria
 CINAHL Medline (Ovid) PsycInfo, Scopus, SocIndex Web of Science Business Source Elite 	(('digital* leader*' OR 'digital* manage*' OR 'digital* supervis*' OR 'virtual leader*' OR 'virtual manage*' OR 'virtual supervis*' OR 'virtual work*' OR 'virtual team*' OR 'virtual organi*' OR 'e-leader*' OR eleader* OR 'e-manage*' OR emanage* OR 'e- supervis*' OR 'esupervis*' OR 'remote leader*' OR 'remote manage*' OR 'remote supervis*' OR 'distance leader*' OR 'distance manage*' OR 'distance supervis*' OR 'm-leader*' OR 'mobile leader*' OR 'm-manage*' OR 'mobile manage*' OR 'm- supervis*' OR 'mobile supervis*' OR 'tele* leader*' OR 'tele* manage*' OR 'tele* supervis*')) AND (health* OR social* OR welfare* OR business* OR enterprise* OR firm* OR corporat* OR organization* OR organisation* OR 'public sector')	1) Included search terms and synonyms 2) Empirical studies 3) Role and responsibilities of remote leader 4) Leader-member relationship in remote team Exclusion criteria 1) Studies that had students as participants 2) Relationship within virtual team members only 3) Relationships in social media 4) Use of Patient Information System for delivery of patient care 5) Discussion papers 6) Leadership in workplace

FIGURE 1 Prisma flowchart



similarities. This inductive process relied on the method of conventional content analysis described by Hsieh and Shannon (2005).

4 | RESULTS

4.1 | Study characteristics

The identified studies included 12 quantitative studies, eight qualitative studies and one mixed methods study. All of the included quantitative studies had applied surveys during data collection, whereas four of the qualitative studies utilized semi-structured interviews for data collection, and one study each used open interviews and in-depth interviews. In addition, the remaining two qualitative studies used multiple methods for data collection, more specifically, one study utilized observations, interviews, focus groups and archival data from a company website whereas another study applied the means-end chain method with in-depth and structured interviews. The data analysed in the mixed methods study were collected using structured interviews (Maduka et al., 2018). The identified articles described a total of 2899 participants (with one not clearly disclosing the number of participants), out of which 371 were leaders and 2528 were personnel. The identified

studies covered the following research environments: IT companies (n=8); manufacturing industries (n=7); global business organizations (n=6); pharmaceutical marketing (n=2); and human resources, education, law, research and development, engineering and the telecommunications sector (each represented once). A total of 14 studies were project-related, while none of studies were related to health care.

4.2 | Characteristics of successful remote leadership

Based on the expectations and experiences of leaders and employees, the characteristics of successful remote leadership were related to three, intertwined themes: *characteristics of the remote leader*; *trust and communication in the remote context*; and *fostering a team culture in a remote context*.

4.2.1 | Characteristics of the remote leader

The theme 'characteristics of the remote leader' included descriptions of leadership style, personal traits and competences. In several studies,

TABLE 2 Summary of included studies

Author	Aims	Sample/design/data collection	Major findings
Al-ani et al. (2011)	To explore leadership in distributed teams of a global organization.	n = 16/Qualitative/ Interview	Good leaders should possess leadership skills, good communication skills, technical competence and should build trust and respect among team members.
Eisenberg et al. (2019)	To examine the role of transformational leadership in moderating how the geographic dispersion of a team affects performance.	n = 543/Quantitative/ Survey	Transformational leadership negatively moderated the relationship between team dispersion and team performance and team performance and communication.
Goh and Wasko (2012)	To explore the more proximal mediators of the leader-member relationship in order to address how the leader-member relationship affects a team member's performance.	n = 61/Quantitative/ Survey	The leader-member relationship influenced the level of member resources, which subsequently impact member performance.
Guinalíu and Jordán (2016)	To discuss how leadership style (transactional or transformational) can moderate the relationships between physical attributes and behavioural characteristics.	n = 248/Quantitative/ Survey	The relationship between the degree of attractiveness and trust in a leader was strongest when the leader employs a transformational leadership style.
Hahm (2017)	This study explores how important information sharing is to creativity, and explains how to improve information sharing within virtual teams.	n = 138/Quantitative/ Survey	Information sharing and creativity were closely related in virtual teams. Further, authentic leadership, a sharing team climate and psychological empowerment can improve information sharing.
Han et al. (2017)	To explore how virtual team leaders cope with team process challenges in developing contextual aspects, such as shared leadership and psychological safety, for team creativity.	n = 9/Qualitative/ Interview	Behaviour of leaders that enabled virtual team creativity and success include trust, regular communication, setting guidelines, psychological safety, shared leadership and use of technology.
Jawadi et al. (2013)	To identify the key roles that enable virtual team leaders to build high-quality exchanges with their team members.	n = 193/Quantitative/ Survey	Leader-member exchange quality was significantly predicted by open systems roles, roles of rational pursuit of goals, and human relation roles.
Li et al. (2016)	To develop and empirically test an e-leadership conceptual model focusing on how leadership in SMEs leverages business and digital technology.	n = 42/Qualitative/Indepth interview	Six e-leaderships qualities were identified: 1) Agile leadership, 2) Hybrid skills, 3) Architectural views, 4) Digital entrepreneurship 5) Value creator and 6) Value protector
Maduka et al. (2018)	To identify the competencies required to act as a virtual team leader and analyse how effective virtual leadership is in an organization.	n = 14/ Mixed-method/ Structured interview	Transformational leaders were important for selecting virtual team leaders. However, virtual team leaders lacked the ability to handle multiple cultures, task clarity and clear directions.
Mokline (2017)	To explore the management of conflicts related to communication in virtual teams.	n = 18/Quantitative/ Interview	Three types of conflict management were mentioned in the interviews: communication conflicts; social conflicts; and cultural conflicts.
Mulki and Jaramillo (2011)	To investigate how leadership actions and salesperson characteristics impact workplace isolation perceptions.	n = 346/Quantitative/ Survey	Considerate leaders were associated with lower workplace isolation among salespeople.

TABLE 2 (Continued)

TABLE 2 (Continued)		Comple/desi/d-t-	
Author	Aims	Sample/design/data collection	Major findings
Munir et al. (2016)	To investigate the impacts of interpersonal trust and leadership style on workplace isolation.	n = 227/Quantitative/ Survey	Interpersonal trust and the transformational leadership style significantly reduced perceptions of isolation among salespeople.
Neufeld et al. (2010)	To explore how perceived leader performance is influenced by leadership style, physical distance and communication effectiveness between leaders and employees.	n = 138/Quantitative/ Survey	Communication effectiveness was positively associated with perceived leader performance; however, physical distance had no influence on leader performance or communication effectiveness.
Newman et al. (2019)	To report how virtual team members' perceptions of their leader's effective use of communication tools and techniques affect team performance.	n = 458/Quantitative/ Survey	A moderate level of correlation was observed between virtual team members' perceptions of their leader's communication effectiveness and team performance.
Poulsen and Ipsen (2017)	To explore distance management practices that ensure both employee well-being and organizational performance.	n = 17/Qualitative/Semi- structured interview	Remote managers' activities and capabilities were important to both employee well-being and organizational performance.
Ramserran and Haddud (2018)	To find parallels between the characteristics of online and offline teams, as well as recognize what differentiates them and explain how virtual teams can be managed efficiently.	n = 120/Quantitative/ Survey	Transformational and transactional leadership styles helped to build relationships in an online environment and communication was the most powerful management skill.
Savolainen (2014)	To understand e-leaders' work situations and practices, more specifically, how leaders build trust within their team through technology-mediated interaction (TMI).	n = 5/Qualitative/Open interview	E-leaders should be open and honest with their employees and should consider geographical location, culture and behaviour.
Taylor et al. (2013)	To examine the relationship between trust and satisfaction and the extent to which leadership contact contributes to trust and satisfaction.	n = 49/Quantitative/ Survey	Contact with leaders was positively related to reported trust within the organization. Further, the reported levels of trust were positively related to satisfaction with the quality of contacts.
Tworoger et al. (2013)	What and how leadership constraints contribute to the complexity of the working environment faced by global virtual team leaders?	n = 5/Qualitative/ Multiple sources	Virtual leadership constraints included virtual environment; globalization; the domestic workplace; and the organizational structure.
Verburg et al. (2013)	To find links between conditions and the value of accomplishment when project managers are dealing with fully virtual work settings.	n = 30/Qualitative/Indepth and structured interview	Rules of communication and its clarity, goal settings, managers' competences and trust in a team were important for successful projects.
Wong and Berntzen (2019)	To investigate how transformational leaders develop high-quality leader-member exchange (LMX) relationships in distributed teams.	n = 79 (study 1) and 107 (study 2) / Quantitative/Survey	The positive relationship between transformational leadership and LMX became negative when electronic dependence and task interdependence were high.

the transformational leadership style was associated with positive impacts on remote work, namely, trust building in the team and development of the team culture (Table 3). However, it was also suggested that the combination of different leadership styles would help to build and maintain remote collaboration (Ramserran & Haddud, 2018).

Although distance does not necessarily affect perceived leader performance (Neufeld et al., 2010), a remote leader is nevertheless expected to have strong management skills, including the ability to make decisions, set goals and create a vision (Al-ani et al., 2011; Li et al., 2016; Maduka et al., 2018; Ramserran & Haddud, 2018; Verburg et al.,

TABLE 3 Expectations and experiences of the remote leader's leadership style

Leadership style	Positive impact on remote work	References
Transformational leadership	Perceived leader effectiveness Communication effectiveness Trust-building within the team Prevention of workplace isolation Relation building within the team Team performance Development of team culture	Eisenberg et al. (2019), Guinalíu and Jordán (2016), Munir et al. (2016), Neufeld et al. (2010), Ramserran and Haddud (2018) and Wong and Berntzen (2019)
Transactional leadership	Relation building within the team Development of team culture Leader performance Communication effectiveness	Eisenberg et al. (2019), Neufeld et al. (2010) and Ramserran and Haddud (2018)
Agile leadership	Leader's effectiveness in ambiguous situations Leader's proactivity in changing environments	Li et al. (2016)
Authentic leadership	Information sharing Creativity	Hahm (2017)

2013). Employees value a leader's positive reputation and ability to define their role as a leader (Al-ani et al., 2011; Tworoger et al., 2013; Verbug et al., 2013). Furthermore, employees expect their leader to understand and acknowledge the expertise and circumstances in which they are working. This understanding manifests as a leader's desire to grant employees both the autonomy and responsibility to make independent, fast decisions (Poulsen & Ipsen, 2017; Savolainen, 2014). Furthermore, a leader's hybrid skills and technological savviness can help the organization leverage new technologies to optimize work processes and services (Li et al., 2016; Verburg et al., 2013). Successful remote leadership requires a leader to stay open to new ideas and digital development, as well as participate in continuous learning (Li et al., 2016; Ramserran & Haddud, 2018). Moreover, remote leaders should be able to conceive the complex structure of the organization so they can allocate tasks in a way that will professionally challenge their employees (Al-ani et al., 2011; Poulsen & Ipsen, 2017).

Additional characteristics of successful remote leaders were related to a leader's personal traits and competences. For example employees expect the leader to be empathetic, easily approachable and show interest in the team and its members (Table 4). Furthermore, employees of remote teams expect their leaders to be good listeners, that is professionals who also pick up on unspoken messages, which has been touted as an ability that is worth developing even if it takes time (Poulsen & Ipsen, 2017).

4.2.2 | Trust and communication in the remote context

Reciprocal trust between the leader and employees has been found to be more crucial in remote leadership than 'traditional', FTF leadership (Maduka et al., 2018; Poulsen & Ipsen, 2017; Ramserran & Haddud, 2018; Savolainen, 2014; Tworoger et al., 2013). However,

trust building has been described as difficult. Notably, the lack of natural human reactions in the remote context highlights that leaders must proactively dedicate their time to trust building (Ramserran & Haddud, 2018). Furthermore, the lack of FTF meetings, especially at the beginning of collaboration, has been raised as a reason for the observed low levels of reciprocal trust in remote teams (Maduka et al., 2018). Aside from being necessary to reaching organizational goals, higher levels of trust have been associated with better team performance (Goh & Wasko, 2012; Ramserran & Haddud, 2018). Remote leaders' empathy, justice, and—interestingly—perceived attractiveness have been noted as factors which enhance trust, whereas a leader's technological experience was not found to predict the level of trust between a leader and their employees (Guinalíu & Jordán, 2016; Taylor et al., 2013).

Successful remote leaders must also be effective at communicating and sharing information, skills which are essential for conflict avoidance and effectiveness (Mokline, 2017; Poulsen & Ipsen, 2017; Ramserran & Haddud, 2018). Communication and information sharing are associated with several positive aspects, such as an enhanced leader–member relationship, trust, perceived leader performance and effectiveness, as well as team creativity (Goh & Wasko, 2012; Hahm, 2017; Neufeld et al., 2010; Newman et al., 2019; Ramserran & Haddud, 2018; Tworoger et al., 2013).

The majority of remote leaders spend a notable amount of their work time using the internet (Ramserran & Haddud, 2018). However, sometimes a remote leader needs to intervene and recommend that employees have a direct conversation via phone, for example if communication via e-mail leads to conflicts or misunderstandings (Tworoger et al., 2013). This also highlights the value of shared communication rules and policies, which should clearly state how and when various communication tools should be used (Verburg et al., 2013). Although effective communication is not always influenced by physical distance, remote leaders should focus on the quality

TABLE 4 The personal traits and competences of successful remote leaders identified from the included studies

Leader's personal trait	Example	References
Availability and approachability	'Once again, the team agreed that what they needed most from their leaders was approachability and availability. They wanted that their leaders visit them, spend some time, has a dinner with them'. Tworoger et al. (2013)	Al-ani et al. (2011), Poulsen and Ipsen (2017) and Tworoger et al. (2013)
Desire to be an empathetic, humane leader	'A common feature of the interviewed e-leaders was their desire to be a humane leader despite of being dependent on the use of technology in leading'. Savolainen (2014)	Maduka et al. (2018), Poulsen and Ipsen (2017) and Savolainen (2014)
Cultural awareness	'In our interviews, the leaders acknowledged the importance of training and agreed that one should pay special attention to being aware of crosscultural issues'. Tworoger et al. (2013)	Savolainen (2014) and Tworoger et al. (2013)
Showing interest in the team and its members	'According to the interviewees, the role of managers is important in the management of relational conflicts by amplifying the feeling of the social presence between the members and the creation of links and relations'. Mokline (2017)	Maduka et al. (2018), Mokline (2017) Poulsen and Ipsen (2017), Savolainen (2014) and Tworoger et al. (2013)
Enhancing the autonomy of team members	'The employees argued that when they work away from their distance managers, they often find themselves in situations where they need to make snap decisions; they cannot involve their managers every time this happens'. Poulsen and Ipsen (2017)	Poulsen and Ipsen (2017) and Savolainen (2014)
Willingness to listen and negotiate	'Half of respondents reported that process dimensions of leadership were important, described as "people skills" such as an ability to listen, patience, conflict management skills, and strong communication skills'. Al-ani et al. (2011)	Al-ani et al. (2011) and Poulsen and Ipsen (2017)

of their communication, especially that of the informal exchanges (Mokline, 2017). They must also develop effective listening skills and recognize employees as individuals, which will help a leader notice nuances in the communication (Mokline, 2017; Neufeld et al., 2010; Tworoger et al., 2013). Due to a lack of personal meetings, employees working in remote teams have stressed that leaders should give very clear feedback about their satisfaction with team members' work (Poulsen & Ipsen, 2017). Furthermore, according to Ramserran and Haddud (2018), remote leaders must understand the level of communication, and adjust the communication skills and style to the audience.

4.2.3 | Fostering a team culture in a remote context

Leading teams with a culture of agility, sharing and/or positivity has been identified as a characteristic of successful remote leadership. Team culture describes the roles, skills, attitudes and mindset of a group of employees. For example agile team culture emphasizes teamwork and continuous development (Li et al., 2016). Furthermore, avoiding tightly defined roles and a common set of shared goals are considered to be beneficial for team spirit, and thus exert an indirect, positive influence on the final results (Li et al., 2016; Verburg et al., 2013). Hahm (2017) found a culture of sharing to positively influence information distribution, and therefore, increase team creativity. A positive team culture can also empower team members, which Goh and Wasko (2012) associate with enhanced member performance through better group assignments and members' self-determination. Employee satisfaction with relationships in the remote context may also be enhanced by intermediate technology experience (Taylor et al., 2013).

4.3 | Enhancement of the leader-member relationship in a remote context

Based on the experiences of both leaders and employees, the leadermember relationship in the remote context can be enhanced by organizing regular FTF meetings, regular communication, clear communication policies and building positive team spirit in the remote context.

4.3.1 | Organizing regular FTF meetings

Despite functioning digital tools, regular formal and informal FTF meetings are important for both remote leaders and their employees (Mokline, 2017; Poulsen & Ipsen, 2017; Savolainen, 2014; Tworoger et al., 2013). FTF meetings strengthen the leader-employee relationship, as well as the relationships between team members. They are also beneficial for reciprocal trust building and avoiding conflicts in the remote context (Al-ani et al., 2011; Mokline, 2017; Savolainen, 2014). Leaders have shared that FTF meetings enable them to personally check on their employees' well-being as well as grasp the dynamics in teams. The opportunity to talk with collaboration partners and share personal experiences are further positive aspects of these regular meetings; thus, it is recommended that managers organize these types of meetings regularly (Poulsen & Ipsen, 2017; Tworoger et al., 2013).

4.3.2 | Regular communication and clear communication policies

Regular communication and clear communication policies have been reported to enhance the leader-member relationship in a remote context. To avoid misunderstandings and misinterpretations, remote leaders should be aware of various cultural assumptions and introduce clear rules about communication tools (Maduka et al., 2018; Mokline, 2017; Verburg et al., 2013). Remote leaders should also understand that employees expect leaders to initiate communication, both formal and informal, on a regular basis (Al-ani et al., 2011; Poulsen & Ipsen, 2017). Furthermore, remote leaders should strive to create a psychologically safe environment, that is one in which trust has been created through open communication (Han et al., 2017; Mokline, 2017; Verburg et al., 2013). This may be achieved by taking time for communication and realizing the differences among remote collaborators (Ramserran & Haddud, 2018). Remote leaders should also advise new colleagues to pay attention to the regular communication and support in remote collaboration due to the independent nature of the employees (Poulsen & Ipsen, 2017).

Communication should always occur through the effective use of diverse communication tools rather than one channel (Mokline, 2017; Newman et al., 2019; Tworoger et al., 2013). Notably, e-mails and newsletters have been found to facilitate effective information sharing and give the employees a sense of belonging (Poulsen & Ipsen, 2017; Tworoger et al., 2013) However, successful remote collaboration is not only based on the frequency of communication, but also on feedback and goal setting. For example, remote leaders should have the courage to ask difficult questions and develop a sense for situations in which development may take an undesirable turn (Newman et al., 2019; Poulsen & Ipsen, 2017; Verburg et al., 2013).

4.3.3 | Building positive team spirit in the remote context

A positive team spirit and environment were linked with increased creativity, better work outcomes and the avoidance of conflicts (Han et al., 2017; Mokline, 2017). Employees who regarded remote collaboration as a learning opportunity were also found to participate more in meetings and the completion of the project than employees who were sceptical of remote collaboration (Mokline, 2017). Thus, remote leaders should pursue the role of a mentor and facilitator to strengthen human relations (Jawadi et al., 2013). Several practices through which leaders can improve the team spirit in a remote context include ensuring appropriate work settings, enhancing employee autonomy and acting in a culturally aware manner (Al-ani et al., 2011; Poulsen & Ipsen, 2017; Savolainen, 2014; Tworoger et al., 2013).

4.4 | Identified challenges to remote leadership

The identified challenges to remote leadership can be categorized into remote leader-related challenges and remote team member-related challenges.

4.4.1 | Remote leader-related challenges

A lack of organizational support has been identified as a challenge for remote leaders. Leaders and employees may simultaneously work on different projects, which means that there is the opportunity that they are focused on competing goals (Al-ani et al., 2011; Tworoger et al., 2013). This type of situation requires organizational support and understanding. However, the demands of a remote leader may not always be clear to an organization, with remote leaders perceiving this lack of clarity as a lack of support (Savolainen, 2014; Verburg et al., 2013). Furthermore, organizations may not understand that remote leaders require numerous resources and devices—along with education, networking and flexibility—to succeed (Savolainen, 2014; Tworoger et al., 2013; Verbug et al., 2013).

Further remote leader-related challenge concern working from a home office. Remote leaders have previously expressed that the imbalance between work and private life associated with a home office increases the risk of burnout (Tworoger et al., 2013). More specifically, they felt that the never-ending work overlaps with their social- and family life. Working in a private area may also cause leaders to avoid video conferencing (Tworoger et al., 2013). Furthermore, remote leaders have described working all the time, and missing the transition from the workplace to private life. Leaders noted working in multiple places, for example airplanes, as another challenge (Tworoger et al., 2013).

4.4.2 | Remote team member-related challenges

A lack of organizational support can also be a challenge for members of remote teams. From the employee's perspective, the lack of organizational support for remote work is most obvious when remote workers have worse working conditions than an organization's own employees or when a leader does not consider the different needs of new and experienced employees (Poulsen & Ipsen, 2017).

Relational conflicts stem from the group dynamics and/or personal disputes in a remote team. These conflicts may have diverse causes, such as differences in opinions, linguistic difficulties or technological problems, all of which may be exacerbated in the remote setting (Han et al., 2017; Mokline, 2017). Furthermore, cultural misunderstandings may escalate into situations where individuals do not respond to e-mails or pick up the phone. These types of conflict situations are regarded as most challenging aspect of remote leadership (Mokline, 2017).

Employees' perceptions of workplace isolation have been recognized as another common challenge for remote leadership. It has been reported that satisfaction with the leader, together with perceptions of support from the leader, influence employees' turnover intentions (Mulki & Jamarillo, 2011). The lack of interpersonal trust and belief in a person's own abilities to meet work-related requirements has been found to strengthen perceived workplace isolation (Munir et al., 2016). Interestingly, perceptions of workplace isolation are not influenced by the number of FTF meetings with the leader

or collaborators; in contrast, the quality of FTF meetings significantly affects employees' perceptions of workplace isolation (Mulki & Jamarillo, 2011).

5 | DISCUSSION

Most of the studies included in this review covered IT firms, global business organizations and manufacturing industries. However, despite a comprehensive search of various databases, we were unable to find any empirical evidence on remote leadership in health care. For this reason, we can only discuss our findings about remote leadership in the health care context at a general level. As health care settings can vary widely, further research about remote leadership in health care organizations is needed. Interestingly, two studies (Orte & Diño, 2019; Sharpp et al., 2019) have described remote leadership in the health care context outside of the literature screen timeline applied in the current study; this may be indicative of increasing attention as to how successful remote leadership can be introduced into health care organizations.

The 14 studies identified in this review included participants from projects in which a remote team had been created rapidly for a limited time and a specific purpose. This is in stark contrast with the health care sector, as teams at health care organizations have usually worked together in a certain way for an extended period of time. Furthermore, health care organizations are driven by political and financial agendas, which may make the introduction of new ideas, like remote leadership, a slow process (Williams et al., 2015). Therefore, empirical evidence from this sector will be crucial to developing interventions that support remote leadership in the health care sector.

5.1 | Health care competencies build a solid foundation for remote leadership

This review has presented the conditions necessary for successful remote leadership, and complements the operational definitions, theoretical framework and impacts of remote leadership discussed in previous reviews (Avolio et al., 2009, 2014; Cortellazzo et al., 2019; Van Wart et al., 2019). Even though there are similarities in the leadership skills required to succeed in traditional and remote environments, conventional leadership skills do not necessarily translate to the remote context (Van Wart et al., 2019). The identified characteristics of a successful remote leader emphasize the importance of relationship-focused leadership styles, which have been acknowledged and extensively researched in health care (Alloubani et al., 2019; Cummings et al., 2018; Malila et al., 2018). This is noteworthy, as the nature of work in health care organizations is often centred around relationships. Furthermore, it can be assumed that leaders in the health care sector are well educated in leadership and, as such, able to employ different leadership styles to successfully manage remote teams (Al-Sawai, 2013; Lukich, 2020; Malila et al., 2018; Orte & Diño, 2019; Quinn, 2020).

5.2 | Communication and trust are crucial for remote leadership in health care

Patient care is the usual context in which communication between different stakeholders occurs. Communication has a crucial role in health care as situations often take unexpected turns and may change rapidly. Furthermore, communication is a central part of multiprofessional teamwork, which is common in health care. The formal procedures for successful virtual communication are easy to follow in remote meetings that have been planned beforehand (Stanley & Stanley, 2017). However, inadequate technological skills and the need to use several digital platforms might be burdensome for health care professionals (Sharpp et al., 2019) and create a barrier for successful communication. It should be noted that this barrier may become less significant in the coming years as generation Z, characterized as active users of information technology and experienced in interacting with others (Chicca & Shellenbarger, 2018), enters the workforce.

Health care is a human intensive sector in which most tasks are associated with communication and collaboration with changing others. The risk of unsuccessful remote leadership rises when FTF meetings are not arranged often enough; in these situations, the leader can miss possibilities to build trust and strengthen collaboration with their partners. Our findings revealed that the lack of FTF interactions in the remote environment makes enhancing trust and communication more crucial to remote leadership than traditional leadership. Moreover, employees who trust their leaders will be able to effectively communicate and experience less conflicts. Thus, leaders should organize regular FTF meetings and provide a clear and inspiring vision of remote collaboration by considering and respecting employees' needs (Almost et al., 2016).

5.3 | Remote leadership offers possibilities for re-evaluating current organizational structures and enhancing autonomy

Teams in health care organizations have traditionally followed a hierarchical system which can hinder mutual respect, communication, group culture and even patient safety (O'Donovan et al., 2018). Furthermore, the hierarchy of health care organizations has been cited as a reason for the low levels of autonomy among nurses (Williams et al., 2015). Our review highlights that a leader's respect for employee autonomy is pivotal to the success of remote work. A leader should provide employees with sufficient resources to make independent decisions. In this way, remote leadership provides a unique opportunity for re-evaluating the existing organizational structures and creating a new culture that enhances employee autonomy.

This review also emphasizes the importance of positive team spirit and demonstrates that the remote leader is pivotal to improving the work environment. These results underline a further important aspect in health care—work well-being is positively influenced

by both the leadership practices and employees' intentions to stay in their profession. In other words, the policies set forth by the leader and organization play important roles in balancing organizational and individual values to achieve organizational efficacy and patient outcomes (Cummings et al., 2018; Tawfik et al., 2019).

In health care, employees' perceptions of the workplace social environment are positively related to patient care as well as human resources (Price et al., 2019). As such, both employees and leaders are tasked with maintaining a positive team spirit. In addition to the positive impact on organizational goals, positive team spirit enables knowledge sharing between team members and will thus improve the performance of remote health care teams (Jamshed & Majeed, 2019). However, an excessive workload may hinder leaders from sufficiently considering the development and enhancement of the workplace social environment (Price et al., 2019). A further challenge discussed in this review is the lack of organizational support. For example previous research has stated that the implementation of new methods can be impeded by unclear demands, the unavailability of resources, competencies and tools, as well as a lack of support from peers (Williams et al., 2015). Hence, health care organizations aiming to implement successful remote leadership must support employees across all levels.

5.4 | Strengths and limitations

This review followed a previously published guideline for conducting integrative reviews (Whittemore & Knafl, 2005) and the PRISMA statement (Moher et al., 2009). The search process was carried out systematically and extensively with the help of an information specialist from the university library. Two researchers worked independently to select the articles and ambiguous cases were discussed together, which ensured the reliability of the data. However, the heterogeneous nature of the data only allowed limited data synthetization. We acknowledge that there is limited evidence on remote leadership based on the study design applied in our review. In addition, the selected studies covered a range of different disciplines; thus, the presented results should be generalized to the health care context with caution. A further limitation of this study was publication bias, as grey literature was excluded from the study.

6 | CONCLUSION

This review provided three significant insights into remote leadership that can be used to develop successful remote leadership in health care. First, health care leaders should ensure that they understand the importance of relationship-focused leadership styles. This topic should be covered in both the basic and continuous education of health care leaders. Second, implementing remote leadership in health care enables the re-evaluation of the organizational culture and strengthening of employee autonomy in all levels. This translates to robust possibilities for improving both the quality of care

as well as employees' work well-being. Lastly, health care leaders should examine various communication channels—both the more traditional channels and those created through digitalization - to determine which solutions are the most appropriate for remote collaboration. To conclude, health care organizations must support leaders in developing the competencies that are critical to successful remote leadership, as well as remain open to work culture changes that will increase employee autonomy. Both of these practices should be embedded in the organization's strategy as the field of health care embraces the opportunities associated with remote leadership.

CONFLICT OF INTEREST

No conflict of interest has been declared by the authors.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE):

- (1) substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- (2) drafting the article or revising it critically for important intellectual content.

PEER REVIEW

The peer review history for this article is available at https://publo ns.com/publon/10.1111/jan.15028.

DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

ORCID

Anja Terkamo-Moisio https://orcid.org/0000-0003-1483-1238
Arja Häggman-Laitila https://orcid.org/0000-0003-2013-173X

REFERENCES

- Al-Ani, B., Horspool, A., & Bligh, M. C. (2011). Collaborating with 'virtual strangers': Towards developing a framework for leadership in distributed teams. *Leadership*, 7(3), 219–249. https://doi.org/10.1177/1742715011407382.
- Alloubani, A., Akhu-Zaheya, L., Abdelhafiz, I. M., & Almatari, M. (2019). Leadership styles' influence on the quality of nursing care. International Journal of Health Care Quality Assurance, 32(6), 1022–1033
- Almost, J., Wolff, A. C., Stewart-Pyne, A., McCormick, L. G., Strachan, D., & D'Souza, C. (2016). Managing and mitigating conflict in healthcare teams: An integrative review. *Journal of Advanced Nursing*, 72(7), 1490–1505.
- Al-Sawai, A. (2013). Leadership of healthcare professionals: Where do we stand? Oman Medical Journal, 28, 285-287.
- Angeleanu, A., Keppler, T., & Eidenmüller, T. (2016). Effective stakeholder management in international supply chain projects. In D. Vasileno & N. Khazieva (Eds.), Proceedings of the 4th International Conference on Management, Leadership and Governance, ICMLG, 9-16.
- Arnold, D., & Sangrà, A. (2018). Dawn or dusk of the 5th age of research in educational technology? A literature review on (e-)leadership for technology-enhanced learning in higher education (2013-2017).

- International Journal of Educational Technology in Higher Education, 15(1), 2013–2017. https://doi.org/10.1186/s41239-018-0104-3
- Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Reexamining transformations in leadership source and transmission. *The Leadership Quarterly*, 25, 105–131.
- Avolio, B. J., Walumbwa, F. O., & Weber, T. J. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60, 421–449.
- Barnett, S., Jones, S. C., Bennett, S., Iverson, D., & Bonney, A. (2012). General practice training and virtual communities of practice-a review of the literature. BMC Family Practice, 13(1), 87.
- Berry, G. R. (2011). Enhancing effectiveness on virtual teams: Understanding why traditional team skills are insufficient. *Journal of Business Communication*, 48(2), 186–206. https://doi.org/10.1177/0021943610397270
- Bhaskar, S., Bradley, S., Chattu, V. K., Adisesh, A., Nurtazina, A., Kyrykbayeva, S., Sakhamuri, S., Moguilner, S., Pandya, S., Schroeder, S., Banach, M., & Ray, D. (2020). Telemedicine as the new outpatient clinic gone digital: Position paper from the pandemic health system resilience program (REPROGRAM) International Consortium (Part 2). Frontiers in Public Health, 8, 410. https://doi.org/10.3389/fpubh.2020.00410
- Bloom, N., Sadun, R., & Reenen, J. V. (2010). Recent advances in the empirics of organizational economics. Annual Review of Economics, 2, 105–137.
- Bossert, T. J., & Beauvais, J. (2002). Decentralization of health systems in Ghana, Zambia, Uganda and the Phillippines: A comparative analysis of decision space. *Health Policy and Planning*, 17(1), 14–31.
- Centre for Reviews and Dissemination. (2009). *Systematic reviews*. University of York, United Kingdom. ISBN 978-1-900640-47-3.
- Chicca, J., & Shellenbarger, T. (2018). Connecting with Generation Z: Approaches in nursing education. *Teaching and Learning in Nursing*, 13, 180–184.
- Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. Frontiers in Psychology, 10, 1938. https://doi.org/10.3389/fpsyg.2019.01938
- Costa-Font, J., & Turati, G. (2018). Regional health care dezentralization in unitary states: Equal spending, equal satisfaction? *Regional Studies*, 52(7), 974–985. https://doi.org/10.1080/00343404.2017.1361527
- Cowan, L. D. (2014). E-Leadership: Leading in a virtual environment-guiding principle for nurse leaders. Nursing Economics, 32(6), 312.
- Critical Appraisal Skills Programme. (2018). CASP (Qualitative Research)
 Checklist. https://casp-uk.net/wp-content/uploads/2018/01/
 CASP-Qualitative-Checklist-2018.pdf
- Cummings, G. G., Tate, K., Lee, S., Wong, C. A., Paananen, T., Micaroni, S. P. M., & Chatterjee, G. E. (2018). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, 85, 19–60.
- Eisenberg, J., Post, C., & DiTomaso, N. (2019). Team dispersion and performance: The role of team communication and transformational leadership. *Small Group Research*, 50(3), 348–380.
- Emery, E. E., Lapidos, S., Eisenstein, A. R., Ivan, I. I., & Golden, R. L. (2012). The BRIGHTEN program: Implementation and evaluation of a program to bridge resources of an interdisciplinary geriatric health team via electronic networking. *The Gerontologist*, *52*(6), 857–865. https://doi.org/10.1093/geront/gns034
- Flemming, K., Booth, A., Hannes, K., Cargo, M., & Noyes, J. (2018). Cochrane qualitative and implementation methods group guidance series-paper 6: Reporting guidelines for qualitative, implementation, and process evaluation evidence syntheses. *Journal of Clinical Epidemiology*, *97*, 79–85. https://doi.org/10.1016/j.jclinepi.2017.10.022
- Goh, S., & Wasko, M. (2012). The effects of leader-member exchange on member performance in virtual world teams. *Journal of the Association of Information Systems*, 13(10), 861–885. https://doi.org/10.17705/1jais.00308

- Guinalíu, M., & Jordán, P. (2016). Building trust in the leader of virtual work teams. Spanish Journal of Marketing ESIC, 20(1), 58-70.
- Hahm, S. (2017). Information sharing and creativity in a virtual team: Roles of authentic leadership, sharing team climate and psychological empowerment. KSII Transactions on Internet and Information Systems. 11(8), 4105–4119.
- Han, S. J., Chae, C., Macko, P., Park, W., & Beyerlein, M. (2017). How virtual team leaders cope with creativity challenges. *European Journal of Training & Development*, 41(3), 261–276.
- Hill, N. S., & Bartol, K. M. (2016). Empowering leadership and effective collaboration in geographically dispersed teams. *Personnel Psychology*, 69, 159–198.
- Hill, N. S., Bartol, K. M., Tesluk, P. E., & Langa, G. A. (2009). Organizational context and face-to-face interaction: Influences on the development of trust and collaborative behaviors in computer-mediated groups. Organizational Behavior & Human Decision Processes, 108(2), 187–201. https://doi.org/10.1016/j.obhdp.2008.10.002
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288. https://doi.org/10.1177/1049732305276687
- Institute of Medicine. (2012). Health IT and patient safety: Building safer systems for better care. Accessed May 02, 2020. www.nap.edu/catalog/13269/health-it-and-patient-safety-building-safersyste ms-for-better
- Jamshed, S., & Majeed, N. (2019). Relationship between team culture and team performance through lens of knowledge sharing and team emotional intelligence. *Journal of Knowledge Management*, 23(1), 90–109.
- Jawadi, N., Daassi, M., Favier, M., & Kalika, M. (2013). Relationship building in virtual teams: A leadership behavioral complexity perspective. Human Systems Management, 32(3), 199–211.
- Keijser, W., Smits, J., Penterman, L., & Wilderom, C. (2016). Physician leadership in e-health? A systematic literature review. *Leadership* in Health Services, 29(3), 331–347. https://doi.org/10.1108/ LHS-12-2015-0047
- Kelley, E., & Kelloway, E. K. (2012). Context matters: Testing a model of remote leadership. *Journal of Leadership & Organizational Studies*, 19(4), 437–449.
- Konttila, J., Siira, H., Kyngäs, H., Lahtinen, M., Elo, S., Kääriäinen, M., Kaakinen, P., Oikarinen, A., Yamakawa, M., Fukui, S., Utsumi, M., Higami, Y., Higuchi, A., & Mikkonen, K. (2019). Healthcare professionals' competence in digitalisation: A systematic review. *Journal of Clinical Nursing*, 28(5-6), 745-761.
- Lapão, L. V. (2017). The future impact of healthcare services digitalization on health workforce: The increasing role of medical informatics. Studies in Health Technology and Informatics, 228, 675–679.
- Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). e-Leadership through strategic alignment: An empirical study of small- and medium-sized enterprises in the digital age. *Journal of Information Technology*, 31(2), 185–206.
- Liao, C. (2017). Leadership in virtual teams: A multilevel perspective. Human Resource Management Review, 27(4), 648-659. https://doi. org/10.1016/j.hrmr.2016.12.010
- Lukich, N. (2020). The importance of a positive moral culture within healthcare organizations. *Healthcare Management Forum*, 33(6), 293–295.
- Machado, A. M., & Brandão, C. (2019). Leadership and technology: Concepts and questions. Advances in Intelligent Systems and Computing, 931, 764–773. https://doi.org/10.1007/978-3-030-16184-2_73
- Maduka, N. S., Edwards, H., Greenwood, D., Osborne, A., & Babatunde, S. O. (2018). Analysis of competencies for effective virtual team leadership in building successful organisations. *Benchmarking*, 25(2), 696-712.
- Malhotra, A., Majchrzak, A., & Rosen, B. (2007). Leading virtual teams. Academy of Management Perspectives, 21(1), 60–70. https://doi.org/10.5465/AMP.2007.24286164

- Malila, N., Lunkka, N., & Suhonen, M. (2018). Authentic leadership in healthcare: A scoping review. *Leadership in Health Services*, 31(1), 129–146.
- Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management*, 30(6), 805–835. https://doi.org/10.1016/j.jm.2004.05.002
- May, C. R., Finch, T. L., Cornford, J., Exley, C., Gately, C., Kirk, S., Jenkings, K. N., Osbourne, J., Robinson, A. L., & Rogers, A. (2011). Integrating telecare for chronic disease management in the community: What needs to be done? *BMC Health Services Research*. 11(1), 131.
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. BMJ, 339, b2535. https://doi.org/10.1136/bmj.b2535
- Mokline, B. (2017). Managing communicative conflicts and relational challenges in virtual teams. *Human Systems Management*, 36(2), 115–127.
- Moran, A. M., Coyle, J., Pope, R., Boxall, D., Nancarrow, S. A., & Young, J. (2014). Supervision, support and mentoring interventions for health practitioners in rural and remote contexts: An integrative review and thematic synthesis of the literature to identify mechanisms for successful outcomes. *Human Resources for Health*, 12, 10. https://doi.org/10.1186/1478-4491-12-10
- Mulki, J. P., & Jaramillo, F. (2011). Workplace isolation: Salespeople and supervisors in USA. International Journal of Human Resource Management, 22(4), 902–923.
- Munir, Y., Khan, S., Sadiq, M., Ali, I., Hamdan, Y., & Munir, E. (2016).
 Workplace isolation in pharmaceutical companies: Moderating role of self-efficacy. Social Indicators Research, 126(3), 1157–1174.
- Neufeld, D. J., Wan, Z., & Fang, Y. (2010). Remote leadership, communication effectiveness and leader performance. Group Decision and Negotiation, 19(3), 227–246.
- Newman, S. A., Ford, R. C., & Marshall, G. W. (2019). Virtual team leader communication: Employee perception and organizational reality. *International. Journal of Business Communication*, 57(4), 452–473. https://doi.org/10.1177/2329488419829895
- Noyes, J., Booth, A., Moore, G., Flemming, K., Tunçalp, Ö., & Shakibazadeh, E. (2019). Synthesising quantitative and qualitative evidence to inform guidelines on complex interventions: Clarifying the purposes, designs and outlining some methods. BMJ Global Health, 4, e000893. https://doi.org/10.1136/bmjgh-2018-000893
- O'Donovan, R., Ward, M., Brún, A. D., & McAuliffe, E. (2018). Safety culture in health care teams: A narrative review of the literature. *Journal of Nursing Management*, 27, 871–883.
- Orte, C. J. S., & Diño, M. J. (2019). Eliciting e-leadership style and trait preference among nurses via conjoint analysis. *Enfermeria Clinica*, 29, 78–80. https://doi.org/10.1016/j.enfcli.2018.11.025
- Poulsen, S., & Ipsen, C. (2017). In times of change: How distance managers can ensure employees' wellbeing and organizational performance. *Safety Science*, 100, 37–45.
- Price, S., Vine, J., Gurnham, M. E., Paynter, M., & Leiter, M. (2019). Experiences with managing the workplace social environment. *JONA*, 49(11), 569–573.
- Quinn, B. (2020). Using Benner's model of clinical competency to promote nursing leadership. *Nursing Management*, 27(2), 33-41. https://doi.org/10.7748/nm.2020.e1911
- Ramserran, S. M., & Haddud, A. (2018). Managing online teams: Challenges and best practices. *International Journal of Performance Management*, 19(2), 131–157.
- Rothschild, S. K., & Lapidos, S. (2003). Virtual integrated practice: Integrating teams and technology to manage chronic disease in primary care. *Journal of Medical Systems*, 27(1), 85–93.
- Sandelowski, M., Voils, C. I., & Barroso, J. (2006). Defining and designing mixed research synthesis studies. Research in the Schools: a Nationally Refereed Journal Sponsored by the Mid-South Educational Research Association and the University of Alabama, 13(1), 29.
- Savolainen, T. (2014). Trust-building in e-Leadership: A case study of leaders' challenges and skills in technology-mediated interaction. Journal of Global Business Issues, 8(2), 45–56.

- Schutte-Rodin, S. (2020). Telehealth, telemedicine, and obstructive sleep apnea. Sleep Medicine Clinics, 15(3), 359–375.
- Sharpp, T. J., Lovelace, K., Cowan, L. D., & Baker, D. (2019). Perspectives of nurse managers on information communication technology and e-Leadership. *Journal of Nursing Management*, 27(7), 1554–1562.
- Stanley, D., & Stanley, K. (2017). Clinical leadership and nursing explored:
 A literature search. *Journal of Clinical Nursing*, *27*, 1730–1743. https://doi.org/10.1111/jocn.14145
- Sutanto, J., Kankanhalli, A., & Tan, B. C. (2011). Deriving IT-mediated task coordination portfolios for global virtual teams. *IEEE Transactions* on *Professional Communication*, 54(2), 133–151.
- Tawfik, D. S., Profit, J., Webber, S., & Shanafelt, T. D. (2019). Organizational factors affecting physician well-being. *Current Treatment Options in Pediatrics*, 5, 11–25. https://doi.org/10.1007/s40746-019-00147-6
- Taylor, J. M., Santuzzi, A. M., & Cogburn, D. L. (2013). Trust and member satisfaction in a developing virtual organization: The roles of leader contact and experience with technology. *International Journal of Social and Organizational Dynamics in IT*, 3(1), 32–46.
- Tworoger, L. C., Ruppel, C. P., Gong, B., & Pohlman, R. A. (2013). Leadership constraints: Leading global virtual teams through environmental complexity. *International Journal of e-Collaboration*, 9(2), 34–60.
- Vallo Hult, H., Hansson, A., Svensson, L., & Gellerstedt, M. (2019). Flipped healthcare for better or worse. *Health Informatics Journal*, 25(3), 587–597.
- Van Wart, M., Roman, A., Wang, X., & Liu, C. (2019). Operationalizing the definition of E-leadership: Identifying the elements of E-leadership. *International Review of Administrative Sciences*, 85(1), 80–97.
- Verburg, R. M., Bosch-Sijtsema, P., & Vartiainen, M. (2013). Getting it done: Critical success factors for project managers in virtual work settings. International Journal of Project Management, 31(1), 68–79.
- Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing*, 52, 546–553.
- Williams, B., Perillo, S., & Brown, T. (2015). What are the factors of organisational culture in health care settings that act as barriers to the implementation of evidence-based practice? A scoping review. Nurse Education Today, 35(2), e34–e41.
- Wong, S. I., & Berntzen, M. N. (2019). Transformational leadership and leader-member exchange in distributed teams: The roles of electronic dependence and team task interdependence. *Computer in Human Behavior*, 92, 381–392.
- Yudha, H., & Susanto, T. D. (2019). E-Leadership: The effect of E-Government success in Indonesia. *Journal of Physics: Conference Series*, 1201(1), 012025. https://doi.org/10.1088/1742-6596/1201/1/012025
- Zigurs, I. (2003). Leadership in virtual teams: Oxymoron or opportunity? Organizational Dynamics, 31(4), 339–351.
- Zimmermann, P., Wit, A., & Gill, R. (2008). The relative importance of leadership behaviours in virtual and face-to-face communication settings. *Leadership*, 4, 321–337. https://doi.org/10.1177/17427 15008092388

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

How to cite this article: Terkamo-Moisio, A., Karki, S., Kangasniemi, M., Lammintakanen, J., & Häggman-Laitila, A. (2021). Towards remote leadership in health care: Lessons learned from an integrative review. *Journal of Advanced Nursing*, 00, 1–14. https://doi.org/10.1111/jan.15028

The Journal of Advanced Nursing (JAN) is an international, peer-reviewed, scientific journal. JAN contributes to the advancement of evidence-based nursing, midwifery and health care by disseminating high quality research and scholarship of contemporary relevance and with potential to advance knowledge for practice, education, management or policy. JAN publishes research reviews, original research reports and methodological and theoretical papers.

For further information, please visit JAN on the Wiley Online Library website: www.wileyonlinelibrary.com/journal/jan

Reasons to publish your work in JAN:

- High-impact forum: the world's most cited nursing journal, with an Impact Factor of 2.561 ranked 6/123 in the 2019 ISI Journal Citation Reports © (Nursing; Social Science).
- Most read nursing journal in the world: over 3 million articles downloaded online per year and accessible in over 10,000 libraries worldwide (including over 6,000 in developing countries with free or low cost access).
- Fast and easy online submission: online submission at http://mc.manuscriptcentral.com/jan.
- Positive publishing experience: rapid double-blind peer review with constructive feedback.
- Rapid online publication in five weeks: average time from final manuscript arriving in production to online publication.
- Online Open: the option to pay to make your article freely and openly accessible to non-subscribers upon publication on Wiley Online Library, as well as the option to deposit the article in your own or your funding agency's preferred archive (e.g. PubMed).