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Dimensions for a scale to evaluate the initial responses by organisational leaders against the pandemic


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Although there is a need for empirical studies to examine pandemic leadership, the existing scales of leadership assessment are controversial. The purpose, here, is to propose dimensions that could set foundations for an “organisational leadership evaluation scale” that evaluates the scientific significance of initial responses by organisational leaders against “the novel Coronavirus pandemic”. The research question is a practical one: “How can organisational leaders lead their organisations as a pandemic that has just started is increasingly raising concerns on health?”. Review research and a systematic review of the pre-pandemic publications about leadership, organisation, pandemic and health among various electronic scientific databases (e.g., Web of Science, Scopus, etc.) motivate new knowledge. The dimensions of what would have been a significant initial response to the pandemic are broadly emphasising health, having a global understanding, recognising competencies, not losing control and prioritising trust. These gender-neutral and style-free dimensions could form the dimensions of an “organisational leadership evaluation scale”. To perform, there is a need to support learning and “depth of knowledge” and to oppose superficiality, “convenience information” and “knowledge deficit”.

Introduction

The gap. During the early days of “the novel Coronavirus pandemic” (COVID-19), insignificant responses by leaders formed a crisis in leadership (Tourish 2020). Afterwards, an “infodemic” - which rapidly disseminated insignificant information - opposed the formation of significant responses (World Health Organization 2022) further and accompanied the crisis in leadership. Therefore, the creation of knowledge that leaders base their responses on is critical (Spector 2020). However, “knowledge management of leaders and their effectiveness and skills” - as an important topic - (Rowley et al. 2019; Wang and Byrd 2017; Rowley and Ulrich 2012), “has remained largely unexplored” and “requires a deeper, more comprehensive investigation” (Chin et al. 2021).

According to a systematic review, there was “limited clarity on how leadership manifested and was discussed in the literature during COVID-19”, and there was “a considerable opportunity to advance scholarship on leadership via further empirical studies that help to clarify different approaches to lead teams and organisations during a pandemic” (Dadich and Lopes 2022).

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Before doing so, there is another gap in literature. According to “a systematic review of 17 leadership scales developed in the new millennium”, “the majority of scales” lacked “some degree of rigour” (Crawford and Kelder 2019) before “the novel Coronavirus pandemic”. Therefore, new empirical studies may require new scales to evaluate the initial responses by organisational leaders against the pandemic in terms of significant scientific information sources.

The research question. For example, if organisational leaders - that had neglected scientific online sources - had consulted these sources when the pandemic had started, they would have developed significant initial responses (e.g., in support of deep knowledge against superficiality that could neglect lessons). The starting point is a practical research question that empathises with organisational leaders. How can organisational leaders lead their organisations as a pandemic that has just started is increasingly raising concerns on health?

Answering the above research question, today, by reviewing literature of that time could reveal a significant initial response against the pandemic. It is timely that comparing this response to the actual responses during the pandemic could function as dimensions for an “organisational leadership evaluation scale” that evaluates the significance of initial responses. It is timely to communicate neglected lessons in order to fill critical gaps in planning, lessen vulnerabilities and improve preparedness.

Assumptions and potential prerequisites. Before a significant initial response against the pandemic, various factors could have led organisational leaders towards electronic scientific databases that technology provides. For example, the organisational leaders could have considered: the role of technology in objectivity and reality, depth of knowledge instead of superficiality, challenges in leadership and openness to knowledge in and out of crises.

The role of technology in objectivity and reality. First, introducing subjective practitioners to objective research could be challenging. It is common knowledge that researchers and practitioners that employ the positivist philosophy in scientific research assume that there is an objective reality as they develop theories, hypotheses, propositions and ideas or as they implement implications. However, persons might have different understandings of reality. A key factor is the understandings about what reality is while selecting a philosophical foundation among positivism, critical theory and interpretivism (Rashid et al. 2019).

Widespread assumptions in general public are not the only ways to approach reality. For example, the simulation theory uniquely examines reality in terms of technology. This theory proposes that “we are almost certainly living in a computer simulation” (Bostrom 2003).

Even without considering the simulation theory, technology affects humans. Humans experience fast and advanced developments in terms of “technological, scientific, cultural and social” changes (Journal of Posthuman Studies 2002-2021). If reality is a construct or a product of technology, and if technology affects human, the current relationship between human and technology could be unbalanced in favour of technology.

When one does not consider technology, too, philosophy could step in. For example, Plato highlighted the tension between “really real” and “seemingly real” (Kroner 1954). When human is the creator of technology, when technology surrounds human, when advanced technology manufacturing is absent, or when imaginations or manufacturing of advanced technology is present, the interface among human, reality, technology and

knowledge is of tension. Searching for a “common reality” could be challenging.

Depth of knowledge instead of superficiality. Second, while approaching objective research, there could be tension between superficiality and deep knowledge. What distinguishes deep knowledge from its opposing force - superficiality - could be the commitment to oppose misconception-based implementation. For example, preferring deep knowledge and understandings could help overcome the limited adoption of significant information.

A rationalisation behind superficiality could be assuming and believing that a stranger will (or should) have uploaded an open solution that is ubiquitous. One might treat available information as if it were “convenience information”. This convenience can move an idea away from its unique potential like a convenience product that moves a product away from its unique branding potential. Similarly, it can keep available data and information from transforming towards knowledge and wisdom. Therefore, a main perspective of this piece develops over marketing thought and supports “the depth of marketing”. This main perspective is that the superficiality in “convenience information” and the possibility of finding significant informational resources within clutters of information while facing a problem do not turn persons into knowledgeable and skilful leaders at their organisations. A divide such as “knowledge deficit” between learning at the organisation and knowledge available outside could become a major concern (with inspiration from the conception of “current account deficit”). “Knowledge deficit” could widen because of superficiality and the way superficiality neglects deep knowledge. Then, leadership practices could deviate from implications of significant resources.

Leading or managing during the pandemic could relate to main organisational activities and processes. This is different from “managing the pandemic” that depends on the effective use of knowledge resources in order to be protected from the virus (Abdalla et al. 2022). Correspondingly, although the pandemic - as an exogenous crisis that the nature provides - is not the fault of brands, there is a research priority to determine the “types of organisations” that “are more receptive to learning from a crisis and open to structural changes” (Whitler et al. 2021). The role of leadership in this is intriguing.

Challenges in leadership. Third, leaders may want to determine when to step back, and to help improve others before, while or after improving self. Abdalla et al. (2022) paraphrases that “it is now widely accepted that the challenge of knowledge management is to understand how to create practical solutions to support individuals, groups and organisations as they generate and capture multi-faceted knowledge so as to suit the particular requirements of the context of their application” (Despres and Chauvel 2000). So, practitioners may not lead the same during both crises and normal times (Ramos-Pla et al. 2021). For example, there had been several calls to develop plans for pandemic readiness, however, many plans did not explicitly examine essential concerns, afterwards (O’Mathúna 2019). This ambiguity increases the need for both leadership and its evolution (Denis et al. 1996), paradoxically.

Surprisingly, during the pandemic, “unleading” that undertakes leadership activities without highlighting leadership was prominent instead of heroic models of leadership that highlight leadership activities (Kars-Unluoglu et al. 2022). Acknowledging leaders as leaders could be a problem. One could search for leading knowledge and skills among leaders and non-leaders, and inside and outside organisations. There could be non-leaders that

act better than leaders without trying to be leaders and without searching for followers. So, challenging knowledge gaps among organisational leaders is reasonable (e.g., incompetent leaders). The diffusion and utilisation of significant knowledge during the pandemic is crucial.

Openness to knowledge in and out of crises. Fourth, not only “lessons learned” but also “lessons neglected” could be crucial. As COVID-19 impacts firms; “lessons learned” could help generate “implications for businesses, staff and external stakeholders” (Ng et al. 2022). According to their conceptual framework, if “the knowledge requirements of production” do not generate “lessons learned”, this absence of “lessons learned” could interrupt the flow towards implications. This absence implies the role of “lessons neglected”.

Ability to select and understand research results (Ardimento et al. 2006), implications and “lessons neglected” is crucial. However, there could be problems about the diffusion of significant information among organisational leaders (e.g., incongruity between the high availability of scientifically significant online resources and the low adoption of implications that these resources communicate, organisational leaders that are in steps prior to the adoption of scientific knowledge).

The diffusion theory. Fifth, there could be a sixth stage (e.g., readiness to implement) for the adoption of innovations in the diffusion theory. The first five stages are awareness, interest, evaluation, trial and adoption (, and the diffusion theory is included within the theories of cognition and behaviour - which examine cognition and predict behaviour -) (Lattimore et al. 2012). The way organisational leaders adopt managerial implications (e.g., an innovative new idea) could resemble the way they adopt innovation. However, the person should be able to implement an idea or implication whenever a related situation occurs. On the other hand, not being exposed to scientific thinking can keep this process from starting (like a prerequisite). This is not an easy task for organisational leaders that want to or do not want to engage with thought-provoking perspectives. Increases, decreases or ambiguities in the probability of adopting a significant scientific idea after each stage could be decisive.

What produces the corresponding level of knowledge - according to the knowledge hierarchy that showcases the transformation of data into information, knowledge and wisdom, respectively (Ackoff 1989) - is the movement forward in the knowledge hierarchy. Wisdom as a goal is no coincidence. For example, experience economies could move beyond knowledge and experiences towards wisdom and transformations (Pine II and Gilmore 1999). For example, wisdom - “human wisdom” - is an element of the 4Ws which is a new perspective for the marketing mix (Kotler 2015). However, there could be a lack of common ground among different knowledge types (Drucker 1993). This lack of common ground might evoke discussions on what real is, again.

The approach. The assumptions and potential prerequisites expose organisational leaders to what scientific reality is, tensions in terms of knowledge utilisation, surprising results in recent leadership research, the diffusion of knowledge in and out of the pandemic and being ready to implement implications. Afterwards, it is reasonable to conduct a systematic review on electronic scientific databases. The theoretical contribution is a five-dimension approach for an “organisational leadership evaluation scale”. The dimensions are broadly emphasising health, having a global understanding, recognising competencies, not losing control and prioritising trust. Therefore, the purpose of this

theoretical piece is to propose dimensions that could set foundations for a scale that evaluates the scientific significance of initial responses by organisational leaders against “the novel Coronavirus pandemic” (COVID-19).

Methods

Methodology involves qualitative research, “review research”, systematic review and scale development that get close to theory development. First, a qualitative approach is appropriate while examining previous publications in depth. The research question and the study purpose help justify the use of qualitative research which helps “study a particular phenomenon in depth” (Anderson 2010).

Second, the research class is “review research”. “Review research” is “a class of research inquiries that uses prior research as data sources to develop knowledge contributions for academia, practice and policy”; “explaining is often driven by a particular question or set of propositions”; and “the search method is often undefined and subjective, but also systematic” (Kunisch et al. 2023).

Third, the search method is a systematic review on electronic scientific databases. The qualitative data type is documents. The below replicable criteria form the selection method:

Criterion 1: The database should be an electronic scientific database of high-quality scientific publications.

Criterion 2: The abstract of the manuscript should include these keywords according to the search engine of the database or the library: organisation, leadership, health, pandemic.

Criterion 3: The manuscript should have been published before 2020.

Criterion 4: The manuscript should be in English.

Criterion 5: The manuscript type should be a scholarly journal article type including conference papers in journals.

The main databases are Web of Science and Scopus. The second group of databases have search engines that are open to the general public online: BioOne Digital Library (BioOne 2023), EBSCOhost (EBSCO 2023), JSTOR (ITHAKA 2023), ProQuest (ProQuest 2023), PubMed (National Library of Medicine, n.d.), SAGE Reference Online (Sage Publications, 2023), ScienceDirect (Elsevier, 2023), Springer (Springer Nature, n.d.), Taylor & Francis (Informa UK Limited 2023), Wiley Online Library (John Wiley and Sons 2023). This variety could help represent the state of accessible literature at a single point in time.

The research question reveals the search keywords. The Boolean expression is: organization AND leadership AND health AND pandemic. A deviation is: (Abstract:(organization AND leadership AND health AND pandemic)) AND (Publisher:(Springer)). The research scope motivates an examination of the pre-2020 publications. The World Health Organization (WHO) (2020) - as the main authority - published the first “situation report” on 21 January 2020. On 11 March 2020, they announced that the outbreak turned into a global pandemic (Cucinotta and Vanelli 2020). The language criterion is because of international concerns. The manuscript type criterion is because of significance, accessibility and inclusivity. The sample could include conceptual and empirical pieces, book reviews, case studies, commentaries, interviews, letters to the editor, perspectives, etc. in order to benefit from scholarly conversations to a great extent. Because of significance and accessibility issues, the sample could exclude abstracts, books, book chapters, conference proceedings, dissertations, encyclopaedia articles, magazine articles, news, reports, theses, tables of contents, trade journals and working papers. However, how to utilise accessible records could form a dilemma. Additionally, the protocol reporting guideline is PRISMA (Preferred Reporting Items for Systematic Reviews and

Meta-Analyses) (Page et al. 2021). The diagram creation tool is by Haddaway et al. (2022). The registry platform is Open Science Framework (OSF) (Bozkurt 2024a).

The below considerations distinguish among results, discussions and implications:

Consideration 1 (optional): Researchers may want to read the selected publications in a chronological order which could help figure out where to start and examine the formation of cumulative knowledge.

Consideration 2: Although “discussion often is incorporated into the results in qualitative papers” (Anderson 2010), researchers could separate results from discussions in order to clarify originality.

Consideration 3: Results could reveal the focus of examined publications. Researchers could question what new knowledge would make a manuscript incomplete if left out.

Consideration 4: Discussions could reflect a unique perspective.

Consideration 5: Discussions could gather around a minimal number of clear essentials.

Consideration 6: Implications could include testable propositions.

Fourth, this piece corresponds to theory generation. According to “a systematic review of leadership scales”, the first stage of scale development is theory generation which comes before item development (Crawford and Kelder 2019). Their sequence for a “best practice guide for theory generation” is: “specify elements that have relationships of interest”, “explain inter-element relationships”, “justify and explain the assumptions of the theory”, “explicate clear definitions for each element and the theory”, and “identify semantic relationships with other constructs”.

Results

Records and sample. According to the search results, the abstracts of 255 pre-pandemic records include the keywords as of 6-7 December 2023. The number of records per databases are: Web of Science (25), Scopus (42), EBSCO Discovery Service (96), ProQuest (32), Wiley Online Library (23), PubMed (20), Springer (7), ScienceDirect (4), Taylor & Francis (4), JSTOR (2), BioOne (0), SAGE Reference Online (0). The records include the sample (46 publications), duplications that the author removed (97), duplications that search engines removed from search results (47), excluded manuscript types (34), non-English manuscripts (4), different search engine approaches to search keywords (15) and the manuscripts that the author did not have access or information about (12) (See Supplementary Appendix for Fig. 1). The examined publications - along with struggles and achievements explained within - have implications for various organisations (See Supplementary Appendix for Supplementary Tables I–V).

Results that highlight the scope of public health. Various publications challenge assuming health as medicine. For example, Stuart (2000) explains that: The WHO’s constitution includes a broad definition of health that extends beyond medicine. However, health planners usually consider medicine more than societal and behavioural aspects. Therefore, the gap between an expanding pandemic and a narrow response could widen. So, health and non-health concerns (e.g., “the gap between developed and developing countries”, vulnerabilities, failures, successes, culture, taboos) could impact public health. Moreover, Mann (1997) mentions the need to extend public health towards societal conditions and the human-rights movement.

Results that highlight the internationality of the situation. Various publications challenge underestimating a pandemic. For example, Mann (1987) states that: “A worldwide effort will stop” a pandemic (e.g., the Acquired ImmunoDeficiency Syndrome (AIDS)). Pandemics require both an international programme and national committees in each country that “develop national plans”. However, pandemics do not quickly end. For example, “neither vaccine nor therapy” are immediate. So, responses require “equally unprecedented creativity, energy and resource”.

Various publications challenge assuming a pandemic as a concern of a few countries. For example, Abubakar et al. (2013) conclude that “major conceptual change and visionary global leadership could help move away from the conventional view” of “a disease of poor nations” (e.g., drug-resistant tuberculosis). Draine et al. (2011) highlight the “global perspective” while examining the “critical success factors” that the United States and the European Union could provide in terms of “pandemic preparedness planning”. Fee et al. (2008) explain that “health for all” considers health work as a “part of socioeconomic development”, and “global health” reflects the transition from “international health” to “global health”.

Various publications challenge taking gaps between countries for granted. For example, Ong (2008) examines the dichotomy of developed and developing countries: Singapore and Indonesia are examples to “scales of exceptions” where the “tropical geography” and its “human-animal symbiosis” could trigger outbreaks (e.g., AIDS, Severe Acute Respiratory Syndrome (SARS), avian flu). In Singapore, there is a technological hub that relies on science in harmony with global requirements against a pandemic (e.g., avian flu) as an exception to the third world assumption. Indonesia sets a counterexample, challenges global requirements during a pandemic and relies on local requests (e.g., by farmers during the avian flu). Urdaneta et al. (2004) mention another example that features the capacity development story of a woman leader in a community in Africa (e.g., AIDS).

Various publications challenge paternalism in favour of partnerships. For example, Wenham (2018) states - while examining regional power - that stakeholder networks contribute to a shift from paternalism to partnership. In doing so, Riggiozzi (2015) states that regional integration could extend beyond trade towards health and welfare policy. Moreover, Shu et al. (2019) examine the partnership between the USA and China between 2004 and 2014 in terms of “human technical expertise”, “a surveillance system”, “surveillance data” and “early responses to influenza viruses with pandemic potential”. Overall, Goosby et al. (2012) highlight this shift in international development and global health, and another shift from emergency to sustainability: Success is of “the innovative, talented and creative”.

Various publications reveal a debate about how to internationally authorise. For example, Milmo (2016) calls to revitalise the WHO - that has a near-universal state membership - instead of having separate organisations with separate responsibilities. Gostin and Katz (2016) state that: There could be a need to empower the WHO and reach the potential of the International Health Regulations (IHR) by effective leadership. In doing so, metrics, innovation, commitment, techniques and funding could improve the core capacities of the IHR. On the other hand, Hoffman (2010) considers an emerging period of global health security governance: A new period could combine “greater authority for the WHO, a concert of powers, developing countries and civil society organisations”. For example, vulnerabilities such as a new pandemic could motivate a new period. Second, there are also other global health security organisations. Third, states have been increasingly utilising the tools of medical knowledge. Fourth, treaties such as the IHR could have limitations. For example, Nicoll et al. (2012) state that the first IHR came so recently (e.g., after SARS).

Results that reveal the state of leadership. Various publications authorise leadership. Mann (1997) states that leadership is central to public health regardless of diseases that cause pandemics (e.g., the leadership of a revitalised WHO). Botelho et al. (2009) state that there is “a need for innovation and transformational leadership”. Szekeres (2008) explains that leaders could “maintain momentum against the epidemic”. For example, Draine et al. (2011) elaborate that: “Strong leadership support” is a “critical success factor” in “pandemic preparedness planning”. All factors could help narrow the gap between great concerns about pandemics and limited preparation. The other factors include “plan development, having logical response plans, exercising plans, clear operations and implementation policies, adequate budget/resources, effective public communications and outreach, and staff training”.

Various publications imply the competency confusion. Cox and Danford (2014) indicate that “flexible, adaptable, but systematic” competency-based approaches not only increase performance but also improve wellbeing (e.g., psychosocial responders). In doing so, Regan et al. (2014) consider leadership a core competency in human resources (e.g., in public health): There are also other thematic areas that could relate to leadership such as capacity, according to policy documents. For example, Szekeres (2008) suggests leaders could have vision and be creative and not label “challenging yet solvable problems as impossible” to solve. Moreover, Nicoll et al. (2012) state that - while examining the state of pandemic preparedness in Europe -: Although leadership is the key to both converging different plans and uniform application, and although leadership helps prepare for a pandemic with up-to-date plans, there has been no standards to it. Filice et al. (2013) reveal that although leaders announce a great deal of preparations, most were not aware of state guidance or organisational plans (e.g., emergency paediatric leaders at hospitals).

Various publications prioritise competencies of leader candidates. Szekeres (2008) states that leadership development could be the greater need among leadership and leadership development (e.g., against AIDS): Leaders could raise new generations that can generate new approaches. For example, Hewitt et al. (2008) add that (health) students, practitioners and stakeholders could utilise best practices and scenarios and learn about leadership competencies such as communication skills and decision-making. Jaini et al. (2018) add that leadership awards could recognise (medical) student-led (lifestyle medicine) movements.

Results that raise multiple concerns. Various publications reveal issues that surpass practices and operations at a non-authority organisation. First, Michel Sidibé - the executive director of UNAIDS, the United Nations agency - states that “our weaknesses were a result of the magnitude of the issue, we have been trying to do everything for everyone” while responding to a question by Nair (2009) - “What has worked and what has failed?” in terms of AIDS -. However, Horton (2012) comments on a World Health Assembly: The WHO cannot do everything. There is a need for focus and priorities. For example, Fineberg (2014) explains their international committee report that the WHO requested (e.g., the influenza pandemic in 2009): The world is “ill prepared” for a pandemic. The main limitations are in scientific knowledge and technical capacity. There are needs for a deeper understanding (e.g., in biology and epidemiology) and innovative methods. There could also be needs to simplify the official descriptions and actions and clarify what a pandemic is by considering both spread and severity, not only spread. Moreover, Tambo et al. (2014) reveal the need for surveillance response systems (e.g., in Africa): Because of cultural and behavioural

factors, “accelerating the response through provision of minimum essential information could be appropriate”. Burkle (2015) states that: “The global community can no longer tolerate” a problematic “international response system”. Honigsbaum (2017) elaborates that the officials had previously declared false, missed, delayed or rapid alarms, and such problems are likely to occur again.

Various publications challenge the bases of practices. Diaz et al. (2018) highlight the need for evidence-based guidelines: For example, three-day courses on evidence-based guidelines that target professionals could strengthen capacity and improve management (e.g., patient management) in low- and middle-income countries by focused content and case-based discussions. To do so, Fitchett et al. (2016) state that there is a need to promote evidence-based research by strategic funding (e.g., public, private and philanthropic resources). However, Botelho et al. (2009) reveal the tension between evidence- and experience-based approaches (e.g., during the tobacco pandemic): “Experience-based learning innovations can help individuals address the limitations of evidence-based guidelines” (e.g., in terms of learning organisations, developing countries, behaviour change, social movements).

Various publications consider the role of stakeholders in practice. For example, Baekkeskov (2016) asks “Why do similar countries facing the same threat respond differently?”: Policies (e.g., on vaccination) differ in Denmark and the Netherlands (e.g., influenza). While making decisions under uncertainty and urgency, stakeholders may want to maximise their gain, experts may want to follow standards and norms, politicians may want to stay away from blame or to demonstrate their value. Balthasar Staehelin tells Cipullo (2019) that the focus should be “on the people, not on politics.”

For example, Cooper and Crandall (2006) make suggestions while examining the roles of stakeholders (e.g., pharmacists) in pandemics (e.g., influenza): Responses should be effective to affect the impact of a pandemic during its waves and peaks. Economic costs are a concern. Productivity would decrease and employee absenteeism would increase. Despite the experience during previous outbreaks, health services could be problematic (e.g., short supply, poor communication). Therefore, previous plans and blueprints could provide guidance when a pandemic comes. For example, Lyons et al. (2009) elaborate that exercises and lessons learned in planning (e.g., operational planning) could help stakeholders discuss solutions to vulnerabilities and issues such as lack of communication and business discontinuity: The major vulnerabilities that the examined exercise reveals are “in planning, response, resource utilisation and the decision-making process”.

Various publications indicate that the continuity of operations is a challenge. Tosh et al. (2014) state that vulnerabilities (in supply chain) and preparedness (in information technologies) feature key processes in order to continuously operate organisations (e.g., in healthcare services). For example, Reeder and Demiris (2010) propose flexible scenarios to enable continuity: “Pandemic decision-making scenarios” (e.g., at a public health agency in an urban area during a flu pandemic) distinguish among services (e.g., priority of each service, critical services, non-essential services, essential services, functioning and non-functioning facilities, service delivery capacity), staff (e.g., staff reductions, skill sets, job rotation, reductions, attendance, movement, remote work), resources (e.g., resource requests, supply inventories, vaccines), and digitisation and decision support systems.

Various publications indicate that staff health is a major responsibility. For example, Lucchini and London (2014) recommend “a harmonised global market” instead of production in countries that have “global occupational health” limitations

where pandemics could extremely affect. Michel (2018) highlights disaster mental health needs and suggests considering work related stress and different kinds of first responders.

However, public health services could have problems. Kebede et al. (2011) highlight “the shortage of skilled human resources at all levels due to high attrition and turnover of trained personnel” (e.g., in surveillance and laboratory services in Rwanda). Nayyar et al. (2015) consider false medicines as a problem of misleading, especially in low- and middle-income countries: Sustainable development goals could motivate to overcome this problem of quality. Nicol et al. (2016) highlight the need for accurate and reliable data in terms of sustainable development goals (e.g., in South Africa). Alemnji et al. (2014) highlight sustainability as the main direction (e.g., in Africa).

There are also other diseases. Jakovljevic et al. (2019) state that health financing sustainability for non-communicable diseases is challenging. Perone et al. (2017) - in order to improve humanitarian responses to non-communicable diseases - question priorities, targeting, capacity, continuity, algorithms/guidelines, medication, ethics, accountability, monitoring and additional concerns.

Results that embed trust. Few publications mention the embedded role of trust. In doing so, DuHamel (2009) uses previous lessons (e.g., SARS) to develop a crisis communication model for internal communications while responding to another pandemic (e.g., swine flu): The shift of focus from external communications to internal communication motivates the model. The model proposes that “the two-way symmetrical model of public relations” could help reassure staff, trust in internal corporate messaging from leadership could help staff be productive in an environment of outside noise, and empowered staff could behave along the lines of internal corporate messages without distorting the essence of messages. While leading through the model, knowledge is the basis.

Discussion

Emphasise health broadly. Objective research could challenge impressions and superficial understandings of organisational leaders and could help them question their assumptions if they are open to new knowledge. Deeper knowledge could motivate organisational leaders re-think their perspectives. They could also argue that different levels of knowledge could accompany different understandings of reality at their organisations. Therefore, organisational leaders could face challenges at different levels in order to be able to implement, significantly. For example, the current definition of a familiar keyword such as health could be different from widespread assumptions. According to the results, non-health concerns have become a part of health because of the broadening definitions of health.

Have a global understanding. Both the broad conceptualisation of health and the spreading pandemic indicate that the situation is international. However, having a global understanding could serve better than having an international understanding around a few countries. According to the results, organisational leaders could generate creative responses as exceptions to the situation, benefit from partnerships and position their responses with respect to the global level.

Recognise competencies. Results indicate that although there is a need for leadership in order to respond to a pandemic, having competency or potential in significantly doing so could be decisive. Competencies are supposed to fill critical gaps in planning, lessen vulnerabilities and improve preparedness, therefore,

improve the leadership gap. Competencies could regulate how organisations respond to a pandemic.

For example, daily operations could demonstrate the relevance of prior strategic tasks, the prior and current use of competency, and the state of preparedness. For example, (strategic) planning is not supposed to lead towards vulnerabilities and unpreparedness. However, a pandemic could increase the uncertainty in the organisational environment which was already uncertain before the pandemic. Decision-making under uncertainty could become an essential requirement. To do so is challenging not only at organisations but also in management science, therefore, in statistics. However, scenarios could help organisational leaders during challenges.

Do not lose control. According to the results, many challenges include the outside authorities (e.g., the WHO), the tension between evidence- and experience-based approaches, stakeholders, the continuity of operations and staff health. These instances could generate distraction and deteriorate control within or beyond organisations. Taking control of personal and organisational lives becomes an essential responsibility for organisational leaders and others.

Prioritise trust. Results indicate the decisive role of trust while leading organisations during a pandemic. For example, trust-based objective relationships could produce meaningful contributions to a shared purpose according to an organisation and its stakeholders as the mastery of scientific knowledge generates this objectivity. Opposing forces could generate the question of what or whom to trust. These problems could affect how organisations and organisational leaders look for information, how they progress through the data-wisdom hierarchy, and how they respond to a pandemic.

Implications

The main proposition for an “organisational leadership evaluation scale”. The above discussions and the answer to the research question are intertwined. After the prerequisites that motivate organisational leadership towards scientifically significant sources and resources, they could emphasise health broadly both in the presence and absence of health issues. The definitions of health extend beyond the traditional medical model and its medical questions (Quick et al. 2007). The concept of health is being “broadened” (Quick et al. 2002). This approach is not a figure of speech, but a different understanding of health, and extends beyond health-as-a-dichotomy in favour of sustainability. Therefore, the initial goal of organisation development could revive. This goal had two main components - organisational health and organisational effectiveness -, however, effectiveness has dominated the goal (Schuyler et al. 2016). Although organisational and individual health have varying attributes, both develop over the same categories (Quick et al. 2007, Ryff and Singer 1998). This organisational basis could serve as a starting point for establishing an organisation and could protect against organisations that produce, support, manipulate any illness or that are against treatments. Otherwise, it could be a time-consuming organisational transformation.

Afterwards, trust could develop over healthy foundations. Trust is a priority because the link among trust, effective leadership, internal communication and organisational preparedness generates resilience during a surprising pandemic (e.g., flu) (Longstaff and Yang 2007). For example, the “flow of trusted information makes the organisation itself more resilient by increasing its capacity to learn from each new crisis” (Longstaff and Yang 2008). As trust along with trustable sources and

resources of significant knowledge could become invaluable during a pandemic, this responsibility could motivate organisational leaders to recognise various competencies.

Recognising competencies could reveal a need for organisational leaders to decide when and why to step back. Looking for and building trust could function as a guide. While recognising competencies, gaps in both knowledge and the current state of literature, as well as the multiplicity of distractors, could deteriorate control on organisational activities. Not losing control could become a requirement. However, organisational leaders could not implement this road map without having a global understanding in terms of leadership, organisations, knowledge and pandemics.

An “organisational leadership evaluation scale” could develop over five questions that question the presence of essential dimensions of a significant initial response and could help search for both scientific significance and gaps in leadership performance at organisations. The questions motivate a main proposition.

The questions for each dimension are:

- Did an organisational leader broadly emphasise health?
- Did an organisational leader have a global understanding?
- Did an organisational leader recognise competencies?
- Did an organisational leader lose control?
- Did an organisational leader prioritise trust?

The questions could also serve as a way to evaluate activities of oneself:

- Did I broadly emphasise health?
- Did I have a global understanding?
- Did I recognise competencies?
- Did I lose control?
- Did I prioritise trust?

The main proposition: An “organisational leadership evaluation scale” in terms of an initial response to the pandemic could involve five dimensions: (1) broadly emphasising health, (2) having a global understanding, (3) recognising competencies, (4) not losing control and (5) prioritising trust.

Organisational leadership could be about developing a significant initial response and maintaining significant leadership throughout the pandemic. It could involve activities of preparedness before the pandemic and learning after the pandemic. Otherwise, changes in both leadership and leaders could be necessary. This is like distinguishing a manager (“default identity”) from a leader (“emergent and desirable identity”) (Carroll and Levy 2008).

Here, leadership is about the traditional and widespread meaning of the term. Leaders could be persons that assume themselves as leaders. There might be persons that notice the actual or potential leadership in other persons. They might empower, follow or criticise leaders that officially hold or that claim to hold authority, responsibility and influence. Evaluating leadership activities could be meaningful according to a majority of persons and organisations. However, there could be persons that do not highlight leadership, that act better than leaders without being leaders, without being followers, and without searching for followers. There could also be persons that want to fulfil their potential in leadership but that face challenging situations at organisational, personal or private environments. However, the main proposition provides a road map and measurement. There could be occasions that one may not destroy skills of themselves, and skills of a person may not make others skill-free.

What is new? The theoretical contribution corresponds to a clear statement that addresses a great problem. There is a need for a

scale to evaluate the initial responses by organisational leaders against the pandemic. The study highlights and borrows from essential debates about the foundations of science and knowledge. The approach considers “the timely use of significant knowledge” as a main concern in the organisational leadership evaluation domain. With respect to an ideal event sequence (Buchanan and Denyer 2013), insignificant initial responses could keep organisations from leading during the pandemic. Organisations could get stuck after the event and before their starting point.

“The novel Coronavirus pandemic” revealed a need to evaluate leadership in new scholarly ways. If the conception of leadership should evolve is currently clearer. “A tendency toward evolution” was one of the three propositions of an attempt to develop a general theory of leadership (Halall 1974). A leadership evaluation scale could contribute to such evolution.

An “organisational leadership evaluation scale” could help prevent the absence of grounded action that could negatively impact everyday lives. Persons must have felt the impact of organisational leadership practices on their everyday lives depending on their own observations or interpretations. The debate on how persons observe or interpret leadership in their everyday lives is an ongoing one in leadership literature (Kelly 2008).

The causes of these negativities could relate to the knowledge and skills of organisational leaders. For example, during a time of decline which is also an “evolving organisational context”, leaders could act according to their “substantive roles”, instead of their “symbolic roles” (Eggleston and Bhagat 1993). In doing so, “‘negative capability’ supports ‘reflective inaction’, that is, the ability to resist dispersing into defensive routines when leading at the limits of one’s knowledge, resources and trust” while ‘positive capability’ supports ‘decisive action’” (Simpson et al. 2002). Therefore, “knowledge leadership” (Fischer et al. 2016) could be a requirement.

Contributing to the evolution of leadership with an “organisational leadership evaluation scale” that highlights the use of advanced knowledge is reasonable in terms of both organisational and private lives. As COVID-19 changes and endures (Phillips 2021), new knowledge that this piece adds to literature develops over below interpretations.

First, the dimensions demonstrate what would have been a significant initial response to the pandemic. Second, there is a need for such a scale in literature. Third, the dimensions depend on knowledge, not on previously established leadership styles, personal idiosyncrasies and demographics. “Could leaders have done more?” and “What styles of leadership are most effective?” during the pandemic (Johnson and Piccolo 2022) are the questions that the above interpretations relate to.

The above third point is different from what recent leadership literature assumes and suggests. The first main difference is that the main proposition reveals a gender-neutral approach. Justifying the “think crisis - think female phenomenon” because of interpersonal skills of women and promoting women leaders that excel at interpersonal skills (Ryan et al. 2011) are not what these dimensions imply. For example, despite general claims about the superiority of women leaders during crisis (Blake-Beard et al. 2020; Dirani et al. 2020), “better leadership during crisis” does not depend on gender differences in terms of some “leader behaviours, perceptions and evaluations” (Eichenauer et al. 2022). This is not an excuse against promoting women leaders. Gender inequality is still a reasonable starting point (Eisler 2016). The gender-neutral ability instead of interpersonal skills of women could justify this difference. This gender-neutral approach could serve both as a gateway for women to leadership and an opportunity to reduce gender dominance at such positions.

The second main difference is that the main proposition reveals a style-free approach. The dimensions do not highlight a specific approach or a leadership style that was established in literature. A bibliometric analysis states that leadership trends during the pandemic highlight some leadership approaches such as non-traditional leadership (adaptive and agile leadership) and less-hierarchical leadership (shared, participative and emergent leadership) that do not depend on heroic and charismatic leaders, however, selecting and merging approaches depend on where it will be applied (Bauwens et al. 2022). However, the main proposition does not gather around the determining factors of any established leadership style. Additionally, this approach to leadership could oppose leadership styles that do not consider the dimensions.

Limitations and future research. Researchers are welcome to join the conversation. The most thought-provoking challenge is generalising a scale to pandemics. A pandemic is a rare situation. There are eleven main instances in history (Huremović 2019). However, pandemics are extreme situations, and humans cannot afford careless responses. For example, COVID-19 has negatively affected the sustainable development goals that the United Nations has set (United Nations 2022). Correspondingly, responses to a pandemic could develop over previous related or seemingly unrelated literature. For example, the “COVID-19 pandemic is unprecedented, but the global response draws on the lessons learned from other disease outbreaks over the past several decades” (World Health Organization, 2024). A main instrument of a response is the “R&D Blueprint” (Piret and Boivin 2021). Therefore, an “organisational leadership evaluation scale” blueprint could accompany this ongoing process amidst generalisability challenges and could help be vigilant.

Future research could examine publications from 2020 and after in order to distinguish between before and after the pandemic. There could be additions to the scale or different versions. Second, researchers could examine other databases (e.g., ArticleFirst, BioMed, BIOSIS, CINAHL) or the same databases differently (e.g., there are differences among search engines and abstract information). Additionally, publishers could provide the missing abstract information. Third, the study navigates through the sample with a question, criteria and considerations. Researchers could reveal different paths that solve different research questions. Researchers could also solve the same research question differently, link research scopes to each other and elaborate on contingencies. Fourth, there is a need to test the logical relationships in the text. Researchers could consider that each dimension could have its own sub-components and customised sub-road maps (e.g., while transforming into a healthy organisation). Fifth, item generation and other statistical steps of scale development and model development are among the priorities.

There are opportunities for future research due to concerns about innovation, knowledge societies, incompetent leaders and unexpected events. First, disruption that comes from the nature implies that innovation could be a natural phenomenon. Such disruption also asks organisations and persons to be innovative, creative and adaptive. The nature is an undisputed demanding force. Second, researchers could re-examine whether societies that are assumed as knowledge societies are truly knowledge societies or not. Can a society be a true knowledge society or is it only a society where some parts of it are knowledge-oriented and motivated by knowledge? Third, examining incompetent leaders or unhealthy leadership at organisations that are assumed as developed organisations in emerging countries could be intriguing. Researchers could consider that decision-making mostly develops over emotions according to brain studies (Siegel 2001).

Considering healthy emotions among organisational leaders and examining current and previous emotions and actions of them against competing or not competing leader candidates are reasonable. Fourth, considering if factors about unexpected events like “the novel Coronavirus pandemic” might remain as moderators in (marketing) research models is intriguing. During these tasks, the use of non-probability sampling without contributing to debates in statistics is not suggested. Fifth, artificial intelligence assistants could help accelerate the formation of new knowledge via these scientific studies. It could also be exciting to think about “artificial intelligence quotient”.

Conclusion

There is a need for scales in leadership assessment before new empirical studies. For example, “the novel Coronavirus pandemic” could also motivate an “organisational leadership evaluation scale”. The assumptions, potential prerequisites and a review research reveal that the dimensions of the scale could be broadly emphasising health, having a global understanding, recognising competencies, not losing control and prioritising trust. It is motivating that these dimensions are gender-neutral and style-free. Correspondingly, healthy and willing organisations could become agents of public health.

A familiar main direction develops over this basis: Scientific competency could be integral to the organisation. A turning point could be supporting learning and “depth of knowledge” instead of basing on superficiality, “convenience information” and “knowledge deficit”.

Data availability

Supplementary Tables I, II, III, IV and V in the article feature the sample dataset. The dataset (Bozkurt 2024b) is also available on journal’s open data repository - Humanities & Social Sciences Communications Dataverse (HSSComms Dataverse) - on Harvard Dataverse.

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