It's a battlefield! A thematic analysis of narratives shared in Cape Town emergency departments

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ABSTRACT

Background The Emergency Department(ED) team need to make sense of an ever-changing dynamic environment. The stories people tell about everyday occurrences are central to how sense-making occurs. These stories also contribute to organisational culture, with the frequently told narratives maintaining organisational identity and shaping behaviour. By capturing stories in the ED, valuable insights can be gained into organisational culture and identity.

Methods Non-random purposive sampling was used to recruit doctors and nurses from EDs in five hospitals in Cape Town. Data collection took place over 8 weeks between June and August 2018. Participants were asked to tell a short descriptive narrative, provide a title for their story and create a metaphor to describe working in the ED. Data were captured using the SenseMaker Collector tool, and stories were exported into a Microsoft Excel spreadsheet for analysis. An inductive thematic analysis was undertaken to discover the dominant themes.

Results Stories were collected from 89 participants. Five did not meet the inclusion criteria and were excluded. Four themes were identified. The theme *'the usual chaos'* included stories about everyday challenges, clinical situations and the difficulties in managing patients with acute behavioural disturbance and those with mental health disorders in the ED. '*There is no help*' included stories about a perceived lack of support from the rest of the hospital and healthcare system, whereas '*set up to fail*' referred to characteristics of the ED, including crowding and boarders. The fourth theme demonstrated a pervasive '*war-like mentality*' shared among professional groups in the ED.

Conclusion Considering the ED as a socially constructed verbal system, we identified stories that used war-like metaphors, and related staff feelings of being unsupported and disconnected. The findings are concerning from an organisational perspective. The next step is to facilitate a participative process to strategically shape future narratives.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ EDs are dynamic environments requiring staff to make sense of their collective experience.
⇒ This is often done through narratives, with frequently told narratives shaping organisational identity.

WHAT THIS STUDY ADDS

⇒ We captured narratives from physicians and nurses across five EDs in Cape Town, South Africa, and conducted thematic analysis. The major themes were '*the usual chaos*', '*There is no help*', '*set up to fail*' and '*war-like mentality*'.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ The use of a sense-making approach provides insights about the impact of the ED environment on team members. The themes may have broader applicability and suggest the need for systemic change.

INTRODUCTION

Emergency Departments (EDs) present a unique practice environment characterised by variability and uncertainty. Doctors and nurses in the ED team deal with a broad range of constantly changing patient populations and coordinate with healthcare professionals from many other departments.

The ED team need to make sense of an ever-changing dynamic environment. A recognised sense-making tool in organisations are the stories that people tell each other and themselves about the everyday occurrences in the setting—in this case, the ED. Narrative is used to interpret experience and infuse events with meaning. This mechanism to understand reality, inform action and translate knowledge to memory provides subjective and intersubjective accounts of events and, if analysed, could reveal hidden patterns and meaning.[1] In short, narratives convey deep context about a setting.[2]

Organisations are narratively constructed from networks of conversations, with the shared narratives maintaining power, priorities and culture. Organisational culture is embedded in the social system, rooted in history, policy and procedures.[3] It is often explained as a multilayered model with each layer reinforcing the other. Some aspects of culture are more visible than others. Narrative forms a thread through the layers and is central to creating organisational culture. Frequently told narratives maintain the organisational identity.[1 4]

The socially sanctioned behaviour in a workplace is reinforced and shaped by the narratives told. Thus, as means of social control, when joining the workplace, new staff members are rapidly socialised via narrative into what are considered acceptable norms.[5] Some narratives remain embedded in the workplace, free from chronology or linear sequence, for example, fragments of stories are inherited from 'before our time' or 'this is the way it has always been done', and are accepted without questioning their current validity or updating the

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narrative.[5–7] The importance of narratives implies that, to a large extent, the team's knowledge about the ED comes from socially sanctioned behaviours that in turn are shaped by the social exchange of narrative.

We have used a constructivist epistemological stance to conduct a study viewing the ED as a socially constructed verbal system connected by networks of inter-related narrative interpretations. From this view, knowledge is actively created in the ED when people use narrative to explain situations to themselves and others in a process called sense-making.

METHODS

This study followed a qualitative inductive thematic analysis of narratives that were shared as part of a larger mixed-method sense-making study conducted in five large Cape Town EDs. Conceptualisation and training to use the method occurred in 2017. The research team comprised three members, two of whom were proficient in the method, and one expert in emergency medicine. During analysis, a clinical psychologist and an expert in the method was consulted to assist with interpretation.

Design

In line with the constructivist approach, we first gathered narratives and then conducted an inductive thematic analysis. This paper deals only with the short descriptive stories shared as part of a larger sense-making study,[8] using SenseMaker—a suite of software for conducting narrative research. Participants share a story and immediately self-interpret their story into a quantitative framework that is used for visualisation of patterns. In practice, the tool is used for real-time decision-making, to effect change and for monitoring and evaluation.[9 10] SenseMaker surveys are purposefully built to explore underlying theories identified prior to survey design. The theory used for the design of this study replicates the process of sense-making theory as described by Weick *et al*.[11]

This article reports on an additional thematic analysis that was performed separately from the self-interpretation in the quantitative framework. Data collection took place over 8 weeks between June and August 2018.

Study setting

The study was conducted in state hospitals in the Cape Town metropolitan area. The facilities are mixed EDs attending to adults and paediatrics which have varying levels of specialist services. Cape Town is the largest city in the Western Cape Province of South Africa. This middle-income country has a high health expenditure impacted by poverty, non-communicable disease, HIV/AIDS and injury.[12] Traumatic injuries far exceed global averages with violence noted as the most common cause of injuries presenting to EDs.[13] State facilities serve most of the population, with those living below the poverty line more likely to use nearby EDs for acute care needs.

Participants

Non-random purposive sampling was used to invite all categories of doctors and nurses from five large, Cape Town-based, state sector EDs. All grades of medical and nursing staff were invited to take part including agency staff. Patients, visitors and other staff member groups were excluded.

Sampling strategy

While there is no required sample size for SenseMaker studies, it is acknowledged that capturing more stories strengthens the patterns presented in the quantitative self-analysed data. The aim was, therefore, to capture 100 stories.

Having obtained the appropriate permission from the management, staff members were contacted. Written informed consent was obtained from participants prior to taking the survey. To ensure fairness, the sampling strategy included the precondition of proportional representation of both doctor and nurse roles. A proportion of participants did not have internet access; therefore, both web-based and paper-based surveys were used.

Study procedures

SenseMaker surveys start with a prompt, inviting participants to tell a short story, provide a title for their story and a metaphor. The purpose of the prompt is to situate the storyteller in a familiar situation by using trigger words to activate an experience, after which they are led through a series of questions self-interpreting their story within the custom-designed quantitative framework[8 9 14] (online supplemental appendix 1). For this study, the self-interpreted data were separated from the narratives and inductive thematic analysis was undertaken.

The prompt was designed to be broad, so the storyteller can choose the specifics, length and depth of their narrative. The story prompt in this study was:

> Whilst showing a new colleague around in the ED, you are interrupted to assist with a challenging situation. When you touch base with the colleague later, they ask how often these types of challenging situations arise. Tell them a story that demonstrates the type of challenges that people in this ED deal with. Refer to the difference between normal and challenging situations and how the team responds.

Participants were also asked to create a metaphor to describe working in the ED. Metaphors are a figure of speech used to express thought, behaviour and make experiences understandable, for example, life as a journey.[7 15] The metaphor prompt in this study was:

> Working in the ED is like…

Data analysis

Stories were captured in the SenseMaker Collector tool from where they were exported as a story table into a Microsoft Excel spreadsheet. The story table contained the following headings: scrambled narrative identity number, story title, story and metaphor.

The steps the research team followed for the thematic analysis included familiarisation by reading through the data a few times before analysis, keeping a journal of reflections and feelings and keeping an audit trail of each decision regarding meaning units, codes and themes. An iterative process was followed to define and refine the themes.[16]

It was noted that many participants did not tell a story about the prompt, and this informed the decision to search for latent meanings, that is, meaning and ideas that lie behind what was explicitly stated (online supplemental appendix 2). No distinction was made between doctor and nurse stories during the analysis.

Trustworthiness

The narrative analysis formed part of a larger study with overlapping methods for triangulation. This included regular engagement and observation in EDs over 5 months. In addition, documentary resources, including policies, procedures and notice boards, were perused. This provided contextual

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Table 1 Breakdown of participants within doctor and nurse categories

Category	Description	Participants
Emergency physician	Medical specialist in emergency medicine. Completed 4 years of specialist training after medical degree.	24
Medical officer	A doctor who completed a medical degree and internship. May be working in the ED, but not a specialist.	18
Professional nurse	4-year degree or diploma nurse. Independent practice.	25
Enrolled nurse	Educated in practice-based nursing. Supervised practice.	14
Nurse assistant	Educated to provide basic nursing care. Supervised practice.	3
Total		84

background and familiarity with the five EDs. Field notes and a critical account of self-dialogue were kept as part of a reflexive journal that provided information on the logic of the process. This made conclusions traceable and increased rigour. The findings could be triangulated with the observational study, documentary resource checking and the quantitative findings of the SenseMaker study.

Ethics

Participants provided informed consent; on the web-based applications, participants were required to give consent before they could proceed. Written consent was obtained for the paper-based surveys. Data were stored in a secure third-party database, while paper copies were collected and kept at an off-site location. Participants could withdraw from the study until data analysis commenced.

Patient and public involvement

No patients or public were involved or invited to participate in the study.

RESULTS

Of the 89 narratives that were collected, five did not fit the inclusion criteria as they were paramedics, not working in the ED and were excluded. All grades of doctors and nurses working in the five EDs were represented, with the senior roles—specialist emergency physician and professional nurse—having the highest representation (table 1).

The stories were found to differ vastly in length—some were very long, others consisted of brief statements and still others were bulleted. Many participants shared stories about clinical or operational conditions without referring to the prompting question.

The themes are represented in figure 1.

Theme 1: the usual chaos

The 'usual chaos' included stories about typical everyday situations in the ED, and many participants told stories about clinical situations, for example, trauma or medical emergencies.

> Multiple resuscitations at one time with at least two patients on EMS's stretchers, unable to hand over because there are no available beds to put them in on the ED.

Patients with acute behavioural disturbance or mental health disorders were categorised separately within this theme, as these stories usually referred to the additional requirements and the inadequacy to render adequate medical and nursing care to this patient population in the ED.

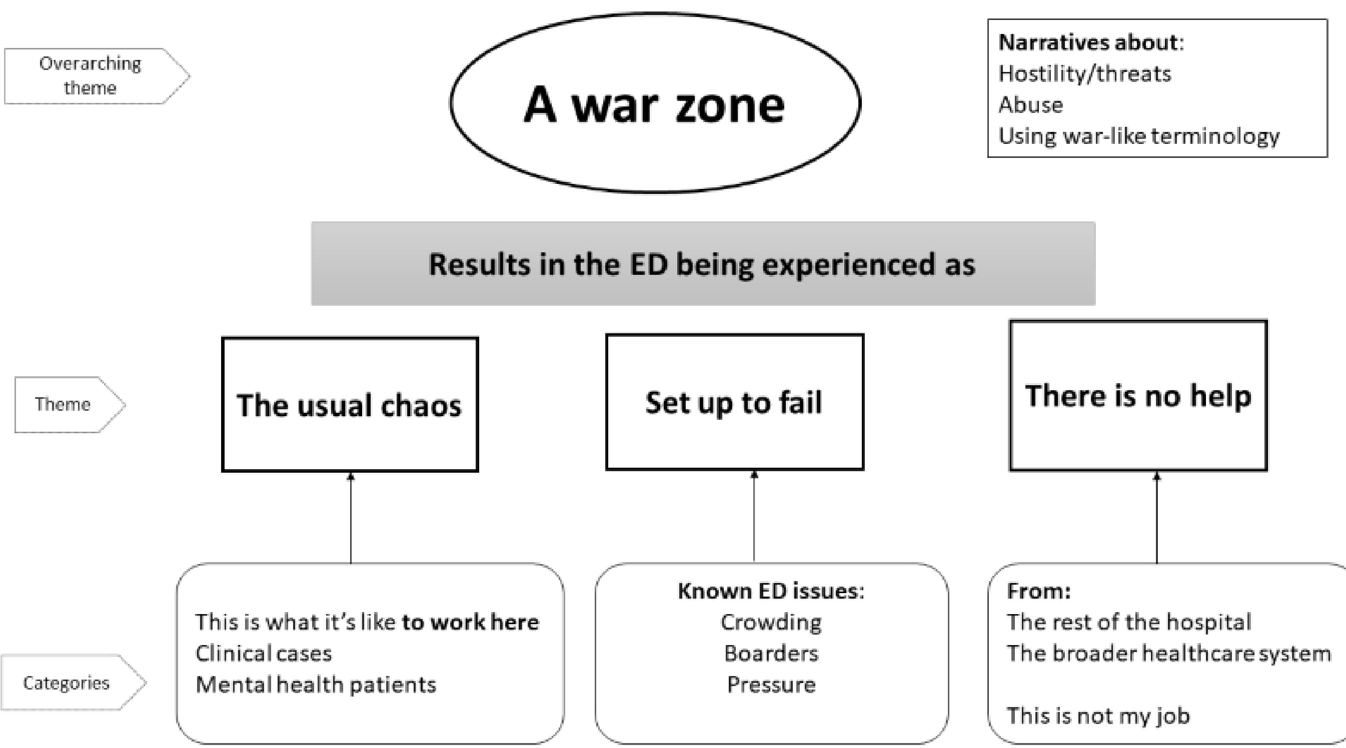

Figure 1 Themes and categories.

They [mental health patients] stay here up to 15 days. Risks with them include that they are psychotic, so we sedate them else they take so much nursing time they don't get adequate care here.

To work here…

Participants often shared a narrative about the first part of the prompt, that is, the challenging situation, but the second part was often not addressed. We extracted the advice that was given in response to the second prompt, and it is listed in table 2.

The nurses

Even though no distinction was made between doctor and nurse stories during analysis, it was noticed that many stories referred to the nursing staff, and on further investigation it emerged that the doctors often provided tips to the new colleague to build congenial relationships with the nurses. They told stories about nurses being vulnerable in the system, mentioned nurse workload concerns and said that nurses are disempowered. It was noted that there were no stories from nurses highlighting relationship building with the doctors.

Get the nurses on your side; if the nurses are worried, pay attention. They are the ears and eyes at the back of your head.

Theme 2: there's no help

We identified a perceived lack of support as a separate theme, with stories often sounding desolate.

Ultimately emergency care is a constitutionally guaranteed imperative. We can't say no to the patients, but it seems our system can say no to us when we need help.

Inequity of our care … [we are] abandoned by the system which is supposed to support us.

We unpacked the stories to better understand the perceived isolation from the 'system', and to better understand who the participants felt were not being supportive. It appeared that they expected more support from other specialties and wards within the hospital.

(Actions from the rest of the hospital) … which leaves the burden on the EC team.

We need a hospital-wide strategy, but they won't compromise to help us.

The other specialities take refuge in their wards.

The wards are filled to 100% capacity and then they refuse more patients, but the ED is never allowed to refuse any patients.

It also appeared that staff felt hospital management could be more supportive of the ED, and that the ED staff felt isolated and left to cope without managerial support:

Hospital executive is not driving patient movement in the hospital, which should take place from the top down.

Management never does rounds here, they say we are coping. How can they be sure of this if they don't attend rounds?

Theme 3: set up to fail

This theme referred to environmental constraints experienced in the ED. Even though the themes appear similar, 'set up to fail' dealt with issues deemed characteristic of the ED in literature, for example, crowding.

Crowding

Narratives about crowding were often very specific, and often referred to the impact crowding has on the patient, for example, undignified, unfair or resulting in poor quality of care.

When the beds run out, these patients are nursed on Lazy-Boy chairs. This arrangement puts the staff at risk, it is undignified for the patients.

The unit is designed for 22 patients but runs 70 to 90 patients a day with no adjustment [in] resources.

Sometimes in resus we have 23 patients and we resus on the floor. We have 12 chairs with 45 patients; they don't divert or send extra staff.

Table 2 Specific advice to the new colleague about working in 'this' ED

Category	Quotes
Be vigilant	*Always being on your toes.* *Be observant.* *Always vigilant for the distraction that is going to break the flow.* *Be mentally prepared and get the job done.*
Think ahead	*On handover rounds identify the patients that can move when the need arises.* *Ensure a free resus bed at all times.* *Understand which challenges will be faced more often and…develop a systematic approach towards dealing with them.* *…make sure that you get all the paperwork done.*
Protect others	*Take on the threats when they arrive to protect the juniors.* *It is important to make the nurses feel safe.* *Double-check the doctors as they often make mistakes.*
Protect yourself	*Do not turn your back on the psychiatric patients.* *Have a tough outer shell.*
Self-orientate	*There is no time to orient new people, you must know what's going on to work here.* *In our unit you arrive, and you must fall in, there is not much of an orientation.* *Just ask the nurses if we have any issues or need to know anything.* *Assume no hands to help and get on by yourself.*
Strategies to deal with visitors and relatives	*Restrict the visitors.* *Speak to one family member they can deal with the rest of the family.*
Strategies to deal with interruptions	*Don't get stuck at the desk.* *Ignore people that just want to ask something that they could've asked a non-medical person.*

On the left of the table, the phrases reflect how advice was categorised by the research team, while the quotes were taken directly from the stories.

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Boarders

Boarding is the practice of keeping patients that should be admitted to the hospital in the ED for hours or days until hospital beds are available. It came across as one of the main challenges in the EDs.

> We have hospital issues that manifest in the ED, it is not actually an ED issue, but the hospital has made it into a pure ED issue—the boarders.

Pressure

We included 'pressure' in this theme, as it seemed like it could be due to dealing with complex challenges like crowding without intervention or support from the 'outside'.

> Young doctors and nurses are being pounded between rocks and too often just discarded and replaced when they burn out.

> I've been making++decisions that I'm uncomfortable with…. that should be in the ward… because they would be more comfortable at home than in a chair in the ED.
> We need to provide quality care for people on the worst day of their lives and we need to do so consistently and under immense pressure.

Theme 4: war zone

When describing the ED, it was presented as a war zone and military terminology was often used, for example:

> We are almost constantly in a reactive condition-black-like state, where we have very little reserves left to tackle pro-active initiatives that may provide solutions for our problems rather than just barely coping with them.

> We are fighting a constant battle between what we should do, what we are supposed to do, what is expected from us, and what we can offer.

In their stories, participants said they were 'shouted at', 'attacked by', 'punched', 'bullied'. The experienced volatility of the environment was captured in the war-like typology used to describe working in the ED (box 1).

DISCUSSION

The stories shared reflect the everyday happenings which people in the ED find important.[1] Many stories identified a lack of support. Often storytellers referred to the perceived lack of support as having led to the crowded, pressured conditions, which in turn have an impact on quality of patient care and burnout. From the storytellers' view, it appears that not only are the EDs left to cope with the systemic issues of crowding, but they seem disempowered to propose solutions that may involve external role players.

A latent thread that emerged indicated that some ED members are dealing with the daily battles and perceived abandonment by the rest of the system by distancing themselves in their narratives. For example, storytellers would often speak about them/they when referring to representatives not working in the ED, like, ward staff, specialists, or hospital management. It is plausible that the distancing may indicate a trauma response or coping mechanism and requires further investigation.

For newcomers, orientation is when vital information about the workplace's culture is shared, and they are rapidly socialised into acceptable behaviour.[1] The prompt used for the storytellers asked them to share the advice they would give a newcomer, and it appears as if they anticipated that newcomers would 'fall in' without expecting too much coaching or induction (table 2). Newcomers were told to be vigilant, protect themselves and others, and to self-orientate. It is possible that the apparent lack of support when starting a new role contributes to the war-like mentality, but it also reinforces a cycle of limited support within and beyond the ED.

It was noted that the doctors were more likely to refer to the nurses in their stories, frequently highlighting the importance of reciprocal relationships, whereas the nurses rarely mentioned the doctors. The disparate views on reciprocity may present a barrier to team functioning.[8] Further research to explore the doctor/nurse dynamic and ways to build an 'ED team identity' is needed.

Stories expose the hidden beliefs in an organisation.[5] The narratives shared by the ED staff revealed a pervasive war-like mentality, with the ED narratively constructed as a battlefield where daily skirmishes are fought. The stories transcended individual facilities and professional roles, indicating an accepted script across the EDs in Cape Town. The other themes provided causal information about the 'war' with the perceived lack of external support, and intricate internal ED dynamics contributing to a war-like mentality (box 1).

During times of war, information and knowledge are protected, and isolation occurs, resulting in mistrust towards those outside of one's immediate group. Even though the use of war metaphors and military terminology was frequent in the stories told, those in the ED may remain unaware of how these narratives inform war-like tactics. War is characterised by destruction, and the opposite of war is creation—synergy, innovation and upliftment.

The next step for our study is a participative design process to determine which daily groupings of narratives that are already present in the ED system can be used to shift change in a preferred strategic direction.[14] For example, narratives referring to war-like mentality can be shifted towards a collective narrative about teamwork. This is done via small nudges based on the daily dialogue, with the current dialogue influencing future ones. By asking '*What can we do today to get more stories like this and fewer like those*', the system is nudged in the direction of the preferred stories or state.[17] For instance, the narrative can be nudged from '*We are fighting a constant battle between what we should do, what we are supposed to do, what is expected from us, and what we can offer*' to a narrative that in our ED, '*The emphasis is on co-ordinated teamwork and ensuring the safety of all staff.*' Workable nudges are disseminated through collaborative experimentation to amplify interactions and narratives that will move the system in the preferred direction, and

Box 1 War-related terminology used to describe working in the ED.

War-related quotes and metaphors used

- ⇒ *War zone* (more than once).
- ⇒ *Fighting a constant battle.*
- ⇒ *Like going to war.*
- ⇒ *Juggling a collection of weapons while blindfolded.*
- ⇒ *Soldier in a war zone.*
- ⇒ *Special forces military operations.*
- ⇒ *Defusing problems.*
- ⇒ *Protecting turf/territorial.*
- ⇒ *Being under attack* (visitors, community, hospital management).
- ⇒ *High risk, short fuse.*
- ⇒ *Throwing a grenade.*

the SenseMaker tool can be used to monitor and evaluate the process.

Limitations

This study had several limitations including the choice of inductive analysis as a technique. Narratives may contain multiple meanings and are loaded with embedded, sometimes hidden, information. Inductive analysis while providing one interpretation for the narratives, clearly others may be missed. Typically, in SenseMaker studies, abductive reasoning is used to generate hypotheses or theories.[18] Abductive reasoning uses data to generate an educated guess potentially leaping into the conceptual unknown to create novel hypotheses or theories that can then be explored further.[19]

We did not consider environmental factors such as high levels of violence in South African society as contributing to the enduring narrative of a war zone. Viewing the stories against the backdrop of the society and community within which they were told may have yielded different interpretations. This may also impact on the external validity of the study.

Another limitation is that data collection took place before the COVID-19 pandemic. We believe that the findings remain relevant, if not more pertinent, in the current fiscal and global environment.

CONCLUSION

Narratives at these five EDs exposed a common war-like mentality. Storytellers felt that they were burdened with unresolved systemic issues and set up to fail. The next step is to facilitate a participative process to make sense of the shared stories to strategically shape future narratives that can move the system in the preferred strategic direction.

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Contributors CC, MV and LW conceptualised the study. CC undertook data collection. CC and MV conducted the analysis. CC, MV and LW participated in writing the manuscript. CC is the guarantor and responsible for the overall content.

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Patient consent for publication Not applicable.

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Provenance and peer review Not commissioned; externally peer reviewed.

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REFERENCES

1. Rhodes C, Brown AD. Narrative, organizations and research. *Int J Manag Rev* 2005;7:167–88.
2. Snowden D, Rancati A. *Managing complexity (and Chaos) in times of crisis. A field guide for decision makers inspired by the cynefin framework*. Publications Office of the European Union, 2021.
3. Schein EH. *Organizational culture and leadership*. John Wiley & Sons, 2006.
4. Weick KE, Roberts KH. Collective Mind in Organizations: Heedful Interrelating on Flight Decks. *Adm Sci Q* 1993;38:357.
5. Brown AD, Gabriel Y, Gherardi S. Storytelling and Change: An Unfolding Story. *Org Lond* 2009;16:323–33.
6. Connelly FM, Clandinin DJ. Stories of Experience and Narrative Inquiry. *Educ Res* 1990;19:2–14.
7. Savolainen R. Information use as gap-bridging: The viewpoint of sense-making methodology. *J Am Soc Inf Sci* 2006;57:1116–25.
8. Cunningham C, Vosloo M, Wallis LA. Interprofessional sense-making in the emergency department: A SenseMaker study. *PLoS ONE* 2023;18:e0282307.
9. Van der Merwe SE, Biggs R, Preiser R, *et al*. Making Sense of Complexity: Using SenseMaker as a Research Tool. *Syst* 2019;7:25.
10. Dohmen MDW, van den Eijnde C, Thielman CLE. Good Care during COVID-19: A Narrative Approach to Care Home Staff's Experiences of the Pandemic. *Int J Environ Res Public Health* 2022;19:2106.
11. Weick KE, Sutcliffe KM, Obstfeld D. Organizing and the Process of Sensemaking. *Org Sci* 2005;16:409–21.
12. Wadee H, Gilson L, Thiede M, *et al*. Health care inequity in South Africa and the public-private mix. 2003.
13. Editor HD. *Western Cape Government health annual report*. Cape Town: Western Cape Government, 2016/17:294.
14. Guijt I, Gottret MV, Hanchar A, *et al*. *The learning power of listening: a practical guide for using sensemaker*. Practical Action Publishing, 2022.
15. Lakoff G. Mapping the brain's metaphor circuitry: metaphorical thought in everyday reason. *Front Hum Neurosci* 2014;8:958.
16. Braun V, Clarke V. *Thematic analysis*. American Psychological Association, 2012:57–71.
17. Snowden D. *Cognitive edge*. 2010.
18. Timmermans S, Tavory I. Theory construction in qualitative research: From grounded theory to abductive analysis. *Sociol Theory* 2012;30:167–86.
19. Lauren S. Atlasti; 2024. Available: https://atlasticom/research-hub/abductive-reasoning#characteristics-of-abductive-reasoning

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