

## Assignment Letter/Surat Tugas

**No.** : ASL/IBA/0780/IULI/I/2022 **Date/Rev.** : 31 January 2022/ 00  
**From /Dari** : Head of Department of International Business **Page** : 1 of 1  
Administration / Kepala Program Studi **Doc Type** : Main Document  
**To / Kepada** : Administrasi Bisnis Internasional  
: Name Below / Nama dibawah ini

## Duty Assignment / Tugas melaksanakan kegiatan

Assignment At	Penugasan di
INTERNATIONAL UNIVERSITY LIAISON INDONESIA	UNIVERSITAS LINTAS INTERNASIONAL INDONESIA
Head of Department of IBA of International University Liaison Indonesia	Kepala Program Studi IBA Universitas Lintas Internasional Indonesia
<b>In consideration of:</b>	<b>Mengingat:</b>
His appointment as the Head of Department of IBA of International University Liaison Indonesia under agreement Nomor SK/REC/0671/IULI/XI/2021	Pengangkatannya sebagai Kepala Program Studi IBA Universitas Lintas Internasional Indonesia dibawah perjanjian Nomor SK/REC/0671/IULI/XI/2021
Herewith gives the task to:	Dengan ini menugaskan kepada:
Name: <b>Dr. Samuel PD Anantadjaya</b> Position: <b>Lecturer</b>	Nama: <b>Dr. Samuel PD Anantadjaya</b> Jabatan: <b>Dosen</b>

To provide the following activity:

Untuk mengikuti kegiatan:

No	Task/Tugas	Article/Artikel	SKS	Period/Periode	Journal/Jurnal
1.	Article Reviewer	Manuscript ID MBE-06-2021-0079.R1 entitled "Leadership for Reducing Medical Errors Via Organizational Culture: A Literature Review"	1	20 January – 20 February 2022	Invited by Dr. Michael Urick Guest Editor, Measuring Business Excellence michael.urick@stvincent.edu Measuring Business Excellence (Scopus-Indexed Journal) ISSN: 1368-3047
<b>Total SKS</b>			<b>1</b>		

\* 1 SKS activity = 50 hour/ 1SKS Kegiatan = 50 Jam

Contoh/ Example:

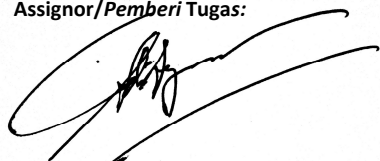
If the fasilitator full for 3 day activity, the calculation of SKS is 3 day x 8 hour= 24 hour, plus preparation ± 12 hour, then the workload is  
 $\{[(3 \text{ day} \times 8 \text{ hour}) + (12 \text{ hour})] / 50 \text{ hour}\} * 1 \text{ SKS} = 0.72 \text{ SKS}$

Jika fasilitator penuh untuk satu kegiatan selama 3 hari, maka perhitungannya menjadi 3 hari x 8jam, ditambah dengan persiapan ± 12jam maka beban kerja menjadi  $\{[(3 \text{ hari} * 8 \text{ jam}) + (12 \text{ hari})] / 50 \text{ jam}\} * 1 \text{ SKS} = 0.72 \text{ SKS}$

The assignee shall accomplish the duty and responsible in line with the related guidelines and other regulation valid in IULI.

Penerima tugas harus menyelesaikan tugas dan tanggung jawab sesuai dengan petunjuk dan peraturan yang berlaku di IULI.

Assignor/Pemberi Tugas:



**Ida Bagus Putu Aditya, ST., MM.**  
Kepala Program Studi IBA / Head of Department of IBA  
of International University Liaison Indonesia

Journal's Signature & Chop/Tanda tangan & Stempel Jurnal:



S A M &lt;ethan.eryn@gmail.com&gt;

**Manuscript ID MBE-06-2021-0079.R1 now in your Reviewer Centre - Measuring Business Excellence**

1 message

**Measuring Business Excellence** <onbehalf@manuscriptcentral.com>

Fri, Jan 21, 2022 at 1:43 PM

Reply-To: michael.urick@stvincent.edu

To: ethan.eryn@gmail.com, keeshondenkeeshonden@yahoo.com

21-Jan-2022

**ISSN # 1368-3047****Period: Jan 20-Feb 20, 2022**

Dear Dr. Anantadjaya,

Thank you for agreeing to review Manuscript ID MBE-06-2021-0079.R1 entitled "Leadership for Reducing Medical Errors Via Organizational Culture: A Literature Review" for the Measuring Business Excellence. Please try your best to complete your review within the next 2 weeks.

In your review, please answer all questions. On the review page, there is a space for "Comments to Editor" and a space for "Comments to the Author." Please be sure to put your comments to the author in the appropriate space.

To access the manuscript, click this link:

[https://mc.manuscriptcentral.com/mbex?URL\\_MASK=0a8f07870c6c4a4a900fa7b7beb5baa3](https://mc.manuscriptcentral.com/mbex?URL_MASK=0a8f07870c6c4a4a900fa7b7beb5baa3)

You can also access the manuscript by logging in to the Measuring Business Excellence - Manuscript Central site at <https://mc.manuscriptcentral.com/mbex>. Your case-sensitive USER ID is [ethan.eryn@gmail.com](mailto:ethan.eryn@gmail.com) and your PASSWORD is [https://mc.manuscriptcentral.com/mbex?URL\\_MASK=c5868766943b46ca8141066daf30015c](https://mc.manuscriptcentral.com/mbex?URL_MASK=c5868766943b46ca8141066daf30015c).

For security purposes your password is not listed in this email. If you are unsure of your password you may click the link below to set a new password.

[https://mc.manuscriptcentral.com/mbex?URL\\_MASK=c5868766943b46ca8141066daf30015c](https://mc.manuscriptcentral.com/mbex?URL_MASK=c5868766943b46ca8141066daf30015c)

Once you are logged in, the Main Menu will be displayed. Please click on the Reviewer Centre, where you will find the manuscript listed under "Awaiting Reviewer Scores." You can click on the manuscript title from this point or you can click on the "View Details" button to begin reviewing the manuscript.

If you wish to view the manuscript and the review form simultaneously, click on the HTML or PDF icons – the manuscript will open in a new window. Leave the new window open, switch back to the main window, and open the score sheet by clicking on the Score Sheet tab. Follow the instructions for reviewers provided in the Manuscript Central site. I strongly encourage you to elaborate on your review in the space provided. Your specific comments will offer valuable feedback to improve future work. It is essential that you click the "Save" button if you wish to exit the review before you submit it to the Editor. Otherwise, none of the information that you have entered will be saved in the system. When you have completed your review and are ready to submit it to the Editor, click on "Submit."

All communications regarding this manuscript are privileged. Any conflict of interest, suspicion of duplicate publication, fabrication of data or plagiarism must immediately be reported to me.

Thank you for evaluating this manuscript.

Yours sincerely  
Dr. Michael Urick  
Guest Editor, Measuring Business Excellence  
[michael.urick@stvincent.edu](mailto:michael.urick@stvincent.edu)

Authors response to reviewers comments:

I have revised the submission to expand the literature in the review by adding "healthcare quality" to my search terms. This resulted in an additional roughly 1000 articles. Using the same narrowing logic--based on my research problem, also added in this revision--the set expanded to 38 total qualifying articles. While the data set is limited, it matches the research problem scope: expanding it too much may degrade the review's already limited generalizability. I have heavily expanded the methodology section to include sub-sections on analysis, coding, and interpretation. I added a conceptual framework from the review to the implications for practice. I added a section on quantitative analysis for triangulation.



**Leadership for Reducing Medical Errors Via Organizational Culture:  
A Literature Review**

Journal:	<i>Measuring Business Excellence</i>
Manuscript ID	MBE-06-2021-0079.R1
Manuscript Type:	Practitioner Paper
Keywords:	Medical errors, leadership approaches, patient safety, strategic leadership, positive leadership

SCHOLARONE™  
Manuscripts

LEADERSHIP FOR REDUCING MEDICAL ERRORS

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

**Leadership for Reducing Medical Errors Via Organizational Culture:  
A Literature Review**

Measuring Business Excellence

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

2

**Abstract****Purpose**

Medical errors have become the third leading cause of death in the United States. Two million deaths from preventable medical errors will occur annually worldwide each year. The purpose of this literature review is to find themes from the literature relating leadership styles—leadership approaches in practice—with success in reducing medical errors and patient safety.

**Design/methodology/approach**

This review analyzed primary and secondary sources based on a search for the terms *leadership OR leadership style AND medical errors OR patient safety* using five high-quality healthcare-specific databases: Healthcare Administration Database from Proquest, LLC, Emerald Insight from Emerald Publishing Limited, ScienceDirect from Elsevier, Ovid from Ovid Technologies, and MEDLINE with Full-Text from Elton B. Stevens Company (EBSCO). After narrowing, the review considered 21 sources that met the criteria.

**Findings**

The review found three leadership approaches and four leadership actions connected to successfully reducing medical errors and improving patient safety. Transformational, authentic, and shared leadership produced successful outcomes. The review also found four leadership actions—regular checks on the front line and promoting teamwork, psychological safety, and open communication—associated with successful outcomes. The review concluded that leadership appeared to be the preeminent factor in reducing medical errors and improving patient safety. It also found that positive leadership approaches, regardless of the safety intervention, improved results and outcomes.

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

3

**Originality**

The originality of this research is limited to that of any literature review. It summarizes the main themes in the selected literature. However, by narrowing the research problem, the review provides a basis for future considerations centered on dual organizational interventions for leadership and safety. Moreover, the author suggests a conceptual framework for the relationships between strategic leaders, their leadership approaches, and reducing medical errors.

*Keywords:* Medical errors, positive leadership, patient safety, strategic leadership, safety culture

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

4

**Leadership for Reducing Medical Errors Via Organizational Culture:****A Literature Review**

For more than two decades, the United States (U.S.) government and the healthcare industry have been attempting to improve the escalating rate of preventable medical errors. Despite these best efforts, medical errors are now the third leading cause of death in the U.S. (Anderson and Abrahamson, 2017). The cost of medical errors is tangible to healthcare providers, patients, and families (Fain, 2019, Padgett et al., 2017, Slawomirski et al., 2017). Moreover, medical errors' intangible and ripple-effect costs can be trillions of dollars annually (Slawomirski et al., 2017). Within the industry, strategic leaders' improvement efforts have ranged from the tactical to the strategic. Healthcare's strategic leaders have failed to combine the right leadership style, cultural orientation, and strategies to solve medical error problems and improve patient safety as an industry. Three leadership approaches result in improved patient safety outcomes: transformational leadership (Boamah et al., 2018), authentic leadership (Polonsky, 2019), and shared leadership (O'Donovan et al., 2019). There are also specific leadership actions that are related to improved outcomes. This review explores the connections between leadership styles—leadership approaches and activities—and patient safety improvement. The strategic leadership gaps, the significance of widespread medical errors, and the lack of industry-level progress make the investigation into limited leadership successes valuable. This review intends to shed some light on the background of the leadership problem.

**Purpose**

This review's purpose was to find themes from current literature relating leadership styles to reducing medical errors. The general problem addressed is the failure of the healthcare industry's strategic leaders to foster a positive safety culture, resulting in medical errors. The

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

5

American College of Healthcare Executives' policy insists that the responsibility for reducing medical errors via safety culture lies with healthcare's strategic leaders (2017). Meyer (2019) found that top healthcare strategic leaders have accountability for reducing medical errors, and they have been systematically unsuccessful for the past two decades. Additionally, Kaplan et al. (2017) noted that strategic leaders bear the full responsibility for developing the safety culture and promoting a positive climate in healthcare organizations. Moreover, strategic leaders in integrated healthcare systems face more significant challenges to fostering a safety culture because of competing strategic priorities (Avramchuk and McGuire, 2018). The specific problem addressed is potential healthcare's strategic leaders' failure within integrated healthcare systems in the U.S. and Canada to foster safety cultures, resulting in potential medical errors.

The study is organized into five major sections. The first section summarizes the method for the review and some key terms salient to the analysis and discussion. The second section, the main body of the study, presents results based on major themes in the literature and its gaps. The third section discusses the results and analyzes them. The fourth section summarizes the conclusions, and the last part shares practical implications.

### Methodology

The review considered both primary and secondary sources that were peer-reviewed. The review searched for literature using the terms *leadership or leadership styles AND medical errors OR patient safety OR healthcare quality*. The search used five high-quality healthcare-specific databases: Healthcare Administration Database from Proquest, LLC, Emerald Insight from Emerald Publishing Limited, ScienceDirect from Elsevier, Ovid from Ovid Technologies, and MEDLINE with Full-Text from Elton B. Stevens Company (EBSCO). In addition, there is research from outside of healthcare that links leadership approaches to employee safety



## LEADERSHIP FOR REDUCING MEDICAL ERRORS

6

1  
2  
3 outcomes; for example, Mullen et al. (2017) concluded that transformational leadership  
4 moderates safety attitudes, but safety-specific transformational leadership strengthens the  
5 positive effect of the approach. However, healthcare is a unique environment compared to other  
6 industries and has a specific blend of barriers to improvement (Polonsky, 2019). Thus, the search  
7 was limited to healthcare databases and excluded results from outside of healthcare.  
8  
9

10  
11  
12  
13  
14  
15 Moreover, healthcare in the U.S. is exceptionally fragmented, a characteristic that drives  
16 healthcare costs up and healthcare quality down (Agha et al., 2019). The U.S. private and public  
17 payment system mirror other English-speaking nations like the United Kingdom, Canada, and  
18 Australia. In those countries, the private-public payer mix is tilted in the public direction, but the  
19 models still result in fragmentation. Therefore, only studies or reviews focused on those  
20 countries were included.  
21  
22  
23  
24  
25  
26  
27

28  
29 Finally, while the medical error problem has been around for decades, the shift to the  
30 leadership implications is more recent. For example, De Vries et al. (2008) concluded in a  
31 systematic review of medical error research that the key to improving medical errors was to  
32 improve surgery and drug safety. In contrast, DiCuccio (2015) concluded in a systematic review  
33 of patient safety culture literature that safety culture and strategic leadership impacted safety  
34 outcomes. Thus, the search was limited to publication dates ranging from 2010 to 2020.  
35  
36  
37  
38  
39  
40  
41

### 42 Analyzing the Data

43  
44  
45 The quality of the research depended on careful planning for analysis. Some types of data  
46 lend themselves to specific analysis techniques (Creswell and Poth, 2018). Furthermore, the  
47 literature review is a form of a qualitative study (Onwuegbuzie et al., 2012). Qualitative analysis  
48 often employs thematic analysis (Kiger and Varpio, 2020, Castleberry and Nolen, 2018).  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

7

1  
2  
3 Accordingly, this sub-section will discuss the researcher's analysis strategy, coding method, the  
4  
5 technique for identifying, organizing, and interpreting the themes.  
6

**Strategy**

7  
8  
9  
10 The researcher used thematic analysis as the overarching strategy. Thematic analysis is  
11  
12 foundational for qualitative work (Lester et al., 2020). A first-pass technique for getting an  
13  
14 overall sense of the data is to annotate the data with memos: "short phrases, ideas, or key  
15  
16 concepts that occur to the reader" (Creswell and Poth, 2018). Thus, in the first pass over the data,  
17  
18 the researcher used the research problem to add memos and start coding. The research design—a  
19  
20 literature review—also guided the annotations and coding (Creswell and Poth, 2018).  
21  
22  
23

**Coding**

24  
25  
26 Coding data is the process of finding categories of information and labeling them with  
27  
28 codes—word phrases—that provide evidence for themes in the data (Creswell and Poth, 2018).  
29  
30 Robson and McCartan (2016) suggested that coding *is* the primary process for thematic analysis.  
31  
32 Besides, using coding to find themes and categories helps the researcher analyze data efficiently  
33  
34 (Vaughn and Turner, 2016). There are various approaches to coding.  
35  
36  
37

38 Robson and McCartan (2016) recommended creating a framework based on the first pass  
39  
40 through the data, coding according to the researcher's summary of key points and ideas. Creswell  
41  
42 and Poth (2018) suggested a framework that codes to discern case-specific themes but also does  
43  
44 coding passes to find contrasting views and to make "assertions and generalizations" (Figure  
45  
46 8.9). Another method—axial coding—conducts coding passes to reduce codes until five to seven  
47  
48 themes emerge (Williams and Moser, 2019).  
49  
50

51 In this study, the researcher used thematic coding to analyze the data and identify themes  
52  
53 for interpretation. First, the researcher digested the data as it emerged, making memos that  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

8

1  
2  
3 annotated ideas and categories. Then, the researcher created a conceptual framework to guide the  
4  
5 analysis in the next pass. For example, the conceptual framework suggested that strategic  
6  
7 leadership is related to organizational and safety culture. So, the researcher scanned for strategic  
8  
9 leadership articulations in the initial coding passes, including creating a vision, communicating  
10  
11 the vision, and setting strategic directions. Then, as the number of codes expanded, the  
12  
13 researcher conducted successive coding passes to reduce the codes into categories—and  
14  
15 categories into themes.  
16  
17

***Themes***

18  
19  
20  
21  
22 Coding reveals buried themes in the data that become the substance for interpreting it and  
23  
24 making conclusions (Williams and Moser, 2019). While this study coded the research framework  
25  
26 in view, it also analyzed the data inductively, allowing it to tell the story. This inductive step in  
27  
28 thematic coding analysis organizes the themes into networks, showing their relationship to one  
29  
30 another or the research questions (Robson and McCartan, 2016). Lester et al. (2020) suggested  
31  
32 that this step is vital for making the thematic analysis process obvious and supportable. While  
33  
34 some analyses can follow a linear progression, many qualitative analysts use a non-linear process  
35  
36 that identifies codes, locates themes from the coding, and organizes the themes in a network  
37  
38 (Williams and Moser, 2019). The researcher took the more flexible and non-linear approach to  
39  
40 coding, finding themes, and organizing them for interpretation.  
41  
42  
43

***Interpretation***

44  
45  
46  
47 Data without analysis is silent; therefore, a vital step in qualitative research is when the  
48  
49 researcher makes evidence-based inferences—constructions—about what they see in the data's  
50  
51 themes (Castleberry and Nolen, 2018). Indeed, the constructionist paradigm requires the  
52  
53 researcher to make sense of the data through interpretation (Yin, 2017). A thorough thematic  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

9

1  
2  
3 analysis goes beyond summarizing the data, striving to interpret it through sense-making  
4  
5 statements (Maguire and Delahunt, 2017). Yin (2017) also argued that thematic analysis includes  
6  
7 interpretations, keeping even rival conceptualizations of the framework in view.  
8  
9

10 Robson and McCartan (2016) listed several orderly methods for finding interpretations,  
11 including noting themes, connecting these to theories, and noting apparent relationships between  
12 variables. In addition, when making comparisons or connections, displaying the data in tables or  
13 networks helps visualize the concepts (Robson and McCartan, 2016, Yin, 2017). Ultimately, the  
14 researcher's constructivist paradigm guided analysis as the interpretive framework. This  
15 paradigm sought to understand the phenomenon—strategic leaders trying to create a safety  
16 culture to reduce medical errors—by finding a “complexity of views rather than narrow the  
17 meanings into a few categories or ideas” (Creswell and Poth, 2018).  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27

28 However, the researcher followed a protocol, interpreting by narrowing themes and  
29 comparing them to rival but plausible alternatives. Moreover, to conduct high-quality  
30 interpretation, the researcher must have excellent knowledge of the concepts emerging from the  
31 data (Yin, 2017). In addition, the professional and academic qualifications of the researcher, in  
32 this case, supported clear and precise interpretation: the author—a management professor  
33 teaching operational excellence courses—is a long-term consultant and coach to executive teams  
34 in healthcare organizations seeking operational excellence. Finally, the objective for  
35 interpretation for this review was to uncover generalizations: learnings that readers can apply to  
36 other case populations or to “another similar context” (Creswell and Poth, 2018). Thus,  
37 ultimately, this review's interpretation was dependent on the quality of the data.  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

### ***Analysis for Triangulation***

Triangulation improves the data quality and accuracy (Santos et al., 2020).

Methodological triangulation combines qualitative and quantitative approaches to mitigate risks to validity (Robson and McCartan, 2016). Noble and Heale (2019) included using different types of data as a form of methodological triangulation. However, this definition of methodological triangulation varies from data triangulation, where the data *sources* vary from the *type* (Abdalla et al., 2018). This review used method triangulation, explicitly analyzing the reference information—journal and year of publication—from the data. Moreover, the methodological triangulation revealed a diverse sample based on journals represented and publication years. Finally, the researcher interpreted the reference data, reporting on the analysis in the review's findings.

### **Methodology Summary**

This literature review used standard data analysis techniques to analyze and corroborate its interpretations. First, using thematic analysis, the researcher coded the data seeking its themes. Then, by using methodological triangulation, the researcher verified interpretations of the data. This data analysis lent confidence to making the appropriate inferences from the data and improving the research's internal validity (Yin, 2017). The thematic analysis yielded clear themes related to theories that lent themselves to a proposed framework, shown in the findings.

### **Terminology**

As several themes emerged in the review, it is essential to establish definitions for critical terms. Case studies define terms associated with the research; the terms can be both industry-specific and theoretical (Hancock and Algozzine, 2017). Therefore, this review employs both formally theoretical concepts and industry-defined terminology.

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

11

**Safety Terminology**

The review encountered both general and industry-specific safety terminology. For instance, *safety climate* is not industry-specific and is the perception of individuals in the organization of its prioritization of safety processes and behaviors (Dirik and Seren Intepeler, 2017). Another universal safety definition is *employee safety*, an organizational strategy for protecting employees from injuries (Mohr et al., 2018). Finally, *a healthcare-specific term, patient safety*, is the "prevention of errors and adverse effects to patients associated with health care" (Ehrnsperger, 2016). *Medical errors* are intentional or unintentional health care acts that result in unexpected results (Ellahham, 2018).

**Leadership Terminology**

*Leadership style* is the way a person displays approaches to leadership (Li et al., 2016). *Leadership approaches* are theories or conceptual frameworks a leader uses to influence others to achieve a common goal (Northouse, 2019). Three leadership approaches emerged from the review; the following descriptions are taken from Northouse (2019).

*Transformational leadership* is the process where a leader focuses on the desires and motives of followers to raise both the leader's and followers' level of inspiration and morality, helping followers reach their full potential. For example, transformational leaders use *idealized influence*—influencing others to be morally better by being morally grounded—to move followers towards goals (Northouse, 2019). Seminal theorists Bass and Avolio (1994) suggested transformational leadership is distinct from related but converse approaches that include transactional and laissez-faire styles. The latter styles are sometimes framed as management by objectives and passive (Bass and Avolio, 1996).

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

12

1  
2  
3           *Authentic leadership* combines the leader's self-awareness, a moral internal guidance  
4 system, balanced processing, and openness in follower relationships. Authentic leaders use moral  
5 standards to shape their behavior instead of other pressures (Northouse, 2019). Moreover,  
6 authentic leadership shares many characteristics with transformational and servant leadership,  
7 including approaches in the range of positive leadership approaches (Banks et al., 2016, Blanch  
8 et al., 2016). Authentic leadership is an approach rooted in the leader's positive psychological  
9 characteristics.

10  
11  
12           Based on the review, positive leadership is noteworthy; *positive leadership* is centered on  
13 positive psychology (Beattie, 2019). Furthermore, positive leadership combined authentic,  
14 transformational, servant, and other leadership theories (Blanch et al., 2016). Consequently,  
15 positive leadership is based on the leader's and followers' solid virtues and morals (Loncar,  
16 2018).

17  
18  
19           Finally, *shared leadership* is also known as distributed, collective, team, and empowering  
20 leadership (Zhu et al., 2018). In shared leadership, the team leader distributes power and  
21 leadership responsibilities to the team. For shared leadership to work, team members must know  
22 how to be good team members and be willing to accept leadership responsibilities (Wheelan,  
23 2016).

### Interventions as Change Strategies

24  
25  
26           An intervention is a term in research to describe an action taken by an organization to  
27 effect lasting change; interventions are "change strategies" (Fraser and Galinsky, 2010).  
28 Strategic leaders would develop a leadership intervention to change an organization's leadership  
29 processes. For example, De Brún et al. (2019) reported on interventions in healthcare to establish  
30 collectivistic leadership. Similarly, strategic leaders design safety interventions to change safety  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 culture or processes. Layne et al. (2019) suggested teamwork training as an example of a safety  
4  
5 intervention in healthcare.  
6

### 7 8 **Results**

9  
10 The search and review method produced a high-quality set of primary and secondary  
11  
12 sources. The initial search found over 4000 articles. After narrowing the results from studies and  
13  
14 reviews focused on the U.S., United Kingdom, Canada, and Australia, the potential articles  
15  
16 dropped to less than 500. The reviewer added a final criterion to limit the results to studies that  
17  
18 linked leadership and patient safety or quality, leading to reduced medical error. Finally, the  
19  
20 researcher limited the timeframe to 2015 and later. Thirty-seven articles met the last limitation.  
21  
22 After reviewing the 37, the reviewer added another highly cited source published in 2013.  
23  
24  
25

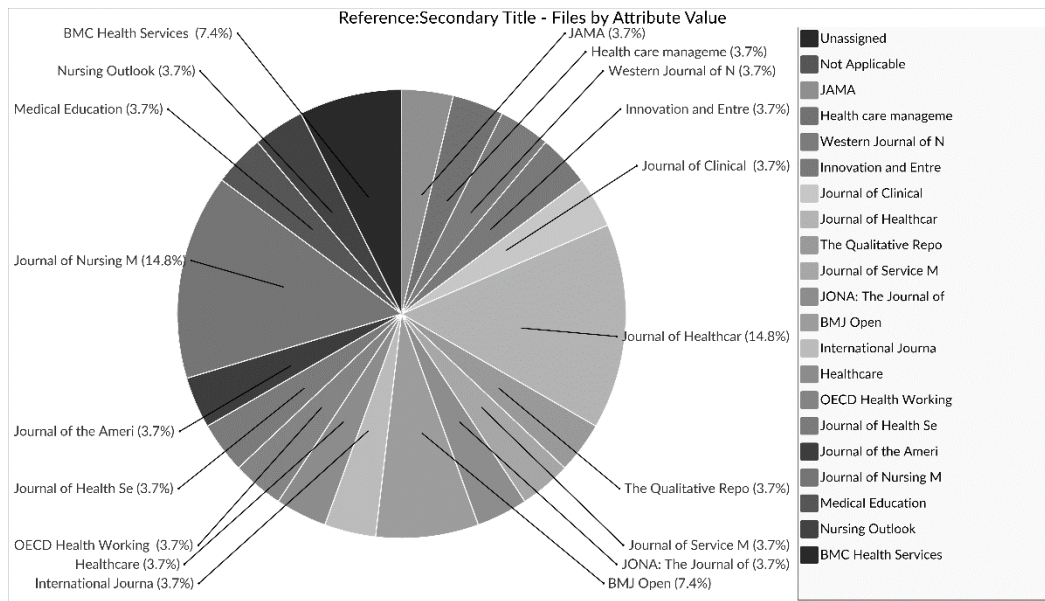
### 26 **Quantitative Data: Reference Statistics**

27  
28 About one-third of the qualified articles were from three respected sources: four were  
29  
30 published in the *Journal of Healthcare Management*, four in the *Journal of Nursing*  
31  
32 *Management*, and four in British Medical Journal (BMJ) editions. The journal quality measured  
33  
34 by articles receiving citations per period (*h index*) ranged from 24 to 95. Except for two articles,  
35  
36 the authors were all unique; McFadden and Stock were co-authors in two of the sources. Figure 1  
37  
38 shows the summary reference data for journal titles.  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60



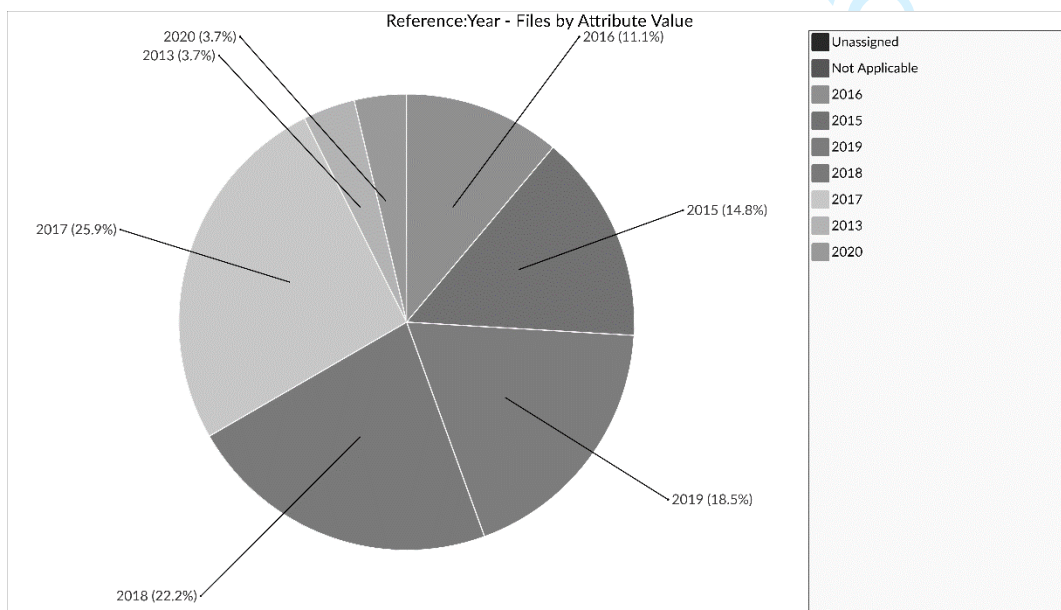
LEADERSHIP FOR REDUCING MEDICAL ERRORS

Figure 1



The reference data from the sample revealed that the majority of the articles—seven—appeared in 2017; 2013 and 2020 had only one article each. Figure 1 shows the summary of the publication year data, ranging from 2013 to 2020. Again, the reference data indicated an excellent distribution among both journals and publication years.

Figure 2



## LEADERSHIP FOR REDUCING MEDICAL ERRORS

15

**Theme: Leadership, via Safety Culture, is a Factor in Medical Errors**

The review validated the premise that leadership is a factor in medical errors. First, the lack of leadership results in medical errors and poor patient safety outcomes. Second, strategic leadership can profoundly impact safety outcomes. Third, strategic leaders focusing on organizational culture strongly influence safety performance.

The lack of leadership affects error reporting, poor outcomes, and preventable errors. Error reporting indicates a good safety culture and an antecedent to better results (Castel et al., 2015). Unfortunately, poor leadership leads to reduced error reporting (Appelbaum et al., 2016, Castel et al., 2015, Herzberg et al., 2019, Polonsky, 2019). The absence of or inattentiveness of leadership is also associated with poor outcomes (Murray et al., 2018, Hu et al., 2016, Boamah et al., 2018). For example, medical errors can include adverse events; a sentinel event is an adverse event that “results in death, permanent harm, or severe temporary harm” (The Joint Commission, 2020). Regrettably, the lack of leadership correlates with adverse, including sentinel events. (Merrill, 2015, Hu et al., 2016, Herzberg et al., 2019). Conversely, active, present, and attentive strategic leadership can create an environment for better outcomes.

Strategic leaders are top executives, including the Chief Executive Officer (CEO) and the CEO’s direct reports (Keeton, 2018). The leadership styles of the CEO and the Chief Quality Officer are directly related to quality improvements, including patient safety (McFadden et al., 2015, Stock and McFadden, 2017). Strategic leaders prioritize the various demands on an organization (Samimi et al., 2020, Kaufman, 2017, Dirik and Seren Intepeler, 2017). Patient safety improves when strategic leaders create an environment conducive to managing competing priorities (Avramchuk and McGuire, 2018, Taylor et al., 2015). Strategic leaders also set strategic directions for improvement (Keeton, 2018). Strategic leaders who aim strategically at

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

16

1  
2  
3 safety-focused improvement can reduce patient harm (Slawomirski et al., 2017). Strategic  
4  
5 leaders have the fundamental responsibility to develop and manage organizational culture  
6  
7 (Schein and Schein, 2017); culture is another vital strategic activity for producing positive  
8  
9 patient safety outcomes and reducing medical errors.  
10  
11

12           Organizational culture is crucial for patient and employee safety intervention success  
13  
14 (Kaplan et al., 2017). Strategic leadership-generated cultural characteristics that improve medical  
15  
16 errors are “a commitment to safety, a nonpunitive approach to reporting errors and near misses, a  
17  
18 common belief in the importance of safety culture, teamwork, and a pervasive feeling of trust”  
19  
20 (Jarrett, 2017). Kaplan et al. (2017) also suggested that safety culture is a strategic leadership  
21  
22 responsibility, adding that the culture must make occasions for learning and innovation. Finally,  
23  
24 strategic leaders have to work at credibility when developing a safety culture. Murray et al.  
25  
26 (2018) argued that leaders have to be visible to be credible. Furthermore, strategic leaders must  
27  
28 visit front-line teams, influencing how they prioritize safety actions (Dirik and Seren Intepeler,  
29  
30 2017).  
31  
32  
33  
34

35           The strategic leader’s integral role in patient safety and reducing medical errors is clear.  
36  
37 For patient safety success, strategic leaders must be present and attentive. They must create  
38  
39 environments conducive to safety and improvement, making priorities clear to the organization  
40  
41 for decision making. Finally, strategic leaders must develop and maintain safety cultures that  
42  
43 foster transparency and accountability. Each of these strategic leadership responsibilities requires  
44  
45 leadership approaches that are advantageous to their duties and to generating medical error  
46  
47 improvements.  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

17

**Theme: Leadership Approaches**

The literature pointed to three leadership approaches that generated improvement in patient safety and medical errors. First, transformational leadership, which helps promote values-focus, productive communication, and focus on mission, is a strong patient safety and medical error intervention (Boamah et al., 2018, Hu et al., 2016, McFadden et al., 2015, Merrill, 2015, Murray et al., 2018, Polonsky, 2019, Rangachari, 2018, Sfantou et al., 2017, Fischer et al., 2018, Taylor et al., 2015). Authentic leadership, centering on transparency and openness, can also be a factor in patient safety and medical error improvement (Boamah et al., 2018, Kaplan et al., 2017, Murray et al., 2018, Polonsky, 2019, Sfantou et al., 2017, Wong and Walsh, 2020). Finally, shared leadership as it distributes power and decision making to followers can vastly improve patient safety climate and outcomes (Appelbaum et al., 2016, Avramchuk and McGuire, 2018, Castel et al., 2015, Kaplan et al., 2017, McKee et al., 2013, Murray et al., 2018, O'Donovan et al., 2019, Padgett et al., 2017, Polonsky, 2019, Sfantou et al., 2017, Taylor et al., 2015). The first, transformational leadership, frequently appeared in the literature.

***Transformational Leadership***

Transformational leadership significantly affects group variables, including engagement and empowerment (Sosik et al., 2018, Blanch et al., 2016). Boamah et al. (2018) concluded that this transformational effect enhanced job satisfaction among nurses and reduced adverse patient outcomes. Merrill (2015) also found that nursing leaders needed to take the transformational approach to promote patient safety. The effect was not limited to nurses. The Institute of Medicine, publisher of the seminal 2000 paper that marked the beginning of industry attention on medical errors, recommended transformational leadership as a preferred approach to improving

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

18

1  
2  
3 safety and quality (Merrill, 2015). Surgeons respond to transformational leadership positively  
4 and perform more safely because of the teamwork it promotes (Hu et al., 2016).

5  
6  
7  
8 Transformational leaders' followers respond positively to inspirational motivation,  
9 inspiring followers to commit to a shared vision (Northouse, 2019). In healthcare,  
10 transformational leaders can establish a clear idea, creating a safety culture to improve outcomes  
11 (Kaplan et al., 2017, Rangachari, 2018). The literature strongly connected strategic leadership to  
12 improved outcomes, especially the CEO's leadership.  
13  
14  
15  
16  
17  
18

19 CEOs who use the transformational approach and create suitable safety climates have  
20 organizations that improve quality and safety (McFadden et al., 2015, Taylor et al., 2015). The  
21 transformational process is also strongly correlated with creating and managing a culture of  
22 safety—the object of safety climate's perceptions—necessary for making safety improvements  
23 (Sfantou et al., 2017). An influential culture of safety includes professional accountability but  
24 without punitive actions for human errors, proactive error identification and problem-solving,  
25 and robust feedback to the organization for learning from problems (2015). Leaders shape a  
26 safety culture from engagement, open communication, and trust (Murray et al., 2018). When  
27 trust is absent in a group, the group is less likely to make safety problems known (Polonsky,  
28 2019). Transformational leaders in healthcare foster high-trust environments that result in  
29 excellent patient outcomes (Merrill, 2015). Authentic leadership is closely related to  
30 transformational leadership and creates high-trust climates.  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46

***Authentic Leadership***

47  
48  
49 Authentic leadership includes the key characteristics of “underlying positive psychology  
50 and moral reasoning combined with critical life events” (Johnson, 2019). Authentic leadership  
51 places weight on transparency with a purpose. A concept called *just culture*, introduced by Marx  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

19

(2001), was one reaction to increasing medical error trends; just culture promotes open communication and transparency focused on a purpose. A just culture uses justice to balance punishment and guiltlessness to engender a climate of open communication and impartiality (Rogers et al., 2017). Just culture is an objective of authentic leadership. Kaplan et al. (2017) suggested that just culture is one of the concepts for cultivating a positive safety climate, emphasizing the need for transparency. Authentic leadership focusing on just-culture behaviors is correlated with decreasing adverse events (Boamah et al., 2018). Authentic leadership helps improve safety by promoting vulnerability in leadership (Polonsky, 2019) and creating a blame-free, team-oriented focus on safety (Murray et al., 2018). Team orientation and teamwork are critical for reducing medical errors and are a function of shared leadership.

***Shared Leadership***

Shared leadership, like transformational leadership, frequently appeared in the literature. Shared leadership improves participation in improvement processes for patient safety. Healthcare leaders can promote shared leadership principles to improve information sharing about safety problems and generate better solutions (Castel et al., 2015). As teams improve information sharing, the safety climate changes. Safety climate is positively related to safety outcomes (McFadden et al., 2015). Organizational perception of safety climate improves with shared leadership (Appelbaum et al., 2016). O'Donovan et al. (2019) concluded that shared leadership promotes safety culture, the object of a safety climate's sensitivities.

The shared leadership approach distributes power to followers, engaging them to make decisions (Northouse, 2019). Padgett et al. (2017) recommended dismantling hierarchical strategies to improve empowerment and safety outcomes. Shared leadership in patient safety settings spreads influence and enhances coordination, overcoming the barriers to safe outcomes

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

20

1  
2  
3 that hierarchical structures pose (O'Donovan et al., 2019). Additionally, psychological safety is  
4  
5 closely correlated with improved safety outcomes (Newman et al., 2017). Shared leadership  
6  
7 improves the psychological safety of healthcare teams (O'Donovan et al., 2019). Shared  
8  
9 leadership consistently relates directly to better patient outcomes (Sfantou et al., 2017).  
10  
11

12  
13         Nonetheless, shared leadership can pose challenges. Confusion over who is in charge and  
14  
15 an unwillingness to influence are two barriers to shared leadership (Binkhorst et al., 2018).  
16  
17 While shared leadership is vital for improving safety, there is a danger that it could confuse  
18  
19 authority and accountability (McKee et al., 2013). Followers may need team membership and  
20  
21 leadership training (Northouse, 2019).  
22  
23

24  
25         Shared leadership is a form of positive leadership and shares some characteristics with  
26  
27 other types of it. Transformational leadership is just one form of positive leadership (Blanch et  
28  
29 al., 2016). Despite transformational leadership being a vertical and shared leadership being a  
30  
31 horizontal style, both approaches, in combination, improve team effectiveness (Choi et al.,  
32  
33 2017). Moreover, humility makes both approaches work better (Liborius, 2017, Chiu et al.,  
34  
35 2016). Therefore, it is not surprising that the literature identified leadership actions associated  
36  
37 with transformational, authentic, and shared leadership.  
38  
39

### 40 ***Common Leadership Actions***

41  
42         Four clear actions surfaced in the literature, regardless of the leadership approach. The  
43  
44 four leadership actions were promoting teamwork (Castel et al., 2015, Herzberg et al., 2019,  
45  
46 Jarrett, 2017, O'Donovan et al., 2019, Stock and McFadden, 2017); fostering robust  
47  
48 communication (Appelbaum et al., 2016, Hu et al., 2016, Murray et al., 2018, O'Donovan et al.,  
49  
50 2019, Stock and McFadden, 2017); maintaining psychological safety (Appelbaum et al., 2016,  
51  
52 Castel et al., 2015, Merrill, 2015, Murray et al., 2018, O'Donovan et al., 2019); and regularly  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

21

1  
2  
3 practicing visits and checks on front line teams at work (Appelbaum et al., 2016, Jarrett, 2017,  
4  
5 O'Donovan et al., 2019).

6  
7  
8 First, the literature envisioned leaders who promoted teamwork as leaders getting positive  
9  
10 outcomes. Teamwork is an effective intervention for improving patient safety (Stock and  
11  
12 McFadden, 2017, Jarrett, 2017). Teams who employ teamwork get better safety results  
13  
14 (Herzberg et al., 2019). Leaders who create team learning improve the patient safety climate of  
15  
16 the group (Castel et al., 2015, O'Donovan et al., 2019). Since the climate reflects the culture,  
17  
18 leaders who promote teamwork have better safety cultures (O'Donovan et al., 2019).

19  
20  
21 Second, successful safety leaders encouraged robust and open communication amongst  
22  
23 team members. Good safety leaders actively energize the flow of social interactions and organize  
24  
25 it for the group's welfare and its mission (Lundell and Marcham, 2018). Open communication for  
26  
27 safety success starts with leaders setting the example and tone for openness (Appelbaum et al.,  
28  
29 2016). Next, leaders can foster a climate for discussing errors without fear (Hu et al., 2016).  
30  
31 Over time, this leadership condition builds safety culture norms for reporting errors and  
32  
33 discussing them freely (Murray et al., 2018, O'Donovan et al., 2019).  
34  
35  
36

37  
38 Third, leaders who actively worked to maintain psychological safety amongst group  
39  
40 members were successful in improving safety. Psychological safety is strongly correlated with  
41  
42 positive safety outcomes (Newman et al., 2017). Leaders who promote psychological safety  
43  
44 generate positive safety cultures associated with excellent patient safety (Appelbaum et al.,  
45  
46 2016). Therefore, leaders who support driving out fear and blame—vital aspects of psychological  
47  
48 safety—are successful in improving safety (Castel et al., 2015). Blame negatively influences  
49  
50 patient safety; leaders who strive for a blame-free environment have a better potential for success  
51  
52 (Murray et al., 2018).  
53  
54  
55  
56  
57  
58  
59  
60



## LEADERSHIP FOR REDUCING MEDICAL ERRORS

22

1  
2  
3 Fourth, leaders who regularly visit front-line teams get better safety results. Leaders who  
4 consistently see front-line team members project openness and availability, two critical  
5 conditions for positive safety culture (Appelbaum et al., 2016). When at the front line, leaders  
6 can actively listen to followers and shape the safety culture. Leaders at the front line can keep  
7 team members informed and provide vital feedback that improves safety reporting and outcomes  
8 (Jarrett, 2017). Regular visits are critical for integrating safety thinking and behaviors into the  
9 daily experience (O'Donovan et al., 2019).

**Gaps in the Literature**

10  
11  
12 The literature identified two significant gaps. First, the generalizability of the literature is  
13 limited. Authors restricted their studies and reviews to specific populations, larger organizations,  
14 or general interventions. Second, the research exposed a gap in studying the responsibilities of  
15 healthcare's strategic leaders for reducing medical errors. The research does not extend  
16 specifically into strategies for human resources, organizational learning, or change management.  
17 These gaps, discovered as limitations or future research recommendations in the literature, help  
18 guide continuing study into this phenomenon.

19  
20  
21 Generalizability is one way to characterize the external validity of research; it is the  
22 characteristic of analysis that allows it to be extended into other relevant contexts (Robson and  
23 McCartan, 2016). For example, case studies have less generalizability, given the limited scope of  
24 the research (Creswell and Poth, 2018). More longitudinal studies could expand the literature's  
25 generalizability (Boamah et al., 2018). Many organizations in the healthcare industry have been  
26 working on reducing medical errors for more than 20 years. Some research into how barriers  
27 have changed over time is warranted. More targeted review and study would enhance the body of  
28 knowledge. O'Donovan et al. (2019) suggested future research directions into cultural sub-  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

23

1  
2  
3 themes. For example, Wong and Walsh (2020) proposed a systematic study of trust in healthcare.  
4  
5 Another fundamental gap was the lack of research at the small-hospital level (Castel et al., 2015).  
6  
7 This gap and recommendation could fuel numerous case studies directed at small, successful  
8  
9 healthcare systems.  
10

11  
12 Another gap was the absence of integrations of some strategic leadership responsibilities  
13  
14 and reducing medical errors. The leadership style of the CEO and the top management team can  
15  
16 impact patient safety (McFadden et al., 2015, Stock and McFadden, 2017, Slawomirski et al.,  
17  
18 2017). The integration gaps went beyond leadership style to specific strategies. Despite  
19  
20 acknowledging that human development strategies are related to safety climate, there was a gap  
21  
22 in studies that linked job satisfaction, teamwork, and organizational learning to patient safety  
23  
24 (Avramchuk and McGuire, 2018). Merrill (2015) recommended future research that explored the  
25  
26 relationship between organizational culture strategy and safety improvement. Change  
27  
28 management strategy incorporates techniques for implementing new ways of doing things  
29  
30 (Kotter, 2012). Rangachari (2018) suggested a future research direction that studied how  
31  
32 implementation strategies impact safety improvement. Moreover, Taylor et al. (2015) reported  
33  
34 the need for future research into how firms sustain safety success across the organization. Like  
35  
36 the small hospital generalizability gap, this last gap is conducive to case studies targeting a single  
37  
38 organization with sweeping safety success, perhaps one that successfully improves patient and  
39  
40 employee safety.  
41  
42  
43  
44  
45

46  
47 The literature linked three leadership approaches with improving patient safety and,  
48  
49 consequently, medical errors, providing rich insights. Transformational, authentic, and shared  
50  
51 leadership are promising approaches to improve safety in healthcare. Moreover, the literature  
52  
53 pointed to four explicit leadership actions related to safety culture and safety success. Leaders  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

24

1  
2  
3 who actively focus on teamwork, open communication, psychological safety, and regularly  
4  
5 visiting with front-line teams foster better safety cultures, climate and get better results. The gaps  
6  
7 in the literature suggest future research that improves generalizability and integrates strategic  
8  
9 leadership responsibilities. Based on these results, further discussion of the results follows.  
10  
11

**Discussion**

12  
13  
14  
15 The medical error trend is alarming. Despite healthcare's concern and good intentions, its  
16  
17 interventions do not seem to be working systemically. Instead, there are pockets of success.  
18  
19 Some successes have resulted from focusing on one type of error. For example, from 1999 to  
20  
21 2016, central line-associated bloodstream infections (CLABSI) in the U.S. were reduced by over  
22  
23 80% in intensive care units (Pronovost et al., 2016). Unfortunately, it took external pressures—  
24  
25 patient advocacy groups and lawmakers—to stimulate healthcare leaders to engage in  
26  
27 improvement interventions. Single organizations have also had isolated success. For example,  
28  
29 Signature Healthcare in Brockton, Massachusetts, has successfully achieved an entire year  
30  
31 without harm and reduced its serious safety event rate by 88% and its employee injury rate by  
32  
33 75% (Clapper et al., 2018). While Clapper et al. (2018) attributed Signature's success to adopting  
34  
35 high reliability—one of several accepted interventions healthcare leaders are using—others who  
36  
37 espouse high reliability do not experience the radical change that Signature did. While high  
38  
39 reliability has been successful in other industries, healthcare has not seen uniform results. There  
40  
41 is little foundational research on high reliability in healthcare; healthcare “differs in  
42  
43 consequential ways from other industries viewed through the (high reliability) lens” (Martelli et  
44  
45 al., 2018). Could the difference in success be more attributable to leadership than to a specific  
46  
47 intervention?  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

25

High reliability was present in the literature, as were other safety interventions. However, based on the search delimiters, the literature provided evidence that three positive leadership approaches and four leadership actions appear to result in patient safety success, regardless of parallel safety interventions. In other words, strategic leaders can pick any safety intervention and, by practicing specific leadership approaches and actions, may successfully improve patient safety and reduce medical errors. Three additional hypotheses articulate this premise. First, leadership is a critical factor. Second, positive leadership's common mechanisms are vital for energizing the change needed for improving medical errors. Third, leadership actions form a praxis for enhancing patient safety and reducing medical errors.

**Leadership is *the* Primary Critical Factor**

The literature proved that leadership is a critical factor in reducing medical errors and improving patient safety. Other safety interventions correlate with improved safety outcomes in different industries; the interventions get sustained improvement in other industries—the military, aviation, and emergency services. Healthcare is applying the same interventions, but they do not appear to be making systemic headway in improving medical errors. Given the array of other safety interventions in the literature, leadership may be the preeminent factor for success. If so, the healthcare industry may succeed with leadership interventions coupled with safety interventions than safety interventions alone. In addition, the literature gives a possible direction for those leadership interventions.

**Positive leadership is Right Intervention**

The literature provided a consensus that two positive leadership approaches—transformational and authentic—and one positive-related approach, shared leadership, correlated with improved patient safety. Few other approaches appeared in the literature. Some—*laissez-*

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

26

1  
2  
3 *faire* and transactional—had negative influences on improving patient safety. If healthcare’s  
4  
5 strategic leaders design a leadership intervention strategy to reduce medical errors, positive and  
6  
7 shared leadership is the optimal blended approach. Moreover, strategic leaders can exercise  
8  
9 specific leadership actions to strengthen the intervention’s effects when pursuing a leadership  
10  
11 intervention.  
12  
13

**Leadership Actions Guide the Way**

14  
15  
16  
17 The literature identified four leadership actions that were common to successful  
18  
19 improvement. When leaders connect these actions within the positive leadership intervention,  
20  
21 they form a systematic framework for stabilizing, sustaining, and advancing improvement. There  
22  
23 were many leadership actions in the literature, but these four represent a consensus. Therefore, if  
24  
25 healthcare leaders are using a positive and shared leadership intervention, they can strengthen the  
26  
27 effect of the intervention by institutionalizing leadership actions for teamwork, open  
28  
29 communication, psychological safety, and visiting the front line regularly.  
30  
31  
32

**Limitations**

33  
34  
35 This review was limited in three ways. First, the review only included sources from the  
36  
37 U.S., the United Kingdom, and Canada. While those countries have similar public-private  
38  
39 healthcare systems and similar socio-economics, the problem of medical errors is global  
40  
41 (Rodziewicz and Hipskind, 2019). Other leadership approaches or actions may have correlated to  
42  
43 reducing medical errors by broadening the geographic selection parameters. Future research  
44  
45 could remove geographic restrictions for selection. However, the specific research problem is  
46  
47 limited to the U.S. and Canada. Second, the author has a bias towards leadership as distinctive  
48  
49 from management. There may be additional insights gleaned from expanding the search terms to  
50  
51 include management concepts. Third, the author is a management consultant to organizations  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

27

1  
2  
3 seeking to improve healthcare safety. The author's bias against limited action as opposed to  
4  
5 strategic leadership interventions is profound and significant. This bias may generalize the  
6  
7 problem more than necessary.  
8  
9

**Conclusions**

10  
11  
12 The trend for medical errors in the U.S. is going in the wrong direction; healthcare's  
13  
14 strategic leaders are unsuccessful in generating industry-wide improvement. Medical errors are  
15  
16 complex and costly for patients and providers alike. Despite widespread implementation of  
17  
18 safety interventions, healthcare has not made extensive improvements in reducing medical  
19  
20 errors. Instead, this literature review found that leadership interventions were more widely  
21  
22 successful. Notably, the combination of positive and shared leadership approaches produced  
23  
24 improvement and reductions in errors.  
25  
26

27  
28 Moreover, leaders' actions to regularly check on the front line and promote teamwork,  
29  
30 open communication, and psychological safety have improved patient safety. When considering  
31  
32 these findings, a premise emerges: healthcare's strategic leaders may reduce medical errors by  
33  
34 combining safety and leadership interventions. Future research should probe this premise. Using  
35  
36 the gaps in the literature, flexible design researchers can employ the case study approach to  
37  
38 investigate widespread successes at small healthcare organizations. This future research may  
39  
40 create new ways to approach solving this grave strategic leadership problem.  
41  
42  
43

**Implications for Practice**

44  
45  
46 There are three direct practical implications from this review. The limitations of this  
47  
48 review bound these implications. First, organizations might assess strategic and operational  
49  
50 leaders to determine their competencies for positive leadership. Second, organizations just  
51  
52 beginning to frame or reframe a safety strategy can perhaps combine safety and leadership  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

28

1  
2  
3 interventions for better outcomes. Third, organizations could screen applicants to assess team  
4 membership and team leadership orientation and competencies.  
5  
6

**Assessment**

7  
8  
9  
10 Firms with sophisticated talent management strategies incorporate assessment to  
11 determine team member and team leader competencies and readiness (Mattone et al., 2012).  
12  
13 Based on this review, organizations using leadership assessment instruments could recalibrate  
14 them to positive and shared leadership. Positive leadership assessments are limited, but the  
15 Positive Leadership Assessment from Cameron (2012) is a tested method. Also, the Team  
16 Multifactor Leadership Questionnaire (Avolio et al., 2003) for assessing shared leadership is a  
17 variation on the Multifactor Leadership Questionnaire, a popular instrument to evaluate  
18 transformational leadership (Northouse, 2019). Combining these assessments might evaluate  
19 current or emerging leaders in an organization trying to reduce medical errors.  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29

**Combining Interventions**

30  
31  
32  
33 Early in the new era of medical error awareness, healthcare's strategic leaders realized  
34 the moral imperative to reduce medical errors (Weeks et al., 2001). The seminal Institute of  
35 Medicine report *To Err is Human: Building a Safer Health System* provided a roadmap that  
36 included implementing a safety culture at the organizational level (Kohn et al., 2000). As a  
37 result, some healthcare systems pursued a culture of safety interventions based on that report.  
38  
39 More recently, high-reliability theory—the concept of conducting operations in volatile  
40 environments with minimal errors over long periods—has become a popular intervention among  
41 healthcare organizations (Padgett et al., 2017). Despite these efforts, the healthcare industry is  
42 not showing signs of global improvement: Shrivastava and Shrivastava (2020) estimated in a  
43 recent report that 2.5 million deaths from medical errors will occur globally annually and that  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

29

1  
2  
3 80% of them will have been preventable. Based on this review, it may be prudent for healthcare  
4 organizations to combine safety with leadership interventions. The culture of safety concepts and  
5 high reliability have leadership overtones, but without a dedicated leadership intervention to  
6 shape leadership practice, the connotations are subject to individual interpretation. A combined  
7 intervention might merge high reliability—which relies heavily on empowerment despite its  
8 hierarchical roots (Padgett et al., 2017)—with a leadership intervention aimed at positive and  
9 shared leadership models.

**Creating a Quality Gate in the Hiring Process**

10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22 While some scholars put little stock in pre-hiring screening processes that involve  
23 psychometric assessment (Wheelan, 2016), others have found value in them for organization fit  
24 and as good predictors of success (Hinton and Stevens-Gill, 2016). Given the need for excellent  
25 team membership skills and the need for positive and shared leadership competencies, screening  
26 to assess potential new hires for those skills and competencies would protect the gains from  
27 safety mitigations. By creating a gate for hiring, organizations could hedge people who cannot  
28 work well on teams and, more importantly, who approach leadership in negative ways.

29  
30  
31  
32  
33  
34  
35  
36  
37  
38 The limitations of the review bound these three implications for practice. For example,  
39 other leadership approaches may help improve safety. Safety improvement may occur despite the  
40 strategic leaders' approach to leadership. In some cases, the implications could enhance newly  
41 starting or ongoing safety interventions. Healthcare's strategic leaders are ethically bound to  
42 improve patient safety and reduce medical errors in all cases.

**A Possible Framework for Practical Evaluation and Future Study**

43  
44  
45  
46  
47  
48  
49  
50  
51  
52 The literature's themes suggested a relationship between the approaches that strategic  
53 leaders take and reducing medical errors. First, strategic leaders use leadership approaches to  
54



## LEADERSHIP FOR REDUCING MEDICAL ERRORS

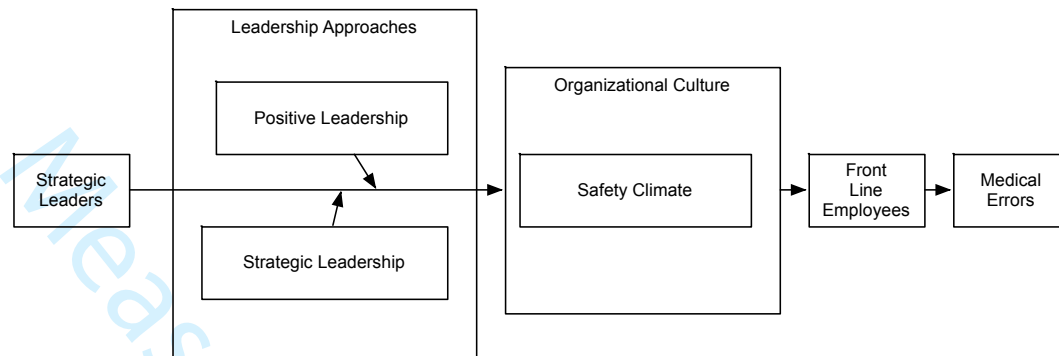
30

1  
2  
3 nurture organizational culture, from which safety climate—the perception of safety culture—is a  
4  
5 subset. Second, safety climate has an effect on the people at the front line of the healthcare  
6  
7 organization. Third, front-line workers have the most significant direct impact on improving  
8  
9 patient safety by acting safely when they care for patients. Last, the effect of strategic leadership  
10  
11 approaches, via safety climate and front-line behavior, can reduce medical errors. Figure 3 offers  
12  
13 a hypothetical relationship between these concepts. Practitioners could use this model to evaluate  
14  
15 or intervene in ongoing safety cultures that fail to reduce medical errors. Moreover, further  
16  
17 research could attempt to quantify these relationships.  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

31

Figure 3



*Note.* This figure represents the interrelationships between strategic leaders and their leadership approaches, its effect on safety climate, and its subsequent effect on front line employees, patient safety behaviors, and medical errors.

### Concepts

***Strategic Leaders Create Organizational Culture.*** The strategic leaders in an organization are its principal governing group members, usually including the top management team, who make the organization's strategic decisions (Pitelis and Wagner, 2019). Moreover, this group creates and shapes organizational culture (Samimi et al., 2020). Oddly, strategic leadership effectiveness also depends on organizational culture (Shao, 2019).

***Safety Culture is a Subset of Organizational Culture.*** Organizational culture defines the collective values and behavioral norms for a group (Schein, 2010). Furthermore, organizational culture has various dimensions that describe specific norms and values like teamwork and innovation (Lee et al., 2016). One organizational culture subdivision is a safety culture, which defines values and norms specific to safety (Lee et al., 2019). See Figure 1.

***Safety Culture can Improve Patient Safety and Medical Errors.*** Reducing medical errors is the primary motivation to improve patient safety (Shrivastava and Shrivastava, 2020). A medical error is defined as health care activities that caused unintentional harm (Ellahham,

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

32

2018). Patient safety is a set of measures, processes, and mindsets to prevent harm and errors in healthcare settings (Shrivastava and Shrivastava, 2020). Ahmed et al. (2019) concluded that improving patient safety reduces medical errors. Moreover, Tawfik et al. (2018) found a direct relationship between patient safety performance and medical errors.

Sammer et al. (2020) suggested the significant relationship between safety culture, patient safety, and medical errors. The relationships between safety culture and safety performance are not entirely obvious: some culture components will impact patient safety more than others (Mannion and Davies, 2018). For example, strategic leaders who promote safety culture using specific skills—open communication, transparency, and access—enhance safety culture and improve patient safety performance (O'Connor and Carlson, 2016). Ultimately, there is a multi-dimensional relationship between patient safety culture and safety performance (Smith et al., 2017). Therefore—based on the direct relationship between patient safety and medical errors—there appears to be a relationship between safety culture and medical errors.

***Strategic Leaders Foster a Safety Culture.*** Strategic leaders directly affect perceived safety culture (McFadden et al., 2015). Additionally, healthcare's strategic leaders are responsible for creating and maintaining that safety culture (Kaplan et al., 2017). Figure 1 suggests that the relationship between strategic leaders and safety culture is affected by strategic leaders' leadership approaches; two theories inform these approaches.

### References

2015. Free from harm: Accelerating patient safety improvement fifteen years after *to err is human*. Available: <https://psnet.ahrq.gov/issue/free-harm-accelerating-patient-safety-improvement-fifteen-years-after-err-human> [Accessed June 2, 2020].
2017. The Healthcare Executive's Role in Ensuring Quality and Patient Safety. Chicago, IL: American College of Healthcare Executives.
2020. *Sentinel Event* [Online]. The Joint Commission. Available: <https://www.jointcommission.org/resources/patient-safety-topics/sentinel-event> [Accessed June 1 2020].
- ABDALLA, M. M., OLIVEIRA, L. G. L., AZEVEDO, C. E. F. & GONZALEZ, R. K. 2018. Quality in qualitative organizational research: Types of triangulation as a methodological alternative. *Administração: Ensino e Pesquisa*, 19, 66-98.
- AGHA, L., FRANDBSEN, B. & REBITZER, J. B. 2019. Fragmented division of labor and healthcare costs: Evidence from moves across regions. *Journal of Public Economics*, 169, 144-159.
- AHMED, Z., SAADA, M., JONES, A. M. & AL-HAMID, A. M. 2019. Medical errors: Healthcare professionals' perspective at a tertiary hospital in Kuwait. *PLOS ONE*, 14, e0217023.
- ANDERSON, J. & ABRAHAMSON, K. 2017. Your health care may kill you: Medical errors. *Studies in Health Technology and Informatics*, 234, 13-17.
- APPELBAUM, N. P., DOW, A., MAZMANIAN, P. E., JUNDT, D. K. & APPELBAUM, E. N. 2016. The effects of power, leadership and psychological safety on resident event reporting. *Medical Education*, 50, 343-350.

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

34

1  
2  
3 AVOLIO, B. J., SIVASUBRAMANIAM, N., MURRY, W., JUNG, D. & GARGER, J. 2003.

4  
5 Shared leadership: Reframing the hows and whys of leadership. *In*: PIERCE, C. &

6  
7 CONGER, J. (eds.). Thousand Oaks

8  
9  
10 Thousand Oaks, California: SAGE Publications, Inc.

11  
12 AVRAMCHUK, A. S. & MCGUIRE, S. J. 2018. Patient safety climate: A study of southern

13  
14 California healthcare organizations. *Journal of Healthcare Management*, 63, 175-192.

15  
16 BANKS, G. C., MCCAULEY, K. D., GARDNER, W. L. & GULER, C. E. 2016. A meta-

17  
18 analytic review of authentic and transformational leadership: A test for redundancy. *The*

19  
20  
21 *Leadership Quarterly*, 27, 634-652.

22  
23 BASS, B. M. & AVOLIO, B. J. 1994. *Improving organizational effectiveness through*

24  
25  
26 *transformational leadership*, Sage.

27  
28 BASS, B. M. & AVOLIO, B. J. 1996. Multifactor leadership questionnaire. *European Journal of*

29  
30  
31 *Psychological Assessment*.

32  
33 BEATTIE, E. N. P. 2019. The power of positive leadership: An examination of leadership

34  
35 strategies based on positive psychology, applied neuroscience, and the learning sciences.

36  
37  
38 *COABE Journal*, 8, 52-63.

39  
40 BINKHORST, F., POORTMAN, C. L., MCKENNEY, S. E. & VAN JOOLINGEN, W. R. 2018.

41  
42 Revealing the balancing act of vertical and shared leadership in Teacher Design Teams.

43  
44  
45 *Teaching and Teacher Education*, 72, 1-12.

46  
47 BLANCH, J., GIL, F., ANTINO, M. & RODRÍGUEZ-MUÑOZ, A. 2016. Positive leadership

48  
49 models: Theoretical framework and research. *Papeles del Psicólogo*, 37, 170-176.

50

51

52

53

54

55

56

57

58

59

60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

35

- 1  
2  
3 BOAMAH, S. A., SPENCE LASCHINGER, H. K., WONG, C. & CLARKE, S. 2018. Effect of  
4  
5 transformational leadership on job satisfaction and patient safety outcomes. *Nursing*  
6  
7 *Outlook*, 66, 180-189.
- 8  
9  
10 CAMERON, K. 2012. *Positive leadership: Strategies for extraordinary performance*, Oakland,  
11  
12 UNITED STATES, Berrett-Koehler Publishers, Incorporated.
- 13  
14  
15 CASTEL, E. S., GINSBURG, L. R., ZAHEER, S. & TAMIM, H. 2015. Understanding nurses  
16  
17 and physicians fear of repercussions for reporting errors: Clinician characteristics,  
18  
19 organization demographics, or leadership factors? *BMC Health Services Research*, 15.
- 20  
21  
22 CASTLEBERRY, A. & NOLEN, A. 2018. Thematic analysis of qualitative research data: Is it as  
23  
24 easy as it sounds? *Currents in Pharmacy Teaching and Learning*, 10, 807-815.
- 25  
26  
27 CHIU, C.-Y., OWENS, B. P. & TESLUK, P. E. 2016. Initiating and utilizing shared leadership  
28  
29 in teams: The role of leader humility, team proactive personality, and team performance  
30  
31 capability. *Journal of Applied Psychology*, 101, 1705-1720.
- 32  
33  
34 CHOI, S. B., KIM, K. & KANG, S.-W. 2017. Effects of transformational and shared leadership  
35  
36 styles on employees' perception of team effectiveness. *Social Behavior and Personality*,  
37  
38 45, 377-386.
- 39  
40  
41 CLAPPER, C., MERLINO, J. & STOCKMEIER, C. 2018. *Zero harm: how to achieve patient*  
42  
43 *and workforce safety in healthcare*, McGraw Hill Professional.
- 44  
45  
46 CRESWELL, J. W. & POTH, C. N. 2018. *Qualitative inquiry and research design: Choosing*  
47  
48 *among five approaches, 4th edition*, Sage publications.
- 49  
50  
51 DE BRÚN, A., O'DONOVAN, R. & MCAULIFFE, E. 2019. Interventions to develop  
52  
53 collectivistic leadership in healthcare settings: A systematic review. *BMC Health*  
54  
55 *Services Research*, 19.
- 56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

36

- 1  
2  
3 DE VRIES, E. N., RAMRATTAN, M. A., SMORENBURG, S. M., GOUMA, D. J. &  
4  
5 BOERMEESTER, M. A. 2008. The incidence and nature of in-hospital adverse events: A  
6  
7 systematic review. *Quality and Safety in Health Care*, 17, 216-223.  
8  
9  
10 DICUCCIO, M. H. 2015. The relationship between patient safety culture and patient outcomes:  
11  
12 A systematic review. *Journal of Patient Safety*, 11, 135-142.  
13  
14  
15 DIRIK, H. F. & SEREN INTEPELER, S. 2017. The influence of authentic leadership on safety  
16  
17 climate in nursing. *Journal of Nursing Management*, 25, 392-401.  
18  
19  
20 EHRNSPERGER, B. 2016. Patient safety in healthcare: How experts are defining it, preliminary  
21  
22 results. *Proceedings of MAC-MME 2016*, 77.  
23  
24  
25 ELLAHHAM, S. 2018. The domino effect of medical errors. *American Journal of Medical*  
26  
27 *Quality*, 34, 412-413.  
28  
29  
30 FAIN, B. 2019. The financial and human cost of medical error. Available:  
31  
32 <https://www.betsylehmancenterma.gov/research/costofme>.  
33  
34  
35 FISCHER, S. A., JONES, J. & VERRAN, J. A. 2018. Consensus achievement of leadership,  
36  
37 organisational and individual factors that influence safety climate: Implications for  
38  
39 nursing management. *Journal of Nursing Management*, 26, 50-58.  
40  
41  
42 FRASER, M. W. & GALINSKY, M. J. 2010. Steps in intervention research: Designing and  
43  
44 developing social programs. *Research on Social Work Practice*, 20, 459-466.  
45  
46  
47 HANCOCK, D. R. & ALGOZZINE, B. 2017. *Doing case study research: A practical guide for*  
48  
49 *beginning researchers*, Teachers College Press.  
50  
51  
52 HERZBERG, S., HANSEN, M., SCHOONOVER, A., SKARICA, B., MCNULTY, J.,  
53  
54  
55 HARROD, T., SNOWDEN, J. M., LAMBERT, W. & GUISE, J.-M. 2019. Association  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

37

1  
2  
3 between measured teamwork and medical errors: An observational study of prehospital  
4 care in the USA. *BMJ Open*, 9, e025314.

7 HINTON, D. & STEVENS-GILL, D. 2016. Online psychometric assessment. *Applied*  
8 *Cyberpsychology*. Palgrave Macmillan UK.

12 HU, Y.-Y., PARKER, S. H., LIPSITZ, S. R., ARRIAGA, A. F., PEYRE, S. E., CORSO, K. A.,  
13 ROTH, E. M., YULE, S. J. & GREENBERG, C. C. 2016. Surgeons' leadership styles and  
14 team behavior in the operating room. *Journal of the American College of Surgeons*, 222,  
15 41-51.

21 JARRETT, M. P. 2017. Patient safety and leadership: Do you walk the walk? *Journal of*  
22 *Healthcare Management*.

26 JOHNSON, S. L. 2019. Authentic leadership theory and practical applications in nuclear  
27 medicine. *Journal of Nuclear Medicine Technology*, 47, 181-188.

31 KAPLAN, G. S., GANDHI, T. K., BOWEN, D. J. & STOKES, C. D. 2017. Partnering to lead a  
32 culture of safety. *Journal of Healthcare Management*, 62, 234-237.

35 KAUFMAN, R. 2017. Practical strategic leadership: Aligning human performance development  
36 with organizational contribution. *Performance Improvement*, 56, 16-21.

40 KEETON, W. 2018. Command, leadership, intelligence and management (CLIM): A proposed  
41 theory for improved strategic leadership. *FIIB Business Review*, 7, 146-151.

44 KIGER, M. E. & VARPIO, L. 2020. Thematic analysis of qualitative data: AMEE Guide No.  
45 131. *Medical teacher*, 42, 846-854.

49 KOHN, L., CORRIGAN, J. & DONALDSON, M. 2000. *To err is human: Building a safer*  
50 *health system*, Institute of Medicine.



## LEADERSHIP FOR REDUCING MEDICAL ERRORS

38

- 1  
2  
3 KOTTER, J. P. 2012. *Leading Change, With a New Preface by the Author*, Boston, MA, Harvard  
4  
5 Business Review Press.  
6  
7  
8 LAYNE, D., NEMETH, L., MUELLER, M. & MARTIN, M. 2019. Negative behaviors among  
9  
10 healthcare professionals: Relationship with patient safety culture. *Healthcare*, 7, 23.  
11  
12 LEE, M. T., RASCHKE, R. L. & LOUIS, R. S. 2016. Exploiting organizational culture:  
13  
14 Configurations for value through knowledge worker's motivation. *Journal of Business*  
15  
16 *Research*, 69, 5442-5447.  
17  
18  
19 LEE, S. E., SCOTT, L. D., DAHINTEN, V. S., VINCENT, C., LOPEZ, K. D. & PARK, C. G.  
20  
21 2019. Safety culture, patient safety, and quality of care outcomes: A literature review.  
22  
23 *Western Journal of Nursing Research*, 41, 279-304.  
24  
25  
26 LESTER, J. N., CHO, Y. & LOCHMILLER, C. R. 2020. Learning to do qualitative data  
27  
28 analysis: A starting point. *Human Resource Development Review*, 19, 94-106.  
29  
30  
31 LI, Z., GUPTA, B., LOON, M. & CASIMIR, G. 2016. Combinative aspects of leadership style  
32  
33 and emotional intelligence. *Leadership & Organization Development Journal*, 37, 107-  
34  
35 125.  
36  
37  
38 LIBORIUS, P. 2017. What does leaders' character add to transformational leadership? *The*  
39  
40 *Journal of Psychology*, 151, 299-320.  
41  
42  
43 LONCAR, T. O. M. 2018. Cultivating purposefully positive leadership. *Governance Directions*,  
44  
45 70, 310-314.  
46  
47  
48 LUNDELL, M. A. & MARCHAM, C. L. 2018. Leadership's effect on safety culture.  
49  
50 *Professional Safety*, 63, 36-43.  
51  
52  
53 MAGUIRE, M. & DELAHUNT, B. 2017. Doing a thematic analysis: A practical, step-by-step  
54  
55 guide for learning and teaching scholars. *All Ireland Journal of Higher Education*, 9.  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

39

1  
2  
3 MANNION, R. & DAVIES, H. 2018. Understanding organisational culture for healthcare  
4  
5 quality improvement. *BMJ*, 363, k4907.

6  
7 MARTELLI, P. F., RIVARD, P. E. & ROBERTS, K. H. 2018. Caveats for high reliability in  
8  
9 healthcare. *Journal of Health Organization and Management*, 32, 674-690.

10  
11 MARX, D. A. 2001. *Patient safety and the "just culture": A primer for health care executives*,  
12  
13 Trustees of Columbia University.

14  
15 MATTONE, J., XAVIER, L. & FITZ-ENZ, J. 2012. *Talent leadership: A proven method for*  
16  
17 *identifying and developing high-potential employees*, Saranac Lake, UNITED STATES,  
18  
19 AMACOM.

20  
21 MCFADDEN, K. L., STOCK, G. N. & GOWEN III, C. R. 2015. Leadership, safety climate, and  
22  
23 continuous quality improvement: Impact on process quality and patient safety. *Health*  
24  
25 *care management review*, 40, 24-34.

26  
27 MCKEE, L., CHARLES, K., DIXON-WOODS, M., WILLARS, J. & MARTIN, G. 2013. 'New'  
28  
29 and distributed leadership in quality and safety in health care, or 'old' and hierarchical?  
30  
31 An interview study with strategic stakeholders. *Journal of Health Services Research &*  
32  
33 *Policy*, 18, 11-19.

34  
35 MERRILL, K. C. 2015. Leadership style and patient safety: Implications for nurse managers.  
36  
37 *JONA: The Journal of Nursing Administration*, 45, 319-324.

38  
39 MEYER, H. 2019. Hospitals fall short of patient-safety goals 20 years after 'To Err is Human'.  
40  
41 *Modern Healthcare* [Online]. Available: [https://www.modernhealthcare.com/safety-](https://www.modernhealthcare.com/safety-quality/hospitals-fall-short-patient-safety-goals-20-years-after-err-human)  
42  
43 [quality/hospitals-fall-short-patient-safety-goals-20-years-after-err-human](https://www.modernhealthcare.com/safety-quality/hospitals-fall-short-patient-safety-goals-20-years-after-err-human) [Accessed  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
January 27, 2021].

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

40

- 1  
2  
3 MOHR, D. C., EATON, J. L., MCPHAUL, K. M. & HODGSON, M. J. 2018. Does employee  
4 safety matter for patients too? Employee safety climate and patient safety culture in  
5 health care. *Journal of patient safety*, 14, 181-185.  
6  
7  
8  
9  
10 MULLEN, J., KELLOWAY, E. K. & TEED, M. 2017. Employer safety obligations,  
11 transformational leadership and their interactive effects on employee safety performance.  
12 *Safety Science*, 91, 405-412.  
13  
14  
15  
16  
17 MURRAY, M., SUNDIN, D. & COPE, V. 2018. The nexus of nursing leadership and a culture  
18 of safer patient care. *Journal of Clinical Nursing*, 27, 1287-1293.  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60
- NEWMAN, A., DONOHUE, R. & EVA, N. 2017. Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27, 521-535.
- NOBLE, H. & HEALE, R. 2019. Triangulation in research, with examples. *Evidence-Based Nursing*, 22, 67.
- NORTHOUSE, P. G. 2019. *Leadership: theory and practice*, Los Angeles, CA, SAGE Publications.
- O'CONNOR, S. & CARLSON, E. 2016. Safety culture and senior leadership behavior: Using negative safety ratings to align clinical staff and senior leadership. *J Nurs Adm*, 46, 215-20.
- O'DONOVAN, R., WARD, M., DE BRÚN, A. & MCAULIFFE, E. 2019. Safety culture in health care teams: A narrative review of the literature. *Journal of Nursing Management*, 27, 871-883.
- ONWUEGBUZIE, A. J., LEECH, N. L. & COLLINS, K. M. 2012. Qualitative analysis techniques for the review of the literature. *Qualitative Report*, 17, 56.

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

41

- 1  
2  
3 PADGETT, J., GOSSETT, K., MAYER, R., CHIEN, W.-W. & TURNER, F. 2017. Improving  
4 patient safety through high reliability organizations. *The Qualitative Report*, 22, 410-425.  
5  
6  
7  
8 PITELIS, C. N. & WAGNER, J. D. 2019. Strategic shared leadership and organizational  
9 dynamic capabilities. *The Leadership Quarterly*, 30, 233-242.  
10  
11  
12 POLONSKY, M. S. 2019. High-Reliability Organizations: The next frontier in healthcare quality  
13 and safety. *Journal of Healthcare Management*, 64, 213-221.  
14  
15  
16  
17 PRONOVOST, P. J., CLEEMAN, J. I., WRIGHT, D. & SRINIVASAN, A. 2016. Fifteen years  
18 after To Err is Human: A success story to learn from. *BMJ Quality & Safety*, 25, 396.  
19  
20  
21 RANGACHARI, P. 2018. Innovation implementation in the context of hospital QI: lessons  
22 learned and strategies for success. *Innovation and Entrepreneurship in Health*, 5, 1-14.  
23  
24  
25  
26 ROBSON, C. & MCCARTAN, K. 2016. *Real world research*, John Wiley & Sons.  
27  
28  
29 RODZIEWICZ, T. L. & HIPSKIND, J. E. 2019. Medical error prevention. *StatPearls [Internet]*.  
30 StatPearls Publishing.  
31  
32  
33 ROGERS, E., GRIFFIN, E., CARNIE, W., MELUCCI, J. & WEBER, R. J. 2017. A just culture  
34 approach to managing medication errors. *Hospital Pharmacy*, 52, 308-315.  
35  
36  
37  
38 SAMIMI, M., CORTES, A. F., ANDERSON, M. H. & HERRMANN, P. 2020. What is strategic  
39 leadership? Developing a framework for future research. *The Leadership Quarterly*,  
40 101353.  
41  
42  
43  
44  
45 SAMMER, C., HAUCK, L. D., JONES, C., ZAIBACK-ALDINGER, J., LI, M. & CLASSEN,  
46  
47 D. 2020. Examining the relationship of an all-cause harm patient safety measure and  
48 critical performance measures at the frontline of care. *Journal of patient safety*, 16, 110.  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

42

SANTOS, K. D. S., RIBEIRO, M. C., QUEIROGA, D. E. U. D., SILVA, I. A. P. D. &

FERREIRA, S. M. S. 2020. The use of multiple triangulations as a validation strategy in a qualitative study. *Ciência & Saúde Coletiva*, 25, 655-664.

SCHEIN, E. H. 2010. *Organization Culture and Leadership*, San Francisco, CA US, Jossey-Bass.

SCHEIN, E. H. & SCHEIN, P. A. 2017. *Organizational culture and leadership*, New York, UNITED STATES, John Wiley & Sons, Incorporated.

SFANTOU, D., LALLOTIS, A., PATELAROU, A., SIFAKI-PISTOLLA, D.,

MATALLIOTAKIS, M. & PATELAROU, E. 2017. Importance of leadership style towards quality of care measures in healthcare settings: A systematic review. *Healthcare*, 5, 73.

SHAO, Z. 2019. Interaction effect of strategic leadership behaviors and organizational culture on IS-business strategic alignment and enterprise systems assimilation. *International Journal of Information Management*, 44, 96-108.

SHRIVASTAVA, S. & SHRIVASTAVA, P. 2020. Ensuring patient safety through reducing medication errors: World Health Organization. *International Journal of Health & Allied Sciences*, 9, 86-87.

SLAWOMIRSKI, L., AURAAEN, A. & KLAZINGA, N. S. 2017. The economics of patient safety: Strengthening a value-based approach to reducing patient harm at national level. *OECD Health Working Papers*, 0\_1,3-4,6-65.

SMITH, S. A., YOUNT, N. & SORRA, J. 2017. Exploring relationships between hospital patient safety culture and Consumer Reports safety scores. *BMC Health Services Research*, 17.

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

43

- 1  
2  
3 SOSIK, J. J., ARENAS, F. J., JAE UK, C. & ETE, Z. 2018. Character into action: How officers  
4 demonstrate strengths with transformational leadership. *Air & Space Power Journal*, 32,  
5  
6 4-25.  
7  
8  
9  
10 STOCK, G. N. & MCFADDEN, K. L. 2017. Improving service operations: Linking safety  
11 culture to hospital performance. *Journal of Service Management*, 28, 57-84.  
12  
13  
14 TAWFIK, D., PROFIT, J., MORGENTHALER, T., SATELE, D., SINISKY, C. A. D.,  
15  
16 LISELOTTE N., TUTTY, M. A., WEST, C. & SHANAFELT, T. 2018. Physician  
17 burnout, well-being, and work unit safety grades in relationship to reported medical  
18  
19 errors. *Mayo Clinic Proceedings*, 93, 1571-1580.  
20  
21  
22  
23  
24 TAYLOR, N., CLAY-WILLIAMS, R., HOGDEN, E., BRAITHWAITE, J. & GROENE, O.  
25  
26 2015. High performing hospitals: A qualitative systematic review of associated factors  
27 and practical strategies for improvement. *BMC Health Services Research*, 15.  
28  
29  
30  
31 VAUGHN, P. & TURNER, C. 2016. Decoding via coding: Analyzing qualitative text data  
32 through thematic coding and survey methodologies. *Journal of Library Administration*,  
33  
34 56, 41-51.  
35  
36  
37  
38 WEEKS, W. B., WALDRON, J., FOSTER, T., MILLS, P. D. & STALHANDSKE, E. 2001. The  
39 organizational costs of preventable medical errors. *The Joint Commission journal on*  
40  
41 *quality improvement*, 27, 533-539.  
42  
43  
44  
45 WHEELAN, S. A. 2016. *Creating effective teams: A guide for members and leaders*, Thousand  
46  
47 Oaks, SAGE.  
48  
49  
50 WILLIAMS, M. & MOSER, T. 2019. The art of coding and thematic exploration in qualitative  
51  
52 research. *International Management Review*, 15, 45-55,71-72.  
53  
54  
55  
56  
57  
58  
59  
60

## LEADERSHIP FOR REDUCING MEDICAL ERRORS

44

1  
2  
3 WONG, C. A. & WALSH, E. J. 2020. Reflections on a decade of authentic leadership research  
4  
5 in health care. *Journal of Nursing Management*, 28, 1-3.  
6

7  
8 YIN, R. K. 2017. *Case study research and applications: Design and methods*, Sage Publications  
9

10  
11  
12 ZHU, J., LIAO, Z., YAM, K. C. & JOHNSON, R. E. 2018. Shared leadership: A state-of-the-art  
13  
14 review and future research agenda. *Journal of Organizational Behavior*, 39, 834-852.  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

MBE-06-2021-0079.R1 - [View Abstract](#) - [View Author's Response](#)

Leadership for Reducing Medical Errors Via Organizational Culture: A Literature Review

---



**\*Do you want to get recognition for this review on [Publons](#) ?**

**Don't let your reviewing work go unnoticed!** Researchers the world over use Publons to effortlessly track their valuable peer review contributions for any journal. If you opt in, your Publons profile will automatically be updated to show a verified record of this review in full compliance with the journal's review policy. If you don't have a Publons profile, you will be prompted to create a free account. [Learn more about Publons](#)

Yes  No

---

**\* 1. Originality: Does the paper contain new and significant information adequate to justify publication?**

appears to be OK and original with lots of publications review as this is a qualitative study

**\* 2. Relationship to Literature: Does the paper demonstrate an adequate understanding of the relevant literature in the field and cite an appropriate range of literature sources? Is any significant work ignored?**

yes, it appears that this manuscript has shown an adequate understanding on the pertinent issues discussed

**\* 3. Methodology: Is the paper's argument built on an appropriate base of theory, concepts, or other ideas? Has the research or equivalent intellectual work on which the paper is based been well designed? Are the methods employed appropriate?**



the manuscript has sufficiently built the theoretical-based concepts to see the reductions on medical errors from the leadership perspective

**\* 4. Results: Are results presented clearly and analysed appropriately? Do the conclusions adequately tie together the other elements of the paper?**

the results are clear and transparent. The conclusions were adequate and tied other elements as discussed in the manuscript

**\* 5. Implications for research, practice and/or society: Does the paper identify clearly any implications for research, practice and/or society? Does the paper bridge the gap between theory and practice? How can the research be used in practice (economic and commercial impact), in teaching, to influence public policy, in research (contributing to the body of knowledge)? What is the impact upon society (influencing public attitudes, affecting quality of life)? Are these implications consistent with the findings and conclusions of the paper?**

this manuscript appears to have shown the sufficient managerial implication on the topic discussed, particularly on the reduction on medical errors as a result of the leadership. However, additional implication may have to be considered in terms of how to develop leaders to constantly recognizing their vital roles unto the medical errors, which may lead to fatalities.

**\* 6. Quality of Communication: Does the paper clearly express its case, measured against the technical language of the field and the expected knowledge of the journal's readership? Has attention been paid to the clarity of expression and readability, such as sentence structure, jargon use, acronyms, etc.**

the sentences are clear about the study on medical errors reductions. Jargons and acronyms were not visible in this manuscript

---

**\* Recommendation**

Accept  Minor Revision  Major Revision  Reject

**Confidential Comments to the Co-Editor****Ω**Special Characters

I am recommending for a minor revision to add analysis using the qualitative-based software, such as; NVivo, and adding bits of information on the how-to in terms of developing leaders in recognizing their roles

**\*Comments to the Author****Ω**Special Characters

please add the qualitative analysis using NVivo or other qualitative-based software to accompany this leadership study and the how-to about leaders' development



S A M &lt;ethan.eryn@gmail.com&gt;

---

## Thank you for submitting your review of Manuscript ID MBE-06-2021-0079.R1 for the Measuring Business Excellence

1 message

---

**Measuring Business Excellence** <onbehalf@manuscriptcentral.com>

Tue, Feb 15, 2022 at 12:26 PM

Reply-To: michael.urick@stvincent.edu

To: ethan.eryn@gmail.com, keeshondenkeeshonden@yahoo.com

15-Feb-2022

Dear Dr. Anantadjaya,

Thank you for submitting your review of MBE-06-2021-0079.R1 for Measuring Business Excellence. We are very grateful for the contribution you have made to the journal by providing your review. We recognise the value that is added by our reviewers and would therefore like to thank you for your work, by granting you free personal access to up to 40 Emerald journal articles (excluding Backfiles) within a three-month period.

Early next month, we will send an email that will contain all the information you need to activate your personal free access.

Once you have received this email, all you will need to do is:

- click the link in the e-mail: this will take you directly to the Emerald log-in page
- If you have an Emerald MyProfile log in, simply log on using these details (this is different to the log in you use for ScholarOne)
- If you do not have an Emerald MyProfile, you can register with us there and then to get your free personal access to Emerald content. Instructions on how to contact us to set up your Emerald MyProfile will be in the email we send next month.

We would also like to offer you a 30% DISCOUNT on all Emerald books available for purchase from the EMERALD BOOKSTORE. To take advantage of this offer please visit <http://books.emeraldinsight.com/> and then enter the code REVIEW at the checkout.

On behalf of the Editors of Measuring Business Excellence, we appreciate the valuable and efficient contribution that each reviewer gives to the Journal and we hope that we may call upon you again to review future manuscripts.

Yours sincerely,

Dr. Michael Urick  
Guest Editor, Measuring Business Excellence  
[michael.urick@stvincent.edu](mailto:michael.urick@stvincent.edu)