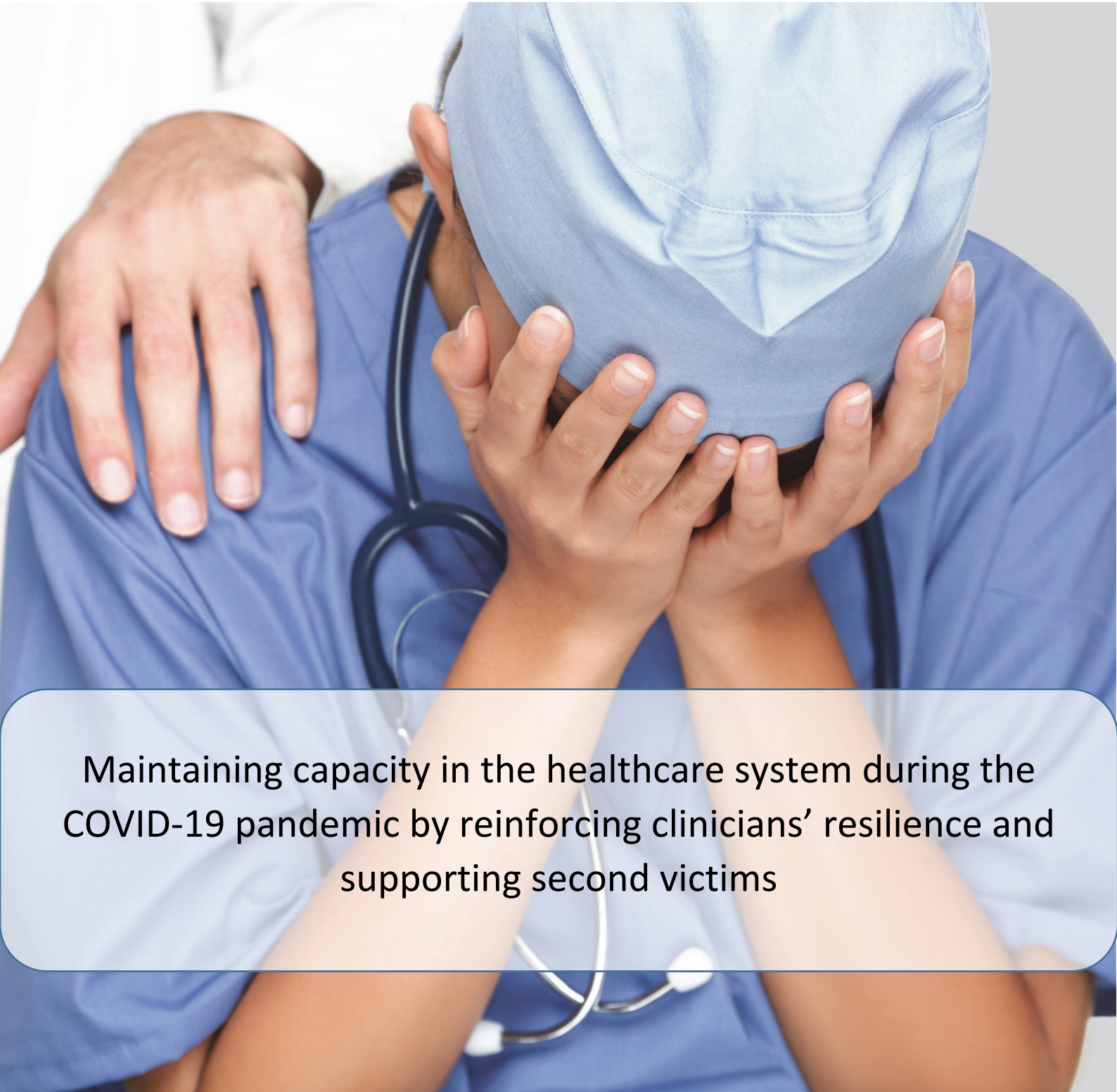


Recommendations:



Maintaining capacity in the healthcare system during the COVID-19 pandemic by reinforcing clinicians' resilience and supporting second victims

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Maintaining capacity in the healthcare system during the COVID-19 pandemic by reinforcing clinicians' resilience and supporting second victims

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Objective of the recommendation:

These recommendations are intended for healthcare leadership in clinical and administrative fields. The aim is to increase awareness of the issue of globally occurring traumatization among clinicians arising from their current psychological stress during the COVID-19 pandemic as well as from their risk of becoming infected themselves.

By optimizing management instruments und crisis communication it is hoped that clinicians' and managers' resilience can be reinforced, so helping to minimize the risk of overwhelming the healthcare system.

Recommendations for practical procedures on the frontline are provided in brief form after appraising available evidence and accepted recommendations as well as reports on the current situation in crisis regions.

This document focuses on acute inpatient care, particularly because of the evidence currently available. Implementing corresponding strategies for reinforcing resilience is strongly encouraged for all areas of healthcare because the current extraordinary demands on the system are not limited to acute inpatient care.

The document reflects the current state of knowledge. Given current dynamic developments, this can change rapidly. We expressly welcome new and additional evidence, please send it to the contact address above. In addition, feel free to distribute and/or translate the paper, but please include its source.

The authors

Wiesbaden, Berlin, Vienna and Mannheim,

14. April 2020

Executive Summary

The term second victim describes a person involved in patient care who, due to an extraordinary patient care situation, becomes traumatized him/herself. This phenomenon is largely unknown to the general public, although it is widespread, and is being exacerbated by the COVID-19 pandemic. Pronounced psychological strain among clinicians entails the risk of further increasing pressure on the healthcare system. The ensuing threat to the safety of both patients and staff needs to be taken seriously.

The second victim phenomenon is well researched and requires a two-pronged strategy. On the one hand, second victims need fast, personal and confidential support within a comprehensive, easily accessible, stratified system. On the other hand, reinforcing clinicians' resilience is crucial. Leadership and appropriate crisis communication can sustainably support clinicians' resilience, and thus their ability to function effectively in the long term. Consequently, management can make both a short-term as well as a sustainable contribution to patient safety, increasing the chances of survival for many patients during and after the COVID-19 pandemic.

What is a second victim?

Albert W. Wu introduced the term second victim in 2000 to describe clinicians who were traumatized by their own errors (Wu 2000). In 2009 Scott et al. expanded the term so that it now describes "Second victims are healthcare providers who are involved in an unanticipated adverse patient event, in a medical error and/or a patient related injury and become victimized in the sense that the provider is traumatized by the event" (Scott et al. 2009).

Given this context, the current COVID-19 pandemic and the exceptional circumstances arising in treatment facilities can be considered an unanticipated adverse event (Dewey et al. 2020; Adams und Walls 2020), even if currently the local situation is not so extreme that triage has become necessary. This assessment is congruent with a study by Waterman et al. which showed that for a large proportion of respondents, near misses led to comparable stress (Waterman et al. 2007). Exceptional measures, high infection numbers, especially the increased risk of infection among clinicians, the growing number of cases with a severe and lethal course are causing not just physical but also especially emotional stress among clinicians in all areas of provision (Tam et al. 2004; Wu et al. 2020).

How many clinicians are second victims?

The second victim phenomenon has been well researched in the English language literature on acute inpatient care. While a meta-analysis by Seys et al. from 2013 found the prevalence of second victims to be 10–42% of respondents (Seys et al. 2013), current studies and several surveys conducted during the COVID-19 pandemic that are currently in press report a prevalence of over 50% just within the framework of medical specialty training (Harrison et al. 2014). According to experts' estimates, all clinicians will sooner or later in their professional life become a second victim (Laue et al. 2012).

Studies on previous crisis situations such as the SARS pandemic of 2003 report that up to half of the clinicians who treated SARS patients showed acute psychological distress, burnout or post-traumatic stress disorder (Tam et al. 2004).

On the basis of current reports from physicians in Italy it can be assumed that the prevalence described in the literature, which usually arises over a period of several years or even the entire professional life, is being reached within a few weeks. Furthermore, not only the health of those affected but also the ability of the entire healthcare system to function effectively has been massively compromised.

On the basis of experiences from other crisis situations (SARS, 9/11 etc.) and current reports from COVID-19 hotspots e.g. in Italy, Spain and USA, it can be assumed that the number of clinicians in many countries who have already been traumatized as second victims or are acutely threatened by such a trauma is significant enough to have an impact on the functioning of the healthcare system.

What are the consequences of a second victim traumatization?

According to information provided by second victims, two-thirds of all respondents process the underlying event dysfunctionally (Waterman et al. 2007; Scott et al. 2010; West et al. 2006; Burlison et al. 2016; Schwappach and Boluarte 2009). This can be expressed as, for example:

- sleep disorders
- reduced professional confidence
- feelings of guilt, isolation, depression
- flashbacks
- medication and/or alcohol consumption

In a study conducted by Gazoni et al. among anaesthetists, 10% of all second victims claimed to have never recovered from the event (Gazoni et al. 2012). The consequences for those affected individuals are dramatic and can lead to post-traumatic stress disorder, leaving the profession and in the worst cases even to suicide (Grissinger 2014). In addition to the second victims themselves, their future patients may also be affected. Since second victims are continuously preoccupied with the past event and their ability to function effectively is compromised, they are more likely to make errors (Tawfik et al. 2019). There are also reports of changes in professional behaviour up to defensive medicine and protective behaviour, which in the context of the COVID-19 pandemic can lead to errors of clinical judgement to the detriment of all those involved (Vincent and Amalberti 2016).

Given the current state of knowledge it can be assumed that insufficient acknowledgement of clinicians' psychological stress can significantly accelerate the point at which the healthcare system becomes overwhelmed or significantly reduce total capacity within the healthcare system.

What support is available to second victims?

As a result of qualitative patient safety research in the USA on the topic of second victims, in the last few years an increasing number of healthcare facilities have established support programs for second victims. Examples include the RISE Program developed by the Johns Hopkins University (Edrees et al. 2016), the forYOU Program at the University of Missouri (Scott et al. 2010) or the Medically Induced Trauma Support Services (MITSS) (Medically Induced Trauma Support Services (MITSS) 2010).

Evaluations of individual programs have shown both a positive medical effect (Edrees et al. 2016) as well as cost efficiency (Moran et al. 2017) when the costs of the support program are compared with the reduction in costs for clinicians' turnover or time off. Until today, in German-speaking as well as other European countries (Mira et al. 2015; Ullström et al. 2014) there have only been isolated voluntary initiatives, in Germany for example the association PSUakut e.V. (Hinzmann et al. 2019) or the EMPTY Program developed by Young DGINA.

Universal and easily accessible support programs for clinicians are currently not available in German-speaking and many other European countries.

The objective and common core of all previous support programs has been to offer swift support to second victims by means of an easily accessible, round the clock, stratified crisis intervention strategy so that clinicians can cope with their experiences in the best possible fashion. All of this should be

offered within an appreciative environment that understands stress as a human reaction and not as an expression of weakness in character. In a study on the natural history of the second victim phenomenon it could be shown that with optimal support many second victims could even experience personal growth after the traumatizing event and could move forward at full capacity. The characteristics of these support programs are based on the model illustrated in Figure 1 that, as required, can be advanced to the next stage.

Drawing on general recommendations, implementing the following measures can help to reduce the effects of second victim trauma (Scott et al. 2010; Schwappach and Boluarte 2009; Strametz 2019):

- Offer a short break from clinical work and guarantee it even if there are staff shortages (a long-term break would be a worse solution)
- Actively offer peer support, not only if adverse events are suspected but at regular intervals
- Make short but effective debriefings after stressful situations or shifts routine
- Use empathic but unambiguous and clear language
- Confirm underlying professional competence and reinforce self-esteem among staff
- Allow expressions of emotions and anxiety
- Offer professional support and reassurance in clinical work
- Offer those involved in medical errors a role in analysing the error; inform them of the results
- Observe attentively for early recognition of isolation and withdrawal
- Avoid and condemn teasing, bullying, blaming and belittling of those involved (asking for support is not a sign of weakness but is human and evidences a sense of responsibility towards patients).

How can second victim traumatization be avoided?

In their Framework for High Reliability Organizations, the Agency for Healthcare Research and Quality (AHRQ) names resilience as one of five crucial factors (Agency for Healthcare Research and Quality (AHRQ)). Our understanding of resilience, that is the ability of individuals to withstand stressful situations, has been significantly shaped by the work of Aaron Antonovsky. He defined the sense of coherence as a prerequisite for resilience that is based on three components: viewing the world as comprehensible, meaningful and manageable. With regard to the COVID-19 pandemic and drawing on Wu et al.'s current recommendations, leadership is urged to consider the recommendations illustrated in Figure 2.

Three tier model for supporting second victims, based on Scott (2009)

tier 1: peer support in the department

- identifying the stress situation (mindfulness)
- showing understanding for colleagues needing support
- if necessary, notifying the crisis intervention team

tier 2: specialized crisis intervention team

- easily accessible (24/7)
- direct and confidential support
- debriefings after stressful situations
- if necessary, referral to a professional support network

tier 3: professional support network

- integration with local structures, both inside and outside the organization, e.g. pastoral care, social workers, external crisis intervention teams

Source: Strametz R, Raspe M, Ettl B, Huf W, Pitz A (2020): Maintaining capacity in the healthcare system during the COVID-19 pandemic by reinforcing clinicians' resilience and supporting second victims. German Coalition for Patient Safety. DOI: 10.21960/202003/E based on Scott SD, Hirschinger LE, Cox KR, McCoig M, Brandt J, Hall LW (2009): The natural history of recovery for the healthcare provider "second victim" after adverse patient events. Qual Saf Health Care. DOI: 10.1136/qshc.2009.032870

Fig. 1: Three stage model for supporting second victims, based on Scott (2009)

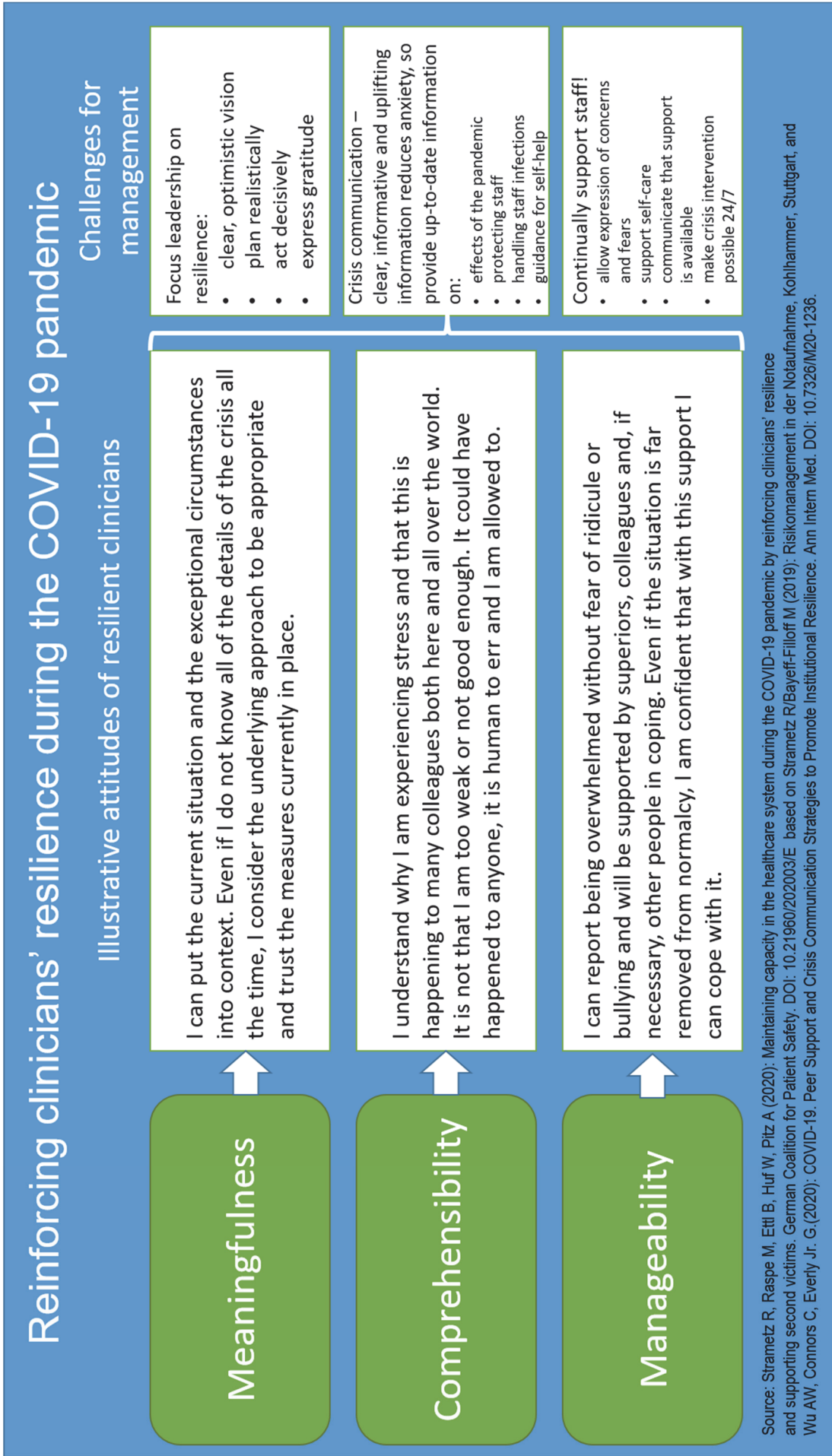


Fig. 2: Reinforcing clinicians' resilience (based on Strametz 2019; Wu et al. 2020)

References

- Adams, James G.; Walls, Ron M. (2020): Supporting the Health Care Workforce During the COVID-19 Global Epidemic. In: JAMA. DOI: 10.1001/jama.2020.3972.
- Agency for Healthcare Research and Quality (AHRQ): High Reliability. Online verfügbar unter <https://www.psnet.ahrq.gov/primer/high-reliability>, zuletzt geprüft am 09.04.2020.
- Burlison, Jonathan D.; Quillivan, Rebecca R.; Scott, Susan D.; Johnson, Sherry; Hoffman, James M. (2016): The Effects of the Second Victim Phenomenon on Work-Related Outcomes. Connecting Self-Reported Caregiver Distress to Turnover Intentions and Absenteeism. In: Journal of patient safety. DOI: 10.1097/PTS.0000000000000301.
- Dewey, Charlene; Hingle, Susan; Goelz, Elizabeth; Linzer, Mark (2020): Supporting Clinicians During the COVID-19 Pandemic. In: Ann Intern Med. DOI: 10.7326/M20-1033.
- Edrees, Hanan; Connors, Cheryl; Paine, Lori; Norvell, Matt; Taylor, Henry; Wu, Albert W. (2016): Implementing the RISE second victim support programme at the Johns Hopkins Hospital. A case study. In: BMJ open 6 (9), e011708. DOI: 10.1136/bmjopen-2016-011708.
- Gazoni, Farnaz M.; Amato, Peter E.; Malik, Zahra M.; Durieux, Marcel E. (2012): The impact of perioperative catastrophes on anesthesiologists. Results of a national survey. In: Anesthesia and analgesia 114 (3), S. 596–603. DOI: 10.1213/ANE.0b013e318227524e.
- Grissinger, Matthew (2014): Too many abandon the "second victims" of medical errors. In: P & T : a peer-reviewed journal for formulary management 39 (9), S. 591–592.
- Harrison, Reema; Lawton, Rebecca; Stewart, Kevin (2014): Doctors' experiences of adverse events in secondary care. The professional and personal impact. In: Clinical medicine (London, England) 14 (6), S. 585–590. DOI: 10.7861/clinmedicine.14-6-585.
- Hinzmann, D.; Schießl, A.; Koll-Krüsman, M.; Schneider, G.; Kreitlow, J. (2019): Peer-Support in der Akutmedizin. In: Anästhesiologie Intensivmedizin 60, S. 95–101. DOI: 10.19224/ai2019.095.
- Laue, N. von; Schwappach, D.; Hochreutener, M. (2012): "Second victim" - Umgang mit der Krise nach dem Fehler. In: Therapeutische Umschau. Revue thérapeutique 69 (6), S. 367–370. DOI: 10.1024/0040-5930/a000300.
- Medically Induced Trauma Support Services (MITSS) (2010): MITSS Staff Support Survey. Online verfügbar unter http://www.mitsstools.org/uploads/3/7/7/6/3776466/mitss_staff_support_survey.pdf, zuletzt geprüft am 07.01.2020.
- Mira, Jose J.; Lorenzo, Susanna; Carrillo, Irene; Ferrús, Lena; Pérez-Pérez, Pastora; Iglesias, Fuencisla; Silvestre, Carmen; Olivera, Guadalupe; Zavala, Elena; Nuño-Solinís, Roberto; et al. Interventions in health organisations to reduce the impact of adverse events in second and third victims. *BMC Health Serv. Res.* **2015**, *15*, 341, doi:10.1186/s12913-015-0994-x.
- Moran, Dane; Wu, Albert W.; Connors, Cheryl; Chappidi, Meera R.; Sreedhara, Sushama K.; Selter, Jessica H.; Padula, William V. (2017): Cost-Benefit Analysis of a Support Program for Nursing Staff. In: Journal of patient safety. DOI: 10.1097/PTS.0000000000000376.
- Schwappach, David L.; Boluarte, Till A. (2009): The emotional impact of medical error involvement on physicians. A call for leadership and organisational accountability. In: Swiss medical weekly 139 (1-2), S. 9–15.
- Scott, S. D.; Hirschinger, L. E.; Cox, K. R.; McCoig, M.; Brandt, J.; Hall, L. W. (2009): The natural history of recovery for the healthcare provider "second victim" after adverse patient events. In: Quality & safety in health care 18 (5), S. 325–330. DOI: 10.1136/qshc.2009.032870.
- Scott, Susan D.; Hirschinger, Laura E.; Cox, Karen R.; McCoig, Myra; Hahn-Cover, Kristin; Epperly, Kerri M. et al. (2010): Caring for our own. Deploying a systemwide second victim rapid response team. In: Joint Commission journal on quality and patient safety 36 (5), S. 233–240.
- Seys, Deborah; Wu, Albert W.; van Gerven, Eva; Vleugels, Arthur; Euwema, Martin; Panella, Massimiliano et al. (2013): Health care professionals as second victims after adverse events. A systematic review. In: Evaluation & the health professions 36 (2), S. 135–162. DOI: 10.1177/0163278712458918.

- Strametz, Reinhard (2019): Mitarbeitersicherheit durch Risikomanagement. In: Reinhard Strametz und Michael Bayeff-Filloff (Hg.): Risikomanagement in der Notaufnahme. 1. Auflage, S. 75–84.
- Tam, Cindy W. C.; Pang, Edwin P. F.; Lam, Linda C. W.; Chiu, Helen F. K. (2004): Severe acute respiratory syndrome (SARS) in Hong Kong in 2003. Stress and psychological impact among frontline healthcare workers. In: *Psychological medicine* 34 (7), S. 1197–1204. DOI: 10.1017/s0033291704002247.
- Tawfik, Daniel S.; Scheid, Annette; Profit, Jochen; Shanafelt, Tait; Trockel, Mickey; Adair, Kathryn C. et al. (2019): Evidence Relating Health Care Provider Burnout and Quality of Care. A Systematic Review and Meta-analysis. In: *Ann Intern Med*. DOI: 10.7326/M19-1152.
- Ullström, Susanne; Andreen Sachs, Magna; Hansson, Johan; Ovretveit, John; Brommels, Mats (2014): Suffering in silence. A qualitative study of second victims of adverse events. In: *BMJ quality & safety* 23 (4), S. 325–331. DOI: 10.1136/bmjqs-2013-002035.
- Vincent, Charles; Amalberti, René (2016): *Safer Healthcare. Strategies for the Real World*. Cham (CH).
- Waterman, Amy D.; Garbutt, Jane; Hazel, Erik; Dunagan, William Claiborne; Levinson, Wendy; Fraser, Victoria J.; Gallagher, Thomas H. (2007): The emotional impact of medical errors on practicing physicians in the United States and Canada. In: *Joint Commission journal on quality and patient safety* 33 (8), S. 467–476. DOI: 10.1016/s1553-7250(07)33050-x.
- West, Colin P.; Huschka, Mashele M.; Novotny, Paul J.; Sloan, Jeff A.; Kolars, Joseph C.; Habermann, Thomas M.; Shanafelt, Tait D. (2006): Association of perceived medical errors with resident distress and empathy. A prospective longitudinal study. In: *JAMA* 296 (9), S. 1071–1078. DOI: 10.1001/jama.296.9.1071.
- Wu, A. W. (2000): Medical error. The second victim. In: *BMJ* 320 (7237), S. 726–727. DOI: 10.1136/bmj.320.7237.726.
- Wu, Albert W.; Connors, Cheryl; Everly Jr., George S. (2020): COVID-19. Peer Support and Crisis Communication Strategies to Promote Institutional Resilience. In: *Ann Intern Med*. DOI: 10.7326/M20-1236.