

# Patient Safety Culture and Adverse Events in surgical context



This Photo by Unknown Author is licensed under CC BY

This Photo by Unknown Author is licensed under CC BY

Magnhild Vikan, Operation room nurse and PhD-candidate, OsloMet, Norway



#### Content

**Adverse Events** 

Patient safety perspectives

Patient safety culture

Study 1: The association between patient safety culture and adverse events

Study 2: The surgical team`s perceptions and experiences

Study 3: Previous surgical patients` perceptions and experiences

Take home message



#### Adverse Events (AEs)

"Unintended actions or an omission that leads to or can lead to harm or injuries related to healthcare and not to the underlying disease»



### Adverse events (AEs)



10% of patients in high-income countries



50% are estimated to be preventable



60% are related to surgery context



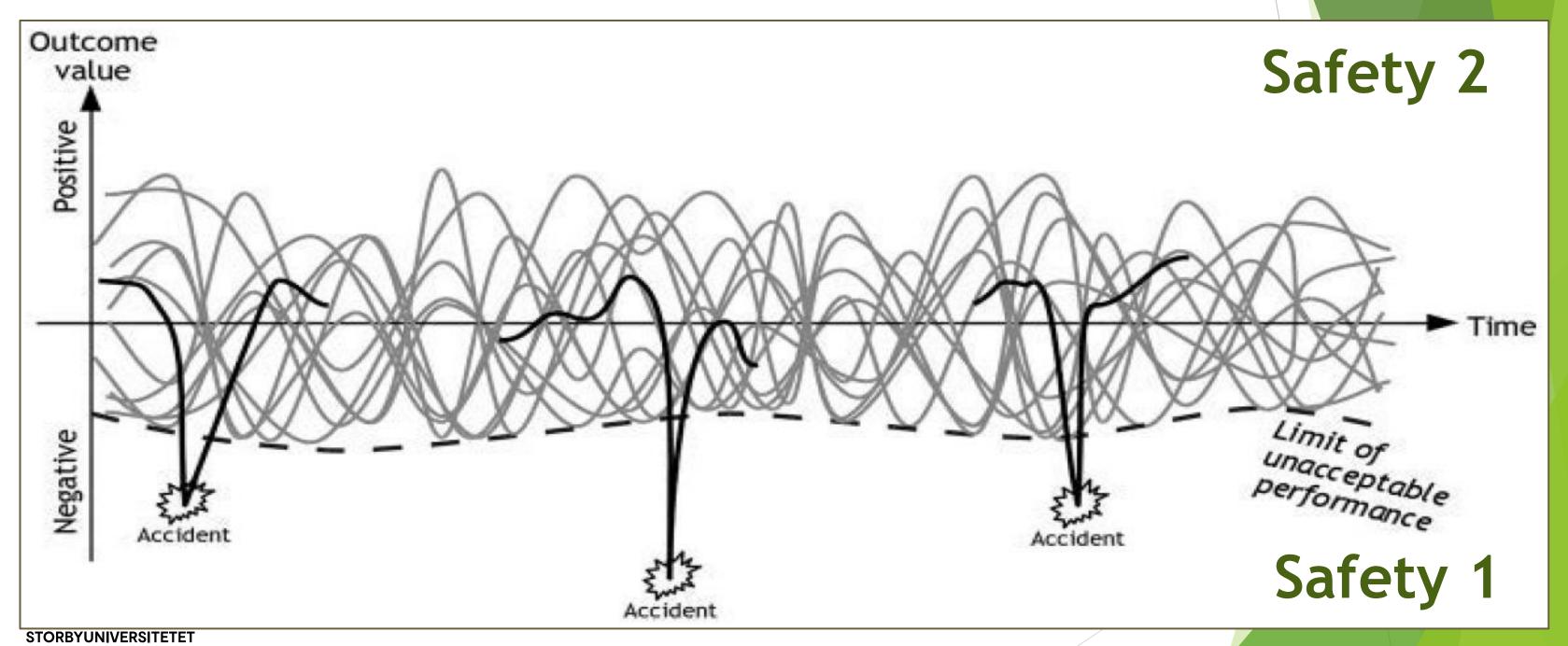
15% of costs in hospitals in OECD-countries



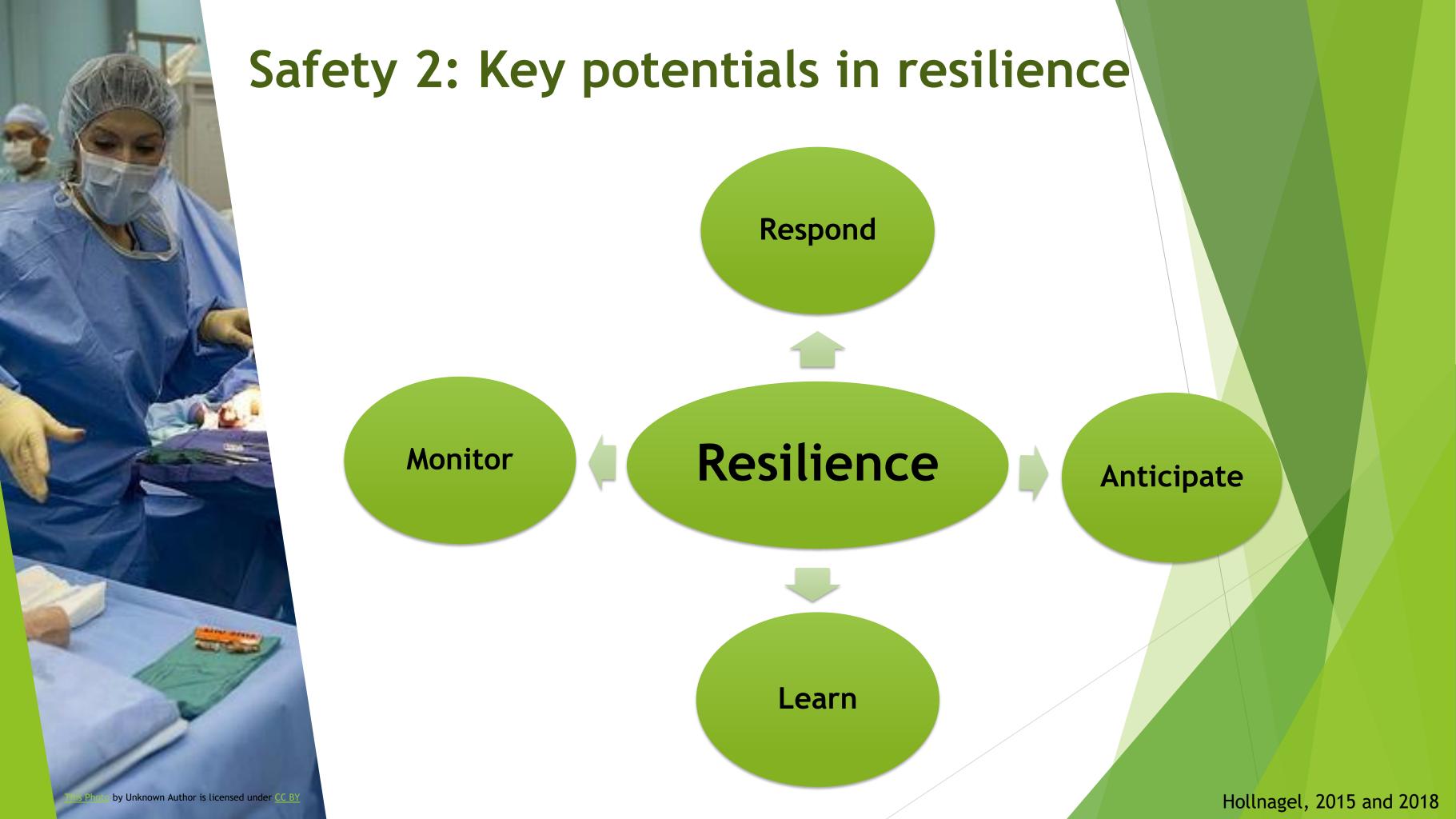
**Measurement AEs** 



# Safety 1- and Safety 2- perspective



OSLO METROPOLITAN UNIVERSITY



### Patient Safety Culture

"The overall attitudes and patterns of behaviours related to the patient safety work at multiple levels in an organization;

The product of individuals` and groups` shared values, beliefs and norms influencing their actions both in preventing AEs in care delivery and when an AE occurs"

AHRQ, 2023, Vikan, 2023

Recommended tools: Safety Attitude Questionnaire and Hospital Survey of Patient Safety Culture



### Dimensions in Patient Safety Culture



Perspective of safety

Teamwork and collaboration

Safety systems

Prioritisation of safety

Resources and constraints

Awareness of human limits

Wellbeing

Reporting and just culture

**Openness** 

Learning and improvement

**STORBYUNIVERSITETET** 

OSLO METROPOLITAN UNIVERSITY



## A culture of openness

Reporting and just culture

**Openness** 

Learning and improvement

STORBYUNIVERSITETET

OSLO METROPOLITAN UNIVERSITY



#### Objective:

- To summarize the evidence on the association in healthcare services
- Map the applied research methodology and characteristics in the included studies
- Study the strengths and limitations of the evidence

Methods: PRISMA ScR checklist

The association between patient safety culture and adverse events - a scoping review | BMC Health Services Research | Full Text (biomedcentral.com)



### Study 1- Results



An increased Patient Safety Culture- score is associated with reduced rates of AE in 76% of the evidence



Multicenter design
High-income countries
In-hospital



Methodological variations, variation in quality

# Study 1: Conclusion

Increased Patient Safety Culture (PSC)- scores seem to be associated with more positive outcomes for the patient

There is a need for more uniform use of tools validated in its context

There is a need for high-quality, longitudinal and prospective studies to support the findings

PSC assessment needs to be considered with other structural and processual factors

A need for an in-depth understanding of the concepts and their association, including the context's complexity, structural and processual factors

STORBY OSLO M



## Study 2: The surgical team

#### **Objectives:**

To elaborate the understanding of patient safety culture and adverse events

Identify themes of interest for quality improvement and education

To explore and identify the perceived causes for AEs in the OR department

#### Methods:

Individual interviews
Participants: The surgical team
Reflexive thematic analysis



This Photo by Unknown Author is licensed under CC BY





### Study 3: Previous surgical patients



This Photo by Unknown Author is licensed under CC BY

#### STORBYUNIVERSITETET OSLO METROPOLITAN UNIVERSITY

#### **Objectives:**

- To explore patient`s perceptions of patient safety and adverse events in a surgical context
- Identify themes and issues to support quality improvement
- To generate hypotheses to guide further research and quality improvement intervention designs

#### **Methods:**

Interviews with previous surgical patients Reflexive thematic analysis



The AE-rates is too high, and 60% is related to surgical context

Increased PSC scores seem to be associated with reduced AE rates

PSC dimensions are complex, and should be assessed with uniform tools and related to structural and processual factors

Surgical departments should work systematically with their PSC; Be open and learn from AEs and successfull experiences!

Follow my work!

https://www.researchgate.net/profile/Magnhild-Vikan?ev=hdr\_xprf (22) Magnhild Vikan | LinkedIn



### Project members

Stein Ove Danielsen, Oslo Metropolitan University (OsloMet)- Main Supervisor

Arvid Steinar Haugen, OsloMet and Haukeland University Hospital, Bergen- Co Supervisor

Ellen Deilkås, Akershus University Hospital, Lørenskog, Norwegian Directorate of Health, Oslo-Co Supervisor

Ann Kristin Bjørnnes, OsloMet- Project Member

Berit Valleberg, OsloMet and University of South Eastern Norway, Drammen- Project Member

Vigdis Schnell Husby, OsloMet, St. Olav's University Hospital, Trondheim and Norwegian University of Science and technology, Ålesund- Project Member

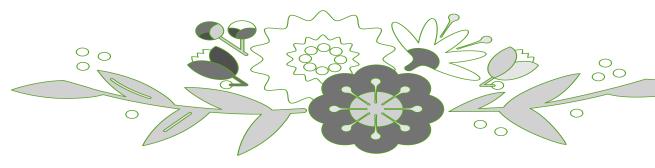
# OSV MAIN

#### References

- (1) Kohn LT, Corrigan J, Donaldson MS. To err is human: building a safer health system. Washington, D.C.: National Academy Press; 2000.
- (2) Bates Davis W SH. Two Decades Since To Err Is Human: An Assessment Of Progress And Emerging Priorities In Patient Safety. Health Affairs. 2018;37(11):1736-43.
- (3) Jung JJ, Elfassy J, Jüni P, Grantcharov T. Adverse Events in the Operating Room: Definitions, Prevalence, and Characteristics. A Systematic Review World J Surg. 2019;43(10):2379-92.
- (4) Vikan, M., Haugen, A.S., Bjørnnes, A.K. et al. The association between patient safety culture and adverse events a scoping review. BMC Health Serv Res 23, 300 (2023). https://doi.org/10.1186/s12913-023-09332-8
- (5) Schwendimann R, Blatter C, Dhaini S, Simon M, Ausserhofer D. The occurrence, types, consequences and preventability of in-hospital adverse events A scoping review. BMC Health Services Research. 2018;18(1):521.
- (6) Slawomirski L, Auraaen A, Klazinga NS. The economics of patient safety: strengthening a value-based approach to reducing patient harm at national level. In: Organisation for Economic and Co-operation and Development (OECD) Health Working Papers. OECD Publishing; 2017. https://doi.org/10.1787/5a9858cd-en. Assessed 27.03.2023.
- (7) World Health Organization. Towards eliminating avoidable harm in health care: Global patient safety action plan 2021-2030. World Health Organization; 2021.
- (8) Hollnagel E, Wears RL, Braithwaite J. From Safety-I to Safety-II: a white paper. The resilient health care net: published simultaneously by the University of Southern Denmark, University of Florida, USA, and Macquarie University, Australia. 2015.
- (9) Hollnagel, E. (2018). Safety-II in practice: developing the resilience potentials. Routledge.
- (10) Agency for healthcare research and quality. What is patient safety culture? Rockville: Agency for healthcare research and quality. 2023. What Is Patient Safety Culture? | Agency for Healthcare Research and Quality (ahrq.gov) Assessed 25.08.2023
- (11) Churruca K, Louise AE, Chiara P, Anne H, Mia B, Janet CL, et al. Dimensions of safety culture: a systematic review of quantitative, qualitative and mixed methods for assessing safety culture in hospitals. BMJ open. 2021;11(7):e043982-e.
- (12) Malik RF, Buljac-Samardžić M, Akdemir N, Hilders C, Scheele F. What do we really assess with organisational culture tools in healthcare? An interpretive systematic umbrella review of tools in healthcare. BMJ Open Qual. 2020;9(1):000826.
- (13) Braun V, Clarke V, Hayfield N, Terry G. Thematic Analysis. Singapore: Singapore: Springer Singapore; 2019. p. 843-60.
- (14) Norsk Pasientskadeerstatning. Helsepersonell varslet om fire av ti feilbehandlinger på sykehus. 2023 NPE Helsepersonell varslet om fire av ti feilbehandlinger på sykehus Assessed 28.08.2023
- (15) Thomas, P. W., Römkens, T. E., West, R. L., Russel, M. G., Jansen, J. M., van Lint, J. A., ... & Hoentjen, F. (2021). Discrepancy between patient-and healthcare provider-reported adverse drug reactions in inflammatory bowel disease patients on biological therapy. United European Gastroenterology Journal, 9(8), 919-928.

STORBYUNIVERS THAT gensen, G., Nilsen, G., Mehus, G., & Henriksen, N. (2019). Correction to: The struggle against perceived negligence. A qualitative study of patients' experiences of OSLO METROP adverse levels and Norwegian hospitals. BMC Health Services Research, 19(1), 164-164.

Thank you for listening!



Comments or questions?

