

Intensive End of Life Care: Implementation of a guideline-based order set for the withdrawal of life-sustaining therapy in the Intensive Care Unit

INTRODUCTION

- Withdrawal of life sustaining therapy (WLST) in the ICU represents a unique challenge to quality end-of-life care
- In 2016, Downar et al. published consensus guidelines that establish standard practices for the withdrawal of life-sustaining therapy
- The feasibility and efficacy of implementing these guidelines into practice has not yet been explored
- The Consolidated Framework for Implementation Research (CFIR) is a tool described by Keith et al. (2017) which outlines ongoing assessment of an intervention allowing for continuous improvement during implementation, a suitable strategy to evaluate the employment of the WLST consensus guidelines in our ICU

OBJECTIVES

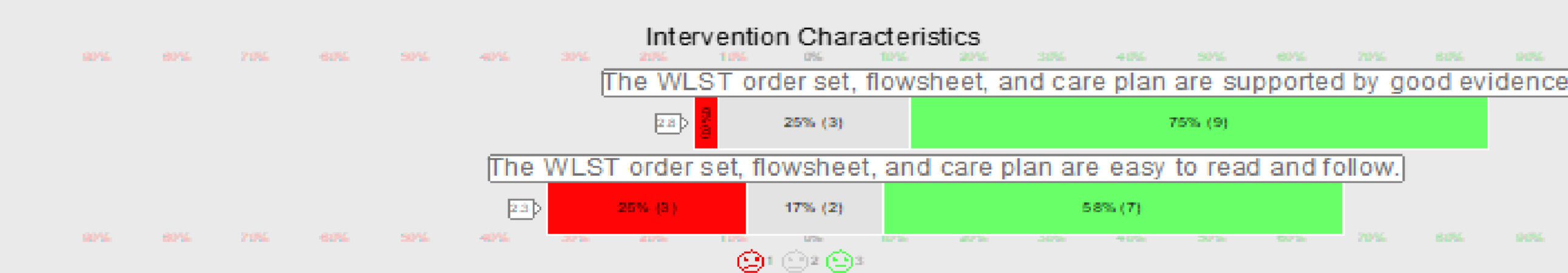
The purpose of this study was to assess the implementation of a guideline-based WLST order set, care plan, and flowsheet in Saskatoon ICUs.

METHOD

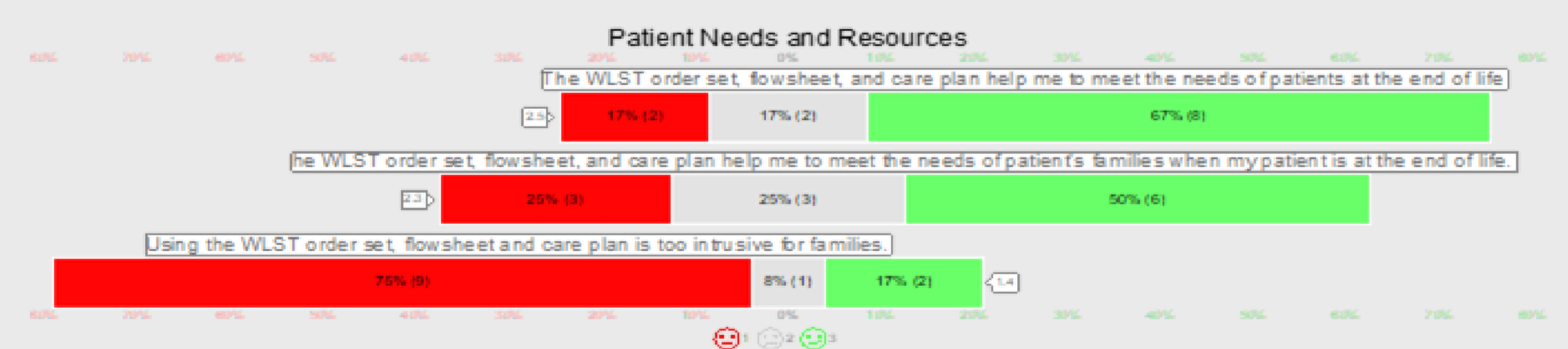
- Hybrid effectiveness-implementation design
- Steering Committee – Study was guided by an interdisciplinary Steering Committee - including patient family representatives and ICU healthcare providers
- WLST consensus guidelines: Developed new WLST order set, nursing flowsheet, and care plan based on WLST consensus guidelines with input from Steering Committee and ICU staff
- **Implementation outcomes:**
 - Chart review: Compliance with pain, sedation, and dyspnea assessments
 - Feasibility survey (CFIR framework)
 - Interviews with Steering Committee and Bedside Healthcare Providers (CFIR Framework)
- **Effectiveness outcomes:**
 - Quality of Death and Dying Surveys
 - Chart review: time to death after extubation, cumulative opioid and sedative dosing

RESULTS

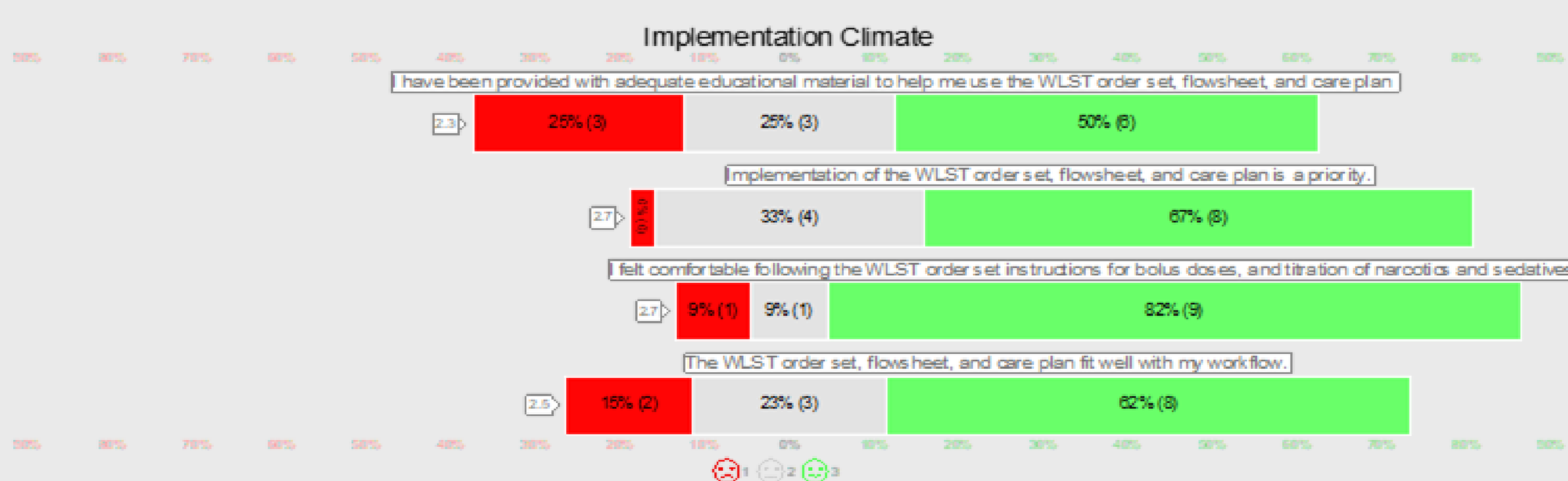
Intervention Characteristics: Evidence strength and quality & Design Quality and Packaging



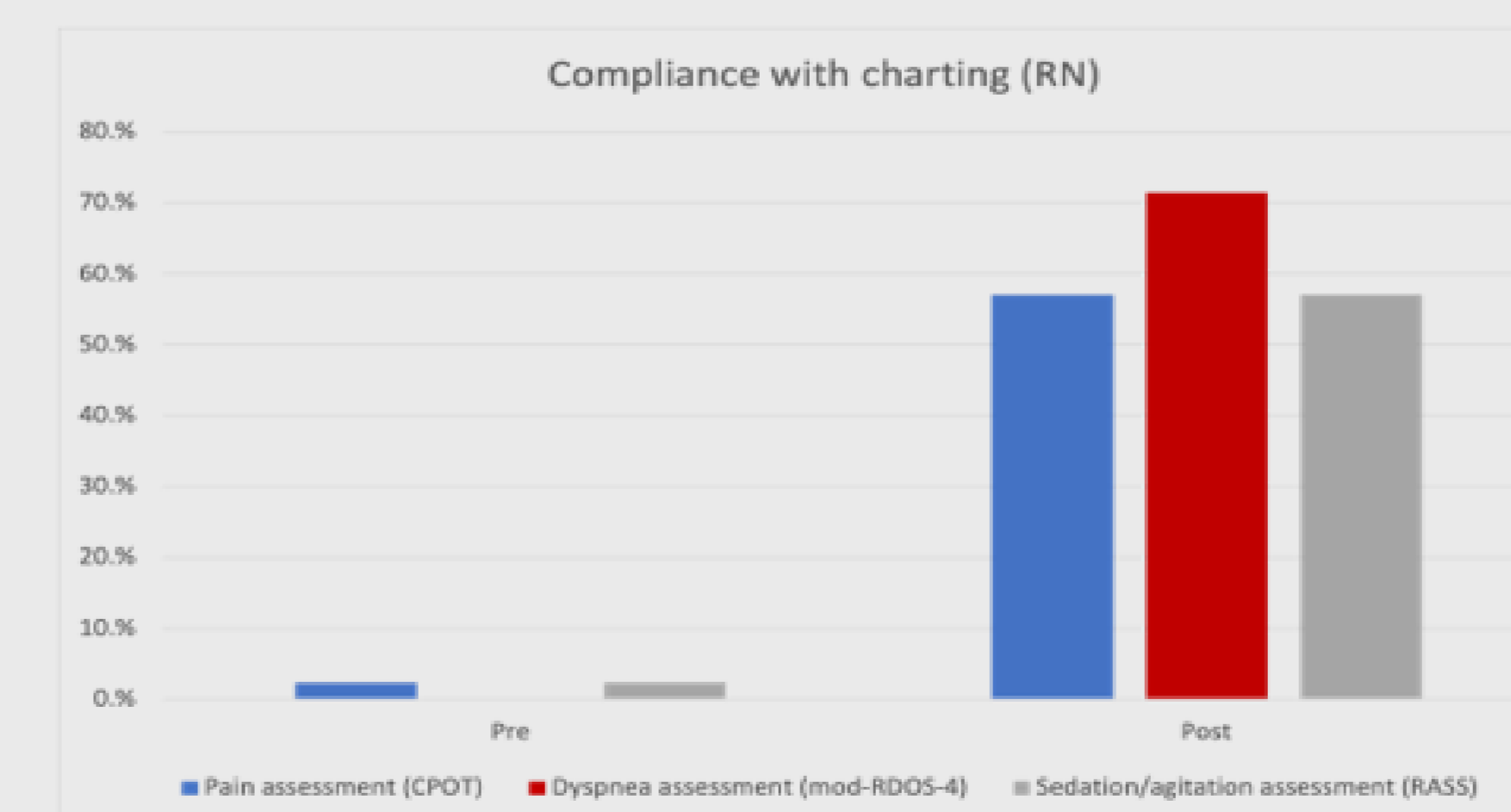
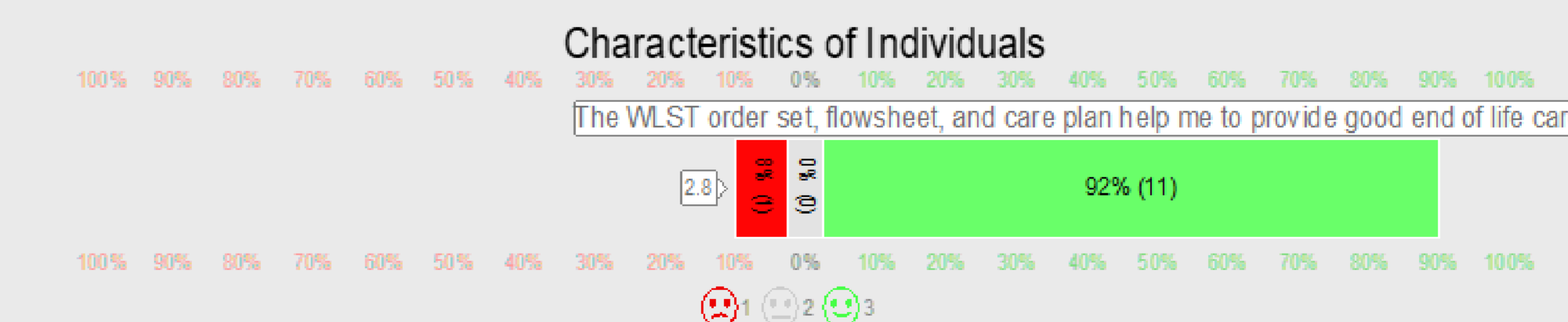
Outer Setting: Patient needs and resources



Inner Setting : Implementation Climate



Characteristics of individuals: Knowledge of Beliefs about the intervention, Individual State of Change & Other Personal attributes



Time to death

- The median time to death after extubation pre-implementation was 12 minutes vs. 17 minutes post-implementation (this was not statistically significant)

Total opioid and sedative dose

- There was no statistically significant increase in total opioid dose (in hydromorphone equivalents) nor in midazolam or propofol dosing pre vs. post-implementation in either Saskatoon ICUs.

CONCLUSION

- This study utilized the Consolidated Framework for Implementation Research to identify barriers and facilitators to implementing a guideline-based WLST order sheet, care plan, and flowsheet
- Future directions may explore the implementation of this order set and care plan across ICUs in Canada.

AUTHORS

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- Funding from the USask College of Medicine CoMRAD Award
- Saskatchewan Centre for Patient-Oriented Research
- The Saskatchewan Health Authority
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REFERENCES

1. Downar J, Delaney JW, Hawryluck L, Kenny L. Guidelines for the withdrawal of life-sustaining measures. *Intensive Care Med.* 2016;42(6):1003-1017. doi:10.1007/s00134-016-4330-7.
2. Keith R.E., Crosson, J.C., O'Malley, A.S. et al. Using the Consolidated Framework for Implementation Research (CFIR) to produce actionable findings: a rapid-cycle evaluation approach to improving implementation. *Implementation Sci* 12, 15 (2017). <https://doi.org/10.1186/s13012-017-0550-7>.

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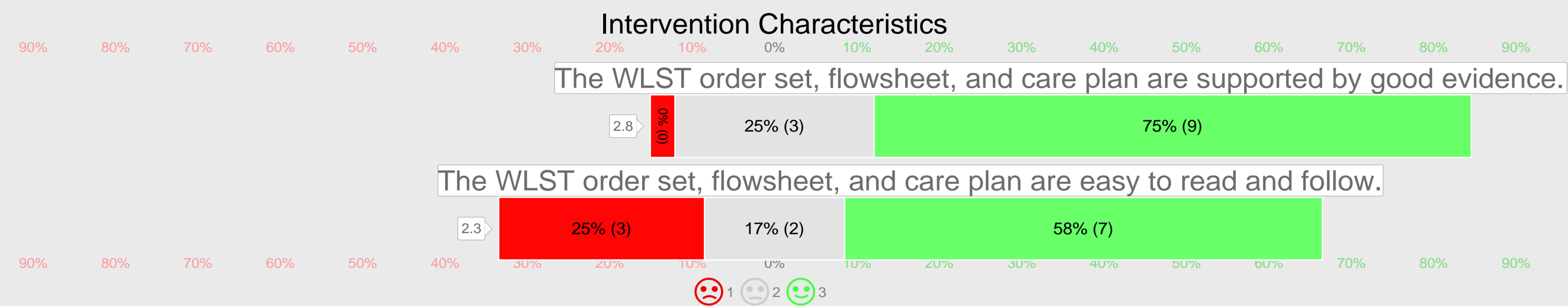
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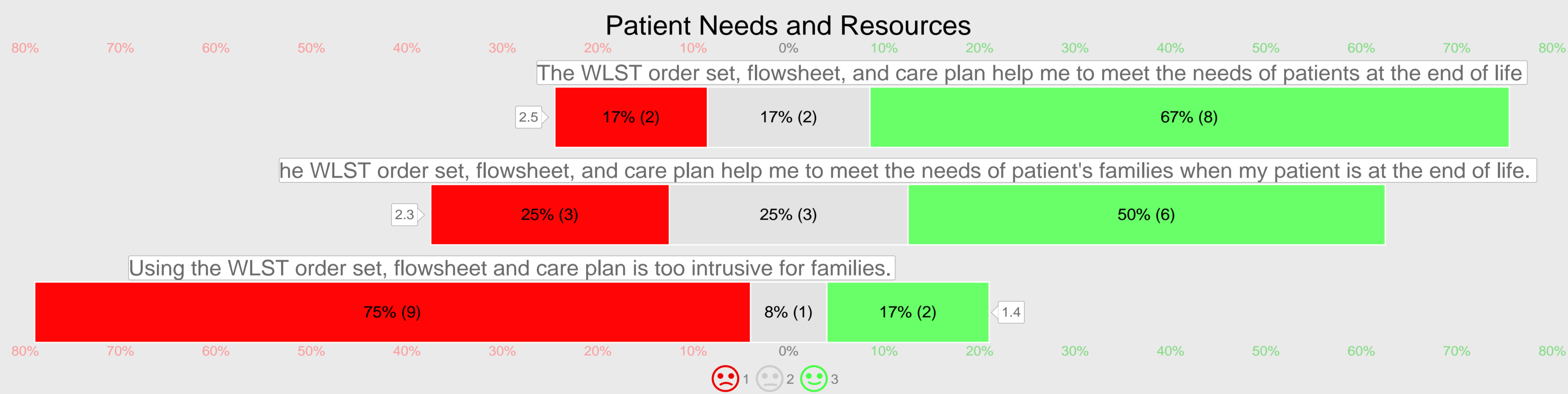
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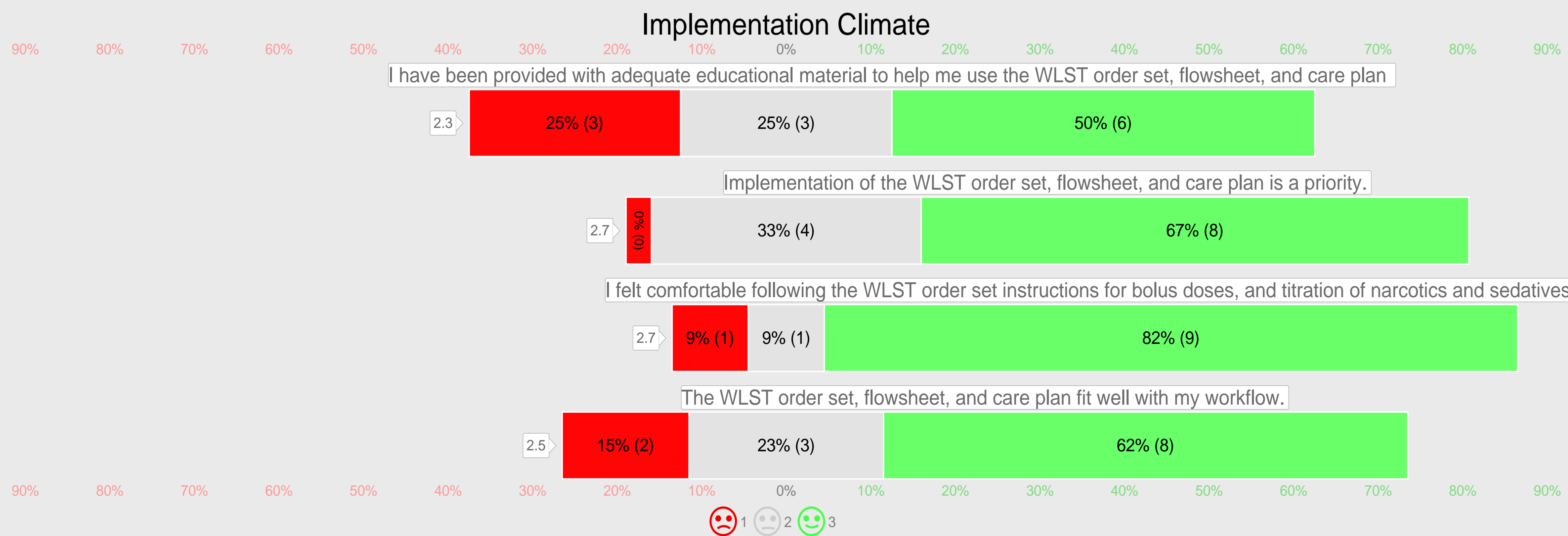
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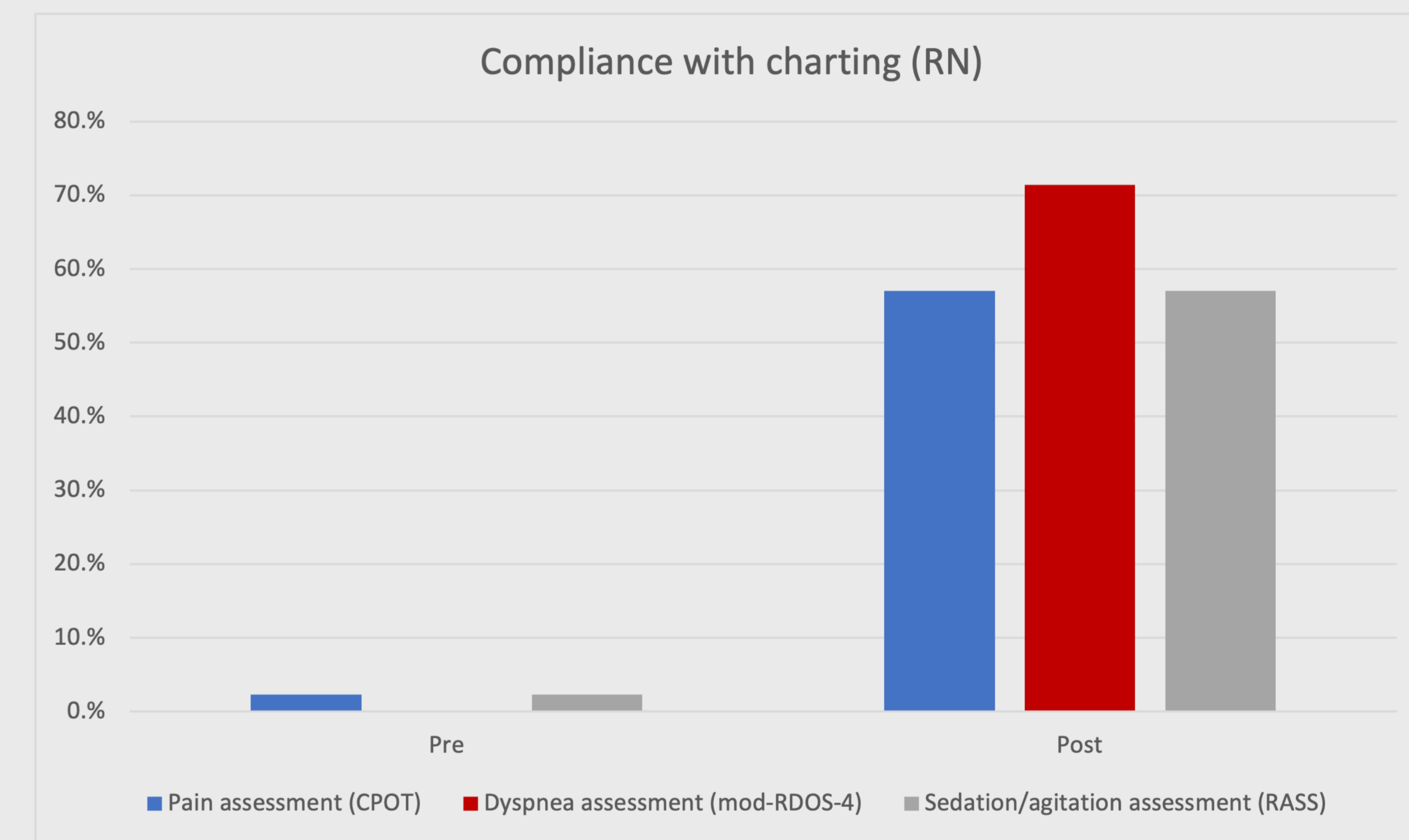
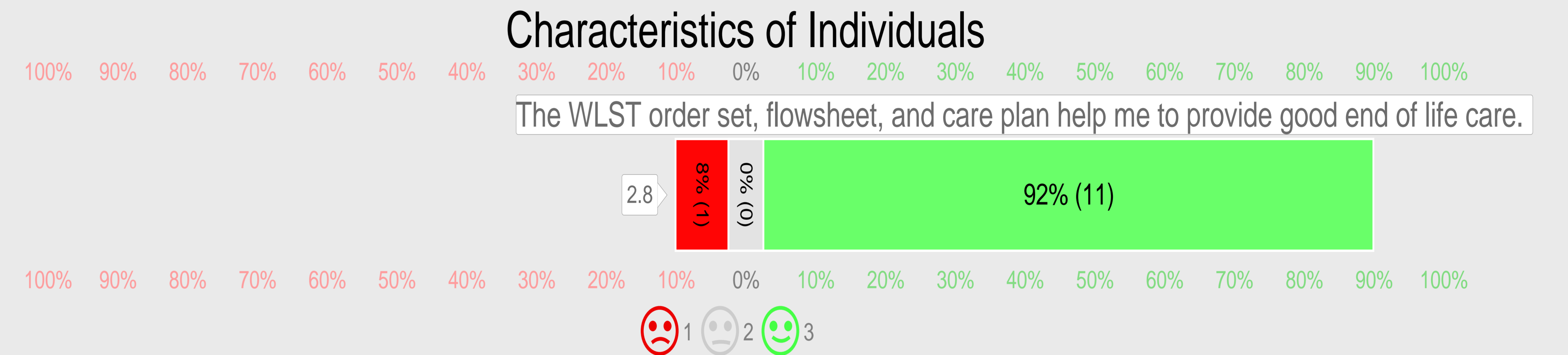
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