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OFRP Phase Variation in Signature and Destructive Behaviors

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OFRP Phase Variation in Signature and Destructive Behaviors EXECUTIVE SUMMARY

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Additional Researcher(s): No additional researchers participated in this research project.

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Project Summary

This project resulted in the design of a study for future research to investigate the destructive behavior surge during the maintenance phase of the Optimized Fleet Response Plan (OFRP). The Culture of Excellence Campaign's Perform to Plan effort will empower warfighting capability by fostering psychological, physical, and emotional toughness. To meet this goal, the Navy needs to understand what encourages signature behaviors and reduces destructive behaviors and how these behaviors impact readiness. This research resulted in a detailed questionnaire based on validated instruments that align with the behaviors the Navy has identified as signature and destructive behaviors, interview questions and research recommendations as well as materials to submit to IRB and OMB for approval for data collection. The study design was developed to guide data collection, which will provide critical insight to encourage signature behaviors and counter destructive behaviors.

This study found that Navy signature and destructive behaviors align with extent research such that validated instruments can be used in future Navy studies. Researchers designed a study for future research. The design for future research involves a mixed-methods, explanatory sequential study to answer three research questions: a) What are the rates of signature and destructive behaviors during phases of OFRP? b) Do rates differ by command type? c) How do signature and destructive behaviors impact readiness? We recommend using the developed instruments to survey and interview sailors on ships across the OFRP phases.

Keywords: *Optimized Fleet Response Plan*, *OFRP, signature behaviors, questionnaire*

Background

Healthy work cultures are safer and more productive. Workplace stress costs the U.S. economy more than $500 billion, results in the loss of 550 million workdays each year due to stress on the job, and is the cause of 60% to 80% of workplace accidents (American Psychological Association, 2015 in Seppala & Cameron, 2015). Reducing stress is likely to have significant effects on individual and organizational well-being and performance. Research has shown that improvement in organizational positivity in organizations predicts indicators of effectiveness (Cameron et al., 2011). Congruent with research findings, the chief of naval operations has directed the Navy to create a Culture of Excellence, noting that by focusing on positive, signature behaviors, the Navy can build and sustain a lethal force of tough sailors who are ethical and masters of their trade. The Navy has identified 10 signature behaviors to drive a culture of excellence: treat every person with respect, take responsibility, hold others accountable, intervene when necessary, be a leader and encourage leadership, embrace diversity, uphold integrity, exercise discipline, and contribute to team success. The Culture of Excellence Campaign's Perform to Plan effort will empower warfighting capability by fostering psychological, physical, and emotional toughness. To meet this goal, the Navy needs to understand what encourages signature behaviors and reduces destructive behaviors and how these behaviors impact readiness.

The study mapped existing literature to Navy identified signature and destructive behaviors to identify validated instruments that could be used to answer the following questions: a) What are the rates of signature and destructive behaviors during phases of OFRP? b) Do rates differ by command type? c) How do signature and destructive behaviors impact readiness? First, researchers conducted an extensive literature review and mapped constructs and measures in the literature to

Navy identified signature and destructive behaviors. Then, the researchers identified validated instruments that can be used to assess Navy signature and destructive behaviors.

Findings and Conclusions
This study found that Navy signature and destructive behaviors align with extent research such that validated instruments can be used in future Navy studies. The output of this study was a design for future research. The resulting study design will utilize a mixed-methods, explanatory sequential approach to include two major components. The first component would involve collecting data from Sailors on surface ships of the United States Navy. The second component would involve conducting semi-structured interviews with Sailors on ships to elaborate on the quantitative findings of the first component of the study.

Collecting this type of data will require a lengthy approval process through the Office of Management and Budget. This will require 12 to 18 months, which is outside of the duration of a single NRP funding cycle.

The researchers developed a questionnaire by mapping Navy signature and destructive behaviors to validated instruments in the literature. The questionnaire we developed includes items grouped into five sections: demographic and occupational characteristics, health and health/performance-related behaviors, active-duty service member state, destructive behaviors, and signature behaviors. The interview questions are semi-structured, designed to solicit rich accounts and perceptions.

Given the importance of signature and destructive behaviors in Sailor state, we propose a phased, multi-year, project to study this topic. The first phase of the study should focus on a small number of ships to include both questionnaires and focus groups. Even though the findings of this first phase will be limited in terms of their generalizability, the use of researchers to interact face-to-face with Sailors (during the recruitment and data collection) will lead to better quality data, fewer missing data, and higher compliance with the study protocol compared to methods in which the researchers do not interact with the Sailors. The second phase of this project will be focused on collecting destructive behaviors data from all surface ships using an online survey method. From a theoretical standpoint, the data collected with this online approach will be more representative of the Sailor population. However, earlier research in the military using online questionnaires suffered from a low response rate. For example, a recent online survey in three USMC units had an average response rate of 7.5% (Matsangas et al., 2021), whereas the response rate of a large-scale survey study conducted in 2018 in the USMC and the USN was 6.6% and 6.7%, respectively (Meadows et al., 2018).

Recommendations for Further Research
Future research should investigate behavior shifts during the Optimized Fleet Response Plan phases using the instruments developed through a broader study and stratified sample of Sailors.

Acronyms
OFRP   Optimized Fleet Response Plan

References

Cameron, K., Mora, C., Leutscher, T., & Calarco, M. (2011). Effects of positive practices on organizational effectiveness. *The Journal of Applied Behavioral Science, 47*(3), 266-308.

Matsangas, P., Shattuck, N. L., Shattuck, L. G., Lawrence-Sidebottom, D., & Bowen, Z. (2021). *Understanding motivational factors of problematic video gaming in the USMC and US Navy* (Technical Report No. NPS-OR-22-002). Monterey, CA: Naval Postgraduate School.

Meadows, S. O., Engel, C. C., Collins, R. L., Beckman, R., Cefalu, M., Hawes-Dawson, J., Williams, K. M. (2018). *2015 Department of Defense Health Related*

Seppala, E., & Cameron, K. (2015). Proof that positive work cultures are more productive. *Harvard Business Review, 12*(1), 44-50.