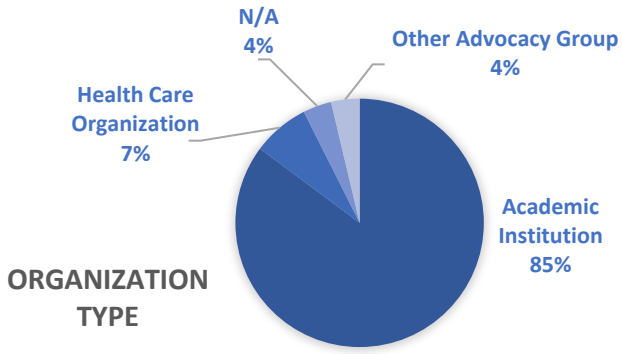
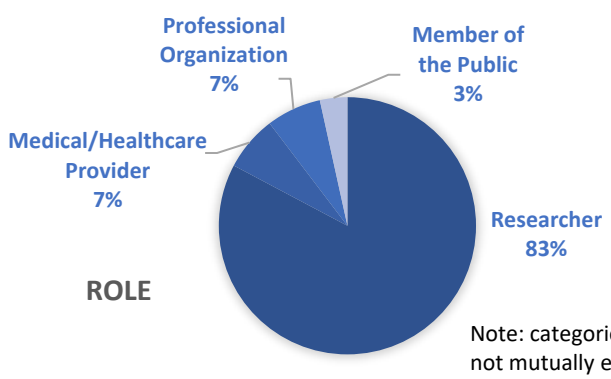
Responses to the National Institutes of Health (NIH) Request for Information (RFI) on Research Challenges and Needs in the Biobehavioral Mechanisms of Aggression

NOT-OD-22-041

The NIH issued an RFI to solicit input from the community on research challenges and needs in the biobehavioral mechanisms of aggression, receiving 27 responses between December 14, 2021, and March 1, 2022.





Note: categories are not mutually exclusive

Information requested:

- Gaps and opportunities in our fundamental understanding of biobehavioral mechanisms of aggression in humans and animals
- Gaps and opportunities in the development and use of methods, tools, technology, or other research resources to enable better characterization of the biological, psychological, and environmental mechanisms underlying aggressive behaviors and the biobehavioral impact of those experiencing aggression
- Gaps and opportunities in the identification of biomedical, behavioral, and psychosocial intervention targets for preventing and treating aggressive behavior and mitigating its impact on health and well being
- Gaps and opportunities in the characterization of multimodal/multivariate approaches applicable to either primary or secondary data to understand how other biological, behavioral, and/or social/environmental factors such as alcohol and substance use or gender norms interact to influence aggression
- Gaps and opportunities in the considerations of ethical, legal, and social implications for research investigating the biobehavioral mechanisms of aggression, including implications for applied work in human research
- Any other issues that NIH should consider that may advance research on identifying neurobiological mechanistic approaches and potential intervention targets for preventing/treating aggressive behavior and/or mitigating its impacts across the lifespan

Research challenges and needs highlights:

- Support needed for training and retention of aggression researchers
- Understanding developmental trajectories and the link between victimization and perpetration of aggression through longitudinal studies; focus on development of prosocial bonding and emotions as well as responsiveness to threat/punishment
- Screening tools to identify and intervene in childhood and adolescence to treat/prevent aggression later in life
- Innovative pharmacological treatment options that require better understanding of molecular and genetic underpinnings
- Greater support for research with incarcerated populations
- New methods for studying naturalistic aggressive behavior, especially in animals (e.g., sensors that don't inhibit movement); methods to simultaneously measure multiple systems (e.g., endocrine and neural) and multiple circuits within a system (e.g., neural circuits); real-time recording; neuromodulation; address challenges with self report data
- Types of aggression and potential gender differences: Relational vs physical; adaptive vs. pathological; reactive vs. proactive
- Studying dyads and groups instead of only individuals
- Gene x environment studies
- Greater focus on psychiatric disorders associated with aggression (e.g., conduct disorder, oppositional defiant disorder, psychopathy, narcissism)
- Stakeholder engagement from all perspectives (e.g., perpetrators and those who experience aggression)

***Note**: This document summarizes responses to the RFI and does not indicate opinions, priorities, or funding opportunities of the NIH.*