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## INTRODUCTION

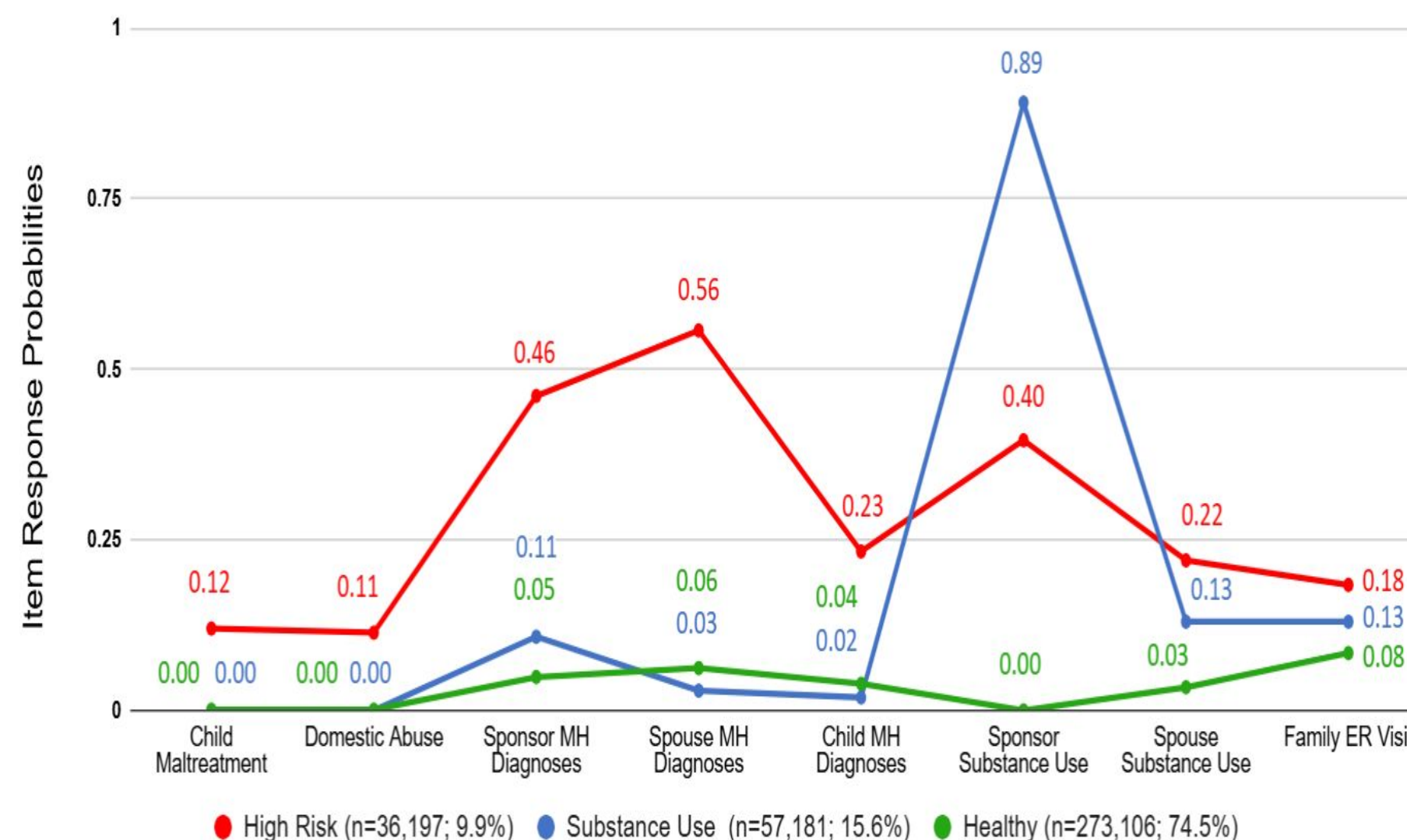
- Family violence (domestic abuse, child maltreatment), substance misuse, suicide, and accidental injury have been identified by the Department of Defense (DoD) as “Harmful Behaviors” (HBs), posing significant risk to service member well-being, family health, and military readiness.
- Despite sustained prevention efforts, incidence rates of domestic abuse, child maltreatment, and suicide have remained largely unchanged.<sup>1</sup>
- Current prevention and intervention strategies typically address HBs independently, despite growing empirical evidence indicating that HBs often co-occur, with strong links between family violence, mental health conditions, substance misuse, and suicide risk.<sup>2</sup>
- Greater understanding of the co-occurrence of HBs in families is critical to informing effective prevention strategies.
- **Study objective:** Examine patterns of co-occurring HBs in activity duty (AD) military families following the birth of the first child, a known high-risk period for family violence.<sup>3</sup>

## METHOD

- **Design:** A preliminary population-level analysis of HBs in AD families in the first 3 years after the birth of the first child
- **Sample:** All AD families with a first biological child born during a 10 year period (FY2009-FY2018;  $n = 366,484$ )
- **Data and sources:** *Domestic abuse* and *child maltreatment* incidents that met DoD criteria<sup>1</sup> for domestic abuse, child abuse, or child neglect from the Family Advocacy Program Central Registry; ICD codes for service member, spouse, and child *mental health diagnoses*, parental *substance use disorder diagnoses*, parental *suicide attempts and ideation*, and *family emergency healthcare utilization* from the Military Health System Data Repository
- **Analysis:** A latent class analysis with distal outcomes was conducted to identify distinct subgroups (classes) of families based on co-occurring HBs

## RESULTS

**Figure 1. Probabilities of Harmful Behaviors (HBs) for Each Latent Class (Total  $N = 366,484$  families)**



- Item probabilities for the three distinct classes identified in the Latent Class Analysis are shown in Figure 1.
  - 9.9% of the sample was classified into a *High-Risk Class* characterized by the highest probabilities of domestic abuse incidents, child maltreatment incidents, service member parent mental health diagnoses, spouse mental health diagnoses, and spouse substance use disorders.
  - 15.6% of the sample was classified into a *Substance Use Class* characterized by elevated probability of service member parent substance use and low probabilities for other HBs.
  - 74.5% of the sample was classified into a *Healthy Class*, characterized by low probabilities of all HBs.
- Distal outcomes analyses identified a 10-fold increase in risk of parental suicide attempts and a 6-fold increase in risk of parental suicidal ideation in the *High-Risk Class* compared to the *Healthy Class* ( $ps < 0.001$ ).

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## CONCLUSIONS

- Most AD families were classified into the Healthy Class, indicating strong family health and resilience across the population of new-parent families.
- The identification of a High-Risk Class characterized by multiple co-occurring HBs provides empirical support for integrated prevention models that address risk for multiple HBs.
- Although study findings describe risk in AD military families, results are relevant to all new-parent families given that family violence, substance abuse, accidental injury, and suicidality are public health problems within the general population.
- Given that this preliminary analysis was limited to HBs during the first three years after the birth of the first child, additional research is needed to examine patterns of co-occurring HBs during later stages of the military family life course to inform targeted prevention efforts for older families.

## REFERENCES

1. Department of Defense (2024). Report on Child Abuse and Neglect and Domestic Abuse in the Military for Fiscal Year 2023.
2. Lorber et al. (2018). Patterns of psychological health problems and family maltreatment among United States Air Force members. *Journal of Clinical Psychology*, 74(7), 1258–1271.
3. U.S. Department of Health & Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children’s Bureau (2025). Child Maltreatment 2023.