

Examining the Toll: A Scoping Review of Psychological Distress in NICU Providers

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 [Members of the Research Committee of the National Network of NICU Psychologists]

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BACKGROUND

Neonatal Intensive Care Unit (NICU) staff monitor acutely ill infants while providing support to distressed families and each other in a fast-paced environment

These responsibilities contribute to work-related stress and trauma exposure

Study Rationale:

- The prevalence, phenomenology, and treatment of work-related stress in NICUs is unclear
- Reviewing the literature is needed to understand the state of the field, inform intervention development, and suggest policy recommendations

Research Question:

- "What is the state of the literature regarding work-related psychological distress responses in NICU medical providers?"

METHODS

Research Team:

- Members of the **National Network of NICU Psychologists -- Research Committee**
- Library support from **Henry Ford Health Sladen Library**

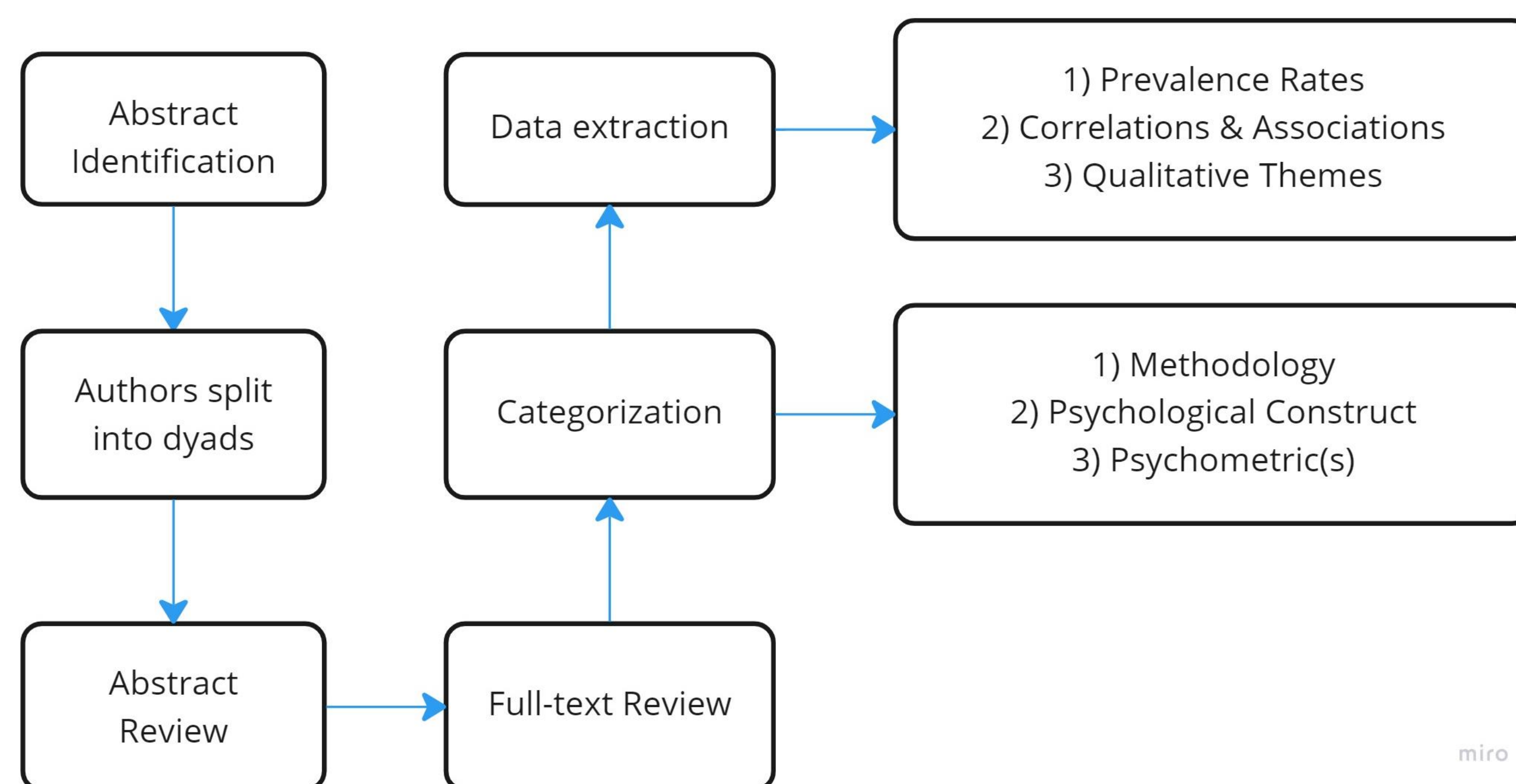
Scoping Review Methodology:

- Preferred Reporting Items for Systematic Reviews and Meta-Analyses – Scoping Review Checklist (PRISMA-ScR; Page et al., 2021)
- Example search term(s) used:** "NICU" AND "nurses" AND "burnout"
- Databases Searched:** PsychInfo, Ovid, MEDLINE, Embase, CINAHL

Publication Eligibility Criteria:

- Written in English
- Published after 1960
- Original research (no editorials, reviews, or short reports)
- Assess job-related stress symptoms in NICU *medical* providers

Figure 1. Analytic Approach



RESULTS

Figure 2. PRISMA Flowchart

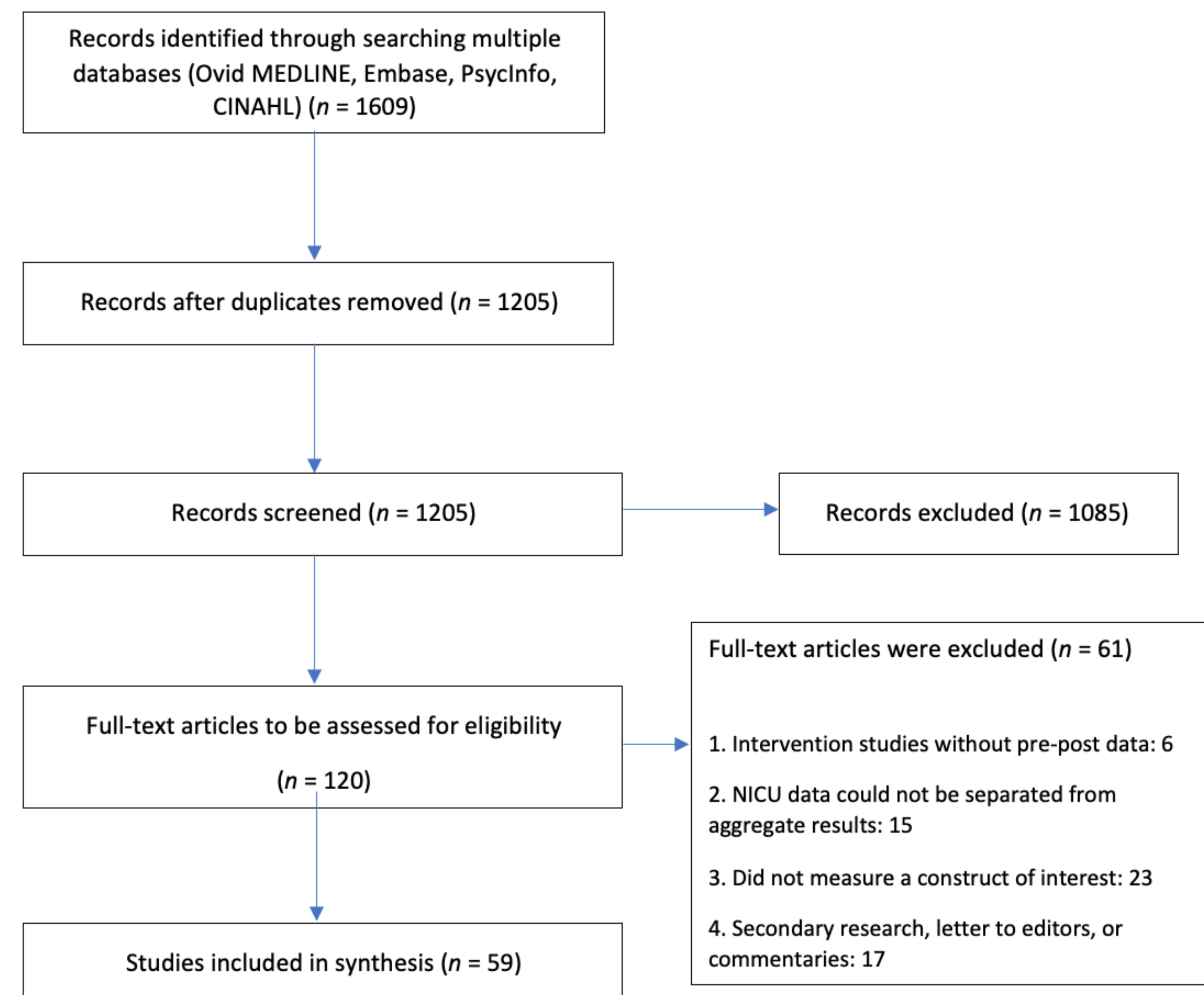
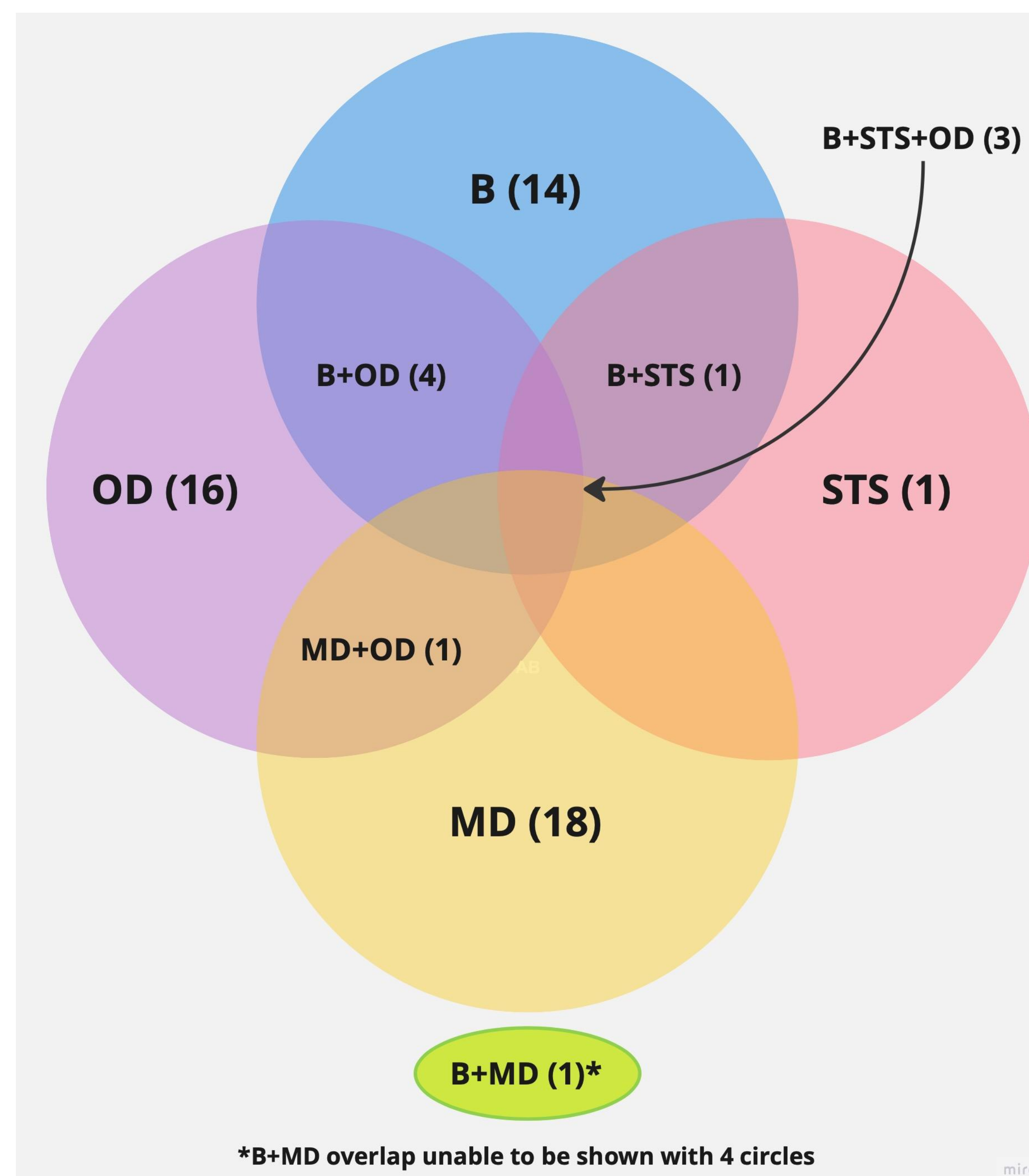


Figure 3. Number of Publications by Psychological Construct



B = Burnout
 MD = Moral Distress

STS = Secondary Traumatic Stress
 OD = Other Distress

HIGHLIGHTS OF FINDINGS

Publications Overall (N = 59)

- 46 quantitative, 11 qualitative, 2 used both methods
- Samples: 28 from USA, 9 from Canada, 22 from other parts of the world
- All 59 included nurses while 19 publications also included other staff groups

Burnout (B)

- Most common measure: Maslach Burnout Inventory (MBI; Maslach, et al., 2016)
 - 7 used all 22 items; 7 used 4 to 10 items
- Publications reporting MBI Subscale Mean Scores Ranges:
 - Emotional Exhaustion: 1 in low range, 6 in moderate range
 - Depersonalization: 4 in low range, 2 in moderate range
 - Personal Accomplishment: 4 in low range, 2 in moderate range
- 3 studies that used standard MBI cut off scores found: 9.6% - 21.4% of staff high on Emotional Exhaustion; 6% - 12.8% high on Depersonalization; 23% - 61.7% low on Personal Accomplishment

Secondary Traumatic Stress (STS)

- Most common measures: Secondary Traumatic Stress Scale (STSS; Bride, et al., 2004); Professional Quality of Life Scale (ProQOL; Stamm, 2009)
- Prevalence varied, with average scores typically in the low/moderate ranges
- Evidence of positive associations between STS & B (r = not reported, $p=0.05$) and STS & MD ($r=0.436$, $p=0.001$).

Moral Distress (MD)

- Most common measure: Moral Distress Scale (Corley et al., 2001)
- Prevalence varied greatly across and within studies, but were typically in low/average ranges
- Nurses reported greater MD than physicians

Other Distress (OD)

- Measures and results were mixed depending on type of distress (e.g., compassion fatigue, physiological stress response, anxiety)

DISCUSSION

Literature is Not Clear

- Constructs are not well defined or differentiated
- Measures are used inconsistently
- Cross study comparisons are challenging

Psychological Distress is Prevalent

- Most publications demonstrate moderate levels of psychological distress in NICU staff
- Research indicates a wide range of stressors and stress responses in the NICU

Future Recommendations

- Use *standardized* definitions, *validated* measures, and *consistent* methodology for scientific rigor and cross study comparisons
- Use more diverse and representative samples
- Evidence-based interventions are clearly needed to reduce NICU staff distress and improve psychological wellbeing

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