European Journal of Pediatrics (2022) 181:3545–3548
https://doi.org/10.1007/s00431-022-04553-1

SHORT COMMUNICATION

Caring for our caretakers: building resiliency in NICU parents and staff

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Received: 9 March 2022 / Revised: 27 June 2022 / Accepted: 30 June 2022 / Published online: 8 July 2022

Abstract

The neonatal intensive care unit (NICU) is a high-acuity, stressful unit for both parents and staff. Up to 50% of mothers and partners experience emotional distress (i.e., depression, anxiety, or posttraumatic stress) during NICU hospitalization and 30–60% continue to experience distress after discharge. Similarly, up to 50% of NICU staff report burnout and emotional distress. Although healthcare providers have developed interdisciplinary guidelines to enhance psychosocial resources for parents and staff, standardized psychosocial services are lacking. The purpose of this short communication is to describe: (1) the need for psychosocial interventions for NICU parents and staff; (2) existent psychosocial programs and their gaps and limitations; and (3) future directions for psychosocial care in NICU settings. We reviewed the current literature and propose a new conceptual model to inform psychosocial interventions for the NICU. We argue that brief, evidence-based, resiliency, and relationship-based programs are needed to enhance parent and staff outcomes and, ultimately, child development and the NICU unit culture.

Conclusion: Given the lack of standardized psychosocial care, new interventions for NICU families and staff are needed more than ever. Resiliency, relationship-based interventions that leverage multidisciplinary support may be an innovative way to enhance NICU outcomes and care.

What is Known:
- *40-50% of parents in the NICU report elevated emotional distress and 30-50% of staff report burnout.*
- *Psychosocial interventions for parents and staff are needed, yet lacking.*

What is New:
- *Interventions that focus on resiliency and relationships may improve the culture of the NICU.*
- *New multidisciplinary collaborations and approaches are needed to improve implementation.*

Keywords Neonatal intensive care · Psychosocial care · Postpartum · Parents

The neonatal intensive care unit (NICU) provides care to some of the most vulnerable patients and stressed families in the hospital. As babies fight for survival, parents struggle to establish a parenting role amid complex emotions (fear, guilt, anger, anxiety, helplessness). Because of babies' complex medical needs and families' stress and desire for answers that are yet to come, pressures on NICU staff are enormous. The high rates of NICU admissions (7–15% of US annual births) [1], parental distress (40–50%) [2], and staff burnout (30–50%) [3] emphasize the need for action. With these rates continuing to increase in the context of COVID-19 [4], effective and sustainable psychosocial services for parents and staff—the caretakers of these precious patients—are needed more than ever.

Communicated by Nicole Ritz

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Consensus to enhance psychosocial care

About 40–50% of NICU parents report depression, anxiety, and posttraumatic stress during hospitalization, and 30–60% experience symptoms post-discharge [2]. Parental emotional distress is essential to address because it can: (1) contribute to conflict between partners; (2) create tension between parents and staff; and (3) negatively impact parent–child interactions and child development [2]. Emotional distress is also prevalent among NICU staff. A recent survey of healthcare workers across 44 NICUs indicated that 7.5 to 54.4% reported burnout, including up to 50% of neonatologists and nurses [3]. Staff burnout has been linked to increased care-associated infections, self-reported errors, clinician attrition, and staff shortages [3]. Given these alarming rates of distress, the National Perinatal Association (NPA) developed interdisciplinary recommendations to improve psychosocial support for both parents and staff [5]. Hall and colleagues [6] recommended that the NICU broaden its mission and scope to include parents as active partners with the healthcare team and coined the term "neonatal intensive parenting unit (NIPU)." The NIPU care model describes physical, operational, and culture changes that could enhance family-staff relationships [6]. An important *first* step to improve these relationships is to enhance resiliency and alleviate emotional distress in both parents and staff. Decreasing emotional distress through resiliency skills, such as mindfulness and emotion regulation, can help improve communication and, in turn, relationships [7].

Current NICU psychosocial programming

Although the National Perinatal Association [5, 6] has called for enhanced psychosocial support, psychosocial care is limited and varies drastically. In fact, ~ 50% of NICU psychologists work in the unit less than 10 h/week and ~ 25% do not offer staff education [8]. In addition, the teamwork culture across NICUs vary widely—directly impacting staff burnout and quality of care [9]. Enhancing teamwork and resiliency can help decrease parental emotional distress, prevent staff burnout and, ultimately, improve the quality of care for babies [9]. Despite this clear need, implementation of psychosocial services in NICUs lags behind.

Over the past 15 years, about a dozen psychological interventions have been developed for parents; however, they are limited in efficacy and sustainability [10]. A meta-analysis revealed no significant intervention effects for depression and anxiety immediately after intervention completion [10]. This limited efficacy may be because interventions: (1) focus on reducing distress for *either* depression, anxiety, or posttraumatic stress, although they are frequently co-morbid; (2) often exclude parents who are non-biological mothers, even though all parents report distress; (3) overlook relationship dynamics, despite interdependence of stress; and (4) rarely include patient or provider perspectives, limiting clinical utility. The lack of sustainability may be, in part, the result of limited efficacy as well as variability in methodology (duration: 3 days–12 months, amount of time: 0.6–22 h) and the high refusal rates (~ 30%) and attrition (~ 20%) [10]. Parental participation challenges may be related to inadequate clinical and multidisciplinary support—NICU practitioners may not be aware of or involved in psychosocial clinical research. For these reasons, no interventions have been implemented as part of clinical care [10]. In addition, few interventions for staff burnout exist, and only one resiliency program has been developed for NICU staff [11]. This web-based resiliency intervention included six positive psychology modules: (1) gratitude; (2) three good things; (3) awe; (4) random acts of kindness; (5) identifying and using signature strengths; and (6) relationship resilience [11]. Tested in a pragmatic randomized clinical trial, this intervention helped reduce staff burnout [11]. However, 44.3% of eligible staff enrolled [11], suggesting possible resistance among staff and a need for standardized mental health support. Overall, psychosocial care in the NICU is limited because: (1) current interventions for parents tend to lack post-intervention efficacy and/or effectiveness; (2) few staff programs exist; (3) resources and support for psychosocial programs are limited; and (4) researchers and clinicians are working in silos. The need for innovative strategies to enhance psychosocial care is clear.

Future directions

Comprehensive psychosocial resources are necessary for everyone in the NICU—*both* families and staff—and may be best achieved through clinical-research-trainee programming and multidisciplinary support. In collaboration with medical and nursing leaders, clinical investigators who have the skills and expertise to secure funding can build these programs to develop and test psychosocial interventions for feasibility-acceptability and efficacy-effectiveness, train the next generation of researchers and clinicians, and offer clinical services. Because funding and time (balancing research and clinical responsibilities) are often barriers to build psychosocial programming, trainees are key. Trainees have the time and energy to provide clinical services, support research initiatives, and offer new perspectives that can enhance programming. At the same time, trainees learn how to conduct clinical care in complex medical settings, design and implement programmatic research, and function as part of a multidisciplinary team. Such a program has been successful in the neuroscience

intensive care unit, with efficacy-effectiveness testing ongoing [7].

Clinical-research-trainee programs that aim to improve resiliency and relationships are ideal. Focusing on resiliency and relationships within this sensitive unit can positively impact on parental emotional distress, staff burnout and, ultimately, parent–child interactions and quality of care [7, 9, 11]. Figure 1 displays the proposed conceptual model that can help inform innovative services. To enhance sustainability, virtual programs may help overcome physical and financial barriers to larger-scale implementation. It is our responsibility, as NICU providers and collaborators, to work together to implement the psychosocial recommendations and NIPU vision to improve NICU culture and adjustment of families, staff, and children.

At Massachusetts General Hospital, we developed a multidisciplinary collaboration with NICU leadership, clinical psychologists (expertise in intervention design), neonatology, nursing, social work, and psychiatry. We are building the infrastructure needed to develop, test, and implement psychosocial interventions for parents and staff. Currently, we are conducting longitudinal, mixed-methods research to examine resiliency factors (e.g., resources, mindfulness, coping, perceived support from medical staff) and relationships (e.g., dyadic coping, couple functioning) among parents in the NICU. We then plan to conduct qualitative interviews with families and medical stakeholders and develop a virtual, relationship-based, resiliency program for parents in the NICU. The findings from these mixed-methods approaches will inform the development and optimization of an accessible intervention. This work will help to inform psychosocial initiatives for staff, including group support programs, mindfulness and coping skills groups, and individual virtual consultations with psychological providers. We hope that a cost-effective, accessible, virtual intervention will set the stage for a new and improved standard of care in NICUs across the globe. Enhancing resiliency in these caretakers is essential to improve the health and well-being of future generations to come. We urge colleagues to develop multidisciplinary initiatives and consider innovative ways to enhance and sustain psychosocial services for NICU families and staff.

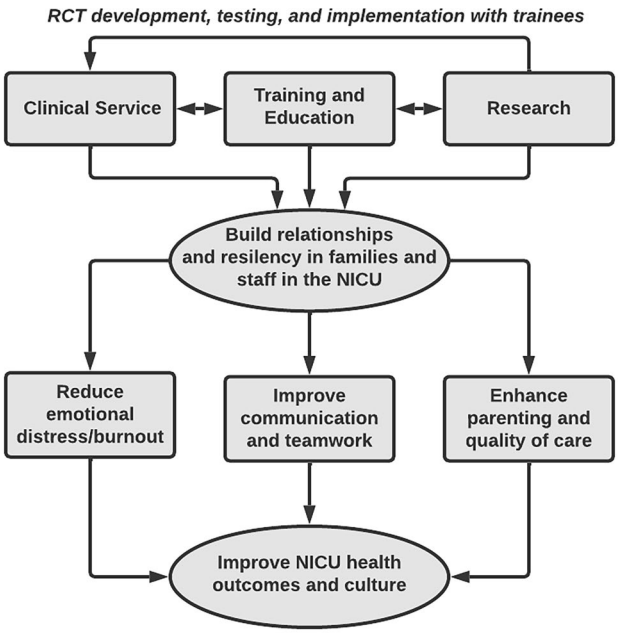

Fig. 1 Proposed conceptual clinical-research-trainee model for NICU psychosocial care. Legend: Fig. 1 displays our proposed conceptual model for NICU psychosocial care. We believe that clinical-research-trainee models that focus on building resiliency and relationships within families and staff can positively impact outcomes and the NICU culture

Authors' contributions VG conceptualized the manuscript, drafted the initial manuscript, and reviewed and revised the manuscript. AMV and PL conceptualized the manuscript and reviewed and revised the manuscript. All authors approved the final manuscript as submitted and agree to be accountable for all aspects of work.

Funding Victoria Grunberg, PhD is supported by an NIH T32 Fellowship (grant number: T32MH112485).

Data availability Not applicable.

Code availability Not applicable.

Declarations

Ethics approval Not applicable.

Consent to participate Not applicable.

Consent for publication Not applicable.

Conflict of interest The authors declare no competing interests.

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