

---

## DIAGNOSTIC CLASSIFICATION OF MENTAL HEALTH AND DEVELOPMENTAL DISORDERS OF INFANCY AND EARLY CHILDHOOD DC:0–5: SELECTIVE REVIEWS FROM A NEW NOSOLOGY FOR EARLY CHILDHOOD PSYCHOPATHOLOGY

---

CHARLES H. ZEANAH

*Tulane University School of Medicine*

ALICE S. CARTER

*University of Massachusetts Boston*

JULIE COHEN

*ZERO TO THREE*

HELEN EGGER

*Duke University Medical Center*

MARY MARGARET GLEASON

*Tulane University*

MIRI KEREN

*Tel Aviv University*

ALICIA LIEBERMAN

*University of California, San Francisco*

KATHLEEN MULROONEY AND CINDY OSER

*ZERO TO THREE*

**ABSTRACT:** The *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition (DC:0–5; ZERO TO THREE)* is scheduled to be published in 2016. The articles in this section are selective reviews that have been undertaken as part of the process of refining and updating the nosology. They provide the rationales for new disorders, for disorders that had not been included previously in the *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition (DC:0–3R; ZERO TO THREE, 2005)*, and for changes in how certain types of disorders are conceptualized.

**Keywords:** psychiatric nosology, infant mental health, early childhood psychopathology, psychiatric nosology, ADHD, ASD, eating disorders, parent-child relationship psychopathology

**RESUMEN:** *DC:05 La Clasificación de Diagnóstico de Salud Mental y Trastornos de Desarrollo en la Infancia y la Temprana Niñez* será publicada en 2016. Los artículos en esta sección representan selectivos acercamientos que se han tomado como parte del proceso de refinamiento y puesta al

Preparation of this article and the work that it describes was supported by ZERO TO THREE. We have no commercial conflicts of interest to disclose.

Direct correspondence to: Charles H. Zeanah, Institute of Infant and Early Childhood Mental Health, Tulane University School of Medicine, 1430 Tulane Avenue #8055, New Orleans, LA 70112; e-mail: czeanah@tulane.edu

INFANT MENTAL HEALTH JOURNAL, Vol. 37(5), 471–475 (2016)

© 2016 Michigan Association for Infant Mental Health

View this article online at [wileyonlinelibrary.com](http://wileyonlinelibrary.com).

DOI: 10.1002/imhj.21591

corriente de la nosología. Ellos proveen el razonamiento en el caso de nuevos trastornos, de trastornos que no habían sido incluidos previamente en DC:0-3R y de cambios en cómo ciertos tipos de trastornos se conceptualizan.

**Palabras claves:** nosología psiquiátrica, salud mental infantil, psicopatología de la temprana niñez, ADHD, ASD, trastornos en los hábitos de comida, psicopatología de la relación entre niño y progenitor

**RÉSUMÉ:** *L'ouvrage DC:0-5, Classification diagnostique des troubles mentaux et des troubles du développement chez le nourrisson et dans la petite enfance* va sortir aux États-Unis en 2016. Les articles de cette section sont des revues sélectionnées qui ont toutes été faites du fait du processus de redéfinition et de mise à jour de la nosologie. Ils présentent les justificatifs de nouveaux troubles, des troubles qui jusqu'à présent n'avaient pas été inclus dans le DC: 0-3R et des changements dans la manière dont certains types de troubles sont conceptualisés.

**Mots clés:** nosologie psychiatrique, santé mentale du nourrisson, psychopathologie de la petite enfance, trouble d'hyperactivité avec déficit de l'attention (THADA), troubles de l'alimentation, psychopathologie de la relation parent enfant

**ZUSAMMENFASSUNG:** Die "DC: 0-5 Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood" soll im Jahr 2016 veröffentlicht werden. Die Artikel in diesem Abschnitt sind ausgewählte Reviews, die als ein Teil des Prozesses der Präzisierung und Aktualisierung der Nosologie vorgenommen wurden. Sie stellen die Grundüberlegungen für neue Erkrankungen, für Erkrankungen, die zuvor nicht in der DC:0-3R enthalten waren und für Veränderungen der Konzeption bestimmter Störungsarten vor.

**Stichwörter:** psychiatrische Nosologie, psychische Gesundheit von Säuglingen, Psychopathologie der frühen Kindheit, ADHS, ASD, Essstörungen, Eltern-Kind-Beziehung, Psychopathologie

**抄録:** DC:0-5乳幼児の精神保健と発達障害の診断分類は、2016年に発行される予定である。このセクションの論文は、分類を洗練させ改訂する過程の一部として取り組まれてきた、選択的レビューである。それらは、新しい障害の、以前のDC:0-3には含まれていなかった障害の、そしてあるタイプの障害がどのように概念化されるかについての変化の、論理的根拠を提供する。

**キーワード:** 精神医学の分類学、乳幼児精神保健、早期児童期の精神病理、ADHD、ASD、摂食障害、親子関係性精神病理

**摘要:** DC: 0-5嬰兒幼兒期心理健康和發育障礙的診斷分類預定將在 2016 年發表。本節的文章為精煉和更新疾病分類學之選擇性評論。對於之前尚未在DC: 0-3R列入的病症，這些文章提供了理論依據，及描述某些類型疾病的概念化了的演變。

**關鍵詞:** 精神疾病分類學，幼兒心理健康，兒童早期精神病理學，多動症，自閉症，飲食失調，親子關係的精神病理學

**ملخص:** تصنيف تشخيصي (DC:0-5) لاضطرابات النمو والصحة النفسية في مرحلة الرضاعة والطفولة المبكرة : مختارات من مجلد جديد لعلم تصنيف الأمراض النفسية في الطفولة المبكرة. تقرر نشر هذا البحث في عام 2016. المقالات في هذا الجزء تمثل مراجعات نقدية تم تقديمها كجزء من عملية تنقيح وتحديث مجلد تصنيف الأمراض. تقدم هذه المختارات مبررات تضمنين أنواع الاضطرابات الجديدة والاضطرابات التي لم تكن مدرجة سابقا في إصدار (DC:0-3R) وكذلك عرض التغيرات التي طرأت على كيفية تصور بعض أنواع الاضطرابات.

**كلمات مفتاحية:** علم تصنيف الأمراض النفسية - الصحة النفسية للرضيع - الأمراض النفسية في الطفولة المبكرة - الإعاقة - ASD - اضطرابات الأكل - علم الأمراض النفسية في العلاقة بين الطفل والوالدين .

\* \* \*

In 2013, the Board of Directors of ZERO TO THREE authorized creation of a Task Force charged with revising the *Diagnostic Classification of Mental Health and Developmental Disorders: Revised Edition* (DC:0-3R; ZERO TO THREE, 2005) and completing the revision by 2016. The rationale for the revision was that by 2016, more than a decade would have passed since the publication of the DC:0-3R, with considerable research on early childhood psychopathology having been published in that decade. Many findings from this research seemed relevant to considering revisions to the DC:0-3R. An additional impetus was the publication of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association, 2013). Despite its

expressed effort to be more developmentally oriented, there was only modest progress in considering and delineating the unique manifestations of psychopathology in very young children. In addition, there were inevitably some lingering concerns about the DC:0-3R that could be addressed with the benefit of a decade of clinicians' experiences in using it.

Reflecting on the multidisciplinary nature of infant mental health, the nine Task Force members included representation from the professional disciplines of psychiatry, psychology, pediatrics, nursing, social work, and counseling. Further, the collective experience of the group was well more than a century of work in the field of infant mental health, spanning clinical practice, research,

and policy. Two of the Task Force members had been involved in creating the *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood: Revised Edition* (DC:0-3; ZERO TO THREE, 1994), and another had been on the Task Force that created the DC:0-3R.

The focus of the revision was on refining a diagnostic classification system (a nosology) rather than prescribing a process of clinical formulation or outlining an approach to assessment. Thus, the nosology of the DC:0-3 and the DC:0-3R that is being revised and updated will be necessary, but not sufficient, for clinical formulation and assessment. These activities are interrelated, but distinct (see Egger & Emde, 2011). Assessment is the process of collecting data that will guide both diagnosis and formulation. In infant and early childhood mental health, assessment skills must be developmentally specific, employ multiple modes of eliciting and observing clinical information, and require extensive training, which a diagnostic classification manual cannot provide. A diagnostic classification system specifies criteria that define clinical disorders, providing clinicians and researchers a shared understanding about definitions and manifestations of psychopathology. By defining the component symptoms and thresholds of a disorder, evidence about risk factors, mechanisms of disorders, and intervention effectiveness can be determined. In clinical practice, the diagnosis allows effective and efficient communication among providers and informs treatment. Clinical formulation, on the other hand, is about understanding an individual child's symptomatology and development in the biological, psychological, relational, and social contexts. Understanding the factors that precipitate and perpetuate symptoms, as well as the factors that promote resilience, for a particular child is needed for purposes of developing an individualized clinical plan of intervention.

A major challenge for the Task Force was striking a balance between (a) placing a high value on having criteria and disorders that are empirically grounded and (b) prioritizing dissemination of criteria and disorders that are clinically useful and meaningful. Research on early childhood psychopathology is newer and less developed than are studies of psychopathology in older children and adults. Therefore, the Task Force agreed that we would make every effort to use all available evidence, but to recognize that for some disorders that are clinically important, the evidence base is emerging rather than established. The Task Force hopes that inclusion of disorders with more limited empirical evidence will promote focused research that can inform the next iteration of this nosology.

## PROCESS AND DECISIONS

Our Task Force met in person to initiate the work in March 2013. For the following 3 years, through telephone calls, e-mail, and in-person meetings, we deliberated evidence and proposed and refined criteria. From the outset, we solicited input in several different ways, including expert consultation and user surveys.

Initially, to solicit feedback from the infant mental health practitioners about the DC:0-3R, the Task Force conducted a Web-

based survey of 20,000 users of the DC:0-3R worldwide. E-mail invitations with links to the survey instrument were sent to all users for whom we had access, including participants in DC:0-3R training sessions; all members of the World Association of Infant Mental Health (WAIMH) and its affiliates; state infant mental health associations and contacts; the American Academy of Child and Adolescent Psychiatry Infant and Preschool Committee; members of the Harris Professional Development Network; all purchasers of the DC:0-3R and related materials; the *Zero To Three Journal* subscribers, and the ZERO TO THREE Board, staff, and Academy Fellows. The survey instrument included questions about experience with the DC:0-3R as well as opinions about its usefulness and opinions about each Axis of the DC:0-3R. We received responses from 890 professionals from six continents. The responses and comments were reviewed and deliberated in detail by the Task Force (Zeanah et al., 2015).

Following initial drafts of criteria for many disorders, we sought additional feedback from the infant mental health community by posting proposed revisions in the diagnostic criteria for public comment for some disorders in May 2015 and again in October 2015 for other disorders (and Axes II-V). The Task Force also hosted an update forum in December 2013 and two additional update forums in December 2015 at ZERO TO THREE's National Training Institutes. Participants learned about some of the major changes under consideration for the DC:0-5 and provided feedback at these forums.

Reviews of the literature, practitioner input, and discussions of the Task Force led to several decisions. First, based on the amount of new data that were available, it seemed clear that the revision would be substantial rather than a mere fine-tuning of the DC:0-3R. Second, the age range covered by the revision would be expanded from 3 years to 5 years of age. Much research on preschool disorders has suggested that this was indicated, as did the experience of most Task Force members in clinical settings where early childhood generally extends from newborns through preschoolers. Practitioner input was overwhelmingly positive about this decision. This decision led ZERO TO THREE to name the revision DC:0-5 (2016). Third, we determined to attempt to extend definitions to younger ages whenever appropriate and possible, including in some cases, the first year of life. The goal was, as much as possible, to allow for developmental differences in manifestations of psychopathology. Fourth, to distinguish true disorders from transient behaviors or individual differences, we required distress or functional impairment for every disorder. This was an effort to avoid pathologizing transient behavioral anomalies and expected individual differences. Differentiating normal variability from true pathology is especially important in this period of rapid developmental change. Fifth, we decided to retain the multiaxial system, primarily to emphasize the importance of context for psychopathology in young children. Nevertheless, we also decided to substantially revise most of the axes. Sixth, all disorders were evaluated in terms of their evidence base and their clinical usefulness so that we neither committed automatically to disorders that had been defined in the DC:0-3R nor precluded including new disorders. In

fact, a seventh decision was to attempt to include all disorders relevant for young children in the manual so that the revised nosology would be comprehensive rather than referring clinicians to other nosologies when those diagnoses were applicable. Finally, we consciously aligned definitions in the revision with *DSM-5* definitions when indicated, since ultimately our goal is for early childhood disorders to be fully integrated into mainstream nosologies.

## REVIEWS OF NEW AND REVISED DISORDERS

In this special issue, we present four of the reviews that led to decisions about several new or substantially revised disorders. We also relied upon other reviews relevant to our process that have been or soon will be published elsewhere (Scheeringa, Cohen, & Zeanah, 2011; Zeanah & Gleason, 2015). Several other reviews are in preparation. For this issue, we review some newly defined disorders (e.g., overactivity disorder of toddlerhood, atypical social-communication emergent neurodevelopmental disorder, relationship specific disorder of early childhood), some disorders that had been defined in the *DSM-5*, but not in the *DC:0-3R* [e.g., attention deficit hyperactivity disorder (ADHD)], and some disorders defined differently than in the *DC:0-3R* (eating disorders).

Gleason and Humphreys (this issue) present a review of overactivity and impulsivity in young children, defining both ADHD and the related overactivity disorder of toddlerhood. Since the publication of the *DC:0-3R*, a considerable amount of research on ADHD in preschoolers has appeared, as evident by the large numbers of references in their review that are from 2006 or more recent. Though ADHD is increasingly studied and documented in children 3 to 5 years old, few early childhood clinicians would argue that age 3 years is the earliest presentation of ADHD symptomatology. Overactivity disorder of toddlerhood emerged in part from data documenting stability of symptoms of hyperactivity/impulsivity and impairment from the second year of life into the preschool years. This downward extension is an effort to identify children with early onset of extreme hyperactivity and impulsivity meeting ADHD criteria and associated with functional impairment. More research is needed to determine if these early symptoms escalate to ADHD in preschool children.

Soto et al. (this issue) tackle a similar challenge about early presentations of socially aberrant behaviors that are compatible with autism spectrum disorders. Their comprehensive review provides the rationale for atypical social-communication emergent neurodevelopmental disorder (ASCEND), a new disorder that describes profound social abnormalities in children younger than 3 years old. The developmental deviations described invite strong consideration of intervention. Some of the children who meet criteria for ASCEND may eventually be diagnosed with autism spectrum disorder whereas others may not. Research, especially from the multisite infant sibling studies (Ozonoff et al., 2015; Rozga et al. 2011), has endeavored to push the diagnosis of autism spectrum disorders to younger and younger ages, although false positives and false negatives appear to increase the younger the

child. Research supporting ASCEND has suggested that a group of children meeting these criteria may be reliably identified and may respond favorably to early intervention efforts.

Keren (this issue) reviews eating disorders in young children and she proposes substantial revisions from *DC:0-3R* in their classification. She outlines the *DC:0-5* proposed approach of substantially reducing the number of defined disorders that appeared in the *DC:0-3R* and the rationale for “lumping” rather than “splitting.” She also finds insufficient support for yoking types to ascribed etiologies, grouping them instead phenomenologically based on whether they involve undereating, overeating, or atypical eating by young children.

Finally, Zeanah and Lieberman (this issue) describe a new approach to parent-child relational pathology. Drawing upon research on relationship specificity of attachments in early childhood, they introduce *relationship specific disorder of early childhood*. This disorder attempts to define relationship-specific symptomatic behavior in young children. In addition, they describe the substantial revisions in the relational axis (Axis II), designed to address concerns about the approach in the *DC:0-3R*. In addition to rating the primary caregiver/young child relationship adaptation, clinicians also are encouraged to assess the coparenting (and the broader family) relational network in which the young child is developing.

The original motivation to create the *DC:0-3* was widespread dissatisfaction among infant mental health clinicians with the usefulness of extant nosologies in clinical work with young children. There always is a danger of overpathologizing normal variations in such an approach, but there also is a danger of failing to identify and to respond to young children who are suffering or impaired and on deviant developmental trajectories that increase their risk for adverse outcomes.

The articles in this issue represent illustrations of our attempts to navigate between overmedicalizing and pathologizing on one hand, and underrecognizing and missing an opportunity to intervene effectively on the other.

Arguably, one of the most useful indicators of the success of a nosology is the research that it inspires to refine and change it. We hope that these reviews and the disorders that they propose will do no less than lead to research that provides us with a more meaningful approach to conceptualizing patterns of behavior in young children that is associated with distress, impairment, and developmental risk.

## REFERENCES

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- Egger, H.L., & Emde, R.N. (2011). Developmentally sensitive diagnostic criteria for mental health disorders in early childhood. *American Psychologist*, 66, 95–106.
- Gleason & Humphreys. (2016). *Infant Mental Health Journal*.
- Keren, M. (2016). *Infant Mental Health Journal*.

- Ozonoff, S., Young, G.S., Landa, R.J., Brian, J., Bryson, S., Charman, T. et al. (2015). Diagnostic stability in young children at risk for autism spectrum disorder: A Baby Siblings Research Consortium Study. *Journal of Child Psychology and Psychiatry*, 56, 988–998.
- Rozga, A., Hutman, T., Young, G.S., Rogers, S.J., Ozonoff, S., Dapretto, M., & Sigman, M. (2011). Behavioral profiles of affected and unaffected siblings of children with autism: Contribution of measures of mother-infant interaction and nonverbal communication. *Journal of Autism and Developmental Disorders*, 41(3), 287–301.
- Scheeringa, M.S., Zeanah, C.H., & Cohen, J.A. (2011). PTSD in children and adolescents: Towards an empirically based algorithm. *Depression and Anxiety*, 28, 770–782.
- Soto (2016). *Infant Mental Health Journal*.
- Zeanah, C.H., Carter, A., Cohen, J., Egger, H., Keren, M., Gleason, M.M. et al. (2015). DC:0–3 to DC:0–3R to DC:0–5: A new edition. *ZERO TO THREE*, 35, 63–66.
- Zeanah, C.H., & Gleason, M.M. (2015).
- Zeanah, C.H., & Lieberman, A. (2016). *Infant Mental Health Journal*.
- ZERO TO THREE (1994). *Diagnostic classification of mental health and developmental disorders of infancy and early childhood (DC:0–3)*. Washington, DC: Author.
- ZERO TO THREE (2005). *Diagnostic classification of mental health and developmental disorders of infancy and early childhood: Revised edition (DC:0–3R)*. Washington, DC: Author.
- ZERO TO THREE (2016). *Diagnostic classification of mental health and developmental disorders of infancy and early childhood: Revised edition (DC:0–5)*. Washington, DC: Author.

