

Conclusions: This is a major step towards the validation of a pediatric DPN screening tool. Further research will focus on testing our hypotheses about the scale's association with clinical data.

Clinical Implications: A valid pediatric DPN screening tool will enable children at risk for, or in the early stages of DPN, to be identified properly, changing the current standard of care for youth with T1D.

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004—Peer-Based Interventions for Managing Type 1 Diabetes in Adolescents: A Systematic Review

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Background: Adolescents with Type 1 diabetes (T1D) have the poorest control when compared to other age groups. The majority of adolescents do not meet the American Diabetes Association (ADA) goal for hemoglobin A1c (HbA1c). Previous research has determined effective interventions in improving glycemic control and how peer interventions impact T1D. Prior systematic reviews did not address the quality of life. This systematic review includes quality of life as an objective in managing adolescents with T1D.

Aims: The purpose of this systematic review was to investigate the effectiveness of peer support interventions on the quality of life (QoL) and HbA1c in adolescents who have T1D.

Methods: Systematic searches were performed in three databases: Medline, CINAHL, and PsycINFO in January 2018. The criteria for inclusion consisted of: an objective to include a peer intervention, adolescent age group (10–18 years old), HbA1c and/or QoL outcome measure, peer-reviewed English language articles, and experimental and quasi-experimental method design. Articles were screened and evaluated using PRISMA guidelines and the Johns Hopkins Nursing Evidence-Based Practice Research Evidence Appraisal Tool. Date range included 2013–2016 with one article from 1989.

Results: Nine articles were chosen for full review. Three of the articles used the same study, which included ongoing data collection at different intervals and using moderators. Five of the studies were online peer support and two were in-person support. Most studies showed an overall improvement in quality of life and peer support. There are mixed results regarding how peer intervention affects HbA1c.

Conclusions: There is evidence that peer support has shown to improve quality of life. However, evidence demonstrates peer support is moving towards internet-based support, which may exclude lower socioeconomic groups, thus widening the gap in healthcare. HbA1c may not be the best indicator of glycemic control in adolescents because other factors, such as puberty, affect glycemic control.

Clinical Implications: Understanding that peer interaction has the potential to positively impact adolescents with T1D allows for many opportunities to create programs dedicated to peer support. Pediatric endocrine nurses can utilize multi-disciplinary frameworks to develop peer support programs.

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006—National Survey of Neonatal Growth Measurement Practices

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Background: Neonatal growth measurements, including frontal-occipital circumference (FOC), weight, and length, are used to assess size for gestational age, determine fluid and nutritional requirements, calculate medication doses, identify surveillance needs, and serve as a baseline for postnatal growth monitoring. Measurements are often inaccurate and unreliable. While evidence-based guidelines for growth measurements exist, little is known about current practices.

Aims: Describe neonatal nurses' growth measurement knowledge, attitudes, practice behaviors, bases of practice knowledge, and facilitators and barriers to changing practice.

Methods: A descriptive, exploratory design with an online survey was used. The neonatal growth measurement survey (NGMS), created and pilot tested for validity and reliability by the research team, was distributed through the Association of Women's Health, Obstetrical and Neonatal Nurses (AWHONN) and the National Association of Neonatal Nurses (NANN).

Results: Of the 301 participants (members of AWHONN 51.8%, NANN 31.9%, both organizations 16.3%), there were 50.5% BSN and 39.5% graduate degree nurses practicing in well newborn (24.9%), special care nursery (23.3%), NICU (36.2%), and regional NICU (15.6%) units, with a mean 18.7 years of neonatal experience. Of 16 knowledge items, five items were answered incorrectly by more than half of participants. Most thought their measurements were accurate or highly accurate (FOC 96.7%, weight 99.3%, length 87.1%). Weights (72.8%) and lengths (60.4%) were routinely measured once before recording, compared to two or more times for FOC (61.9%). Measurements were frequently recorded using large increments of 0.25–1 cm (FOC 71.2%, length 57.6%) compared to smaller weight increments of 1–10 grams (78.8%). A majority reported measuring lengths without assistance from a second person (74.9%) using a tape measure (76.7%) without Frankfort plane positioning (96.7%). The most common bases of practice knowledge were clinical practice guidelines (86.7%) and unit policies and procedures (85.9%). Comparisons between AWHONN and NANN members, levels of care, education, and years of neonatal experience will be presented.

Conclusions: Knowledge gaps and areas for practice improvement were identified.

Clinical Implications: NGMS results can be used by endocrinology and neonatal nursing experts to develop interventions and targeted implementation strategies to improve growth measurement practices, thereby optimizing growth monitoring and clinical decision-making.

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Case Presentations

007—Suppression of Pituitary Axis from Inhaled Corticosteroids

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Patient Demographics: RS is a 16-year-old Caucasian female.

Clinical Presentation: RS initially presented 2 years ago with growth arrest for 2 years. She had menarche a year before with subsequent scant, irregular menses. No cause was determined for her growth arrest.

RS returned one year later with the complaint of "fatty legs". She had continued scant, irregular menses and no interval growth. Large fatty deposits encased her thighs, but she was otherwise a thin, competitive athlete.

Relevant Past History: At age four RS was diagnosed with asthma requiring frequent oral steroid bursts until age seven when she began daily treatment with Dulera (mometasone-formoterol), an inhaled steroid.

Evaluation: At her initial evaluation, RS had a normal workup including CBC, UA, celiac screen, IGF-1, prolactin, thyroid studies and BMP. Her bone age was within 2 SDs of age related norms.