

### Introduction

The mission of the National Association of Pediatric Nurse Practitioners (NAPNAP) is promoting optimal health for children\* through leadership, practice, advocacy, education, and research. Central to this mission is delineating the evidence for practice. NAPNAP's goal in developing this Research Agenda is to identify gaps in evidence for practice, thus providing direction for research activities to NAPNAP, as well as other organizations, and to facilitate the work of interdisciplinary groups and individual scientists who address these gaps. These gaps may include missing inconclusive or contradictory evidence. Areas of clinical focus for this Research Agenda reflect the work of NAPNAP's members—primarily pediatric nurse practitioners, family nurse practitioners, school nurse practitioners, neonatal nurse practitioners, clinical nurse specialists, educators, and researchers providing primary, acute, and specialty care for pediatric populations.

This agenda informs the membership and nurse scientists regarding NAPNAP's child health research priorities. The agenda can also give direction to multiple NAPNAP organizational constituents such as the NAPNAP Executive Board, regional chapters, and affiliated groups (e.g., NAPNAP Foundation and the Association of Faculties of Pediatric Nurse Practitioners [AFPNP]) for prioritizing research-related activities.

This agenda was developed through a process that included the nomination of research priorities by NAPNAP special interest groups and AFPNP members, data collection from three focus groups held at the 2007 NAPNAP national conference, and the implementation of an online survey for members to rate the nominated research priorities. The NAPNAP Research Agenda Work Group synthesized the potential priorities from the first two activities into an IRB-approved online survey for member feedback, analyzed members' rating of priorities, and generated the research agenda with six clinical and three professional components. This document delineates the clinical and professional components of the Research Agenda and provides exemplar priorities in each area. Exemplars listed under each of the nine components in the research agenda reflect the

top-ranked priorities in the survey of NAPNAP members.

### Clinical Priorities

#### I. Health Promotion and Disease Prevention

It is important to enhance the body of evidence on health promotion and disease prevention outcomes for optimal child and family health across all ethnic, racial, high-risk, and socioeconomic groups. The linkage between lifestyle behaviors, genetics, and health outcomes is well documented; however, adoption and adherence to these practices continues to be a challenge for many children and families. Important issues include developing and testing new screening strategies, measuring outcomes related to education and anticipatory guidance, and studying interventions to enhance adoption of and adherence to health promotion and disease prevention practices.

Exemplars of priorities in this area include:

- Exploration of family issues in genetic counseling and testing.
- Identification and testing of strategies to:
  - prevent conditions that lead to poor health outcomes;
  - increase health promotion behaviors in children such as seat belt use, motor vehicle safety, dental care, healthy eating, and prevention of tobacco use;
  - optimize breastfeeding outcomes (e.g., successful initiation of breastfeeding, exclusive breastfeeding until 6 months, and breastfeeding throughout the first year of life where appropriate);
  - deliver effective anticipatory guidance;
  - screen for drug and alcohol use and interpersonal violence;
  - decrease high-risk behaviors in youth such as drug, tobacco, and early sexual experimentation; and
  - decrease barriers to and increase compliance with recommended immunization schedules.

#### II. Self-Management of Acute and Chronic Conditions

Effective self-management of acute and chronic health care conditions can result in decreased

symptoms and limitation of activity, prevention of further disease progression, and improved quality of life. Self-management skills for children and their families can be enhanced by effective interventions that address parent and child knowledge, their attitudes, and beliefs regarding the health condition. Testing effective self-management strategies that are family–child centered and investigating the facilitators of and barriers interfering with adherence to health care recommendations are imperative. Exploring the impact of the use of community resources and complementary therapies is also warranted. Self-management skills, in both inpatient and outpatient settings, which address developmental issues and transitions from adolescence to adulthood should be explored.

Exemplars of priorities in this area include:

- Assessment of child and family knowledge, attitudes, and beliefs about chronic health care conditions.
- Identification and testing of effective strategies to:
  - enhance self and family management for children with acute and chronic conditions;
  - optimize child and family adherence to health care recommendations;
  - facilitate effective transition to adulthood for adolescents with chronic conditions;
  - teach children and families about the child’s illness; and
  - facilitate developmentally appropriate outcomes in infants and children with feeding difficulties.

### III. Mental Health for Children and Families

Optimal mental health in individuals, families, and communities is a central goal. Mental health issues include the domains of prevention, screening, early detection of problems, and treatment of mental illness. Included in these areas are priorities that address antecedents to mental health problems and strategies that prevent disruptions in mental health. Additionally, priorities that address youth with risk factors or complicated family situations such as adapting to foster care, special needs children, military deployment or reintegration, homelessness, incarcerated or impaired parents, or infants born at risk need to be considered.

Exemplars of priorities in this area include:

- Identification and testing of strategies to:
  - address developmental, cognitive, and psychosocial challenges of infants born at risk;
  - optimize management of behavioral problems;
  - facilitate child and family coping and adaptation in acute care settings;
  - optimize mental health outcomes for at-risk children;
  - promote optimal mental health of children and parents in complicated family situations; and
  - identify and manage children with autism or autism spectrum disorders.

### IV. Safety: Protecting Children from Disease, Infection, and Harm

The provision of care that optimizes child and family safety in home, community, and health care settings is paramount in pediatric health care. Priorities in this category can address (a) safety directly (e.g., injuries, infections, maltreatment, or violence), (b) the environmental or system issues that impact safety of care delivered in pediatric settings (e.g., medication reconciliation, communication), or (c) the effective assessment and management of common acute and chronic childhood conditions.

Exemplars of priorities in this area include:

- Identification and testing of strategies that:
  - effectively reduce risk of childhood injuries and child maltreatment;
  - prevent nosocomial-acquired infections and injuries (e.g., infections in daycare centers and schools, skin breakdown, catheter-related blood stream infections, ventilator-associated pneumonia, falls, intravenous infiltrations, and accidental extubation);
  - improve health care provider communication patterns that impact patient safety (e.g., hand-off communication between providers or units and interdisciplinary communication); and
  - improve systems or procedures that optimize patient safety for children and families in the acute care setting (e.g., medication reconciliation, computer confirmation systems to check for correct child–drug–procedure).

- Development of child maltreatment prevention programs that could be incorporated into routine well child visits.

## V. Children and Families Dealing with Acute or Critical Health Issues

In addition to providing primary care, NAPNAP members are assuming expanded roles in the acute and critical care settings. The clinical practice issues confronted in these settings include implementing optimal family-centered care, enhancing child and family coping strategies to deal with difficult situations, enhancing comfort and decreasing pain, and providing care that optimizes physiological function.

Exemplars of priorities in this area include:

- Assessment of the impact of early initiation and progression of enteral feedings on the prevention of secondary conditions in acutely ill children.
- Assessment and management of pain in children.
- Identification and testing of strategies to:
  - help children cope with painful procedures and hospitalizations, including but not limited to: use of distraction, relaxation and imagery, storytelling, music;
  - promote family-centered nursing interventions that facilitate optimal end-of-life care;
  - provide safe and effective sedation management in children (includes relationship between sedation management and outcomes);
  - promote overall comfort of hospitalized children;
  - promote parenting of the hospitalized child (e.g., attending to and supporting normal growth and development during prolonged hospitalizations); and
  - effectively partner with children and families during a hospitalization.

## VI. Obesity

The increasing incidence of childhood overweight and obesity across the lifespan requires a greater understanding of multiple risk factors associated with obesity and evaluation of interventions to prevent or treat obesity. Effective strategies to reduce the burden of childhood and adolescent obesity across all racial, ethnic, and socioeconomic groups need to be explored.

Studying the impact of obesity on the management of children with chronic and acute conditions also requires further investigation.

Exemplars of priorities in this area include:

- Identification and testing of interventions to prevent or treat obesity in children.
- Exploration of:
  - the relationship of child and adolescent obesity to risk factors such as chronic health conditions (e.g., asthma, arthritis), child abuse and neglect, mental health issues, and other health issues; and
  - consequences of obesity on the management of the acutely ill child.

## Professional and Systems Priorities

### I. Role and Practice Issues

The PNP/APN/CNS<sup>†</sup> roles have evolved dramatically over the past 30 years. PNP/APNs/CNSs now provide a variety of health care services to children and families including primary care, chronic and specialty care management, emergency department care, and management of the hospitalized child. Changes in the role and scope of practice require both continuing and new directions in research inquiry to: document quality-of-care issues; to obtain productivity data; to investigate the impact of emerging technologies; and to identify barriers to effective role implementation.

Exemplars of priorities in this area include:

- Exploration of the:
  - impact of reimbursement issues on practice;
  - barriers to implementation of evidence into practice;
  - barriers to the adoption of new technologies into practice;
  - role and scope-of-practice issues in the intensive care unit or acute care area;
  - billing issues related to acute care practice; and
  - relationships between acute care PNPs and CNSs and with other nurses and physicians.

### II. Organizational, Systems, and Environmental Issues

Organizational, systems, and environmental factors can impact PNP/APN/CNS practice, role, and outcomes. Research addressing these environments of care is important to delineate how and under what conditions these factors influence health care.

Exemplars of priorities in this area include:

- Identification and testing of interventions that eliminate health disparities with particular attention to individuals and families in rural and minority communities and in communities with disabled and underserved members.
- Exploration of the:
  - access issues related to caring for the uninsured, underinsured, and illegal immigrants;
  - access-to-care issues for chronically ill adolescents transitioning to adulthood;
  - barriers to the implementation of prevention programs;
  - system strategies (e.g., rapid response teams) to prevent complications and negative outcomes in hospitalized children (called “failure to rescue” by some national groups);
  - development and use of electronic medical records that reflect nursing assessment, interventions, and outcomes; and
  - impact of employment arrangements and structures on the role of PNP/APNs/CNSs, especially in emerging roles and settings.

### III. Quality of Care

The PNP/APN/CNS provides health care in a variety of focus areas and settings. Research that delineates the processes and outcomes of care is important to determine quality.

Exemplars of priorities in this area include:

- Comparison of practice outcomes between PNP/APNs/CNSs and other health care providers across settings (e.g., primary care, critical care, acute care, emergency room, retail clinics) and focus areas (e.g., sexual abuse, child maltreatment).
- Exploration of:
  - health outcomes in day care, preschools, and schools with PNP/APNs in school-based or school-linked clinics (e.g., enhanced development, decreased absenteeism, positive school behavior, obesity prevention and reduction,

- improved infection control, and evidence-based chronic care management);
- health outcomes in retail-based health clinics using PNP/APNs;
- the impact of the PNP/APN/CNS roles on job satisfaction and quality of nursing care within acute care settings; and
- the impact of PNP/APNs/CNSs on family quality of life.

*\*Children* in this document refers to infants, children, adolescents, young adults, and their families.

<sup>†</sup>APN = Advanced Practice Nurse, overall term used for all advanced practice nurses, to include nurse practitioner, clinical nurse specialist, certified nurse anesthetist, and certified nurse midwife.

PNP = Pediatric Nurse Practitioner  
CNS = Clinical Nurse Specialist

APN, PNP, and CNS roles are addressed in exemplars as appropriate for the practice role alluded to in the research exemplar.

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