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**Brief Report**

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## Brief Report: North Carolina School Nurses: Survey on Knowledge about Reserve-Connected Children

**Ratchanok Phonyiam, MSN, RN<sup>1,2#</sup>, Wenxin Bian, BSN<sup>1</sup>, Margaret C. Wilmoth, PhD, MSS, RN, FAAN<sup>2</sup>**

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<sup>1</sup>School of Nursing, The University of North Carolina at Chapel Hill, North Carolina, USA

<sup>2</sup>Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Bangkok, Thailand

**#Corresponding author:** Ratchanok Phonyiam, MSN, RN, Advisor, School of Nursing, The University of North Carolina at Chapel Hill, Campus Box 7460, Chapel Hill, North Carolina 27599-7460, USA

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### Abstract

Military Reserve Component (RC) connected children generally live in civilian-centric communities where school staff may be less aware about unique military child needs as those who work in military communities. There is a gap of knowledge in the literature about the readiness of school nurses to care for RC connected children. This pilot study aimed to (1) obtain an initial understanding of school nurses' knowledge about the RC connected child and (2) develop methods to engage school nurses into military-related population research. While only a small number of school nurses participated, data analysis identified 5 content areas for further exploration. Methods to recruit school nurses for participation in military-centric research needs continued refinement. School nurses have a significant role in identifying and caring for children experiencing stress resulting from parental military service. RC connected children deserve equitable access to knowledgeable school staff and supportive programs as their active-duty counterparts.

**Keywords:** Component connected children; Military reserve; Military student identifier school nurses

### Introduction

Children of both active and reserve military members have experienced the overseas deployment of one or both parents and experienced the associated anxiety over the past 20 years [1]. Schools provide much in the way of support during these stressful times and those that surround active-duty (AC) military bases are well versed in the military culture and the stress and anxiety that surrounds deployments [2]. Reserve Component (RC) connected children and families generally do not live in these military communities; rather they live in more typical "civilian" ones. The school staff in these civilian-centric communities are not as well-attuned to military culture as are those in military-centric ones. School nurses and school counselors are prepared to support children and families during times of stress [3,4], but little is known about how well they are prepared to support the RC connected child and family. North Carolina has the 4th largest military population in the country with over 52,000 military connected children [5] How the state's military-friendly posture and engagement with multiple school-centric programs has led to the preparation of school nurses and school counselors to provide care for military-connected children, specifically Reserve-Component connected children is not known. Therefore, this pilot survey was conducted as an initial attempt to ascertain awareness of school nurses and school counselors about RC children and their needs in North Carolina.

## Background

North Carolina (NC) prides itself on being a ‘military friendly’ state given the number of large active-duty installations across the state and the attention given toward the military family. North Carolina also has a robust presence of military elements from the Reserve Components (RC) in the state, beginning with the US Army Reserve Command Headquarters located at Fort Bragg, to the NC National Guard of 11, 000 Soldiers, as well as numerous other elements of the seven RC’s spread across the state, ranging from a two-star Army Reserve command to smaller military elements [6]. Quality of life for the military family is heavily linked to their children and the educational systems they attend, both public and private schools, and home-school curriculum [7,8]. The vast majority of these Service Members (SM), active and reserve, have families, many with school-aged children, the majority of whom attend public or charter schools in the state. Yet, it is primarily the school districts surrounding active duty installations that have received the ‘Purple Star School’ designation’ signifying their demonstration of military-friendly practices and commitment to military students and their families [9].

Roughly half of the United States military capacity is comprised of active-duty Service Members (SM) with the other half composed of the various Reserve Components (RC). National Guard and RC members have deployed in such unprecedented numbers since 2001 and most have young children [10]. Much of what is known about the impact of deployment on children has been done from the perspective of AC children [11,12,13,14] which has translated to school-based support structures. The Military Student Identifier (MSI) was a component of The Every Student Succeeds Act (ESSA) [15] passed by Congress in 2015 [15,16]. It was designed as voluntary reporting by military families to schools signifying that their child had a connection to the military to provide data on academic performance of active duty connected children (114th Congress) [15]. As originally passed, the law did not include families from the RC. The language was modified in the 2020 National Defense Authorization Act, Section 576 to include RC families [17,18]. While this law requires reporting by the schools, the reporting of military affiliation by parents remains voluntary. Nor does the law mandate specific educational programming for school administrators, school nurses or school counselors to prepare them to care for military-connected children.

In NC, the Local Education Agency (LEA) has the option to configure MSI status in their electronic documentation system to allow for an icon to be available to teachers and other staff to identify children as military-connected, although how this is accomplished differs across the state. The ‘Purple Star Schools’ program as followed by NC is a component of the Military Interstate Children’s Compact Commission and recognizes schools that demonstrate military-friendly practices and commitment to military children and families [9,19]. The Council of State Governments (CSG), in cooperation with the US Department of Defense, created this Interstate Compact to address some of the educational challenges faced by children of military families due to frequent moves [20]. The Compact utilizes a comprehensive approach to providing a consistent policy in every school district and in every state that chooses to join [20]. In North Carolina, the advisory committee for the Military Interstate Children’s Compact Commission is primarily composed of nine individuals with AC military installation linkages and only one with an RC connection [20]. While the intent is that RC-connected schools and children are included, given that very few of these children move and change schools on a regular basis due to a parent’s military job, they are not as likely as AC-connected children to be identified as military-connected unless a parent provides this information. This heightens the possibility that they and their unique needs due to parental deployment or prolonged training may be missed or ignored.

The school context is important when addressing needs of all children, but particularly those who are military connected, because they provide a source of stability and predictability during unpredictable times like a parental deployment [3,4]. However, RC-connected children are likely to miss out on support resources such as school counseling services because of a lack of knowledge of existence RC-connected children in schools [21]. Therefore, there is a need to identify knowledge by school nurses about RC-connected children and gaps in their knowledge prior to planning any educational programming. This pilot study aimed to both obtain initial understanding about school nurse knowledge of the military child in North Carolina, specifically RC connected children, and to develop methods for engaging this population in research related to the military connected child and family.

## Methods

This study used descriptive survey methodology [22]. School nurses and school counselors were recruited with the intent to have a convenience sample representing as many of the 100 counties in North Carolina as possible. The total population of school nurses was difficult to determine although a 2019-2020 NC DPI report indicated 1399 FTE during that school year. There are approximately 4100 school counselors in the state [23]. We anticipated a minimum response rate of 10, or 410 on the literature [24].

Study procedures were approved by the University of North Carolina at Chapel Hill Institutional Review Board (IRB 21-0952). Participants received a survey link explaining the study’s objectives, survey processes, benefits, and risks of this study; participation implied consent. Participants also received the PI’s email address in case they had any questions. ID numbers were used on completed surveys to enhance confidentiality and location of school was limited to the county in which the school was located rather than district to protect personal identity. All data were kept on a locked computer; only the research team (RP, WB, MCW) was able to assess it. Findings are discussed in the aggregate.

## Survey

School nurses received information about the survey through regular communications from the State School Health Nurse Consultant and/or their Nursing Supervisor. Additionally, since the PI was a member of the National Association of School Nurses, information about the study was distributed via the School Nurse Association of North Carolina ‘All Member Forum’ digest on three occasions. The survey was designed based on the findings from the literature, including the scoping review by Vieri, et al. [21] and conversations with the developers of the ‘STARS in Schools Program’ of the Reserve Organization of America (<https://starsinschools.org/schools/>). We estimated it would take 20-30 minutes to complete the 18 items (demographic questions; open-ended questions).

## Data Analysis

To facilitate data analysis participant responses were divided into two groups: 1) participants from schools surrounding active-duty installations and 2) participants from schools in civilian-centric counties. Descriptive statistics such as frequency and percentage were used. Two researchers (RP and WB) independently coded the answers from open-ended questions from the survey and reconciled the codes for agreement by the third researcher (MCW).

## Results

### Sample Characteristics

A convenience sample of 13 school nurses and one school counselor completed the survey. Of those 14 participants, they were from 13 counties across the 100 counties in North Carolina. Among the 14 participants, we had 4 participants from counties with active-duty installations with the remainder of participants from schools in 10 different counties without active-duty installations.

### Findings

Two out of four AC based participants (50%) reported that the school they worked for had received the Purple Star Award for their contribution to caring for and supporting military families. Two participants from civilian counties (20%) had previously attended training about military-connected children held by the North Carolina Department of Public Instruction (NCDPI) in 2016. Two out of four AC based participants (50%) are aware of RC children at school. Six out of ten civilian participants (50%) reported awareness of RC children. Two out of four active-duty-based participants (50%) were aware of RC-connected students through PowerSchool which is the NC’s student information system storing and managing student data, whereas 60 percent (n = 6) of civilian participants were aware of RC-connected students through a combination of PowerSchool information and directly from the family. Fifty percent of active-duty-based participants (n = 2) and 40 percent of civilian participants (n = 4) were aware of an RC parental deployment. Half of active-duty-based and civilian participants reported behavioral changes of RC-student during parent’s deployment. Half of active-duty-based and ten percent of civilian participants reported the same results on social groups for RC and active-duty students. Half of AC based participants and 40 percent of civilian participants reported their confidence in caring for active-duty students and in caring for RC students (Table 1).

	Total (Yes)	AC based counties		Civilian centric counties	
County	13	4		10	
School Nurse	13	3	75%	10	100%
School Counselors	1	1	25%	-	-
Purple Star Designation	2	2	50%	-	-
Education program held by NCDPI	2	-	-	2	20%
MCEC NGR101 course	0	-	-	-	-
Aware of RC children at school	8	2	50%	6	60%
Aware of RC-connected students	8	2	50%	6	60%
Through PowerSchool	7	2	100%	5	83%
Through direct reports by student/parent	1	-	-	1	17%
Aware of parent’s deployment as RC	6	2	50%	4	40%
Behavioral changes of RC-student during parent’s deployment	7	2	50%	5	50%
Emotional changes: fear, sadness, anxiety, worry, concern	6				
Stress-related health issues	1				
Social groups for RC students	3	2	50%	1	10%
Social groups for Active-duty students	3	2	50%	1	10%
Having confidence in caring for active-duty students	6	2	50%	4	40%
Having confidence in caring for RC students	6	2	50%	4	40%

Notes: NCDPI = North Carolina Department of Public Instruction; MCEC = Military Child Education Coalition; RC = Reserve Component.

**Table 1:** Demographic data of participants.

**Analysis of these data suggested five areas for future study:**

**1. Utility of MSI indicator:** The vast majority of participants (75% of AC based and 70% civilian based) indicated that knowledge of a student’s military status via the MSI in PowerSchool allowed them to have an awareness of a child’s special needs during the school year. Participants did not imply that this information led to development of programming for staff to help them better care for these students.

**2. Differentiation between AC/RC status:** All participants held the basic knowledge of the difference in status between parents in an AC status vs those in RC status. They were aware of students’ parental deployment status via the PowerSchool system and online registration portal.

**3. Child behaviors during parental deployment:** One participant from an AC based county shared that children exhibited behaviors ranging from anxiety and grief to ‘business as usual’. Two participants from civilian county indicated they knew of no behaviors specific to RC children that would differ from AC centric children, and two other civilian based participants reported seeing child behaviors ranging from anxiety and depression to attention seeking behaviors.

**4. Knowledge about resources specifically about RC Children:** Very few (n = 3) were aware of resources that would be available in their school district to support RC centric children. One participant from active county shared that “I am under the impression these students can receive MFLC (Military and Family Life Counseling) support as well” while one participant from civilian county indicated the potential to use the “PTA, Positive Behavior Support” program.

**5. School-based programming targeting RC-connected children:** Participants from AC linked counties shared that their available programs included peer support programs (i.e., the S2S program in high school and middle school) which they believed was the responsibility of the Military Liaison. However, five out of ten participants from civilian counties shared that they are unaware of programs or groups. They said that “I am unaware of programs or groups” and “none that I know of” (Table 2).

	<b>Quotation</b>	
	<b>Active Duty (n=4)</b>	<b>Civilian (n=10)</b>
1. Utility of the MSI	<p>“As a school and district with a fairly high military population, I look for these records to make sure the student is not already receiving extra services and work to get them served in a timely fashion”</p> <p>“When I need to contact a parent for a student, I am aware that one or both may be deployed”</p>	<p>“I will ask about how parent is military service connected and share my experience as a military parent if it is warranted in a conversation”</p> <p>“If I see a student with health concerns and note a tagged military family, it helps me to look at other avenues such as a parent is deployed may cause increase anxiety/behavioral issues, etc.”</p>
2. Differentiation between AC/RC status	<p>AC: “A person who is currently serving in one of the military branches”</p> <p>RC: “Someone who works one weekend and month and 2 weeks a year staying active as a reserve military personnel. The reserves can be activated and brought back onto active duty if needed”</p>	<p>AC: “a person that is active in the military and located at a particular duty station. To me it comparable to a full-time job.”</p> <p>RC: “Part-time” job in serving in the military. Person likely goes and does training exercises, etc on a semi-regular basis (ie: monthly) while working in a different full time career at home. Still likely to be called on or deployed as needed, but maybe not as likely as active-duty”</p>
3. Children’s behaviors during parental deployment.	<p>“Anxiety, grief, anger, and sometimes students are so used to it, it is business as usual.”</p>	<p>“I am unable to notice a difference between these children and others.”</p> <p>“I have seen increased anxiety, depression, and attention seeking behaviors.”</p> <p>“Increased anxiety - stomach aches/headaches/separation issues from the parent who is still at home (elementary school level - difficulty completing school work and other normal schedules (due to above and additional strain on caregiver at home.”</p>
4. Knowledge about resources specifically about RC Children	<p>I am under the impression these students can receive MFLC support as well.”</p> <p>*MFLC: Military Family Life Counselor</p>	<p>“PTA, Positive Behavior Support.”</p>
5. School-based programming targeting RC-connected children.	<p>“Our district has S2S at the high school and middle school. We would like to bring a version of S2S to the elementary school. Right now our student council is active with helping new students and orientations”</p> <p>“Our Military Liaison takes care of all of the programs and groups”</p>	<p>“I am unaware of programs or groups”</p> <p>“None that I know of”</p>

**Table 2:** Findings.



## Discussion

This pilot survey was designed to provide initial understandings about the knowledge and awareness of school nurses and school counselors about RC children's needs in North Carolina and to develop methods for engaging this population in research related to the military connected child and family. While we received very few responses to this survey, findings were notable that this small group was able to differentiate between a parent on active duty and those in RC status and that they knew about the MSI found in PowerSchool. This suggests that creation of the MSI achieved the legislated goal of identifying military-connected children. Learning that respondents from both AC centric and civilian centric schools were attuned to student behaviors associated with parental military deployment was heartening. A problematic finding was respondents lack of knowledge about resources available to RC-centric children who live in civilian based school districts. One AC centric respondent mentioned Military and Family Life Counseling as a resource and indeed it is available to both AC and RC families [25]. Another AC based respondent mentioned using the school's Military Liaison as a resource when engaging with military connected children and for programming targeted for these children. However, it should be noted that a Military Liaison is only available in 5 of the 100 counties in North Carolina, all of which surround active-duty installations [26]. The lack of these experts in school districts across the state limits the ability of school nurses in civilian centric schools to obtain expert help with RC-connected children.

The lack of awareness of specific programs for military children who reside in civilian centric communities highlights a gap in both knowledge about programming and possibly an unrecognized need by these children and is not unique to North Carolina [27]. Finally, the reliance on the Military Liaison by school nurses to inform them of military connected children's needs highlights an opportunity to better prepare school nurses to care for these children no matter where they reside in the state. Only 2 respondents had attended a 2016 program for school nurses about caring for the military child, again highlighting an opportunity for informational programming across the state. None of the participants indicated having participated in the Military Child's Education Coalition continuing education course on the National Guard/RC family [28-32].

The second focus of this pilot project was to identify and refine ways to access the school nurse and school counselor population in North Carolina. Relationships were built with key leaders at the state level to facilitate access to these team members and there was interest at that level for this project. Relationship development also needs to be undertaken at the county and even district level to facilitate future research. The timing of the conduct of this survey just as schools were reopening in the 2021 school year in the midst of the COVID pandemic was problematic and likely hindered the time available and the interest in this topic. The survey required short answers which may have been a hindrance given the time it would take to complete versus completing a Likert-type scale.

## Limitations

There are several limitations with this study. The first is the small sample size. Despite pre-coordinating and communicating with our contacts at the state level, there were both delays in delivery of the state-wide communication and an unplanned change to the frequency with which we were able to place notices of the study in the state-wide communique (from several to only one opportunity). Second, data collection began just as schools were beginning to return to in-person instruction following the COVID shift to online education. The workload experienced by school nurses and counselors during that time was enormous and likely impacted their interest in responding to a survey that was not relevant to the crisis situation in which they were operating. Also, our primary point of contact for this survey at the state level retired soon after the first communication was circulated. Finally, our survey was designed to retrospectively ask questions on knowledge about Reserve-Connected Children in their counties. They may be able to gain more knowledge prospectively after participating in the survey.

## Conclusion

School nurses play an important role in identifying and caring for children experiencing stress and anxiety that can impact their development and school performance. Their preparation needs to expand to include caring appropriately for all military connected children. While there appear to be adequate military-centric resources in North Carolina for schools located near active duty installations, this does not appear to be the case for school districts in other areas of the state. Children who have parents serving in one of the Reserve Components live in every county in the state and staff in those schools need appropriate preparation and access to resources to care for them in an equitable manner.

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## Human Subjects Approval Statement

Not applicable Study procedures were approved by the University of North Carolina at Chapel Hill Institutional Review Board.

## Conflict of Interest Disclosure Statement

The Authors declare that there is no conflict of interest.

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