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CLINICAL CONCEPTS

To stay or leave: Public health nurse workforce retention in North Carolina

Jaimee Watts Isley MPHDNPRN[1] | Susan H. Little DNP, RN PHNA-BC, CPH, CPHQ, CPM[2] | Shuying Sha PhD[3] | Ellis Vaughan DNP, RN[4] | Katie Wingate DNP, AGNP-C[5] | Mollie E. Aleshire DNP, APRN[6]

[1] School of Nursing, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA

[2] Office of the Chief Public Health Nurse, North Carolina Division of Public Health, Raleigh, North Carolina, USA

[3] School of Nursing, University of Louisville, Louisville, Kentucky, USA

[4] Buncombe County Health and Human Services, Asheville, North Carolina, USA

[5] School of Nursing, University of North Carolina at Greensboro, Greensboro, North Carolina, USA

[6] School of Nursing, University of Louisville, Louisvill, Kentucky, USA

Correspondence
Jaimee Watts Isley, MPH, DNP, School of Nursing, University of North Carolina at Chapel Hill, RN, 710 Bradley Road, Chapel Hill NC 27516, USA.
Email: jwisley@ad.unc.edu

Abstract

States across the country have been experiencing a steady decline in public health nursing workforce, including North Carolina (NC).

Objectives: To better understand retention in the NC Public Health Nurses (PHNs) workforce through an assessment of perceptions of the working environment, stress, intent to stay, and job satisfaction.

Design: A cross-sectional online survey using closed and open-ended questions.

Sample: The study population comprised of non-supervisory PHNs (n = 672) working at NC local health departments (LHD).

Measurements: Retention problem, working environment, and job satisfaction measures were adapted from the revised Casey-Fink Registered Nurse Retention Survey© (2009) to fit public health settings.

Results: Despite high levels of job satisfaction (79.76%, n = 473), 53% of respondents (n = 323) acknowledged a retention problem within their LHD; 35.32% (n = 203) planned to/considered leaving their position in the next 3 years for reasons other than retirement. ANOVAs and Kruskal Wallis Test results showed that those planning to leave had statistically lower scores on perceived working environment and job satisfaction and demonstrated higher negative stress levels.

Conclusion: Like other states, NC is experiencing a PHN shortages predicted to worsen in coming years. To retain the current workforce, LHDs need to work to improve PHNs working environment, increase PHNs' pay, and alleviate stressors.

KEYWORDS
job satisfaction, local health department, public health, public health nurse, retention, workplace environment

1 | BACKGROUND

Addressing whole-person health and health inequities is paramount to improving healthcare outcomes in the United States population. The value of public health nurses (PHN) in promoting and protecting our communities' health through advancing health equity has been affirmed by the COVID-19 pandemic (National Academies of Sciences, Engineering, and Medicine, 2021). The pandemic has also highlighted expanding unmet health care needs of populations as a result of nonessential public health services being suspended and PHN roles and interventions being redirected to pandemic response-related testing, contact tracing, investigation, surveillance, and management of

mass vaccination (Little, 2021; Little et al., 2021). PHNs have historically been at the core of public health as we know it. Their role is more visible today than ever before.

The 10 Essential Public Health Services, a framework to protect and promote the health of all people in all communities, includes building and supporting a diverse and skilled PH workforce (Public Health National Center for Innovations [PHNCI], 2020). The public health workforce is the driver of action for all other public health services, with PHNs making up the largest sector of the workforce (18%), accounting for 63% of state and local health department (LHD) registered nurse positions (Beck & Boulton, 2016). PHNs lead initiatives to carry out the 10 Essential Public Health Services by transforming healthcare through community-based disease prevention and health promotion, education, and policy action (Singh et al., 2017).

Despite the increased need for public health interventions and policies to address these growing problems, nearly half of the nation's public health workforce is considering leaving their positions or retiring by 2022 (deBeaumont Foundation et al., 2017). A nationwide survey of state and LHD, completed in 2012, predicted that 27 states would experience a PHN shortage by 2017 (Beck & Boulton, 2016). This prediction proved true for the PHN workforce in several states, including North Carolina (NC). Between 2011 and 2017, the state experienced a nearly 9% decline in the PHN workforce (NC Department of Health & Human Services, Division of Public Health [NC DPH], 2012; NC DPH, 2017). NC functions as a decentralized public health governance and has a LHD in every county. The characteristics of the state vary widely, including one tri-county area that is an international hub for technology and science and multiple rural Appalachian counties.

Maintaining a strong and satisfied public health nursing workforce is essential to the health of the public. In the past, there was a clear divide between public health and clinical care in the US. Today, the US healthcare system has evolved to embrace promotion and prevention over intervention. Supporting strong national public health objectives and efforts by health systems in advancing community and population health are key recommendations from the National Academy of Medicine (NAM) (Goldman et al., 2016). PHNs are equipped to be at the center of healthcare transformation as chief health strategists in delivering the essential services of assuring, assessing, and developing policies for the health of communities with a health equity lens focus (PHNCI, 2020). The American Association of Colleges of Nursing (AACN), 2021 New Essentials and the NAM's Future of Nursing 2020–2030 report both have population health as essential competencies for the entire nursing workforce; the American Academy of Nursing (AAN) recommends increasing public health and population health management training and education for all nurses (AACN; NAM; Kub et al., 2017). Providing the education and guidance for other nursing specialties to incorporate population health practices into individual-focused health systems is best suited for PHNs (Canales et al., 2018). Expertise in both delivering public health services and training the next generation requires nurses to have extensive experience and practice in the public health arena. Retaining a skilled and experienced PHN workforce is critical to these efforts.

The American Public Health Association (APHA) nursing section established that PHNs operate in multiple roles related to health practice, promotion, and policy and provide clinical care. These roles are carried out in governmental and nongovernmental/community-based organizations, academic institutions, foundations, think tanks, and research settings (APHA, Public Health Nursing Section, 2013). Sha et al. (2020) suggested that the work environment for PHNs is unique among other nursing specialties because their practice of PHNs' is grounded in community assessment and population-based interventions. While multiple studies have examined work environments for nurses in both inpatient and outpatient clinical care settings (Aeschbacher & Addor, 2018; Flynn et al., 2016; Lindley & Cozad, 2017; Wendsche et al., 2016), the literature is lacking for nursing work environments in public health settings.

1.1 | Theoretical framework

The Herzberg Motivation Hygiene theory suggests that satisfaction and dissatisfaction related to one's job are caused by multiple work-related factors (Herzberg, 1974). Job "satisfier" or "motivator" hygiene factors are those related to the content of the work and if the work has value to self and others. Examples of job satisfiers include achievement, recognition of that achievement, stimulating work, increased responsibilities, and growth and advancement within their organization. Conversely, "dissatisfier" factors are related to the context of the job rather than the content, factors that make people unhappy in their jobs, and are directly related to how employees are treated in their work environment. Dissatisfier hygiene factors include administrative practices and policies, and supervisory and interpersonal relationships, work conditions, salary, status, and security (Herzberg, 1974). Successfully addressing retention issues for nurses and the workplace depends on knowing what satisfiers and dissatisfiers nurses are experiencing. Allowing nurses to share how they think and feel about their jobs increases the probability that actions planned to address retention issues are the right actions to impact the areas nurses find most valuable to their intention to stay.

1.2 | Purpose

The purpose of the study was to examine PHNs' intention to stay, their perception of a problem with retention within their LHD, and their relationship to the workplace environment. The study focused on the following areas of the workplace environment: (1) acknowledgment of PHN contributions in terms of rewards and recognition provided by the LHD; (2) the professional nursing role of PHNs within the LHD; and (3) the LHD's support of mentorship programs for PHN staff. A secondary purpose of this study was to examine the influence of work-related stress, workload, and job satisfaction on PHNs and their intention to stay and perception of LHD-specific PHN retention.

2 | METHODS

2.1 | Design and sample

A descriptive survey design was used to collect data from PHNs (n = 672) working at NC LHDs (n = 84). Eighty percent of NC's 100 counties are rural, with an average population density of fewer than 250 people per square mile (NC Rural Center, 2021). NC has LHDs in all 100 counties.

NC PHNs were defined as registered nurses (RN) working in LHDs who had completed an Associate Degree in Nursing (ADN) or higher. Exclusion criteria included PHNs having any supervisory or managerial responsibilities. The associated University Institutional Review Board deemed the study as exempt. An invitation to voluntarily complete the survey was distributed using commercial software. Responses were anonymous and confidential.

2.2 | Measures

With the authors' permission, the survey used in this study was an adaptation of the Revised Casey-Fink Registered Nurse Retention Survey© (2009), a survey developed to evaluate hospital-based nurse retention (Buffington et al., 2012). The survey consisted of six sections: work environment, support, and encouragement (WESE); stressors; job satisfaction; professional development and demographic information. Slight modifications to the some of the items were made specific to the PHN workforce population. The original WESE section included 26 items. Items related to work schedule shifts were deleted. The remaining 19 items were rated using a Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. Exploratory factor analysis conducted for the original study (Buffington et al., 2012) shows this section measures three subscales: Rewards and Recognition (12 items; alpha = 0.946); Professional Nursing Role (Nine items; alpha = 0.770); and Mentoring (Six items; alpha = 0.761). The modified version in this study had better psychometric properties: Rewards and Recognition (alpha = 0.943), Professional Nursing Role (alpha = 0.770), and Mentoring (alpha = 0.761) (Sha et al., 2020). The overall WESE scale's internal consistency was comparable at .948 with Buffington et al. (2012) Cronbach's alpha = .922.

Additional questions were added by the principal investigator (PI) related to current professional certifications; workload and work-related negative stress; feeling of value in the PHN role; and LHD specific (PHN workforce) retention. LHD-specific PHN retention issues and PHN intention to stay were measured through two questions: "Do you think the LHD or agency where you work has a problem with PHN retention?" and "Are you leaving (or thinking about leaving) your current job in the next 3 years?" Insight into how their LHD could address these retention issues was elicited through the open-ended question "What can the LHD or agency do to improve PHN retention?" Frequency of negative work-related stress was measured by asking "How often do you experience a feeling of distress (negative stress) while at work?" Subsequent impact on job satisfaction (eight questions) was analyzed by performing a Kruskal Wallis test.

A practice advisory council (PAC) of PHN experts evaluated and approved all modifications or replacements. The authors of the Casey-Fink instrument approved all modifications.

2.3 | Analytic strategy

Data were cleaned and analyzed using IBM SPSS version 26 (Armonk NY; IBM Corp). Participants who missed answering both retention items were removed from the study. Missing values (4) for Likert scale questions were replaced with item means for all participants. The remaining data were analyzed using pairwise deletion. Survey items were summarized using descriptive statistics including frequency distribution and central tendency.

Sum scores were computed for each of the three subscales in the WESE section. ANOVAs and Kruskal-Wallis tests were conducted to investigate the relationship between potential influencing factors: ANOVA tests were performed to investigate the relationship between perception of WESE subscales and LHD specific retention; a Kruskal-Wallis test was performed to investigate the relationship between the working environment and work-related negative stress (ordinal data). Alpha levels were set at .05. The qualitative data collected in this study were not included in this stage of data analysis except for question 12, which asked PHNs what their agencies could do to improve PHN retention.

3 | RESULTS

3.1 | Sample characteristics

Six hundred seventy-two PHNs participated in completing the survey with only 64 that did not have a response to at least one retention-specific question were removed, leaving 608 useable responses. Respondents were predominantly female (n = 562; 92.43%). The greatest majority of those who responded selected the age ranges of 45–54 years old (n = 158, 27.82%) and 55–64 years old (n = 147, 25.88%). In 2019, NC had an average of 94.4 males per 100 females (51.4% female), and the overall population median age was 39.1 years (United States Census Bureau, 2019). NC metro populations in counties with one or more urbanized areas had an average of 38.4 years, and non-metro areas populations averaged 43.3 of age (RHI Hub, 2019). Nearly half of the respondents (n = 270) reported 20-plus years of nursing experience, with the most significant portion (n = 201) reported only 3 years or less experience as a PHN. The greatest number of respondents reported having a BSN (n = 311) followed by ADN (n = 190); many had completed or were working towards additional nursing or public health-related certification (n = 176). National certification for school nurses was the most common specialty area, followed by enhanced roles in child health, sexually transmitted disease, adult health, maternal health, and family planning (see Table 1).

TABLE 1 Demographic information

Variables	N	%
Age		
18–24	4	0.7
25–34	120	21.1
35–44	120	21.1
45–54	158	27.8
55–64	147	25.9
65 or older	13	2.3
Prefer not to answer	6	1.1
Gender Identity		
Female	562	98.3
Male	2	0.3
Prefer not to answer	8	1.4
Years as RN		
≤ 3	29	5.2
4–7	81	14.4
8–12	106	18.8
13–19	78	13.8
20–30	160	28.4
> 30	110	19.5
Years as PHN		
≤ 3	201	35.5
4–7	116	20.5
8–12	93	16.4
13–19	86	15.2
20–30	61	10.8
≥ 30	9	1.6
Education		
ADN	190	33.7
RN	17	3
BSN	311	55.2
MSN	43	7.6
DNP/PhD	2	0.4

Abbreviations: ADN, Associate degree in Nursing; RN, Registered nurse; BSN, Bachelor of Science degree in Nursing; MSN, Master of Science degree in Nursing; DNP/PhD, Doctor of Nursing Practice/Doctor of Philosophy in Nursing.

3.2 | Intention to stay and LHD-specific retention and relation to workplace environment

Over one third (n = 203) responded yes when asked if they were leaving or considering leaving their current position in the next 3 years for reasons other than retirement; more than half (n = 323) perceived a problem with retention in their LHD. The relationship between intention to stay and the PHN working environment was examined using the WESE section subscales.

3.2.1 | Rewards and recognition

Item-by-item analysis showed that the majority of PHNs felt supported in their work area (77.51%, n = 462) and reported that their work area managers/supervisors were supportive (78.02%, n = 465), approachable (85%, n = 492), responsive (6.84%, n = 458), and committed (72.65%, n = 433). Nearly three-fourths of the PHNs felt their work area managers/supervisors valued their work (72.99%, n = 435), their "talents" were appreciated (72.82%, n = 434) and their contributions were acknowledged (62.08%, n = 370). However, ANOVAs showed that there is a significant difference in Rewards and Recognition scores between those who planned to leave and those who did not (Table 2, $p < .001$). Scores also differed between PHNs who perceived a problem with retention in their LHD and those who did not (Table 3, $F(2, 588) = 44.64$, $p < .01$), though. Based on the confidence interval information and post Hoc analyses with Tukey's honest significance tests (HSD), those who planned to leave (or perceived a problem with retention in their LHD) had significantly lower Recognition and Reward scores, meaning more dissatisfied in this category, than those who did not plan to leave and were retiring (this group did not perceive a problem with retention in their LHD).

3.2.2 | Professional nursing role

Most participants (79.76%, n = 473) were satisfied in their roles as PHNs and 90% (n = 540) believed that they were making a difference in their communities. Most felt their job expectations were realistic (69.13%, n = 412). Thirty-eight percent (n = 229) of the PHNs disagreed with the statement that they had opportunities for career advancement. The PHNs who planned to leave had significantly lower scores on the Professional Nursing Role subscale than those who did not (Table 2, $p < .001$). Those who planned to leave were less likely to indicate their work environment was one they would like to continue to work and grow in or felt satisfied in their chosen profession (95%CI [28.63,30.09]) than those who did not (95%CI [36.25,37.30]). Similar findings were noted for PHNs who perceived a problem with retention in their LHD and those who did not (Table 3).

3.2.3 | Mentoring

Most participants felt they were challenged by their work (86.24%, n = 514) and had positive role models in their work area (73.66%, n = 439). However, fewer responded that they had someone mentoring them personally (54.12%, n = 322). A significant difference was found in Mentoring scores between those who perceived a problem with retention in their LHD and those who did not (Table 3, $p < .01$, $\eta 2 = 0.47$). Post hoc analysis with Tukey's HSD shows that PHNs who did not perceive a problem with retention in their LHD were more likely to feel challenged yet prepared in their practice and have positive role models and mentors in their work environment (95%CI [24.03, 25.08]) than others (95% CI [21.05, 22.15]). Similar results were found for the relationship between perceived support and intention to leave (Table 2)

TABLE 2 ANOVA results with mean and standard deviations for WESE subscales by intention to leave

Variable	Yes (n = 201)		No (n = 297)		Retiring (n = 71)				
	M(SD)	95%CI	M(SD)	95%CI	M(SD)	95%CI	*F*	*p*	η2
Recognition& Rewards	37.38(10.82)	35.87, 38.88	47.20(7.54)	46.34,48.06	42.44(11.32)	39.76,45.12	66.73	<.001	0.49
Professional Nursing Role	29.36(5.25)	28.63, 30.09	36.78(4.59)	36.25,37.30	31.13(5.53)	29.82,32.44	143.322	<.001	0.71
Mentoring	20.42(4.82)	19.75, 21.09	24.68(3.88)	19.75,21.09	21.89(4.11)	20.92,22.86	62.115	<.001	0.47
Stress at work	3.33(0.90)	3.21, 3.46	2.69(0.87)	2.59,2.79	2.87(0.97)	2.64,3.10	H = 57.50	<.001*	0.66

TABLE 3 ANOVA results with mean and standard deviations for WESE subscales by perceived retention problem

	Yes (n = 309)		No (n = 203)		I don't Know (n = 76)				
Variable	M(SD)	95%CI	M(SD)	95%CI	M(SD)	95%CI	*F*	*p*	η2
Recognition& Rewards	39.53(10.87)	38.32,40.75	47.57(7.40)	46.54,48.59	46.09(8.87)	44.06,48.12	47.481	<.001	0.44
Professional Nursing Role	31.46(5.82)	30.81,32.11	36.08(5.33)	35.35,36.82	34.88(5.60)	33.60,36.16	44.110	<.001	0.39
Mentoring	21.60(4.91)	21.05,22.15	24.56(3.78)	24.03,25.08	23.34(4.43)	22.33,24.35	27.077	<.001	0.3
Stress at work	3.18(0.94)	2.54,2.78	2.66(0.87)	2.54,2.78	2.70(0.88)	2.50, 2.90	42.62	<.001*	0.55

*Kruskal-Wallis Test.

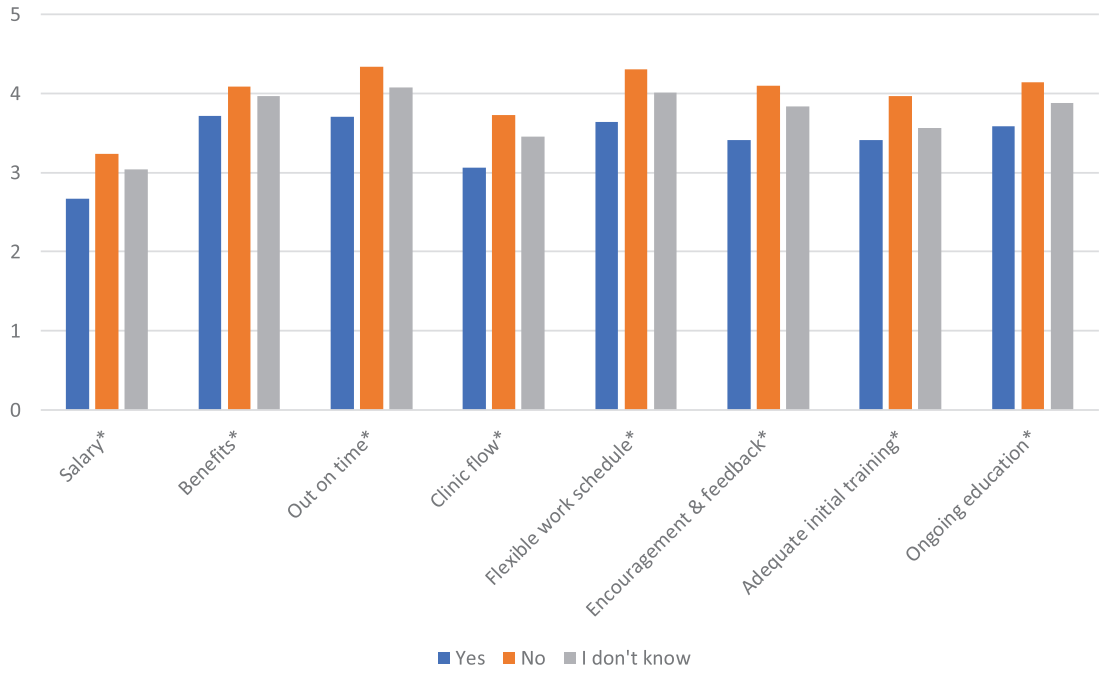

FIGURE 1 Association between Job Satisfaction and Perception of Retention Problems in LHD. Note. Satisfaction scores range from 1 (very dissatisfied) to 5 (very satisfied). Yes indicates problem with retention within LHD; No indicates no problem with retention within LHD; I don't know indicates uncertain if problem with retention exists within LHD. *$p < .001$ [Color figure can be viewed at wileyonlinelibrary.com]

3.3 | Negative work-related stress, workload, and job satisfaction and how they relate to intention to stay and retention

3.3.1 | Negative work-related stress and workload

When asked how often participants experienced negative work-related stress, 3% reported never feeling negative stress, and 7% reported feeling daily stress, with the largest portion reporting "occasional stress," which equated to 1 to 2 days per week (41.11%, n = 245) or "moderate stress" equaling three to 4 days a week (31.38, n = 187). Greater than half of the participants indicated that their workload had increased in the past 3 years (63.26%, n = 377). As in the previously reported findings, increased levels of stress at work were found in participants who planned to leave (H = 57.50, $p < .001$, Table 2), and those who perceived a problem with retention in their LHD (H = 42.62, $p < .001$, Table 3).

3.3.2 | Job satisfaction

The areas in which most participants reported job satisfaction were related to schedule, including getting out of work on time (78.79%, n = 468) and flexibility (76.94%, n = 457). Salary scored the lowest on job satisfaction: 43.1% (n = 256) felt dissatisfied with salary. Levels of job satisfaction were lowest in every category among those who perceived a problem with retention in their LHD and those who were leaving or considering leaving their current job (see Figures 1 and 2). Kruskal Wallis test revealed significantly higher scores in every category of job satisfaction for those who did not perceive a problem with retention in their LHD compared to those who did ($p < .001$) as noted in Figure 1. A difference in job satisfaction scores and its association to intention leave was significant in every category except salary and benefit, as noted in Figure 2.

3.4 | PHNs' perception on improving retention

When asked what their LHD could do to improve PHN staffing retention, common responses included salary, improved communication, more opportunities for career growth, and increased support and acknowledgment of PHNs' contributions. These open-ended responses were consistent with what we learned in the quantitative portions of the survey: 256 out of 594 of PHNs respondents were either unsatisfied or very unsatisfied with their salary; 229 out of 595 disagreed or strongly disagreed about having opportunities for career advancement; 377 out of 596 reported an increased workload over the last 3 years.

4 | DISCUSSION

4.1 | Findings

This study examined PHN retention in relation to workplace environment including recognition of PHN contributions; the professional nursing role of PHNs within the LHD, and the LHD's support of mentorship programs for PHN staff. Additionally, the study assessed PHNs'

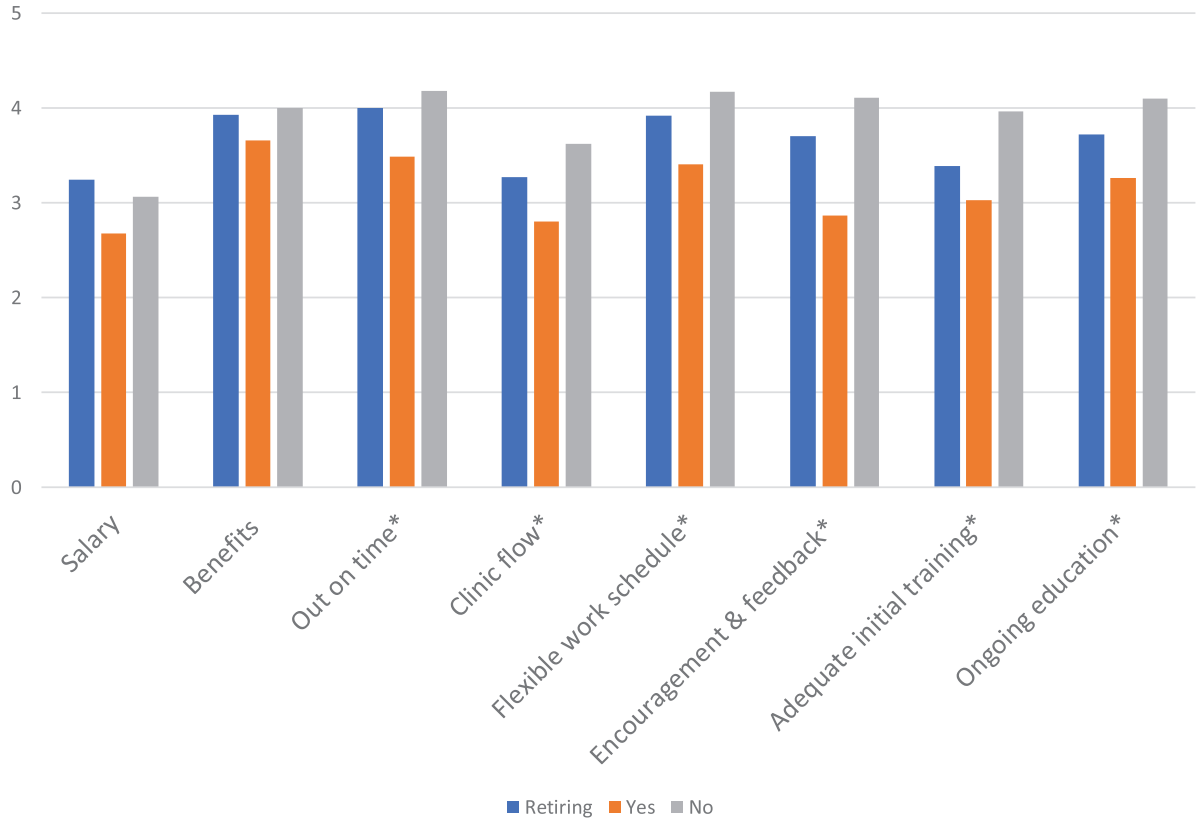

FIGURE 2 Association between Job Satisfaction and Perception of LHD-specific Retention Problem. Note. Satisfaction scores range from 1 (very dissatisfied) to 5 (very satisfied). Retiring indicates the PHN is planning to retire in the next 3 years; Yes indicates a problem with retention within LHD; No indicates no problem with retention within LHD. *$p < .001$ [Color figure can be viewed at wileyonlinelibrary.com]

job satisfaction, intention to stay and LHD-specific retention, and the impact of work-related stress and workload on these areas. Of the 575 PHNs, 203 answered yes when asked if they were leaving or considering leaving their current jobs in the next 3 years. This was consistent with findings from the national Public Health Workforce Interests and Needs Survey (deBeaumont Foundation et al., 2017). This number increases to close to half, or 275, when those who responded they were retiring in the next 3 years (n = 72) are factored in.

More than half of PHNs in this study considered their local LHD to have problems with retention. Those who expressed the intention to leave were also more likely to perceive a problem with retention in their LHD, have higher levels of work-related stress, and lower levels of job satisfaction. Overall, PHNs felt they made a difference in their communities and were valued in their roles, but did not feel as strongly that their contributions were acknowledged.

As Herzberg's theory suggests, the goal of improving job satisfaction levels requires leaders and organizations to emphasize the "satisfiers" and "motivators" while addressing the "dissatisfiers" within their organization. Positive areas, or "satisfiers" reported included supportive and responsive management and low levels of work-related stress. Areas of concern, or "dissatisfiers" included increased workload in the past 3 years, limited opportunities for professional growth and advancement in their careers and the need for improved pay and financial opportunities.

4.2 | Strengths and limitations

The study had several strengths, including a PAC and a panel of academic faculty with a statistician, to ensure content validity. The large sample size also provided high statistical power. The timing of the study can also be seen as an advantage, as data were collected in late 2019, prior to the COVID 19 pandemic. Limitations included: causality between study variables and findings could not be established because a cross-sectional design was utilized and the study sample consisted of non-supervisory PHNs from a single state. Therefore, findings cannot be generalized to nursing supervisors, PHNs from other states or countries, and non-public health nurses. Additionally, because PHN leadership invited their staff to participate in the online study directly via e-mail, the total number of potential subjects is unknown, and a response rate could not be calculated.

This was the first study in NC to utilize an adapted hospital-based Casey-Fink Registered Nurse Retention Survey. Although responses were anonymous, the online self-reported responses could have been affected by social desirability biases. Two limitations to the survey questions were identified. First, having captured race and ethnicity components in the participant characteristics section would have expanded understanding of retention and intention to stay. However, during the same time, The NC Institute for Public Health conducted a public health workforce assessment and found the PHN workforce

identified as white (91%) and non-Hispanic/Latinx ethnicity (98%; NC Institute for Public Health, 2020). Second, the follow-up question to "Have you noticed a change in your workload over the last 3 years" failed populate in the electronic survey. This question would have asked what the respondent attributed that change (increase or decrease) to and lend guidance on how to better manage workload distribution.

4.3 | Recommendations for future research

This paper analyzed the quantitative data collected in a mixed-methods study. A portion of what was shared with us by PHNs was in the form of open-ended, qualitative-style questions that require further analysis. A better understanding of the unique ways PHN leadership can address retention-related problems within their region or locality, specifically around acknowledgment of PHN contributions, support for work-life balance, and opportunities for mentorship and career advancement, would be gained from further analysis of the qualitative data collected. While these data were not included in this paper, further analysis of those responses is forthcoming. It would be beneficial for this study to be replicated in other states.

4.4 | Recommendations for practice

While overall PHNs working in NC LHDs were satisfied in their roles and with their work, half of the respondents perceived a problem with retention in their LHD. One-third were leaving or considering leaving for reasons other than retirement, and when coupled with those planning to retire, that number increases to nearly half. These findings are consistent with those of surveyed public health workforce nationwide (deBeaumont Foundation et al., 2017).

It should be noted that this survey was completed pre-pandemic. While there is limited research on job satisfaction and the working environment of PHNs, there is a growing body of literature on both the public health workforce and the nursing workforce and subsequent job dissatisfaction and intention to leave since the pandemic began. The challenges faced by public health workers, including front line PHNs, are greater now than prior to COVID 19. Increased rates of mental and physical unhealth, job burnout, and overall career abandonment are being felt by public health workers across the country (Stone et al., 2021). Similar burnout is occurring across the nursing workforce as well. The American Nurses Association (ANA) reports that 51% of nurses surveyed are "exhausted," 43% are "overwhelmed," and nurses across the board report low rates of feeling valued, recognized, or supported by their employer. While the ANA's survey only asked respondents if they planned on leaving in the next 6 months, 18% answered yes, with top reasons for leaving their position being negative effects of work on their wellbeing, insufficient staffing, and lack of support from their employer (ANA, 2021).

Like state and local public health workers across the country, NC PHNs overall are satisfied in their roles and find value in their work. Also, like state and local public health workers across the country, NC PHNs are intending to leave their current jobs or plan to retire in the next few years (Leider, J.P, 2021). Strengthened retention efforts are needed now. Increasing mentorship opportunities, acknowledging hard work and length of service, and opportunities for leadership to connect with PHNs as ways to increase engagement and retention, and exploring innovative pay strategies could positively impact PHN retention in NC LHD. Future efforts should be made to address LHD-specific retention issues, including stress, value, job satisfaction, acknowledging PHN contributions, providing career advancement opportunities, addressing workload issues, providing, and supporting work-life balance, and addressing compensation inadequacies. Opportunities for career growth, a common response when asked how LHD could improve PHN workforce retention, are essential in retaining qualified and experienced staff. A strong and satisfied public health nursing workforce is core to effective public health and promoting and protecting health for all.

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Human Participant Compliance Statement: this study was deemed exempt by UNCG Institutional Review Board.

CONFLICTS OF INTEREST

No conflicts of interest to report.

DATA AVAILABILITY STATEMENT

The data that supports the findings of this study are available in the supplementary material of this article.

FUNDING INFORMATION

No funding was provided for this study; Four 50.00 gift cards were supplied by PAC for drawing for participants who completed the survey to enter if they chose.

ORCID

Jaimee Watts Isley MPHDNPRN https://orcid.org/0000-0002-2773-638X

Mollie E. Aleshire DNP, APRN https://orcid.org/0000-0002-1701-0980

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