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Article

# Compensation Stability and Workforce Retention During COVID-19: A Paired Comparative Study of Home Care Nurses

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## Highlights

### What are the main findings?

- Compensation satisfaction among home care nurses remained stable before and during COVID-19.
- Retention intentions changed significantly and were shaped by organizational and preparedness-related factors.

### What are the implications of the main findings?

- Compensation stability alone is insufficient to ensure workforce retention during public health emergencies.
- Health system preparedness strategies must integrate leadership, professional growth, and workforce resilience planning.

## Abstract

**Background/Objectives:** Home care nurses play a vital role in maintaining continuity of care for vulnerable populations. However, the COVID-19 pandemic has exposed long-standing vulnerabilities in the workforce within home and community-based services. While compensation is often emphasized as a primary driver of workforce retention, less is known about how compensation satisfaction and retention intentions changed over time during a public health emergency. **Methods:** This study employed a cross-sectional survey with retrospective paired comparisons among home care nurses employed at five home care agencies in Maryland. To assess temporal changes, respondents retrospectively evaluated compensation satisfaction, job satisfaction dimensions, and retention intentions before and during the COVID-19 pandemic. Paired samples *t*-tests were utilized to examine within-respondent differences across time periods. Herzberg's Motivator-Hygiene Theory guided the interpretation of these changes in extrinsic and intrinsic workplace factors. **Results:** Compensation satisfaction did not differ significantly between the pre-pandemic and pandemic periods. In contrast, retention intentions changed significantly and were associated with organizational and preparedness-related factors, including leadership, communication, professional growth opportunities, financial stability, and perceptions of being well compensated. Several intrinsic job satisfaction dimensions improved during the pandemic, while resource-related challenges remained. **Conclusions:** The findings suggest that compensation stability alone was insufficient to secure workforce retention during the COVID-19 pandemic. Retention intentions were shaped by the interaction of financial security and organizational preparedness. Workforce policies to strengthen home care systems must combine compensation strategies with leadership development, professional growth pathways, and emergency preparedness planning to build resilience during future public health crises.

**Keywords:** home care nursing; workforce retention; COVID-19; compensation satisfaction; paired comparative study; health system preparedness

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## 1. Introduction

Home care nurses perform vital roles in delivering essential health services to older adults, individuals with chronic conditions, and medically vulnerable populations within home and community-based settings. Unlike hospital-based care, home care services are undertaken in decentralized environments that often lack immediate clinical backup, consistent access to personal protective equipment, and standardized emergency preparedness infrastructure [1–3]. Despite their centrality in continuity across life stages, home care nurses have historically received less policy attention than hospital-based clinicians, especially in workforce planning and emergency preparedness initiatives [4].

Building on these long-standing challenges, the COVID-19 pandemic brought the realities of home care work into even sharper focus. As hospitals restricted admissions and long-term care facilities faced outbreaks, demand for home-based services rose substantially, placing additional strain on an already fragile workforce [5]. During this period, home care nurses navigated increased occupational risk, rapidly shifting care protocols, staffing shortages, and heightened emotional and physical demands. These pressures shaped day-to-day practice and influenced broader questions about job satisfaction and workforce stability [6,7]. Taken together, these conditions highlight the importance of understanding how workforce experiences in home care settings evolved during the pandemic and how organizational responses influenced nurses' intentions to remain in the field.

### 1.1. Compensation, Job Satisfaction, and Retention in Home Care Settings

Compensation has long been widely acknowledged as a central factor shaping recruitment and retention in nursing and allied health professions. In home care settings, comparatively lower wages, limited benefits, and fewer opportunities for advancement relative to institutional care have been consistently linked to high turnover rates [8–10]. Prior research further revealed that inadequate compensation contributes to workforce instability, particularly among nurses and direct care workers who provide long-term services in community-based environments [11]. At the same time, evidence indicates that compensation alone does not fully account for retention decisions. Organizational factors, including leadership quality, supervisory support, communication, professional development opportunities, and perceived respect, have been shown to shape job satisfaction and intentions to remain employed [12–14]. During crisis conditions, these non-financial factors may become even more salient as health care workers navigate uncertainty, safety concerns, and rapidly evolving expectations [15].

Against this backdrop, the COVID-19 pandemic provides a unique context for examining the value of compensation satisfaction and organizational factors over time. While many health care workers experienced heightened stress and burnout, some organizations implemented adaptive strategies, such as increased leadership visibility, improved communication, and professional recognition, that may have mitigated workforce attrition despite limited changes in pay structures [16]. Examining how these dynamics shifted before and during the pandemic among home care nurses can inform workforce policy and preparedness planning.

### 1.2. Public Health Emergencies, Preparedness, and Workforce Stability

Public health emergencies place extraordinary demands on health systems and their workforces, often revealing gaps in preparedness, coordination, and resource allocation. The COVID-19 pandemic functioned as a global stress test, demonstrating that workforce resilience depends on financial compensation, organizational readiness, leadership capacity, and the availability of supportive infrastructure [17]. Studies across diverse healthcare settings have shown that inadequate

preparedness can heighten workforce stress, undermine morale, and increase turnover risk during emergencies [18].

Furthermore, health systems research has highlighted the significance of contextual and organizational factors, including leadership, communication, and resource mobilization, in shaping workforce experiences during pandemics [19].

In their examination of COVID-19 preparedness and response dynamics, Duah et al. emphasized that gaps in infrastructure and workforce capacity can compromise system performance and amplify strain on frontline personnel during public health emergencies [20]. Although much of the preparedness literature has focused on hospitals and border health systems, similar dynamics are highly relevant to home and community-based care settings, which play essential roles in surge capacity and continuity of care during crises. Clarifying the role of preparedness conditions in home care settings can help refine strategies aimed at supporting workforce stability during future public health emergencies.

### *1.3. Herzberg's Motivator-Hygiene Theory*

This study is guided by Herzberg's Motivator-Hygiene Theory, which distinguishes between extrinsic hygiene factors, such as salary, job security, and working conditions, and intrinsic motivator factors, including professional growth, recognition, responsibility, and meaningful work [21]. According to the theory, hygiene factors help prevent dissatisfaction but are insufficient on their own to sustain motivation or long-term retention. Motivator factors, in contrast, are more closely linked to job satisfaction and continued engagement.

Herzberg's framework is especially relevant for understanding workforce experiences during crisis conditions. In public health emergencies, compensation stability may serve as a baseline requirement that reduces dissatisfaction, while organizational and professional conditions influence employees' decisions to remain in their roles. Applying this framework provides a structured way to interpret changes in compensation satisfaction and retention intentions among home care nurses before and during the COVID-19 pandemic.

### *1.4. Study Aims, Research Question, and Hypotheses*

This study had three primary aims:

1. To compare compensation satisfaction among home care nurses before and during the COVID-19 pandemic.
2. To examine temporal differences in retention intentions across the same period.
3. To interpret these differences through a health policy and preparedness approach using Herzberg's Motivator-Hygiene Theory.

Guided by these aims, the study addressed the following primary research question:

How did compensation satisfaction and retention intentions among home care nurses differ before and during the COVID-19 pandemic, and what organizational factors were associated with these temporal differences?

Based on Herzberg's Motivator-Hygiene Theory and prior workforce literature, the study evaluated the following hypotheses:

1. H1: Compensation satisfaction among home care nurses did not differ significantly between the pre-pandemic and pandemic periods.
2. H2: Retention intentions among home care nurses differed significantly between the pre-pandemic and pandemic periods.
3. H3: Organizational and preparedness-related factors were significantly associated with retention intentions during the pandemic period.

## 2. Materials and Methods

### 2.1. Study design

This study employed a cross-sectional survey with retrospective paired comparisons to examine changes in compensation satisfaction and workforce retention intentions among home care nurses before and during the COVID-19 pandemic. Respondents were surveyed at a single point in time and asked to retrospectively assess selected job-related experiences across two reference periods: the pre-pandemic period and the pandemic period. This design enabled within-respondent comparisons while minimizing respondent burden and aligned with the study's focus on temporal differences rather than causal inference.

### 2.2. Study Setting and Participants

The study was conducted among home care nurses employed at five home care agencies in Silver Spring, Maryland. Data collection occurred between April and May 2023. Eligible participants included licensed nurses providing direct patient care in home and community-based settings during the COVID-19 pandemic. Nurses were eligible to participate if they were employed by one of the participating agencies during both the pre-pandemic and pandemic periods and were able to retrospectively evaluate their work experiences across these timeframes.

### 2.3. Data Collection and Survey Instrument

Data were collected through a structured, self-administered survey capturing demographic and employment characteristics, compensation satisfaction, job satisfaction, and retention intentions. To assess changes over time, respondents retrospectively rated their experiences during two reference periods: before and during the COVID-19 pandemic, using parallel survey items. Compensation satisfaction was measured using Likert-type items assessing perceptions of pay adequacy and financial stability. Retention intentions were assessed using items that captured respondents' likelihood of remaining in their current position or in the home care workforce.

Additional job satisfaction dimensions included perceptions of leadership support, communication, professional growth opportunities, and organizational preparedness. The survey instrument drew on prior workforce and nursing literature, with item domains reflecting commonly examined extrinsic and intrinsic workplace factors.

### 2.4. Statistical Analysis

Descriptive statistics summarized participant characteristics and key study variables. Paired samples t-tests examined within-respondent differences in compensation satisfaction and retention intentions between the pre-pandemic and pandemic periods, with statistical significance set at a two-tailed alpha of 0.05. All analyses were conducted in IBM SPSS Statistics version 28.

### 2.5. Ethical Considerations

This study was reviewed and approved by the Institutional Review Board of Central Michigan University (IRB Protocol #2022-1333) and classified as minimal risk research. The study was initially approved under an expedited review process, and a subsequent amendment addressing compensation satisfaction and job retention during the COVID-19 pandemic was also approved prior to data collection.

No direct personal identifiers were collected. The survey included demographic and employment-related characteristics. However, all responses were collected anonymously and could not be linked to individual participants. The data were stored securely, accessible only to the research team, and analyzed in aggregate form to protect participant confidentiality.

This journal manuscript is derived from and serves as a supplement to the first author’s doctoral dissertation research and is reported in accordance with the original Institutional Review Board approval.

2.6. Data Availability

The data supporting the findings of this study are not publicly available due to privacy and ethical restrictions protecting participant confidentiality. However, data may be available from the corresponding author upon reasonable request and with institutional approval.

3. Results

3.1. Sample Characteristics

Table 1 presents the demographic characteristics of the study sample. The respondents were predominantly female (83.0%) and African American (76.6%). The largest age group was 35-44 years (27.7%), followed by the 55-65 years age group (23.4%).

Table 1. Demographic characteristics of respondents.

| Characteristic      | Category              | n  | Percentage (%) |
|---------------------|-----------------------|----|----------------|
| Gender              | Male                  | 8  | 17.0           |
|                     | Female                | 39 | 83.0           |
| Ethnicity           | African American      | 36 | 76.58          |
|                     | White                 | 6  | 12.77          |
|                     | Asian                 | 2  | 4.26           |
|                     | Multiracial           | 2  | 4.26           |
|                     | Other                 | 1  | 2.13           |
| Age Group (years)   | 25 - 35               | 6  | 12.77          |
|                     | 35 - 44               | 13 | 27.66          |
|                     | 45 - 55               | 7  | 14.89          |
|                     | 55 - 65               | 11 | 23.40          |
|                     | ≥ 65                  | 10 | 21.28          |
| Annual Income (USD) | < \$39,999            | 4  | 9.09           |
|                     | \$60,000 - \$79,999   | 9  | 20.45          |
|                     | \$80,000 - \$99,999   | 10 | 22.73          |
|                     | \$100,000 - \$119,999 | 7  | 15.91          |
|                     | \$120,000 - \$139,999 | 7  | 15.91          |
|                     | ≥ \$140,000           | 7  | 15.91          |

Note: Percentages are rounded to two decimal places, and percentages for annual income are based on valid responses only (n = 44).

3.2. Compensation Satisfaction Before and During COVID-19

A paired-samples t-test was conducted to assess changes in compensation satisfaction before and during the COVID-19 pandemic. The results indicate there were no statistically significant differences in satisfaction with any compensation elements between the two periods (all  $p > 0.05$ ), as shown in Table 2.

**Table 2.** Paired samples t-tests for compensation satisfaction before and during COVID-19.

| Paired Samples Test                          |                    |                   |                       |                                                 |       |          |    |                                  |
|----------------------------------------------|--------------------|-------------------|-----------------------|-------------------------------------------------|-------|----------|----|----------------------------------|
| Difference<br>(Before minus During<br>Covid) | Paired Differences |                   |                       |                                                 |       | <i>t</i> | df | Significance                     |
|                                              | Mean               | Std.<br>Deviation | Std.<br>Error<br>Mean | 95% Confidence<br>Interval of the<br>Difference |       |          |    | <i>p</i> -value (two-<br>tailed) |
|                                              |                    |                   |                       | Lower                                           | Upper |          |    |                                  |
| Pair 1: Competitive Salary                   | 0.000              | 1.251             | 0.182                 | -0.367                                          | 0.367 | 0.000    | 46 | 1.000                            |
| Pair 2: Satisf. with Stay Bonus              | -0.149             | 0.955             | 0.139                 | -0.429                                          | 0.131 | -1.069   | 46 | 0.291                            |
| Pair 3: Satisf. Paid Time Off                | 0.064              | 1.725             | 0.252                 | -0.443                                          | 0.570 | 0.254    | 46 | 0.801                            |
| Pair 4: Satisf. w. Shift Bonuses             | -0.149             | 1.083             | 0.158                 | -0.467                                          | 0.169 | -0.943   | 46 | 0.351                            |
| Pair 5: Flexible Schedule                    | 0.234              | 1.165             | 0.170                 | -0.108                                          | 0.576 | 1.377    | 46 | 0.175                            |
| Pair 6: Satisf. w. Health Benefits           | 0.170              | 1.007             | 0.147                 | -0.125                                          | 0.466 | 1.159    | 46 | 0.252                            |
| Pair 7: Promotion Opportunities              | 0.213              | 1.178             | 0.172                 | -0.133                                          | 0.559 | 1.238    | 46 | 0.222                            |

Note: Values represent paired samples *t*-tests comparing pre-pandemic and pandemic periods (before minus during COVID-19). Positive mean differences indicate higher satisfaction before the pandemic. Statistical significance was evaluated at *p* < 0.05 (two-tailed). .

Overall compensation satisfaction remained stable between the pre-pandemic and pandemic periods. No statistically significant differences were observed across compensation-related items.

3.3. Job Satisfaction Before and During COVID-19

Paired-samples *t*-tests were also conducted to evaluate changes in job satisfaction dimensions. As presented in Table 3, collaboration and leadership improved significantly during the pandemic, whereas other dimensions did not show statistically significant change.

**Table 3.** Paired samples t-tests for job satisfaction dimensions before and during COVID-19.

| Paired Samples Test                          |                    |                   |                       |                                                 |       |          |    |                                 |
|----------------------------------------------|--------------------|-------------------|-----------------------|-------------------------------------------------|-------|----------|----|---------------------------------|
| Difference<br>(Before minus During<br>Covid) | Paired Differences |                   |                       |                                                 |       | <i>t</i> | df | Significance                    |
|                                              | Mean               | Std.<br>Deviation | Std.<br>Error<br>Mean | 95% Confidence<br>Interval of the<br>Difference |       |          |    | <i>p</i> -value<br>(two-tailed) |
|                                              |                    |                   |                       | Lower                                           | Upper |          |    |                                 |
| Supervision                                  | 0.444              | 2.546             | 0.379                 | -0.320                                          | 1.209 | 1.171    | 44 | 0.248                           |
| Collaboration                                | 0.933              | 2.060             | 0.307                 | 0.314                                           | 1.552 | 3.039    | 44 | 0.004                           |
| Staffing                                     | -0.578             | 2.824             | 0.421                 | -1.426                                          | 0.271 | -1.372   | 44 | 0.177                           |
| Leadership                                   | 1.089              | 2.204             | 0.328                 | 0.427                                           | 1.751 | 3.315    | 44 | 0.002                           |
| Decision Making                              | 0.911              | 2.162             | 0.322                 | 0.262                                           | 1.561 | 2.827    | 44 | 0.007                           |
| Communication                                | 0.911              | 2.420             | 0.361                 | 0.184                                           | 1.638 | 2.526    | 44 | 0.015                           |
| Safety Protocol                              | 0.909              | 2.390             | 0.360                 | 0.182                                           | 1.636 | 2.523    | 44 | 0.015                           |
| PPE                                          | 0.578              | 2.684             | 0.400                 | -0.229                                          | 1.384 | 1.444    | 44 | 0.156                           |
| Absenteeism                                  | 0.044              | 2.067             | 0.308                 | -0.576                                          | 0.665 | 0.144    | 44 | 0.886                           |
| Burnout Prevention                           | -0.156             | 2.486             | 0.371                 | -0.902                                          | 0.591 | -0.420   | 44 | 0.677                           |
| Infection Prevention                         | 0.378              | 2.579             | 0.384                 | -0.397                                          | 1.152 | 0.983    | 44 | 0.331                           |

Note: Mean differences represent before COVID-19 minus during COVID-19. Positive values indicate higher pre-pandemic ratings, and negative values indicate improvement during the pandemic.

3.4. Changes in Retention Intentions Before and During the COVID-19 Pandemic

Paired samples *t*-tests were employed to examine within-respondent differences in retention intentions before and during the COVID-19 pandemic. Retention-related factors assessed included perceptions of financial stability, job security, and being well paid. Descriptive statistics and inferential test results are presented in Table 4. Mean differences indicated statistically significant changes in selected retention-related factors across the two periods. For instance, perceptions of financial stability and being well paid differed significantly between the pre-pandemic and pandemic periods ( $p < 0.05$ ). In contrast, perceived job security did not show a statistically significant change over time ( $p > 0.05$ ). Together, these results indicate that changes in retention intentions were not uniform across domains, with financial and compensation-related perceptions showing increased temporal variation relative to job security.

**Table 4.** Changes in retention-related perceptions before and during the COVID-19 pandemic.

| Difference<br>(Before minus During<br>Covid) | Paired Differences |                   |                    |                 |        | Significance |    |                          |
|----------------------------------------------|--------------------|-------------------|--------------------|-----------------|--------|--------------|----|--------------------------|
|                                              | Mean               | Std.<br>Deviation | Std. Error<br>Mean | 95% Confidence  |        | t            | df | p-value (two-<br>tailed) |
|                                              |                    |                   |                    | Interval of the |        |              |    |                          |
|                                              |                    |                   |                    | Lower           | Upper  |              |    |                          |
| Resources/Assignments                        | -0.537             | 1.468             | 0.229              | -1.000          | -0.073 | -2.341       | 40 | 0.024                    |
| Supervisor Appreciation                      | -0.024             | 1.423             | 0.220              | -0.467          | 0.420  | -0.108       | 41 | 0.914                    |
| Professional Growth                          | -0.488             | 1.362             | 0.213              | -0.918          | -0.058 | -2.293       | 40 | 0.027                    |
| Job Availability                             | -0.381             | 1.834             | 0.283              | -0.952          | 0.191  | -1.346       | 41 | 0.186                    |
| Financial Stability                          | -0.524             | 1.174             | 0.181              | -0.890          | -0.158 | -2.892       | 41 | 0.006                    |
| Job Security                                 | -0.190             | 0.773             | 0.119              | -0.431          | 0.050  | -1.598       | 41 | 0.118                    |
| Well-Paid Job                                | -0.405             | 1.106             | 0.171              | -0.749          | -0.060 | -2.373       | 41 | 0.022                    |

Note: Paired samples *t*-tests were used to compare responses before and during the COVID-19 pandemic. Positive mean differences reflect higher ratings in the pre-pandemic period. Statistical significance was evaluated at a two-tailed  $\alpha = 0.05$ .

4. Discussion

4.1. Summary of Key Findings

Across the study sample, compensation satisfaction remained largely stable before and during the COVID-19 pandemic, with no statistically significant differences observed across compensation-related domains. In contrast, selected job satisfaction dimensions, including collaboration and leadership, showed statistically significant improvements during the pandemic period, while other domains showed no significant change. Likewise, retention intentions varied by domain, with financial stability and perceptions of being well paid demonstrating statistically significant temporal differences, while job security remained stable. Collectively, these findings highlight domain-specific patterns of change in workforce experiences among home care nurses during the COVID-19 pandemic.

4.2. Compensation Stability and Retention During a Public Health Emergency

A central finding of this study was the stability of compensation satisfaction among home care nurses before and during the COVID-19 pandemic. Despite widespread disruption across health systems, the respondents did not report statistically significant changes in satisfaction with salary, benefits, paid time off, or bonus structures. This finding aligns with past research suggesting that

compensation structures in home and community-based care are often slow to change, even during periods of crisis [1,4,9].

Notably, compensation stability did not translate into stable retention intentions. Interestingly, retention-related perceptions, particularly financial stability and the feeling of being adequately compensated, changed significantly during the pandemic period. This divergence underscores an important distinction between nominal compensation satisfaction and broader perceptions of economic security during public health emergencies. Prior workforce studies have documented similar patterns, in which static wage structures fail to buffer workers against heightened uncertainty, workload, and risk exposure during crises [6,15,16].

Taken together, these findings suggest that compensation stability may serve as a baseline condition that prevents dissatisfaction but does not, on its own, ensure workforce retention under emergency conditions. This interpretation is consistent with long-standing workforce research that highlights the multifactorial nature of retention decisions in nursing and direct care occupations [8,13].

#### *4.3. Organizational and Job Satisfaction Factors Shaping Workforce Experiences*

Beyond compensation, this study identified meaningful changes in selected job satisfaction dimensions during the pandemic period. For example, improvements in collaboration, leadership, decision-making, communication, and safety protocols suggest that certain organizational responses may have helped buffer the adverse effects of crisis conditions. These findings align with past evidence showing that leadership visibility, clear communication, and collaborative practice environments are central to sustaining workforce resilience during periods of system strain [7,12,19].

At the same time, not all job satisfaction dimensions improved. Ongoing challenges related to staffing, burnout prevention, and access to essential resources remained evident, reflecting structural constraints within the home care sector that predate the pandemic [1,10,11]. These mixed patterns underscore that organizational adaptations during COVID-19 were uneven and highly context-dependent, shaped by existing infrastructure, leadership capacity, and resource availability.

The observed improvements in selected intrinsic workplace factors are noteworthy because they indicate that even without substantial changes in compensation, organizational practices can help influence workforce experiences. Past research has similarly shown that supportive leadership and professional recognition can help offset some of the stressors associated with high-demand care environments, especially during emergencies [15,18].

#### *4.4. Retention Intentions, Preparedness, and Workforce Stability*

Retention intentions among home care nurses varied across domains. Significant changes were observed in perceptions of financial stability and being well paid, while job security remained relatively stable. This pattern highlights the complex ways public health emergencies reshape workforce decision-making. Continued employment may reflect labor market constraints or professional commitment, whereas shifting perceptions of financial adequacy may signal underlying vulnerability in workforce stability [9,11].

The preparedness literature has long shown that workforce resilience depends on both individual commitment and system-level readiness, including staffing flexibility, resource mobilization, and organizational support mechanisms [17,19]. Inadequate preparedness can amplify stress and uncertainty, thereby influencing retention intentions even when employment itself remains secure.

The findings from this study align with evidence that shows home health and hospice services faced significant operational and preparedness challenges during the COVID-19 pandemic [5]. In addition, broader analyses of peripheral and frontline health settings also highlight similar gaps in system readiness and support [20]. Strengthening preparedness in these settings requires attention to workforce needs that extend beyond wages, including communication structures, leadership capacity, and mechanisms to support professional growth during crises.

#### 4.5. Interpretation Through Herzberg's Motivator-Hygiene Theory

Herzberg's Motivator-Hygiene Theory offers a useful framework for interpreting the observed patterns in compensation satisfaction and retention intentions. In line with the theory, extrinsic hygiene factors such as salary and benefits appeared to prevent dissatisfaction but were insufficient to sustain motivation or retention during the pandemic period [21]. Compensation stability alone did not shield nurses from heightened uncertainty or influence their broader perceptions of financial security.

In contrast, changes observed in intrinsic motivator factors, including leadership, collaboration, and decision-making, were associated with improved job satisfaction during the pandemic. These findings support Herzberg's assertion that motivator factors play a more central role in fostering engagement and commitment, especially under challenging conditions [21].

Applying this framework underscores the importance of integrated workforce strategies that address both hygiene and motivator factors. During public health emergencies, maintaining compensation stability may be necessary, yet it does not fully support retention on its own. Organizational practices that enhance professional meaning, recognition, and participation appear equally critical for sustaining the workforce during crisis conditions.

#### 4.6. Policy and Practice Implications

The findings of this study have several implications for health policy and workforce planning in home and community-based care. First, policies that focus narrowly on wage stabilization without addressing organizational preparedness may fall short of supporting workforce retention during crises. State and federal initiatives aimed at improving direct care wages should be complemented by investments in leadership development, communication infrastructure, and workforce support systems [10,11].

Second, preparedness planning should explicitly incorporate home care settings as integral components of health system surge capacity. The COVID-19 pandemic has shown that home care nurses play a vital role in maintaining continuity of care for vulnerable populations, yet often do so without the institutional supports afforded to hospital-based clinicians [5,17].

Finally, workforce resilience strategies should prioritize professional growth opportunities and supportive organizational cultures that can buffer the psychological and operational strain associated with emergencies. Such approaches align with evidence from nursing and health workforce research underscoring the role of organizational context in shaping retention outcomes [12,13].

#### 4.7. Strengths, Limitations, and Future Research Directions

This study has several strengths, including its use of within-respondent paired comparisons, which allowed for direct assessment of temporal changes in workforce perceptions. The focus on home care nurses addresses an important gap in the literature, as much pandemic-related workforce research has centered on hospital settings.

However, the findings should be interpreted in light of certain limitations. First, the study relied on retrospective self-reports, which may be subject to recall bias. Second, the sample was drawn from a limited geographic area, which affects generalizability. Although the sample size was modest, paired comparisons increase statistical power by reducing between-subject variability, supporting the appropriateness of the design for examining temporal differences. Third, while the study captured multiple dimensions of job satisfaction and retention intentions, it did not examine long-term employment outcomes beyond the study period. These limitations warrant consideration when interpreting the findings, but they do not undermine the study's contributions to understanding workforce experiences during the COVID-19 pandemic.

Future research should assess how organizational adaptations implemented during the COVID-19 pandemic influence longer-term retention and workforce stability in home care settings. Mixed methods approaches or repeated assessments over time could provide deeper insight into how nurses

interpret and respond to preparedness strategies. Expanding this line of inquiry across diverse geographic and policy contexts would further inform workforce planning and preparedness efforts.

## 5. Conclusions

This study contributes to the literature on health workforce stability by clarifying how compensation satisfaction and retention intentions changed among home care nurses during the COVID-19 pandemic. Using a paired comparative approach and Herzberg's Motivator-Hygiene Theory, the findings suggest that stable compensation alone is insufficient to secure workforce retention during public health emergencies. Retention intentions were influenced by a broader range of factors, including financial security, organizational readiness, leadership practices, and opportunities for professional advancement.

The findings highlight the limitations of wage-centered approaches for strengthening the home care workforce. Compensation provides an essential baseline, but it cannot replace the need for robust organizational infrastructure, effective communication systems, leadership support, and preparedness planning. These components appear especially important for sustaining workforce resilience in decentralized care environments that serve medically vulnerable populations. From a policy and practice standpoint, the study emphasizes the importance of workforce strategies that fully integrate home care into emergency preparedness planning. Supporting this sector requires aligning compensation policies with organizational conditions that promote engagement, stability, and a sense of professional purpose during periods of heightened system strain.

Such strategies are critical for pandemic response and for sustaining long-term health system capacity as reliance on home-based services continues to grow. In summary, supporting a stable home care workforce during health crises requires an approach that addresses the interplay among compensation, workplace conditions, and emergency readiness. Policies must reflect the complexity of these relationships to effectively maintain workforce continuity when it is needed most.

**Author Contributions:** NPJ: Conceptualized the study, contributed to the initial drafting of the Introduction and Results, critically reviewed the full manuscript, and approved the final version for submission. JKD: Conceptualized the study, developed the methodology, curated and analyzed the data, conducted validation and visualization, refined the original draft, reviewed and edited the manuscript, managed project administration, and supervised the project. All authors approved the final version for submission.

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**Institutional Review Board Statement:** The Institutional Review Board at Central Michigan University approved this study as minimal-risk research through an expedited review process. An amendment related to compensation satisfaction and workforce retention during the COVID-19 pandemic received approval before data collection commenced. All procedures were conducted under IRB protocol 2022-1333.

**Informed Consent Statement:** Informed consent was obtained from all participants. Participation was voluntary, and completion of the survey implied consent.

**Data Availability Statement:** The data supporting this study are not publicly available due to privacy and ethical restrictions protecting participant confidentiality. Data may be obtained from the corresponding authors upon reasonable request and with institutional approval.

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**Conflicts of Interest:** The authors declare no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

|          |                                          |
|----------|------------------------------------------|
| CMS      | Centers for Medicare & Medicaid Services |
| COVID-19 | Coronavirus Disease 2019                 |
| HCBS     | Home and Community-Based Services        |
| IRB      | Institutional Review Board               |
| PPE      | Personal Protective Equipment            |

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