Attitudes of nurse anesthetists regarding choice of residence and job satisfaction in Nebraska

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Nebraska CRNAs were surveyed to identify their attitudes regarding choice of residence and to rate their overall job satisfaction. In addition, the study determined differences in these attitudes, based on employment and whether they resided in a metropolitan or rural setting. Places of residence and employment in Nebraska were grouped according to population. Metropolitan areas consisted of Omaha/Douglas County and Lincoln whose populations were greater than 200,000. Moderately sized communities, where rural referral centers are located, were grouped together, and by default other communities were considered to be smaller rural communities.

With a 76% response rate (n = 168), the survey demonstrated no significant difference among the four regional CRNA groups with regard to overall job satisfaction. There were, however, areas of significant difference among the CRNA groups with regard to the components of job satisfaction; this was most apparent between the rural referral center and the Lincoln CRNA groups. The rural referral center CRNA group rated the following significantly higher from the Lincoln CRNA group:

1. Autonomy.
2. Experiencing positive CRNA/surgeon relationships.
3. The opportunity to improve professional skills.
4. The opportunity to meet professional goals.
5. The ability to practice anesthesia as trained. Conversely, the Lincoln CRNA group rated having “sufficient time away from work” higher than all other CRNA groups.

All CRNA groups rated “quality of life” as the leading environmental reason for choosing their place of residence. In addition, the CRNA groups rated these reasons for choosing their communities:

1. Affordable housing.
2. Quality public schools.
3. A clean environment.

With regard to regional differences, the metropolitan CRNAs rated “having the amenities offered by city living” and the “spouse’s significant other’s ability to secure employment” significantly higher than the rural CRNA groups in determining their residential choice. Conversely, the rural CRNAs rated “life in a small town” as an important factor in choosing their communities.

Key words: Career development, geographic issues, job satisfaction, state issues.
Introduction
A multitude of factors play a role in where a CRNA chooses to work and reside. Intrinsic factors relate to the job itself and include the scope of CRNA practice and job satisfaction. Extrinsic factors involve the community surrounding the CRNA practice, i.e., whether it is a rural or metropolitan setting and its influence on the CRNA and his or her family.

Nebraska is primarily a rural state that has only two metropolitan communities (Lincoln and Omaha) with populations of greater than 200,000. In these communities, CRNAs generally work with anesthesiologists, and the scope of their anesthesia practice may be limited by this association.

Most of Nebraska is comprised of smaller rural communities. CRNAs from rural areas often experience professional autonomy, yet face extensive on-call commitments and have limited access to immediate assistance from other anesthesia providers.

In rural communities, the shortage of healthcare professionals is becoming an increasingly serious problem in the United States. Factors that influence the decline in the availability of rural healthcare professionals may be due to the general population decline in rural areas, economic considerations, substandard salaries, limited opportunities for professional development and continuing education, and a shortage of other healthcare professionals.¹

Research involving rural nursing has shown a positive correlation between perceived greater autonomy and job satisfaction.² Conversely, decreased satisfaction was associated with length of employment, which might stem from limited access to continuing education and low salary schedules for experienced registered nurses.³

Job satisfaction relates to the extent of positive affective orientation to the job.⁴ As a critical independent variable, job satisfaction influences why employees remain in their jobs.⁵ There are several determinants of job satisfaction that are consistent in nursing research including scheduling, family/work balance, coworkers, interaction, professional opportunities, praise/recognition, and control/responsibility.⁶

Methods
This nonexperimental, descriptive study used a researcher-designed questionnaire, which was formulated to determine CRNA attitudes regarding their choice of residence and to rate overall job satisfaction. In addition, the study determined the differences in these attitudes based on employment, whether it was in a metropolitan or rural setting.

The survey consisted of 11 demographic questions and two five-point Likert scales designed to rate attitudes regarding residence and employment and overall job satisfaction. The sample consisted of licensed CRNAs in Nebraska who primarily practice anesthesia in the state.

The survey questions were reviewed for clarity and content validity by a panel of research committee members that included a statistician and two nurse anesthesia program directors. Additionally, input was solicited from representatives of the Nebraska Department of Rural Health and the Nebraska Hospital Association.

Demographic data was gathered from 11 questions and included age, years of nurse anesthesia experience, educational background, and whether the CRNA had trained in a rural hospital. Additional information relating to employment conditions included the number of anesthesiologists personally administered each month, the number of on-call hours averaged each week, and whether the CRNA's employer was him or herself, a hospital, or a corporation.

To identify the place of residence and employment in Nebraska, communities were grouped according to population size. In preparing the survey, it was postulated by several Nebraska CRNAs that the quality of community life and anesthesia practice would vary between the two metropolitan communities of Lincoln and Omaha, and that it would also vary between moderately sized communities where rural referral centers are located and the smaller rural towns.

Therefore, metropolitan areas were separated into Omaha/Douglas County (Omaha) and Lincoln (Lincoln). Moderately sized communities, where rural referral centers are located, were grouped together and included the cities of Grand Island, Hastings, Kearney, North Platte, Scottsbluff, and Norfolk.

By default, other communities that had not been previously listed were considered to be smaller rural communities (rural). As a result, a comparison of four CRNA regional groups was analyzed in this survey and abbreviated as Omaha, Lincoln, rural referral center, and rural.

- Attitudes regarding employment. A five-point Likert scale was designed to determine CRNA perceptions concerning 15 work-related issues and to rate overall job satisfaction. The questions were tailored to the profession of nurse anesthesia and included:
  1. Professional autonomy.
  2. Satisfaction with earnings.
  3. Opportunities to meet professional goals.
4. The relationship between the CRNA and patients, surgeons, hospital staff, and anesthesiologists.
5. Access to other anesthesia providers for consultation and assistance.
6. Availability of the resources required for the safe delivery of anesthesia.
8. Sufficient time away from work.
9. The ability to practice anesthesia as trained.
10. The opportunity to improve professional skills.
11. Working with competent anesthesia providers.
12. Whether the CRNA was treated with respect.
13. The overall level of job satisfaction.

Attitudes regarding residence. Incorporating a five-point Likert scale, the CRNAs rated their values of importance on 16 environmental factors involved in choosing their place of residence. In the formulation of these environmental factors, a survey of rural physicians developed by Pathman, Konrad, and Rickettes in 1992 was beneficial. These categories included:
1. Housing.
2. Public education.
4. Proximity to extended family.
5. Ability of spouse or significant other to secure employment.
6. Access to outdoor recreation and cultural activities.
7. Involvement in and appreciation of professional services by the surrounding community.
8. Environmental cleanliness.
9. Proximity to a full-service healthcare facility.
10. Proximity to a center of higher education.
11. A sense of belonging to the community.
12. Overall quality of life.

Statistical analysis yielded descriptive measurements in the form of percentages, frequency distributions, means, and standard deviations. An analysis of variance and a Newman Keuls Multiple Comparison test were performed on each of the items relating to residence and employment concerns. A significant difference was established at the \( P < 0.05 \) level. To ensure confidentiality, responses were coded by number.

**Results**

The total response rate was 76% (n = 168). There were, however, differences among the four regional CRNA groups with regard to response rates. Fifty out of a possible 72 Omaha CRNAs responded with a response rate of 69%. In Lincoln, 33 out of 36 CRNAs responded, generating a 92% response rate. The rural referral center group produced an 85% response rate, with 39 out of 46 responses, and the rural CRNA group had an 88% response rate, with 46 out of 52 CRNAs responding to the survey.

The survey resulted in the following findings: There was no significant difference among the four regional CRNA groups with regard to overall job satisfaction. Components of job satisfaction, which were rated similarly among all four CRNA groups (in order of rank), were:
1. Having the resources to administer safe anesthesia.
2. Experiencing positive CRNA/patient relationships.
3. Working with competent anesthesia providers.
4. Being treated with respect.
5. Satisfaction with earnings.
6. Experiencing positive CRNA/hospital relationships.
7. CRNA/anesthesiologist relationships (Figure 1).

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No significant difference among Omaha, Lincoln, rural referral center, and rural CRNAs. (See text for details.)

There were areas of significant differences among the CRNA groups with regard to the components of job satisfaction. This was most apparent between the rural referral center and the Lincoln CRNA groups. The rural referral center CRNA group rated the following significantly higher than the Lincoln CRNA group:
1. Autonomy.
2. Positive CRNA/surgeon relationships.
3. The opportunity to improve professional skills.
4. The opportunity to meet professional goals.
5. The ability to practice anesthesia as trained.
Conversely, the Lincoln CRNA group rated having "sufficient time away from work" higher than all other CRNA groups. The Lincoln CRNA group also rated "access to continuing education" significantly higher than the Omaha and rural CRNA groups. The rural CRNA group was unique in rating "having immediate access to anesthesia assistance" significantly lower than the Omaha, Lincoln, and rural referral center CRNA groups.

There were many similarities among the CRNA groups with regard to choosing their place of residence. All area CRNA groups rated "quality of life" as their principal environmental reason for choosing to reside in their respective communities. In addition, the CRNA groups conferred an equal rating on:
1. Clean environment.
2. Quality public education.
3. Affordable housing.
4. Sense of belonging to the community.
5. Access to outdoor recreation.
6. Involvement in community affairs (Figure 2).

In regard to regional differences, the metropolitan CRNAs, that is, the Omaha and Lincoln groups, similarly rated "having the amenities offered by city living" and "being proximal to centers of higher education" significantly higher than both the rural referral center and rural CRNA groups. In addition, the "spouse's/significant other's ability to secure employment" was rated significantly higher by the metropolitan CRNA groups compared with both rural CRNA groups in determining residential choice.

Rural CRNAs comprised those who work in rural referral centers and smaller rural hospitals. Both of these CRNA groups ranked "life in a small town" to be an important factor in choosing their communities.

**Discussion**

The results of this survey confirm that metropolitan CRNAs place greater value on "having the amenities offered by city living," while rural CRNAs place greater value "on life in a small town." Nevertheless, all four CRNA groups ranked "quality of life" as their foremost reason for choosing their communities.

As for employment and overall job satisfaction, CRNAs reported equal job satisfaction regardless of the location of their employment. However, CRNAs who work in rural referral centers rated many of the components of job satisfaction significantly higher than their Lincoln metropolitan counterparts. Perhaps having sufficient time away from work was the great equalizer. The Lincoln CRNA group rated this component significantly higher than all other CRNA groups, and the rural referral center rated it last on the 16-part job satisfaction scale.

Future study is planned to establish any relationship that exists between the demographic data obtained in this study with the overall level of CRNA job satisfaction.

**REFERENCES**


**AUTHORS**

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