



Complementary, Alternative, and Integrative Therapies: Implications for School Nurses

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Funding

- ▶ This work was supported by a Sigma Theta Tau International, Kappa Theta Chapter Research Award, Western Kentucky University

Background and Significance



- ▶ Complementary, alternative, and integrative therapies (CAI) include practices that are not traditionally associated with conventional medicine.
- ▶ Research indicates that children use CAI to treat respiratory illnesses (Berg, Morpew, Tran, Kilgore, & Galant, 2016) and attention-deficit hyperactivity disorder (Herbert & Esparham, 2017).

Background and Significance

- ▶ With the expansion of CAI therapy use in children, it is imperative that school nurses are knowledgeable and equipped to assist children in the school setting.
- ▶ However, there is a lack of procedural guidance for school nurses. In addition, there is also limited research about nurses' perceptions and knowledge of CAI. Furthermore, this data is limited to nurses practicing in areas other than school nursing.



Background and Significance

- ▶ In a systematic review (15 studies) about nurses' knowledge and use of CAI therapies (n=5162)
 - ▶ 77.4% felt they needed more training
 - ▶ 80% expressed deterrents to using CAI in various work settings
 - ▶ < 25% reported discussing CAI with their patients

Background and Significance

- ▶ Similarly, in a descriptive study (n=335), researchers found less than one third of the nurses studied asked their patients about CAI use because:
 - ▶ they did not think they had the knowledge base to do so
 - ▶ they lacked time to ask
 - ▶ they felt CAI was not an important part of the treatment plan

Purpose

- ▶ The purpose of this study was to assess school nurses' perceptions and knowledge of CAI and their understanding of the necessity and legality of CAI use in their school districts.



Research Questions

1. What are school nurses' perceptions of CAI therapies?
2. What are school nurses' knowledge of how CAI therapies are defined?
3. How prepared do school nurses feel about administering CAI therapies?
4. What is the level of CAI therapies use in U.S. schools?
5. Are school nurses aware of policies related to CAI therapies?

Methods

Research Design, Participants, & Setting

- ▶ Nonexperimental, descriptive study
- ▶ Used a researcher-developed instrument
- ▶ Approved by WKU IRB prior to administration
- ▶ Cross-sectional convenience sample of members of state School Nurses Associations in 4 states
- ▶ Survey was delivered electronically through Qualtrics or at the State School Nurses Association Annual Conference
 - ▶ N = 290; 30.5% response rate

Questionnaire

1. How important do you believe CAI education is for school nurses?
2. How strongly do you believe that children (under age 12) have a right to CAI integration in their conventional therapy?
3. How strongly do you believe that adolescents (age 13-19) have a right to CAI integration in their conventional therapy?
4. How strong is your belief in the accountability of students disclosing the use of CAI therapies to their school nurse?

Questionnaire

5. How strongly do you believe in students' caregivers' accountability for disclosing the use of CAI therapies to the school nurse?
6. How strong is your belief in a school nurse's accountability for assessing students for the use of CAI therapies?
7. As a school nurse, do you believe that CAI therapies have a role in your practice?
8. If you agree CAI therapies have a role, what importance do they play in your practice?

Questionnaire

- 9. Incorporating complementary practices into mainstream health practices is called ?
- 10. Using non-mainstream practices together with conventional practices is called ?
- 11. Using non-mainstream practices in place of conventional practices is called?

Questionnaire

- 12. I believe school nurses should have knowledge of the most common CAI therapies.
- 13. Are you permitted to administer any form of CAI therapy in your school/practice?
- 14. Are you familiar with your board of registered nursing's CAI advisory statement?
- 15. Do you ever assess your students for CAI use?
- 16. How comfortable are you in assessing your students for CAI use?

Questionnaire

17. Please select answers that best describe your feelings about CAI therapies:

- Legitimate supported by research
- I see this used in my practice as school nurse
- Concerned about safety of this therapy being used
- Feel comfortable in administering or assisting in the administration
- Not allowed to use this therapy in my school nurse practice based on board of nursing or school district policy
- Acupuncture
- Chiropractic
- Herbal medicines
- Homeopathic medicine
- Hypnotherapy/hypnosis
- Massage
- Yoga
- Aromatherapy
- Prayer/spiritual interventions
- Meditation
- Art therapy
- Music therapy

Data Analysis

- ▶ Utilized IBM SPSS Statistics Version 24
- ▶ Responses were described using frequencies, means, and standard deviations
- ▶ Relationships between independent and dependent variables were determined using Chi-square.
- ▶ The significance level was set at $p < .05$

Results

Demographics (N=290)

| Items | N | % |
|------------------------|-----|------|
| Gender | | |
| Female | 288 | 99.3 |
| Age (years) | | |
| 20-29 | 3 | 1.0 |
| 30-39 | 25 | 8.6 |
| 40-49 | 54 | 18.6 |
| 50-59 | 134 | 46.2 |
| 60+ | 74 | 25.5 |
| Race/Ethnicity | | |
| African American/Black | 11 | 3.8 |
| Asian | 3 | 1.0 |
| Caucasian | 272 | 93.5 |
| Other | 5 | 1.7 |
| School Location | | |
| Urban | 79 | 28.0 |
| Suburban | 128 | 45.4 |
| Rural | 75 | 26.6 |

Demographics (N=290)

| Items | N | % |
|-----------------------------------|-----|------|
| Highest Education Level | | |
| ASN | 21 | 73.0 |
| Diploma | 1 | 0.3 |
| BSN | 132 | 45.7 |
| MSN | 128 | 44.3 |
| Doctorate | 7 | 2.4 |
| Employment Status | | |
| Full Time | 259 | 89.9 |
| Part Time | 29 | 10.1 |
| School Nurse Certification | | |
| Yes | 197 | 68.4 |
| Certificate Type | | |
| State | 146 | 62.9 |
| National | 26 | 11.2 |
| Both | 60 | 25.9 |
| No | 91 | 31.6 |

| Item | N | % |
|--------------------|-----|------|
| CAI Trained | | |
| Yes | 81 | 28.2 |
| In Nursing School | 9 | 32.1 |
| NCCIH Website | 2 | 7.1 |
| Other | 17 | 60.7 |
| No | 206 | 71.8 |



Results – Research Question 1

- ▶ What are school nurses' perceptions of CAI therapies?

- ▶ Validity of 12 CAI therapies

- ▶ The majority of nurses believed these are valid therapies:

- ▶ Music therapy (55%), art therapy (55.7%), meditation (54.7%), and yoga (51%)

- ▶ Between 40% & 50% of the nurses identified these therapies as legitimate:

- ▶ massage, acupuncture, prayer/spiritual interventions, and chiropractic



- [illegible]



Results – Research Question 3

- ▶ How prepared do school nurses feel about administering CAI therapies?
 - ▶ Some felt comfortable in administering or assisting with administration of some therapies:
 - ▶ Music therapy (25.7%)
 - ▶ Meditation (25.3%)
 - ▶ Art therapy (24.7%)
 - ▶ Prayer/spiritual intervention (19.7%)
 - ▶ Yoga (18.7%)
 - ▶ Aromatherapy (15.3%)



Results – Research Question 3 cont.

- ▶ Only 19% felt comfortable **assessing** children's and adolescent's use of CAI
 - ▶ Most were not assessing (55%)
- ▶ Few (12%) felt comfortable with their **knowledge** about CAI therapies

Results – Research Question 4

- ▶ What is the level of CAI therapies use in U.S. schools?
 - ▶ Few participants reported seeing the use of CAI in their schools
 - ▶ Art therapy (19.3%)
 - ▶ Music therapy (19.3%)
 - ▶ Yoga (17.3%)
 - ▶ Aromatherapy (17.3%)
 - ▶ Meditation (14.7%)
 - ▶ Herbal medicine (14.7%)
 - ▶ Homeopathic medicine (14.3%)
 - ▶ Massage (14%)
 - ▶ Prayer/spiritual intervention (12.3%)



Results – Research Question 5

- ▶ Are school nurses aware of policies related to CAI therapies?
 - ▶ 70% of participants were unaware of their state board of nursing and/or school district policy on the use of CAI in schools
 - ▶ Depending on the specific therapy, between 17% and 50.3% of participants reported that state boards or school boards prohibited their administration of CAI therapies in school

Conclusions

- ▶ School nurses believe that students should be able to use CAI therapies at school.
- ▶ However, most were not comfortable with assessing for use and administering these therapies to their student population.
- ▶ Furthermore, a majority did not know if administration was even within their scope of practice.

Implications for Nursing

- ▶ School nurses may be one of the first health professionals that parents and children look to for guidance in administration of CAI therapies.
- ▶ School nurses must be ready to assist.
- ▶ Position statements for the education of pediatric nurses and implementation of CAI therapies have been largely overlooked in the U.S.

Implications for Nursing

- ▶ Over 20 years ago, Cleveland and Biester (1995) called for pediatric nurses to be educated in CAI therapies, conduct research in their practices, and advocate for inclusion in health care plans.
- ▶ A decade later, The Society of Pediatric Nurses printed a Position Statement with recommendations for the use of CAI in the care of children (Asher, 2007).
- ▶ Most recently, in an editorial in the *Journal of Pediatric Nursing*, another plea for more attention by providers was made due to the prevalence of use of CAI therapies in pediatric patients (Betz, 2018).

Implications for Nursing

- ▶ Policy advocacy is also paramount.
- ▶ Lack of guidelines or position statements should be addressed and be readily available to the school nurse.
- ▶ The 2017 National School Nurses Association Position Statement on medication administration recommends that school policies reflect those of local and state governments (National Association of School Nurses [NASN], 2017).

Limitations

- ▶ A convenience sample was used
- ▶ Participants were from limited geographic areas
- ▶ Participants completed the questionnaire at a conference vs. online survey
- ▶ A self-report instrument was used
- ▶ The response rate was low

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Questions

