The North Dakota Nurse

NDNA
NORTH DAKOTA NURSES ASSOCIATION

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THE OFFICIAL PUBLICATION OF THE NORTH DAKOTA NURSES ASSOCIATION
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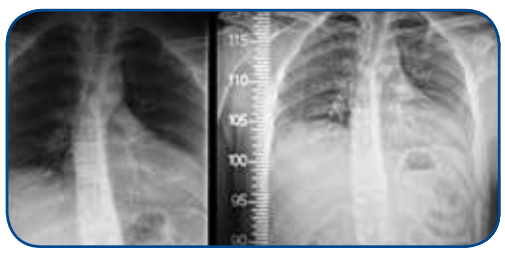

Message from the President

Thankful and Grateful

Tessa Johnson

Greetings North Dakota Nurses! This is the time a year that we get to reflect. We get to reflect on why we are grateful, why we are thankful and how we remain humble. When considering our careers, our business, and the demands on us as nurses, it can sometimes be a challenge, but we must be intentional about it. It is difficult to get stuck into the stress, fear and unknown of COVID-19. I think as this time approaches, during holidays and start a new year, it is important to look at the positive as best as we can.

As we look onward to a new year, it is normal to reflect and be thankful for those people who are most important to us including family, friends, and coworkers and to acknowledge the areas that make our lives meaningful and bring us joy. As nurses, we should be aware that the act of being grateful is more powerful than we may realize (Haryanto, 2018). When we remember to be grateful our attitude in general can change things positively around us. Being grateful also can have significant positive effects on our health. As many of us know, working during this challenging year, attitude can change a lot. If we are able to remain a positive attitude it can change our outlook.

Being grateful and having a positive attitude as a nurse at times can be more difficult than we would like to admit. Considering the daily strains that face nurses, it is comprehensible that negativity in the work environment can result in a toxic culture and ungrateful teams. According to Mickey, "A recent survey conducted by http://Nursing.org asked nurses who were in the profession for less than one year what they wished they had known before starting their first positions. The top five items were understanding and acceptance that no one has all the answers, realization of the independent nature of the work, recognition that slow deliberate action is better than rushing, the need to keep the best interests of the patient in the forefront, and the insight that small degrees of gratitude can make a considerable difference" (Haryanto).

When reflecting on those survey results, it very much implicates on not only just nurse leaders to set good examples, but all nurses. Every single nurse plays an important role in making sure they do their part. The act of all nurses practicing gratitude is a factor of emotional intelligence and is essential for effective nursing practice for all of us. Gratitude affects the way nurses are perceived by others and is necessary for good teamwork. When people feel valued, they have higher job satisfaction, engage positively with coworkers, and are more eager to work toward organizational goals. Even if we must make it very intentional in our workplaces to be a grateful, humble and thankful nurse the good news is, it is contagious. Everybody likes to feel good and to be in a positive environment. Be well, we need all of you!

Haryanto, M. (2018). Nursing and the Attitude of Gratitude: Keep the Spark Burning. Orthopedic Nursing, 37(6), 335–336. Retrieved from https://www.nursingcenter.com/journalarticle?Article_ID=4843654&Journal_ID=403341&Issue_ID=4843653

Not a Member? Consider Joining NDNA and ANA Now!

In September of 2019, NDNA membership voted to implement a NEW membership option. You can join NDNA and ANA for $15/month!

This new membership option will provide you with all the advantages of membership in both organizations. You'll have access to a multitude of opportunities and resources as listed below.

Both nationally and internationally, the year 2020 has been declared the Year of the Nurse. During the legislative sessions, NDNA is working to advance the nursing profession and improve access to care for all North Dakotans. To do that, we need your support. There's no better time than now – the Year of the Nurse – to join the professional organization for nurses in North Dakota. There's strength in our numbers, and together we make an impact by tackling the issues nurses face every day.

Benefits NDNA/ANA Members enjoy!

- Advance your career with free development resources and webinars;
- Stay current with the most up-to-date nursing news;
- Save money with big discounts on CE, certification, publications and more;
- Network and connect with other nurses across the state for support and advice;
- Make your voice heard with opportunities to tell policymakers what you think; and
- Receive NDNA member benefits, including a copy of the North Dakota Nurse.

Both RNs *and* LPNs can join today by visiting our website: www.ndna.org - click on the "join now" tab and select RN or LPN

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How to submit an article for The North Dakota Nurse!

Nurses are strongly encouraged to contribute to the profession by publishing evidence-based articles; however, anyone is welcome to submit content to the North Dakota Nurse. We review and may publish anything we think is interesting, relevant, scientifically sound, and of course, well-written. The editors look at all promising submissions.

Deadline for submission for the next issue is ***12/3/2020***. Send your submissions to director@ndna.org or info@ndna.org.

Welcome New Members

Michele Simon
Hannover ND

Toni Abelseth
Dickinson ND

Brandi Diede
Bismarck ND

Cray Eppler
Fargo ND

Whitney Langen
Devils Lake ND

Carissa Bucholz
West Fargo ND

Tammy Davis
Fargo ND

Pauline Kimaru
Minot ND

Tara DeCrans
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Denise Stewart
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Board of Directors

See article in this issue on the newly elected board members for 2021-2022.

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Writing for Publication in The North Dakota Nurse

The North Dakota Nurse accepts manuscripts for publication on a variety of topics related to nursing. Manuscripts should be double spaced and submitted electronically in MS Word to director@ndna.org. Please write ***North Dakota Nurse article*** in the address line. Articles are peer reviewed and edited by the RN volunteers at NDNA. **Deadline for submission of material for upcoming North Dakota Nurse is 12/3/20.**

Nurses are strongly encouraged to contribute to the profession by publishing evidence based articles. If you have an idea, but don't know how or where to start, contact one of the NDNA Board Members.

The North Dakota Nurse is one communication vehicle for nurses in North Dakota.

Raise your voice.

The Vision and Mission of the North Dakota Nurses Association

Vision: North Dakota Nurses Association, a professional organization for Nurses, is the voice of Nursing in North Dakota.

Mission: The Mission of the North Dakota Nurses Association is to promote the professional development of nurses and enhance health care for all through practice, education, research and development of public policy.

ANA President Condemns Racism, Brutality and Senseless Violence Against Black Communities

SILVER SPRING, MD - The following statement is attributable to American Nurses Association (ANA) President Ernest J. Grant, PhD, RN, FAAN:

"As a nation, we have witnessed yet again an act of incomprehensible racism and police brutality, leading to the death of an unarmed black man, George Floyd. This follows other recent unjustified killings of black men and women, such as Ahmaud Arbery and Breonna Taylor to name a few.

Protests have erupted in cities across the country and the world in response to a persistent pattern of racism in our society that creates an environment where such killings occur. Justice is slow and actions to ensure real change are lacking.

As a black man and registered nurse, I am appalled by senseless acts of violence, injustice, and systemic racism and discrimination. Even I have not been exempt from negative experiences with racism and discrimination. The Code of Ethics obligates nurses to be allies and to advocate and speak up against racism, discrimination and injustice. This is non-negotiable.

Racism is a longstanding public health crisis that impacts both mental and physical health. The COVID-19 pandemic has exacerbated this crisis and added to the stress in the black community, which is experiencing higher rates of infection and deaths.

At this critical time in our nation, nurses have a responsibility to use our voices to call for change. To remain silent is to be complicit. I call on you to educate yourself and then use your trusted voice and influence to educate others about the systemic injustices that have caused the riots and protests being covered in the news. The pursuit of justice requires us all to listen and engage in dialogue with others. Leaders must come together at the local, state, and national level and commit to sustainable efforts to address racism and discrimination, police brutality, and basic human rights. We must hold ourselves and our leaders accountable to committing to reforms and action.

I have a deeper moral vision for society, one in which we have a true awareness about the inequities in our country which remain the most important moral challenge of the 21st century. This pivotal moment calls for each of us to ask ourselves which side of history we want to be on and the legacy we will pass on to future generations."

NDNA Elections 2020

There was another important election that took place this year! The North Dakota Nurses Association elections took place online August 13, 2020 through August 26, 2020. A huge congratulations is offered to the below nurses who will be a part of the 2021-2022 NDNA Board of Directors. Thank you for your service.

***President - TESSA JOHNSON, MSN, BSN, RN, CDP (re-elected)**

"I have thoroughly enjoyed my time as the President of the board. I am thrilled to have a President-Elect so I can finish my tenure and pass on the torch effectively to her."

***Director of Education and Practice - COURTNEY NAASTAD, PMHNP-BC, MSN, BSN, RN**

"I graduated with my BSN from the University of North Dakota in 2014. I then worked in the Cardiac Intensive Care Unit and the Inpatient Psychiatry Unit at Sanford in Fargo while I obtained my MSN from the University of North Dakota in 2019. At that time, I became a Board Certified Psychiatric Mental Health Nurse Practitioner and since then have been working in both inpatient and outpatient settings, focusing on a variety of behavioral health disorders. I am currently working at Rural Psychiatry Associates in Grand Forks, ND where I am privileged to have the opportunity to care for patients in multiple states, particularly in rural areas where psychiatric care is not easily accessible. Throughout my nursing career, I have worked as charge and mentored many new nursing students and fresh graduates. I also will be a preceptor for future psychiatric mental health nurse practitioners. I believe it is so important to give back to the field of nursing through advocacy and teaching. By focusing on bridging the gap between current and future nursing students through organizational involvement and development, we can build strong leaders that will continue to support one another and advance our profession."

***Director of Advocacy - TANIA BROST, BSN, RN (re-elected after appointment in 2019)**

"I obtained my BSN from the University of Saskatchewan in 1996. I made the move to ND in 1998, taking a full-time position at the Southwest District Health Unit, as the Health Maintenance Nurse. Later that year, I started a 15-year career at CHI St. Joseph's Hospital, in Dickinson. Over those 15 years, I gained experience working on many different units including, med surg, ICU, float pool, house supervisor, ER, day surgery and PACU. I worked as charge nurse in all of these units and was the Lead Nurse in the ER for approximately 8 years. For the past five and a half years, I have been employed with Sanford Health. I began my time at Sanford, working towards opening and managing the Ambulatory Surgery Center. The last 3 years, my role has been that of Ambulatory Nurse Manager for Dickinson East, West and Watford City Clinics. From 2017-2019, I was president of the DSU Student Nurse Advisory Committee and I continue to serve on this committee today. I love everything about being a nurse and have a true passion for this profession."

***Director at Large - JARREN FALLGATTER, BSN, RN (re-elected)**

"I work as a nurse in the ICU at Sanford in Bismarck. During this pandemic, my unit has also stepped up to the plate to work with the COVID patients. I graduated in May, 2019, from NDSU in Fargo. While in Fargo, I was involved in SNA, serving as Vice President. I also served as the Breakthrough to Nursing for NSAND. I enjoy being involved in a club and serving the profession of nursing on a larger scale. I believe in being a member, in order to continue to advocate for nurses, policies, and patients. I think more new grads and new nurses need to realize that their local chapter membership can easily be bridged to membership with NDNA. Connecting with nurses and participating in an organization creates bonds, knowledge, and development. In this time of unknown, I think it is important that nurses have a reliable source to look to and someone to speak for and represent them at a larger scale. I have enjoyed my time serving as Director at Large since the start of 2020, and look forward to continuing with the position."

***NDNA Affiliate Member Representative (LPN) - CATHERINE SIME, LPN**

"I have been an LPN for almost 40 years. I have worked in pretty much every area of nursing including long term care, acute, surgery, travel nursing and ambulatory clinic. I am currently employed at Southwest Healthcare Services in Bowman since 1991. I currently work in the hospital/ER and as a phlebotomist in the lab. I have served as Diabetic Care Coordinator and am currently on the Nursing Clinical team for Capstone Leadership. I am excited to be the first LPN to join the NDNA and to share this possibility with other LPNs. I look forward to serving and advocating for nurses during these challenging times."

2020/2021 North Dakota POLST Awareness, Education and Implementation

The Center for Rural Health and Honoring Choices North Dakota have partnered to offer, at no charge, ***2020/2021 North Dakota POLST Awareness, Education and Implementation.*** To provide an opportunity for everyone to get educated, this training will be held live once per month on the following dates:

- Wednesday 11/11 @ 10am
- Wednesday 12/9 @ 2pm
- Wednesday 1/13 @ Noon
- Wednesday 2/10 @ Noon
- Wednesday 3/10 @ 2pm

Why attend?

- Acquire new skills, competencies, and best practices regarding POLST.
- Learn about best practices and scripting for patients with serious and life threatening illnesses.
- Enhance your awareness and education about POLST in North Dakota.

Target Audience: Advanced Practice Nurses, Nurses, Social Workers, Chaplains, & EMS (but open to anyone)

This training has been approved for one contact hour by the North Dakota Board of Nursing, North Dakota Board of Social Work Examiners, ND Department of Health - EMS Division, and the Board of Chaplaincy Certification Inc.

NDNA 2020 Virtual Fall Conference

NDNA was fortunate have seven wonderful and passionate speakers presenting on the overall theme: *Care and Support of Vulnerable Populations: Key Considerations for the Nursing Profession*. The conference was held via Zoom on September 22.

The day started with a warm up and few words from a few of our sponsors and a quick "virtual" scavenger hunt. The official start came with President Johnson providing the inspiring opening remarks and introducing the first speaker.

The speaker lineup:

- Don Moseman - *Workplace Violence*
- Michelle Gayette and Nikki - *Abuse Later in Life*
- Brooke Fredrickson - *Weight Neutral Healthcare*
- Dr. Analena Lunde - *Human Trafficking*
- Leah Beekman - *Nurse Burnout*
- Shauna Eberhardt - *Language Matters*

Each speaker provided valuable and pertinent information that nurses can use everyday.

Throughout the day, we were able to have some of our sponsors speak directly to the virtual attendees as a form of an expo and have fun giveaways.

Although not in person and ideal, overall, we are very pleased with our first NDNA Virtual Fall Conference! We would like to thank all of the attendees, speakers and sponsors for enabling us to provide this education for North Dakota nurses!

NDNA 2020 Virtual Annual Meeting

The North Dakota Nurses Association membership met for our Annual Business Meeting on September 21. This year was virtual and held on Zoom! Although it was a smaller group than we typically have, the meeting proved to be productive as two Main Motions arose from the meeting.

The meeting began with a review and approval of the 2019 Annual Business Meeting Minutes. Installation of newly elected and re-elected officers was a bit different in 2020 with each installed via Zoom. We are excited to have Courtney Naastad, PMHNP-BC, MSN, BSN, RN as Director of Education and Practice and our very first LPN member and board member, Catherine Sime, LPN join our board. Tessa Johnson, MSN, BSN, RN, CDP was re-elected as President of NDNA and Tania Brost was re-elected after an appointment last year to Director of Advocacy. Read more about the board in a feature article in this issue of The North Dakota Nurse. Welcome to these dedicated nurses!

Next, President Tessa Johnson offered her Annual President's Address. Each of the board members present reported on their perspective areas - President-Elect, Melanie Schock, DeeAnna Opstedahl, Vice President of Finance, and Tania Brost, Director of Advocacy. Executive Director, Sherri Miller, also provided a report.

NDNA Members were joined via phone call by Dr. Patricia Moulton Burwell, Executive Director of the North Dakota Center for Nursing who reported on the status of the Center.

The North Dakota Board of Nursing provided a detailed report and video for our members outlining the work they have done this past year. The report was sent out to those in attendance.

The Main Motion from 2019 and Value Pricing were discussed next. The Main Motion from 2019 was to investigate the possibility of opening up our membership to LPNs. This was accomplished in 2020 and NDNA President was happy to report that Catherine Sime was present at the meeting and installed as a new board member!

Value Pricing took effect in March of 2020 and has been a success. As the pandemic also started in March, at this point, it is somewhat difficult to delineate whether the increase in membership comes from VP or an effect of COVID-19. In any case, NDNA President Tessa Johnson reported that the association has seen a 19% increase in membership since the last annual meeting! Remember to tell your colleagues that NDNA membership at the low rate of $15 per month - share the link JOIN or they can go to the NDNA website, and click on the "join now" tab. Marketing tools will be provided to the members in attendance who requested them, as well as, groups such as CUNEA (College and University Nursing Education Administration).

The meeting progressed to new business and two Main Motions arose. Main Motion #1 was proposed by Mylynn Tufte and suggests a focus on social determinants of health and social equity. Main Motion #2 was raised by Evelyn Quigley. It is to look at the status of school nursing in the state and report back at the 2021 Annual Membership Meeting. Please read more about Main Motion #1 in this issue of The North Dakota Nurse. The NDNA board is seeking to form a task force to work on the details of the motion and we would love your help - nurses and students alike are welcome to join the task force.

As all annual meetings end, the Nightingale Tribute was the last item on the agenda. A memorial slideshow ran showing the names of North Dakota Nurses who have passed within the last year.

Although it was a very different format for our meeting, it was productive and transitioned well to our first ever virtual Fall Conference!

NDNA Opportunities for Nurses and Nursing Students!

The NDNA 2020 Annual Business Meeting took place on Monday, September 21 - virtually. At the meeting, two Main Motions were proposed. The first one states, *"I move that NDNA investigates actions and policies that we can lend our support to, to improve health equity and reduce healthcare disparities."*

It was determined that a task force be formed to work on this motion. A follow up meeting took place on Friday, October 2. Mylynn Tufte, NDNA Member and motion maker, President Tessa Johnson, Director of Advocacy, and Executive Director, Sherri Miller discussed opportunties for nurses and nursing students to join this task force.

The rationale given cited this article: https://ojin.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Vol-23-2018/No3-Sept-2018/Policy-Advocacy.html.

The below article also provides information: https://dailynurse.com/health-equity-what-does-it-mean-for-nursing/

If you are interested in being a valuable member of the task force, please contact director@ndnd.org. Again, we welcome students to join this group!

ND Nurse: Resilience Series 4 of 7

Melanie Schock, DNP, RN, CNE

In part one of this series, an introduction to resilience was presented which set the stage for its extensive impacts on the nursing profession as well as those we serve. For part two of this series, insights toward resilience and its importance in the lives of nursing students and nurse educators were revealed, as well as strategies to enhance resiliency within the academic setting. Part three of this series focused on the new nurse. Specifically, their unique challenges and needs and why resilience is essential for transitioning to practice. To conclude the segment, strategies for surviving (and thriving) in the face of adversity, were shared, that can benefit *all* nurses. For this issue of the *North Dakota Nurse,* the fourth part of this series tends to resiliency for nurses in special settings. Unique nursing populations are highlighted in the literature with hopes of tailoring to resilience needs. Certainly, we all can glean relevance here as resiliency has universal impacts, no matter our professional (or personal) circumstances.

A randomized and controlled 12-week intervention study was conducted for intensive care unit nurses. The intervention was a multimodal resilience training program including written exposure sessions, event-triggered counseling sessions, stress-reduction exercises, and a protocolized aerobic-exercise regimen (Mealer et al., 2014). As a workable intervention for intensive care nurses, there was a significant decrease in post-traumatic stress disorder symptom scores after the program.

Another population of focus was burn center nurses. Christiansen et al. (2017) developed a standardized staff development program with hopes of improving nurse satisfaction, increasing resiliency, building unit cohesion, and enhancing morale and unit performance. The eight-hour training day consisted of lecture/education along with teambuilding and resiliency training. Ultimately, the program was successful in supporting teamwork and resiliency among the staff.

As the last focused population, Potter et al. (2013) paid attention toward oncology nurses. For nurses in this area, it was affirmed that "Compassion fatigue is a prevalent condition among healthcare providers and that the development of resiliency to compassion fatigue may improve decision making, clarity of communication, and patient and nurse satisfaction" (p.180). A five–week program that included five 90–minute sessions on compassion fatigue resiliency benefited the sample of 13 oncology nurses employed in an outpatient infusion center. The program interventions were designed to promote resiliency via self–validation, –regulation, –care, intentionality, and connection.

In part five of this series, those we serve, patients, will be addressed and how resilience plays a part in their wellness, illness, and recovery trajectories. In the interim, especially during these trying times, stay well, support one another, and treasure being a North Dakota nurse.

References

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Potter, P., Deshields, T., Berger, J. A., Clarke, M., Olsen, S., & Chen, L. (2013). Evaluation of a compassion fatigue resiliency program for oncology nurses. *Oncology Nurse Forum, 40*(2), 180-187. https://doi.org/10.1188/13.ONF.180-187

Combination Acupuncture and Cupping for Treating Adult Idiopathic Scoliosis

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ABSTRACT

Background: There is limited previous English-language literature on acupuncture's ability to treat idiopathic scoliosis. This report shows the potential effectiveness of a combination of acupuncture and cupping therapies to treat curvature progression and thoracic back pain in adult idiopathic scoliosis.

Intervention: A 34-year-old male veteran of the U.S. Armed Forces with thoracic back pain and muscle spasms originally presented to the chiropractic clinic at the Fargo Veterans Affairs Healthcare System, Fargo, ND. Per radiographs taken prior to the consultation, the chiropractor determined that the patient had an idiopathic right-convex scoliosis curve of ~21°. Due to immobility of the thoracic spinal vertebra upon adjustment, he was referred to acupuncture care. After a clinical review, the acupuncturist hypothesized that a combination of utilizing acupuncture and cupping techniques would help relax the muscles along the thoracic spine, allowing correction of the patient's abnormal spinal curvature. Combination Traditional Chinese Medicine (TCM), using acupuncture with cupping therapy was given ~2 times per week for several weeks, resulting in a total of 15 treatments.

Results: After 15 treatments, this patient's subjective pain decreased by 85%. Anecdotally, he reported ''feeling a bit looser.'' He continued to receive acupuncture and cupping treatments when his schedule allowed.

Conclusions: The combination therapy was effective for treating musculoskeletal pain but was inconclusive with respect to its ability to treat adult idiopathic scoliosis. More research is needed on the efficacy of TCM for treating adult idiopathic scoliosis.

Keywords: complementary and alternative medicine, Traditional Chinese Medicine, acupuncture, cupping, adult idiopathic scoliosis, scoliosis

INTRODUCTION

Idiopathic scoliosis is the most common type of spinal deformity of unknown origin and has a prevalence of more than 8% of adults over age 25.[1] The diagnostic criterion is a spinal curvature >10° on an anteroposterior (A/P) radiograph.[2] The curvature of a scoliotic spine can increase by 0.5°–2° per year. Adult idiopathic scoliosis typically is a continuation from adolescence but can also start in teenage years and continue into adulthood.[3] The majority of adults with this condition are not disabled due to their symptoms and can manage their pain through over-the-counter medication, exercises, braces, or epidurals/ nerve block injections.[2,3] For patients in whom these measures are not successful, surgical treatment might be recommended. An alternative approach to treating adult idiopathic scoliosis and managing musculoskeletal pain is acupuncture therapy.

Acupuncture is commonly used to manage pain throughout the world, although its ability to treat adult idiopathic scoliosis is still being determined.[4] Research on acupuncture's ability to treat idiopathic scoliosis is in its infancy and has not been conducted on adults prior to this report, to the current authors' knowledge. A literature search, using the databases PubMed, ClinicalKey, and MEDLINE®, using the keywords *acupuncture* and *scoliosis* resulted in a total of only seven studies, none of which investigated acupuncture's effectiveness to treat adult idiopathic scoliosis.

Traditional Chinese Medicine (TCM), which includes acupuncture, is commonly used to address musculoskeletal pain and muscle tightness.[5] Certain acupunctureneedle stimulation techniques can either tonify or sedate energy in meridians.[6] It is believed that tonifying the areas of weak muscles and sedating the areas of overactive muscles can have a relaxing and balancing effect. TCM also includes cupping, a therapy that often uses fire inside of a glass cup to create a vacuum effect. This vacuum effect creates negative pressure on the areas of the body that it is applied to.[6] Cupping is believed to increase blood and energy flow to the area cupped, relax muscles, and relieve pain.[7]

This case study evaluates the effectiveness of the combination of acupuncture with cupping and other TCM therapies to treat or halt the progression of the curvature of the idiopathic scoliotic spine by addressing the muscular imbalances of a patient's spine.

CASE

Prior to being referred to acupuncture at the Fargo Veterans Affairs Health Care System (VA HCS), this 34-year old male veteran of the U.S. Armed Forces was initially seen for chiropractic care to address pain in his thoracic spine that was affecting his ability to bend and sit. The patient's chief complaint was thoracic spinal pain. Anecdotally, he reported his pain to be ''worse in the morning and alleviated later in the day,'' with initial objective pain while stationary at 6/10 and upon bending at 7/10. He denied any trauma to the affected area. However, his duties in the U.S. Armed Forces required him to wear body armor daily, weighing ~40 lbs. for long periods of time. Radiographs taken prior to his chiropractic care showed an idiopathic right-convex scoliosis of ~21° (Fig. 1). The apex of the scoliosis was near the T-5 segment of the thoracic spine. The patient was unaware of his spinal curvature during his time in the military and prior to being treated at the Fargo VA HCS.

During the initial chiropractic consultation, the patient's thoracic-spine flexion was 20°, and his thoracic-spine extension was 5°, right-lateral flexion was 10°, and left-lateral flexion was 15°. Static palpation elicited pain over the right side of the T-5 segment. The patient objectively described his pain as ''gripping and stiff'' and reported that bending at the waist increased his pain near T-5/T-6. During the second and third chiropractic visits, the patient was adjusted for a spinal subluxation of the T-5 segment to the right and received five minutes of trigger-point therapy prior to adjustment. His objective pain was a 4/10 during both visits with no changes in range of motion. At that time, the chiropractor made the clinical decision to end the series of care due to the lack of movement in the thoracic spinal vertebra upon adjustment. He then referred the patient to acupuncture with the hope of relieving this patient's pain that was related to a muscle spasm in his thoracic spine due to the scoliosis.

After a clinical review, the acupuncturist hypothesized that a combination of acupuncture and cupping techniques would help relax this patient's muscles along his thoracic spine, thereby allowing correction of his scoliotic curvature. At this time, informed consent was signed by the patient to establish a case study. During a physical examination, tight, protruding, and tender muscles were discovered in the left upper-thoracic and right mid-thoracic regions. Specifically, the trapezius, rhomboid major, and rhomboid minor muscles were all taut and ropy upon palpation. Pain was also experienced by the patient upon palpation of these areas.

Acupuncture was performed on the patient, ~2 times per week, for a total of 15 treatments. All needles used were 50-mm long and 32 Chinese gauge. During each treatment, the acupuncturist threaded the inner and outer Bladder meridian from C-7 to T-12 (acupuncture points needled were BL 11–BL 20, SI 14, and BL 41–BL 49). During threading, the acupuncturist inserted the needle transverse to transverse-obliquely 1–1.5 *cun* deep, aimed in the direction of the meridian flow, connecting the acupuncture points together.[8] BL 11 (*Dazhu*, the Hui-Meeting point of Bones) was chosen for its use with diseases of the bone.[8] The left BL 11 point was also a major *Ah Shi,* or tender point, on the patient.

Tonification techniques were used in the areas of muscle deficiency. These areas were on the right side of C-7–T-1 (on and superior to BL 11 *Dazhu*), and to the left of the largest scoliotic curve in the thoracic spine (T-4–T-19/BL 14 *Jueyinshu*–BL 18 *Ganshu*). Other acupuncture points of note were LI 4 *Hegu* (perpendicular insertion, 0.5-*cun* deep), SI 3 *Houxi* (perpendicular insertion, 0.25-*cun* deep), and BL 60 *Kunlun* aimed toward and connecting to KI 3 *Taixi* (see Fig. 2 for Bladder meridian points). During tonification, the acupuncturist inserted the needles into the deficient muscles, and then rotated clockwise with the thumb, slowly.[6]

Sedation techniques were applied to muscles that were consistently tight and sore. When using sedation techniques, the needle was inserted into the tight, overactive muscles. The needle was then rotated counterclockwise, quickly.[6] This technique was applied to two areas.

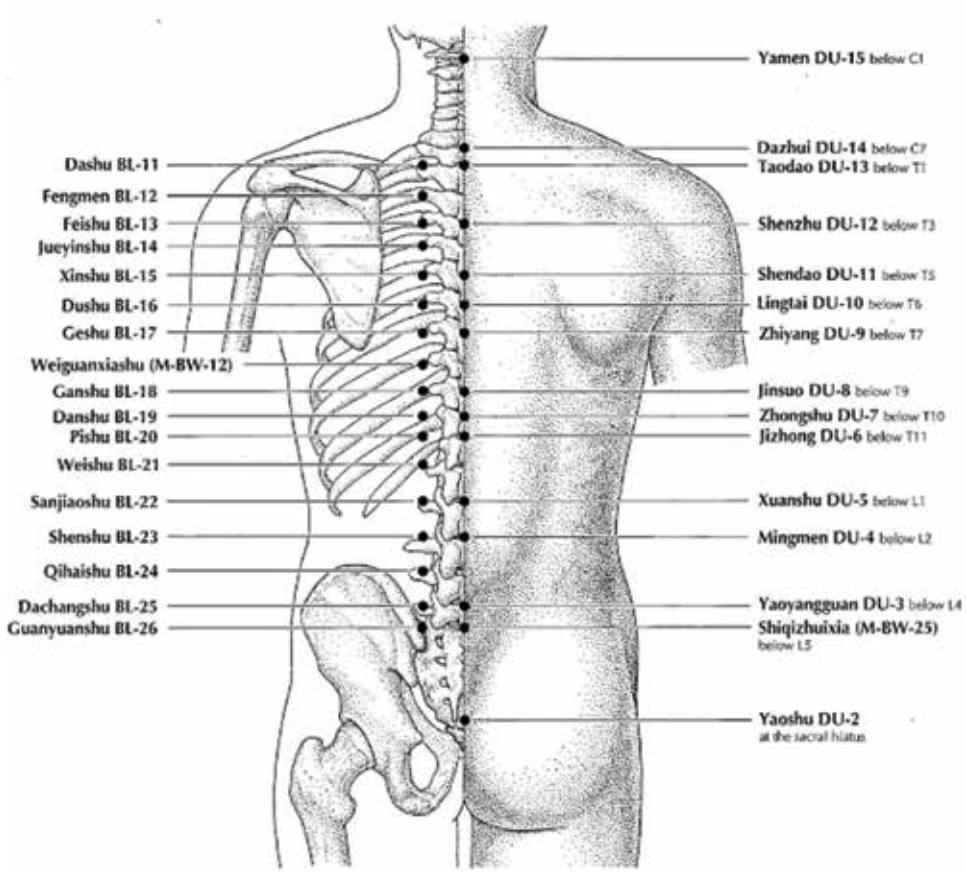

FIG. 1. Radiographs prior and post acupuncture and cupping therapies. Initial radiograph showed a normal anteroposterior A/P thoracic spine view (left) 1 week prior to initial chiropractic consultation and before any interventions. Follow-up radiograph was taken after the fifteenth treatment with acupuncture and cupping therapy and showed A/P scoliosis (right). Preintervention Cobb angle was 21; postintervention angle was calculated at 18.

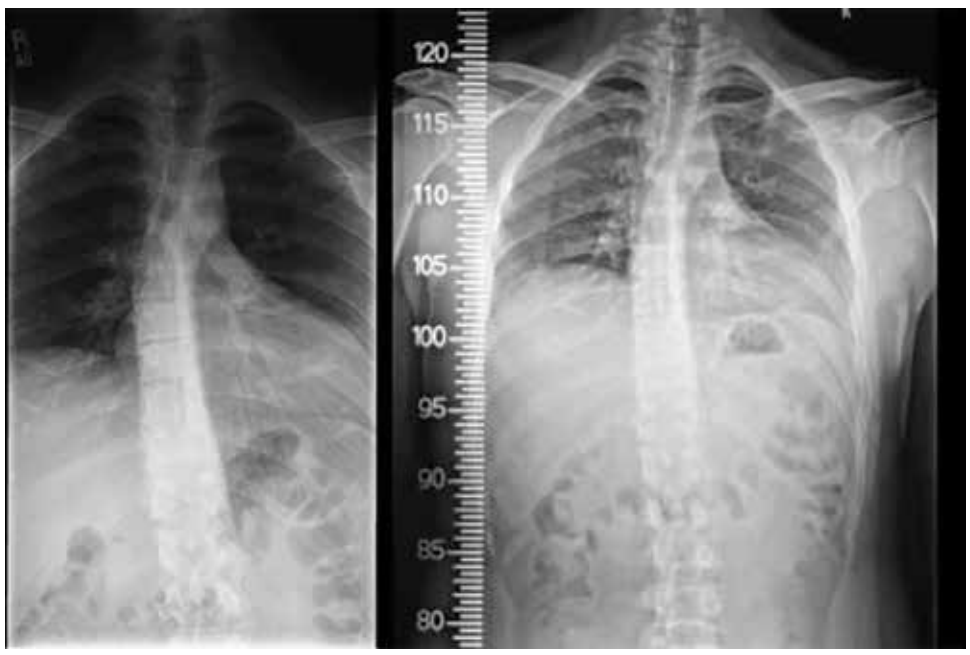

FIG. 2. Location of Bladder Meridian. Credit: Illustration reproduced from A Manual of Acupuncture[8] by permission of the publishers: amanualofacupuncture.com

One was to the right 230 BOEHLAND ET AL. of the largest scoliotic curve in the thoracic spine (T-4–T-9/ BL 14 *Jueyinshu*–BL 18 *Ganshu*). The other area was in the tight muscles near the largest scoliotic curve on the patient's upper left side (C-7–T-1, on and superior to BL 11 *Dazhu*).

Cupping was applied after removal of the needles to the areas of sedation (described above) to induce muscle relaxation, with the hypothesis that relaxing the indicated muscles would allow the spine to resume proper alignment. Cupping was utilized in eight of the 15 total acupuncture treatments. Whether or not cupping was performed was determined by the time constraints of the appointment and the appearance of previous cupping marks. Cups remained stationary for eight minutes at a time. Each cupping session was followed with a minute of *t'ui na* and the application of an herbal analgesic oil along the thoracic and lower cervical spine. *T'ui na* is a method of TCM massage and bodywork.[8] On the days when cupping was not utilized, *t'ui na* was performed for a few minutes with a focus on relaxing the right side of the patient's mid-back and the left side of his upper thoracic and lower cervical areas.

RESULTS

After 15 acupuncture treatments, the patient's follow-up radiographs were measured by the same VA chiropractor. He subjectively measured the thoracic spinal curvature to be 18° (Fig. 1). This was a potential reduction of 3° (14.29%) in the scoliotic curvature. However, this reduction could have been due to radiograph variation and observer calculation variability, as previous studies have found variations with single-observer measurements of up to 3.2°.[9] The patient's self-reported pain since initiating acupuncture was 85% alleviated. Anecdotally, the patient also reported that ''everything is feeling a bit looser'' as a side-effect of his time spent on the acupuncture table.

DISCUSSION

Adult idiopathic scoliosis with unknown origins usually begins during teenage years and can progress into adulthood.[3] This patient was unaware of his condition prior to being seen at the Fargo VA HCS, which led researchers to believe that his time in the military could have increased the degree of his thoracic spinal curvature. In veterans, spinal deterioration is the leading cause of disability.[10] The overall weight of the personal protective equipment (PPE, body armor and helmets) that troops are required to carry has increased over the past 20 years. This increase in weight could be correlated to the worsening rates of deterioration of the spinal column. In 2017, U.S. garrison troops carried an average of 27 pounds of PPE. Combat troops carry anywhere between 96 to 140 lbs. of PPE, with an average of 119 lbs. In 2003, the average combat load was 53–81 lbs. with an average of 67 lbs.[11] This is an average of a 67 lbs. more over the course of 14 years.

In the case of this veteran, he carried body armor that weighed 40 pounds alone. The military medical standards for enlisting states that soldiers can have a thoracic scoliotic curve of up to 30° (according to Cobb-angle measurement) as long as it is asymptomatic.[12] This patient did not have symptoms of pain until seven months prior to being seen at the Fargo VA HCS.

The Cobb-angle measurement was used for the evaluation of the scoliotic curvature on this patient's A/P radiographs. This measurement was used to document curve progression initially with chiropractic care and after the combination TCM treatments. The Cobb angle is measured by taking the angle of lines perpendicular to the superior and inferior end plates of the most-angulated vertebrae involved in the scoliotic curve.[13] The Cobb angle was calculated by the same VA chiropractor to avoid interobserver variations. It should be noted that the initial radiograph consisted of a normal A/P thoracic spinal view, and the follow-up radiograph consisted of an A/P scoliosis view. There was a slight difference in these two radiographs which could have increased the risk of intraobserver variations. This limited the ability to determine the effectiveness of acupuncture and cupping to decrease the scoliotic curvature.

This report added to the limited research available on acupuncture as a treatment option for managing adult idiopathic scoliosis. In addition, no previous literature was found on military body armor's effect on scoliotic curvature. Although this case study did not find conclusive evidence on the ability of combination TCM to treat adult idiopathic scoliosis, the potential decrease in this patient's adult idiopathic scoliotic curvature warrants a larger randomized controlled trial to understand the effectiveness of combination TCM therapies to treat adult idiopathic scoliosis.

CONCLUSIONS

This study demonstrated the effects of combination acupuncture and cupping therapy for a 34-year-old veteran of the U.S. Armed Forces with adult idiopathic scoliosis. While the overall pain of the patient was 85% alleviated, study of this patient did not yield conclusive evidence that the combination acupuncture and cupping therapies were effective for treating his curvature of the spine. For veterans, spinal deterioration remains the number-one disability.[14] Future studies could help us understand fully how combination acupuncture and cupping therapies can help veterans.

AUTHOR DISCLOSURE STATEMENT

This material is the result of work supported with resources and the use of facilities at the Fargo VA Health Care System. The contents do not represent the views of the US Department of Veterans Affairs. No financial conflicts exist.

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North Dakota Nurse Scholarship Loan/ North Dakota Community Foundation Report

The North Dakota Nurses Association/North Dakota Community Foundation Scholarship/Loan fund was established under the direction of Betty Maher, Executive Director of NDNA, in 1982 and is managed by the North Dakota Community Foundation as a permanent endowment fund. The NDNA Board of Directors appointed the following members to study the NDNA/NDCF endowment fund and present recommendations to the Board.

Members: Sherri Miller, NDNA Executive Director; Melanie Schock, NDNA President-Elect; Donelle Richmond, NDNA member and 2020 Membership Assembly Rep; and Karen Macdonald, NDNA member and Task Force Chair.

The committee met twice and forwarded a report to the board in May with the following recommendations:

1. The NDNA Board of Directors establish guidelines for disbursements as follows:
   a. Disbursements of the allocated funds be in two categories – educational for members wishing to attend workshops/conferences and grants for education completion during the last year of the nursing program (undergraduate as well as graduate nursing programs).
   b. Priority would be given to NDNA members, but grants for initial completion of programs would include a six-month membership in NDNA to encourage professional practice.
   c. Workshop/conference registration would provide priority to first-time attendees and would be in the form of reimbursement of the registration fee upon attending the full conference.
   d. A reasonable goal for the first year (2020) would be four grants in the amount of $500 each for completing programs; and 10 registrations for the annual conference.
2. Efforts be made to publicize the fund for two reasons:
   a. To encourage donations to increase the fund balance (The current fund balance is $102,814 and NDNA would be able to spend approximately 3% of the balance as allocated by the NDCommunity Foundation.
   b. To encourage applicants for both the scholarship/loan grants as well as the conference registration to apply for the funds. A loan in the amount of $500 can be made to a student and the committee felt this would assist graduating nurses in paying for registration for the state board examination, or a class pin, or a study course for boards. The loan would be based upon intent to work as a licensed nurse in North Dakota and converted to a scholarship award upon proof of completion of a year's employment.
   c. Grants for attendance at NDNA workshops/conferences would encourage those individuals to begin the networking process so essential for professional development. Preference would be given to new members (those within first year of membership) but would be available to all members in the association.

These recommendations were approved by the NDNA Board of Directors. The disbursement of funds will be under the direction of the NDNA Board of Directors and a committee will be appointed to review and recommend the awards and notify educational programs of the scholarship/loan opportunity for enrolled students.

Impact Of Vitamin D Deficiency On Susceptibility To SARS-CoV-2

Appraised by: Jamison Vincent, Kelsey Nersten, Katie Loveless
Rasmussen College A-BSN Students
Mentored by Beth Sanford MSN-Ed, RN, CLC

Clinical Question:

Does vitamin D deficiency impact clinical outcomes in patients infected with the SARS-CoV-2 virus?

Articles:

1. Castillo, M. E., Costa, L. M., Barrios, J. M., Díaz, J. F., Miranda, J. L., Bouillon, R., & Gomez, J. M. (2020). Effect of calcifediol treatment and best available therapy versus best available therapy on intensive care unit admission and mortality among patients hospitalized for COVID-19: A pilot randomized clinical study. *The Journal of steroid biochemistry and molecular biology, 203,* 105751. https://doi.org/10.1016/j.jsbmb.2020.105751
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Synthesis of Articles

This review aims to investigate and synthesize the emerging research on the role of vitamin D deficiency and susceptibility to Coronavirus-SARS-2. Our team reviewed 13 articles concerning the impact of vitamin D deficiency on clinical outcomes. The vitamin D complex plays a critical role in immunomodulation. The answer to our clinical question is supported by the five articles and one pre-print presented above.

The first study was a double-blind, placebo-controlled pilot study aimed at assessing the effectiveness of calcifediol (25-hydroxyvitamin D3) administration on ICU admissions and death in COVID confirmed patients. Both groups received a cocktail of hydroxychloroquine and azithromycin and ceftriaxone2 was added for patients with pneumonia. Statistically significant correlations were seen between calcifediol administration and clinical outcomes decreasing ICU admissions ($p < 0.001$).

The second study has not been peer-reviewed and is a pre-print; However, it is no less significant in terms of the validity of the clinical trial. The study analyzed 16274 control samples and measured the 25(OH)D levels in 186 COVID-19 patients with 2717 age/season matched controls. It concluded that COVID-19 patients showed lower 25(OH) D and higher vitamin D deficiency rates. The differences were not confounded by vitamin D-impacted comorbidities.

The third study explains the potential implications of vitamin D status and inflammation on the severity of COVID-19 in multiple countries. The primary information is the conventional significance ($P=0.046$) of the correlation between 25(OH)D and infection and mortality rates. It concludes that more attention should be given to current official vitamin D intake policies denoted by the Institute of Medicine, the Scientific Advisory Committee on Nutrition, the Nordic Nutritional Recommendations report, and the EFSA report.

The fourth study provides a balanced scientific review on vitamin D and SARS-CoV-2 virus/ COVID-19 disease. The report summarizes that vitamin D should be given particular focus as a key nutrient with the unique ability to increase immune health and decrease instances of influenza and upper respiratory tract infections (URTIs), and includes strategies for avoiding vitamin D deficiency.

The fifth study explored evidence that strongly suggests that vitamin D status influences the risk of dying from SARS-CoV-2. The study specifically looked at the geographical location and latitude of each of the 50 states concerning blood levels of vitamin D and connected that data with the number of COVID-19 deaths. Their findings included an increase in mortality as latitude increased, which correlates with other statistically significant findings that vitamin D deficiency has been associated with increased risk of respiratory infections. Its supplementation (1000-4000IU/ day) was most beneficial to individuals living at latitudes higher than 40 degrees.

The sixth study is a recently published retrospective, observational study of 14,000 participants. The study looked at an association between low vitamin D levels and COVID-19 infection and low vitamin D levels and increased likelihood of hospitalization due to the illness. An increased association was found in both accounts. Low 25(OH)D levels were defined as a concentration below 30 ng/mL. The research looked at other variables and found the following factors were positively associated with COVID-19 infection: age above 50 years, male gender, and low-socioeconomic status. Age above 50 years was positively associated with the likelihood of hospitalization. The research stated, "Low plasma 25(OH)D level appears to be an independent risk factor for COVID_19 infection and hospitalization" (Merzon et al., 2020).

Conclusions:

This review aimed to investigate and synthesize the emerging research on the role of vitamin D deficiency and susceptibility to Coronavirus-SARS-2 infection. Findings suggest that low serum vitamin D levels are a nutritional deficiency that plays a role in the immune response to COVID-19 infection and is an indicator of adverse patient outcomes. Each article analyzed led to a suggestion that supplementing vitamin D in individuals with 25(OH)D levels of less than 20ng/ mL could reduce the risk of respiratory infection, hospitalization, and mortality rates associated with COVID-19.

Discussion:

The focus of the articles discussed above is an emerging topic in health science literature. Gaps in the literature exist due to the recent and sudden nature of the SARS-CoV-2 outbreak. Although randomized, controlled, double-blind placebo trials to ascertain the ability of vitamin D supplementation to improve health outcomes in those infected are underway, the data will not be available for some time. The authors were unable to locate any state-specific data regarding vitamin D deficiency or identify any on-going local clinical trials. Further research regarding vitamin D levels in our state would be beneficial for future data analysis in many regards. This group is currently not in a position to establish such a study and is interested in bringing attention to known and potential benefits of correcting vitamin D deficiency from a population health standpoint. The cost-benefit ratio of supplementation with vitamin D3 reveals that it is a safe and cost-effective therapy to raise serum 25-OHD3 levels as well as improve non-specific immunological function in acute and chronic respiratory infections in addition to other

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The Effect of Formal Education Compared to No Formal Education for Nurses Working in the Hospital Setting on Mitigation of Workplace Violence

By: Angie McGinness, Emma Stehle, Mary Lafser, and Shelby Cyr, University of Mary BSN Students; Kathy Roth, PhD RN, Assistant Professor of Nursing

Clinical Question:

What is the effect of formal education programs compared to no formal education programs for nurses working in the hospital setting on mitigation of workplace violence?

Synthesis of the Evidence:

Article one studied the lived experience of workplace violence of 13 nurses in a general hospital in Kashan, Iran in 2017 (Hashemi-Dermaneh et al., 2019). The goal of this qualitative study was to explain the psychosocial experience of violence on medical, surgical, and emergency department nurses in this hospital setting. This study exhibited that "various situations related to the professional attitudes are manageable" (Hashemi-Dermaneh et al., 2019, p 6.). The authors stressed the importance of improving personnel's communication skills in defusing potentially violent situations. This article concluded that removing all factors related to violence would be impossible for staff. However, it emphasized the necessity of nurses' ability to report violence and the responsibility of those in leadership positions to respond effectively to such situations.

The primary goal of article two was to evaluate the effectiveness of a clinically based education program on reducing workplace violence (Adams et al., 2017). This study took place in 2017, involving 138 nursing staff members, in a 850 bed hospital located in Australia. Within this goal there were three objectives "assessing the effectiveness of clinical education to enable staff to identify patients with high risk for violence, assessing the influence of clinical education on the frequency of workplace violence, and determining if incidents by repeat perpetrators of violence were influenced by the education strategy" (Adams et al., 2017, p. 7). It was suspected that formal training may address these concerns and promote knowledge, practice, and the development of interventions. The overall conclusion of this study was that patient assessment is essential to preventing workplace violence. They recommended the use of the acronym STAMP (Staring, Tone and volume of voice, Anxiety, Mumbling, and Pacing) as a tool to assess potential violent incidents.

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disease processes well addressed in the literature (Ginde et al., 2017)

Implications for Nursing Practice:

Findings suggest that it would be prudent to address vitamin D deficiency among North Dakotans. Due to the current pandemic's urgent state, an interdisciplinary approach would be the most efficient method to mitigate vitamin D levels in the state quickly. A public health initiative on vitamin D deficiency could be achieved by implementing a state-wide or community-based nutrition and lifestyle education campaign involving the interdisciplinary team and key stakeholders in communities, institutions, etc., with screening promotion and sub-optimal blood levels mitigation occurring through primary healthcare providers and local pharmacies.

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Ginde, A. A., Blatchford, P., Breese, K., Zarrabi, L., Linnebur, S. A., Wallace, J. I., & Schwartz, R. S. (2017). High-Dose Monthly Vitamin D for Prevention of Acute Respiratory Infection in Older Long-Term Care Residents: A Randomized Clinical Trial. *Journal of the American Geriatrics Society, 65*(3), 496-503. https://doi.org/10.1111/jgs.14679

The third study included 66 participants from a 3000-bed medical center located in Taipei, Taiwan in 2019 (Ming et al., 2019). The participants in the study were all nursing staff personnel working in medical wards considered to be high-risk for violence (ex. emergency room and medical wards). This study functioned to examine the effect of a three-hour simulation training in regard to confidence in coping with and perception of workplace violence. There were several pieces to the material of the training program, a few of which included identifying workplace violence, communication, group discussions, visual learning aids, and role play scenarios. Through the pre- and post-training questionnaires, researchers found that simulation training was beneficial towards "perception and confidence in coping with aggression events" (Ming et al., 2019, p. 6). This study encourages a formal use of education to reduce psychological distress of employees and to encourage a positive working environment. The specific recommendations they included were to design a clinical education program regarding workplace violence, adjusting that to specific unit needs, and making it an online source for more flexible learning.

Article four examined the effect of implementing a S.A.F.E. (Spot a threat, Assess the risk, Formulate a safe response, Evaluate the outcome) Response to reduce workplace violence (Laketos et al., 2019). This article found that after implementation there was an initial increase in reporting of violence however, this was attributed to awareness and training. The article also found a 40 percent reduction in injury rates among nursing staff despite the increase in incident reporting. This article concluded that S.A.F.E. Response ensures that staff have training and education so that they are able to intervene early to recognize threats and reduce the risk of injury occurring (Laketos et al., 2019).

Article five analyzed the effectiveness of a simplified reporting process in increasing reports of violence in the hospital setting (Stene et al., 2015). Furthermore, it assessed whether there was a disconnect between what constitutes violence and the number of incidents reported. The study surveyed RNs, LPNs and APs in the ER department before and after education regarding workplace violence. The findings included an increase in understanding of what qualifies workplace violence, from 65% to 78%; an increase in the knowledge of reporting responsibility, from 40% to 76%; and, an increase in the number of incident reports completed, from 0 to more than 50 in a year. The study showed that formal education on workplace violence improves positive outcomes for nurses in the emergency department (Stene et al., 2015).

The last article examined the effectiveness of aggression management education in reducing occurrences of violence in the workplace and increasing nurse preparedness. "Nurses reported increased situational and environmental awareness as well as increased confidence and improved technical skills for preventing and managing aggression" (Heckemann et al., 2016, p. 583). While this study showed an improvement in the recognition of cues for violence, de-escalation techniques, and preparedness overall, further study is needed on the long-term psychological and emotional effects of workplace violence (Heckemann et al., 2016).

Bottom Line:

Based on the findings of the studies listed above, the implementation of various formal education for hospital staff with regard to violence improves outcomes related to violence and reduces incidences of injury. Overall, although findings suggest that this implementation will result in an initial spike in incident reporting of violence, there is an association of outcome improvement and injury reduction. This initial spike is attributed to increased staff awareness of what constitutes violence and empowerment to report incidents, not an actual increase in violence. Implementation of formal education also helps ensure a unified and consistent response to violence across staff and situations. Based on these findings, the recommendation is to implement formal workplace violence education for nurses as well as for other hospital staff. We found no research demonstrating the best method of implementing the training but recommend further research in the development of best training practice. A pilot program could be implemented to better examine educational programs and techniques as well as to regularly evaluate the effectiveness of the implementation of said programs.

Implications for Nursing Practice:

As front-line healthcare workers, nurses are often confronted with work-related violence that threatens their health, psychological safety, and ability to deliver high-quality care.

Unfortunately, workplace-related violence has been sharply on the rise. According to researchers, healthcare workers in hospital settings have experienced an increase in work-related violence by 110% between 2014 and 2015 (Lakatos et al., 2019). Furthermore, they found that "incidents of serious workplace violence were four times more common in health care settings than in private industry" (Lakatos et al., 2019, p. 280). According to the Joint Commission (2018), episodes of workplace violence are grossly under-reported due to nurses assuming that their assailants lack responsibility for their violent acts, as a result of their vulnerable mental states. Formalized education programs have demonstrated that these perceptions can be changed, and nurses can learn to better identify violence, report it, and not tolerate its presence in the workplace. The inclusion of formal workplace education that focuses on the mitigation of workplace violence is a necessary step to provide a safe environment for all nurses and their patients.

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Hydrocolloid Dressings and Healing in Diabetic Patients

By: Katie Benz, Peter Burns, Marlee Haroldson, and Christina Yates, University of Mary BSN Students; Kathy Roth, PhD, RN, Assistant Professor of Nursing

PICOT Question:

Will the use of hydrocolloid dressings improve healing and healing time compared to the use of traditional dressings for patients with diabetes mellitus type 1 or type 2?

Synthesis of Evidence:

A study by Tan et al. (2019) examines the healing properties of a wound dressing of hydrocolloid film containing Vicenin-2 against other wound healing interventions (standard film, and allantoin hydrocolloid) on diabetes-induced rats. Vicenin-2 film displayed faster rates of healing, improved angiogenesis, proliferation of fibroblasts, and reductions in inflammatory cells and pro-inflammatory cytokines that exceeded all other treatment groups. The authors conclude that Vicenin-2 is an effective treatment to enhance wound healing in hyperglycemic rats (Tan et al., 2019).

A study by Yanagibayashi et al. (2012) examines the effectiveness of a novel alginate, chitin-chitosan, fucoidan hydrocolloid-sheet (ACF-HS) in various concentrations on wound healing in healing-impaired diabetic mice against various other treatments. Results were dosage-dependent and revealed greater exudate adsorption, improved wound closure rates, greater capillary formation and re-epithelialization, and a reduction in inflammatory cells among the group treated with the highest concentration of ACF-HS than all other treatment groups. The authors conclude by stating ACF-HS significantly advanced formation of granulation tissue and capillary formation in the diabetic wounds when compared to the other treatment groups (Yanagibayashi et al., 2012).

A 2013 Cochrane article compiled five different studies with a total of 513 patients (Dumville et al., 2013). The participants were adults of any age with relatively uncomplicated diabetic ulcers. The authors of the review noted that only one of their studies had a low risk for bias, and risk for bias could not be concluded in the other articles. The review concluded that there is not enough information to state that hydrocolloid dressings improve wound healing, but that the topic is one of interest and should be studied further (Dumville et al., 2013).

A Cochrane review of "Complex interventions for preventing diabetic foot ulceration" includes six studies (Hoovergreen et al., 2015). The authors analyzed these six studies looking at complex interventions and how those interventions affected foot ulceration and amputation. Interventions included written and/or one on one patient education, patient behavioral contracts, and foot care reminders. Overall, not enough information was present in any of these six studies to draw a clear conclusion. Poor patient follow-up, research biases and incomplete data were all barriers that lead to this uncertain conclusion. The authors suggested that more research be done with a larger patient population in order to develop a clear answer (Hoovergreen et al., 2015).

An article written by Gale et al. (2008) focuses on compiling patients' personal views on foot wounds and healing time. The information used was received directly from patients with type 2 diabetes diagnosis. Another purpose of the article was to see if people's beliefs about foot complications differ from medical evidence and possible education needed. The article revealed a knowledge deficit among subjects regarding their misconceptions of diabetic foot care and how these translate to actually increasing their risk for developing foot ulcers. The conclusive recommendation by this article is for clinicians to work to bridge the knowledge gap between patient's perception and misconceptions of diabetic foot care by further education (Gale et al., 2008).

The Bottom Line:

In the articles we reviewed, the overall conclusion is that more information is needed in order to conclusively say that hydrocolloid dressings improve outcomes in diabetic patients with foot ulcers. In order to reach a conclusive decision, we recommend performing a trial pilot study in multiple long-term care facilities where results will be monitored and evaluated.

Nursing Implications:

The trial group that we suggest should be done in multiple long-term care facilities where there will be no harm done to the resident and their results will be easily monitored. According to an article by Kristine Hoffman (2016), some evidence suggests that hydrocolloid dressings can stay intact on a wound for up to seven days. This is useful because it decreases the need to change the dressing and the subsequent risk for infection. Less frequent dressing changes also decreases costs and does not disrupt wound healing as often (Hoffman, 2016). This would be beneficial for both the patient and the nurse.

Evidence also seems to suggest that the lack of healing in diabetic foot ulcers may be related to lack of education of proper wound care. Perhaps, the education that nurses are giving to patients also needs to be addressed and reconsidered. Perhaps it is not the type of dressing but the education that nurses are providing that will make a difference in improving outcomes diabetic patients with foot ulcers.

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Outcomes of Skin-to-Skin Care in NICU Infants

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Clinical Question:

In infants in the Neonatal Intensive Care Unit (NICU), what is the effect of skin-to-skin contact when compared with conventional NICU modalities on the overall infant outcomes?

Synthesis of Evidence:

The study completed by Lamy Filho et al. (2015) studied 102 mother/infant dyads to determine whether skin-to-skin contact of newborns with their mothers in the NICU would promote bacterial decolonization of pathogens like MRSA/MRSE. The results of the study showed that infants who received skin-to-skin care were 2.35 times more likely to be decolonized. The conclusion of the study was that "Skin-to-skin contact between mothers and their newborns might be a safe and cost-effective strategy of biological control to promote decolonization of multiresistant bacteria and a possible reduction of nosocomial infections in the NICU" (Lamy Filho, et al., 2015, p. 5).

The qualitative study completed by Salimi et al. (2014) looked at the experiences of mothers who had premature infants and practiced Kangaroo Mother Care (KMC). Random sampling was used to obtain participants in which there were only 12 eligible participants who had been admitted to the NICU at this time. The conclusion of results for category one reported that mothers felt that their postpartum depression was decreased, mothers also noted that they felt less cesarean pain, had higher satisfaction and tranquility accompanied by a 'motherhood' feeling, and were relieved of former fears when they completed their first skin-to-skin contact with the neonate (Salimi et al., 2014). Results for category two concluded that mothers reported that the neonates experienced decreased crying, improved changes in vital signs such as temperature, ease of breathing while on the mothers chest, as well as improved nipple or bottle suckling (Salimi et al., 2014). Overall, this study recommended that it would be most beneficial to implement kangaroo care for premature neonates in all hospitals, as it is a safe and effective treatment (Salimi et al., 2014).

The systematic review by Conde-Agudelo and Diaz-Rossello (2016) was done to determine whether there is sufficient evidence available to support the use of KMC in low birthweight infants opposed to other conventional methods of neonatal care before or after stabilization. Infants involved in this review also showed signs of increased weight, body length, a larger head circumference, and improved breastfeeding when they received KMC. In conclusion of this review, Conde-Agudelo and Diaz-Rossello (2016) state that "compared with conventional neonatal care, KMC was found to reduce mortality at discharge or at 40 to 41 weeks' postmenstrual age and at latest follow-up, severe infection/sepsis, nosocomial infection/sepsis, hypothermia, severe illness, and lower respiratory tract disease" (p. 3).

The quantitative study conducted by Heidarzadeh et al. (2013) consisted of 251 premature newborns from the NICU to evaluate the effects of KMC on exclusive breastfeeding at the time of the infant's discharge. Data was collected by documenting the number of times and duration of KMC provided throughout the course of the hospital stay. The results indicated that the group who practiced KMC had more exclusive breastfeeding at the time of hospital discharge than the conventional care method group (62.5% vs. 37.5%) (Heidarzadeh et al., 2013). From the results, skin-to-skin care for preterm infants is indeed an effective way to increase breastfeeding upon discharge.

Bottom Line:

Based on the conclusions of the studies examined above, providing skin-to-skin contact within the NICU has been shown to yield positive results and outcomes for infants in the NICU. Skin-to-skin care was shown to reduce bacterial colonization, improve the mother's physical and mental health, increase likelihood of breastfeeding, as well as decrease the mortality rate of infants in the NICU. Overall, there is a great deal of evidence that points to skin-to-skin care being a safe and effective alternative to traditional NICU care, that will very likely increase the positive outcomes for both the infants and mothers involved.

Implications for Nursing Practice:

KMC has proven to have a higher impact on infants from the NICU versus conventional care methods. Implementing KMC within the NICU units would help improve the overall health of infants. A policy change would need to take place to ensure the recommendation takes place. Not limiting parental time spent with the infant, as long as it is medically safe, would be an example of a policy change to help promote KMC. Education is an important factor in ensuring that parents and nursing staff working alongside each other are knowledgeable about the effects of KMC and measures to promote safety. Nurses are the primary advocates in teaching and encouraging parents to implement KMC during the length of their child's stay in the NICU. As nurses continue to be the frontlines of healthcare, they play a primary role in advocating for KMC to help decrease the stay of NICU babies and promote better outcomes for them in the future by implementing KMC prior to discharge.

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