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University of San Diego, christinevazquez@sandiego.edu

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UNIVERSITY OF SAN DIEGO Hahn School of Nursing and Health Science: Beyster Institute
for Nursing Research

DOCTOR OF NURSING PRACTICE PORTFOLIO

by

Christine Vazquez

A portfolio presented to the

FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE: BEYSTER
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Documentation of Mastery of DNP Program Outcome/Narrative

Manuscript

DNP Exemplars

DNP Outcome Reflections

Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up

Christine Vazquez, BSN, FNP/AGNP-DNP Student

Dr. Joseph Burkard, DNSc, CRNA, Professor

University of San Diego

April 10, 2020

Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up

Abstract

Purpose: The purpose of this project is to evaluate the impact of a healthcare provider-led standardized dry skin protocol for outpatient geriatric patients to promote overall well-being and improve quality of life.

Background: Current literature supports using the dry skin protocol to help primary care teams identify patients that require xerosis cutis skin care, particularly of the lower extremities. The primary focus of this project will be timely detection of patients with the dry skin condition that will be identified with the standardized Overall Dry Skin (ODS) scale. When the patient meets the ODS criteria, a timely discussion will be held to review the protocol moisturizer treatment and goal of skin care with the patients.

Process: This evidence-based project was built on the Iowa Model in an outpatient setting. A small team of healthcare providers led by an advanced practice nurse are (a) educating patients in the primary clinic setting on what to expect before, during and after their xerosis cutis treatment; (b) written education materials related to their dry skin; and (c) conducting a survey via telephone to the patients at post 2 weeks and post 4 weeks of treatment. Phone communications are guided by an evidence-based standardized questionnaire while employing the 5 A's Behavior Change Model (assess, advise, agree, assist, and arrange).

Outcomes: After the dry skin protocol intervention, there was a 68% reduction in patients' dry skin and 23% improvement in patients' quality of life during the seven-month project period. Out of the 15 geriatric patients, 10 (67%) of the participants successfully completed the follow-up.

Conclusion: This project is meant to empower participants to successfully adhere to a xerosis cutis protocol to improve their dry skin. It ultimately aims at improving overall well-being leading to healthier communities. Successful results may lead to increased quality of life and improved dry skin management.

Key words: xerosis cutis, dry skin, geriatric, outpatient, overall dry skin, quality of life

Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up

Introduction

As the proportion of the aging population in the United States continues to grow, the dermatological concerns of the elderly increase in medical significance (Farage, Miller, Elsner, & Maibach, 2008). In particular, xerosis cutis, also known as pervasive dryness of the skin due to a decrease in the amount of water in the epidermis, is a common problem among the elderly, as it affects about 75% of those aged 65 and older (Watkins, 2014). Internationally, the Global Burden of Disease (GBD) found that skin problems such as xerosis and eczema were the fourth leading cause of disease burden and were in the top 10 most prevalent diseases worldwide (Hay et al., 2014). In general, GBD estimated that xerosis with pruritus has a global prevalence of about 279,889,120 (Hay et al., 2014). Approximately 30% of the population in the United States are affected by xerosis with pruritus, with estimated skin care costs exceeding \$1 billion annually (Hay et al., 2014; Centers for Disease Control and Prevention, 2013). Furthermore, in California, the high burden of disability related to xerosis affects roughly 600 per 100,000 individuals (Hay et al., 2014). An essential part of xerosis management is the integration and implementation of an evidence-based dry skin regimen.

Since access to consistent xerosis care remains inadequate, particularly in the geriatric population, using Nurse Practitioner (NP) led phone follow-ups with an evidence-based approach to optimize dry skin will help to decrease the risk of skin infections, sharply reduce associated pruritus, and prevent further excoriation. Currently, at the primary clinic in San Diego, there is no program in place to help manage those with xerosis due to a lack of providers, clinical staff, and clinic hours. Additionally, patients with xerosis often remain undetected because there is no consistent skin related evaluation or questionnaire tool in place during patient visits. As a result,

new policies for management and evaluation of patients with xerosis are being established and implemented, specifically with the use of the electronic health record (EHR) software (input of the dry skin protocol) and telehealth (e.g., NP led phone follow-up).

Description of EBP Project, Facilitators & Barriers

The purpose of this Evidence-Based (EB) project is to adopt a standardized dry skin care protocol for all primary care geriatric patients to promote the physical well-being and improve quality of life. This EB validated dry skin protocol was adapted from the American Academy of Dermatology Association 2018 practice guideline which has been approved by the primary care committee (Hahnel et al., 2017). The xerosis protocol will initiate a primary care consult that will improve the Overall Dry Skin (ODS) score, increase patient Quality of Life (QOL), and reduce xerosis related hospital admissions and costs. An educational pamphlet regarding xerosis and the need for dry skin screening, management, and treatment was given to all qualifying patients (sample of at least 15 individuals aged 65 and older, male or female with xerosis of the lower extremities). Because the clinic attends to a large Hispanic population, both English and Spanish educational material was provided. The patients had one option of evidence-based treatment for consistency, which involves up to 4 weeks of Cetaphil moisturizer applied daily to the lower extremities and affected areas as needed. Follow-up of all participants at baseline, after 2 weeks of treatment, and after 4 weeks of treatment was required to assess for monitoring of compliance, adverse effects, and improvement in the ODS score and QOL scale.

Facilitators of this program included support of the health care providers at the clinic, the nurses and medical assistants, and cooperation of the participating patients. Barriers may include staff resistance, inefficient coordination between all participating individuals, patient buy in, and medication supply and costs. Education and positive outcomes will be the key intervention to

encourage adherence and participation, as incentives are limited due to a low budget allocated for the project.

Evidence-Based Practice Model

The Iowa Model is a well-established, practical method which guides clinicians in implementation of evidence-based practice (EBP) (Buckwalter et al., 2017). Since an evidence-based dry skin management program has not yet been established at the primary clinic, this pilot program will be valuable to assess the effect of the xerosis intervention and the possibility of implementation in other primary clinics throughout San Diego County. One of the benefits of this model is that it improves the overall quality of health care through the use of EBP and encourages patient engagement, which will be vital to the success of this project (Buckwalter et al., 2017). Ultimately, distribution of results may help other counties in California in their attempts to decrease the prevalence of patients with xerosis in the state.

Proposed Evidence-Based Solutions

Review of the literature was completed using the following search engines: CINAHL, Cochrane, Google Scholar, and PubMed. Keywords utilized in the initial search were: xerosis, xerosis cutis, dry skin, dry skin treatment, prevalence, Overall Dry Skin (ODS) scale, quality of life, telenursing, and geriatric dry skin. This search generated 28 articles from the past 6 years that were relevant to the subject. A total of five articles were chosen to substantiate the recommended interventions based on the relevance to the geriatric population and quality of the evidence. Each reference was classified in relation to the strength of the evidence using the John Hopkin's Appendix D Evidence Level and Quality Guide.

Current literature supports using the dry skin protocol to help nursing and primary care teams identify patients that require xerosis cutis skin care, particularly of the lower extremities.

One EB activity includes screening and timely detection of patients with xerosis cutis utilizing the standardized Overall Dry Skin (ODS) score (Hahnel et al., 2017). The ODS score involves a “clinical assessment of the presence and severity of skin dryness using a five-point scale,” where a “score of ‘0’ indicates no skin dryness, whereas a score of ‘4’ indicates advanced skin roughness, large scales, cracks and inflammation” (Kang et al., 2014, p. 88). Another EB strategy involves assessment of the overall quality of life with the World Health Organization (WHO)-5 Well-being Index, which evaluates quality of life pre- and post-intervention by telephone follow-up. The QOL scores range “from ‘5’ (all the time) to ‘0’ (never) for in total five items, in which simple questions related to well-being in the last two weeks, e.g. ‘In the last two weeks ... I was happy’ or ‘...I was relaxed’” (Kottner et al., 2014, p. 2). The validity and reliability of ODS and QOL scores were recently supported (Kang et al., 2014; Kottner et al., 2014).

Next, because Fronczek and Rouhana (2018) found that NP-led phone follow-up correlated with increased patient satisfaction rates, the third EB strategy of this project involves telehealth, with telephone-based care management and follow-up delivered by the NP. Finally, the last EB intervention involves use of over the counter (OTC) Cetaphil moisturizer daily as the dry skin care regimen, which has been recently substantiated as the optimal OTC moisturizer for xerosis (Santoro & Teissedre, 2018). To elaborate, Santoro and Teissedre (2018) found that dry skin was reduced significantly after daily application of the Cetaphil moisturizer on days 8 (24.2%; $p=0.008$) and 22 (27.3%; $p=0.004$) of treatment.

Methods

Participants and Setting

Prior to the start of this project, Institutional Review board (IRB) approval was obtained from the University of San Diego and letter of support from the medical board at the participating primary clinic. A total of 15 geriatric patients aged 65 and older from a primary clinic in San Diego County participated in this project.

Data Collection

There are two process indicators that were essential to data monitoring and collection. The Overall Dry Skin Scale is one of the process indicators which includes appropriate screening of geriatric clients for xerosis (dry skin) and treatment eligibility. Qualifying geriatric patients at the primary outpatient clinic (aged 65 and older, male or female, with xerosis of the lower extremities) was evaluated with the Overall Dry Skin (ODS) scale. After voluntary consent was obtained, qualifying patients then received education and the informational flyer with the ODS protocol, which includes use of the evidence based (EB) moisturizer Cetaphil Restoraderm. The outcome objective for this process indicator was for geriatric participants to have improved ODS scores, with a 50% reduction of dry skin of the lower extremities.

Another process indicator involves assessment of the overall quality of life with the World Health Organization (WHO)-5 Well-being Index, which evaluates quality of life pre- and post-intervention by phone follow-up. The QOL scores on a scale from 1 to 25, with a higher score indicating better overall well-being of the patient. The outcome objective for this process indicator is for geriatric participants to have improved QOL scores, with a 20% increase in their overall well-being. Obtaining accurate bi-weekly statistics for both of these processes ensured comprehensive data collection. Data collected during the follow-up included the ODS score and compliance with the xerosis treatment.

In the late spring 2019, the investigator attended to geriatric patients at the participating clinic, recruited qualifying participants, and provided copies of the informational flyer with ODS protocol. All forms were provided in English and Spanish.

The informational flyer was formulated using an EB validated dry skin protocol, adapted from the American Academy of Dermatology Association 2018 practice guideline on one side, while copies of the ODS scale and WHO-5 Well-being Index questionnaire were on the other side, in English and in Spanish, respectively (Hahnel et al., 2017). The patients were evaluated at baseline and followed-up with the DNP student via phone post-two and post-four weeks intervention. The DNP student collected data bi-weekly from initial consult. Collected written information was placed in a secure envelope and kept in a locked research cabinet, while follow-up results were typed into a password-protected excel worksheet tracker. Participants who adhered to the treatment regimen and followed-up appropriately by the selected deadline had their names placed in a drawing to receive gift cards.

Data Analysis

Descriptive statistics were obtained using Microsoft Excel and SPSS for the pre- and post-intervention results of the ODS and WHO-5 Well-being Index QOL scores.

Results

Dry Skin Management Intervention

Of the 15 geriatric patients, all 15 participants received the education intervention and 67% ($n=10$) successfully completed the follow-up post two and post four weeks intervention. The average ODS scores pre- and post-intervention was 3.3 (between severe and extreme dry skin before intervention) and 0.6 (absent or slight dry skin post-four weeks intervention) respectively. This signifies a general improvement of the patients' dry skin, with a 68%

reduction in xerosis cutis after implementation of the dry skin protocol intervention.

Furthermore, average QOL scores pre- and post-intervention were 14.73 and 20.3, respectively.

This indicates a significant improvement in the patients' quality of life, with a 23% increase in their overall well-being.

Program Results

As seen in Table 1, there were 10 participants with successful completion pre- and post-four weeks intervention. The results in Table 1 signify an improvement in dry skin severity from baseline (3 patients extreme, 7 patients severe) to post intervention 2 weeks (2 were severe, 6 moderate, and 2 slight) to finally, post intervention 4 weeks (6 slight and 4 absent). Figure 1 shows the average dry skin severity scores, where baseline was 3.3, between severe and extreme. The dry skin severity scores then decreased to a moderate 2 post 2 weeks and further decreased to an average of 0.6 (between slight and absent) after 4 weeks. Last, Figure 2 demonstrates that the quality of life significantly increased, as the average baseline scores started at 14.73, to 17.6 after 2 weeks to 20.3 post 4 weeks. Ultimately, these results confirm that there was a general improvement of the patients' dry skin and significant increase in the patients' quality of life post-intervention.

Phones out of service or simply no answer were the most common issue the investigator ran into during the follow-ups. At the end of the program, 10 out of 15 participants who successfully completed follow-up had a reduction in their ODS score as well as significant improvement of their overall well-being.

Cost/Benefit Analysis

Currently, there is no standardized protocol for xerosis screening at primary clinics in San Diego. Dry skin screening and management is essential to the geriatric population, since it is a

common issue among the elderly. Xerosis skin care can decrease the risk of skin infections, decrease related hospital admissions and costs, and increase the quality of life (Watkins, 2014). Estimated cost data to treat a single case xerosis is about \$600 annually, however, if left untreated can lead to more serious skin infections such as streptococcal or staphylococcal infections (e.g. cellulitis), which can cost nearly \$6,000 up to \$25,000 due to subsequent hospitalization and intravenous antibiotic and wound treatments (Watkins, 2014).

Since there was no financial benefit to the clinic practice, the cost-benefit analysis was calculated based on the patient as the benefactor. Note that the annual expense for xerosis cutis treatment is approximately \$600 before seeing a provider, with effective provider guided treatment costs about \$40 per month, or \$480 annually (Watkins, 2014). This means an average annual savings \$120 per patient, otherwise known as the gain from investment. As illustrated in Table 2, there is an 8% return on investment (ROI) for the patient. Please see Table 2 for further details and calculation breakdown related to the ROI. Thus, this project promotes the health of geriatric individuals and the San Diego population by increasing awareness and treatment options with the main goal of discovering more cases of xerosis cutis. This in turn will reduce the risk of skin infections, sharply reduce associated pruritis, and prevent further excoriation in individuals with dry skin. Due to the high prevalence and high burden of disability of xerosis cutis in the geriatric population, screening and treatment should be a priority.

Discussion

Utilizing NP led phone follow-up with monetized incentive to recruit geriatric patients may have promoted better response rates in comparison to only giving forms during initial consult with no incentive. Both the education and flyer intervention were successful in increasing knowledge and awareness of xerosis cutis among the elderly. Following the initial

consult, qualifying patients demonstrated an interest to get screened and treated for dry skin.

While there was initially a small response during the NP phone follow-up, monetizing incentives with the gift cards yielded better response rates.

There were some limits, as completing follow-up calls with geriatric patients was difficult. After 3 failed attempts using the preferred method of contact (phone or text); either the phones were no longer in service, sent to voicemail, or messages returned to sender. One patient stated she was not able to use the moisturizer because her insurance did not cover it and she could not afford it. Also, with a large number of patients who spoke primarily Spanish, translating services were used through the primary clinic.

A few areas of knowledge deficit were discovered throughout this project, including the difficulty to differentiate simple xerosis cutis versus dry skin caused by more severe underlying disease processes.

Practice Implications

Optimizing dry skin management is essential for preventing further skin breakdown and excoriation in geriatric patients. Implications for clinical practice are policy related. For instance, written xerosis cutis management protocols are easily adaptable in outpatient, primary care settings and closes communication barriers between caregiver and provider. There is also potential to standardize dry skin management locally and statewide. The anticipated impact of this EB project in San Diego County may involve adaptation of similar xerosis management protocols across the county clinics, with prevention of additional skin infections in the geriatric population. Screening and treatment in the primary clinic may also assist with early detection of elderly patients with xerosis who might otherwise be missed by the system. By increasing

awareness and screening opportunities to geriatrics in low-income and/or high-risk populations, this will be progress to increasing healthcare access for all individuals.

Limitations

Most of the geriatric patients were recruited from routine check-ups or other follow-ups scheduled the day the investigator was scheduled to attend to patients, therefore only including a small percentage of the older adult population seen at the clinic overall. At times, a few of the eligible patients cancelled or did not show up to their appointment and missed the initial consultation.

Additionally, several patients were unable to participate due to other obligations or declined insurance coverage. In turn, hopefully future efforts will allow the adequate resources to become available at the clinic, allowing easier accessibility to insurance coverage and healthcare access. Future improvements of this project depend on the approval of individual insurance coverage; this will allow patients to be screened and treated for xerosis cutis efficiently. If insurance coverage becomes an issue, future studies could also be focused on pathways regarding other EB non-pharmacological, cost-effective methods to decrease dry skin.

Conclusion

While the population ages, dermatological focus must change from enhancing the cosmetic effects of aging skin to decreasing the genuine morbidity related to problems of aging skin (Farage et al., 2008). Aged skin is susceptible to the pervasive dryness and itching associated with xerosis (Farage et al., 2008). Implementation of the xerosis protocol with NP-led phone follow-ups for geriatric patients at the clinic has the potential to prevent further skin-related infections, increase the quality of life, and improve overall patient satisfaction. Optimizing dry skin management and applying NP-led telehealth in primary care is a new

intervention that has the capability to make remarkable impacts in enhancing accessibility for the geriatric population and adoption of similar xerosis practice nationwide.

Conflicts of Interest

The authors have no conflicts of interest.

Acknowledgements

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Table 1*Improvement in Xerosis Severity*

	Baseline	After 2 weeks	After 4 weeks
Extreme	3		
Severe	7	2	
Moderate		6	
Slight		2	6
Absent			4

Table 2**Cost-Benefit Analysis**

Resources	Cost	Rationale
Training and Education	\$0.00	Fulfilled during clinic hours
Informative copies (15 papers x \$0.10)	\$1.50	Forms including xerosis treatment educational materials for geriatric patients
Xerosis Screening x 15 patients	\$0.00	Includes provider visits, and DNP student follow-up call (during regular clinic hours, no additional provider time required)
Xerosis treatment x 15 patients	\$0.00	Includes self-administration of Cetaphil Restoraderm moisturizer (over the counter, so patients self-pay if not covered by insurance)
Gift card drawing	\$198.50	10 gift cards
Total cost	\$200.00	Primary clinic-based screening and management for xerosis cutis
ODS & QOL post intervention		Improved Overall Dry Skin score from severe (4) to clear/little to no dryness (0); Improved Quality of Life score from 0 to 25 (high QOL)
Cost Benefit Analysis	Cost	Rationale
There was no financial benefit to the practice.		This financial benefit was calculated based on the patient as the benefactor.
Return on investment (ROI) formula: (Gain from investment 120 x 15 = \$1800 MINUS \$200 cost of investment / \$200 cost of investment) = 8% return on investment 8% return on investment for the patient		Financial benefits: <ul style="list-style-type: none"> - Estimated cost of project \$200 (cost of investment) - Average annual expense for treatment is approximately \$600 before seeing a provider (The Journal of Nursing & Residential Care, 2014) - Effective provider guided treatment costs about \$40 per month (\$480 annually) (The Journal of Nursing & Residential Care, 2014) - Average annual savings \$120 per patient (gain from investment)

Figure 1

Average Dry Skin Severity Scores

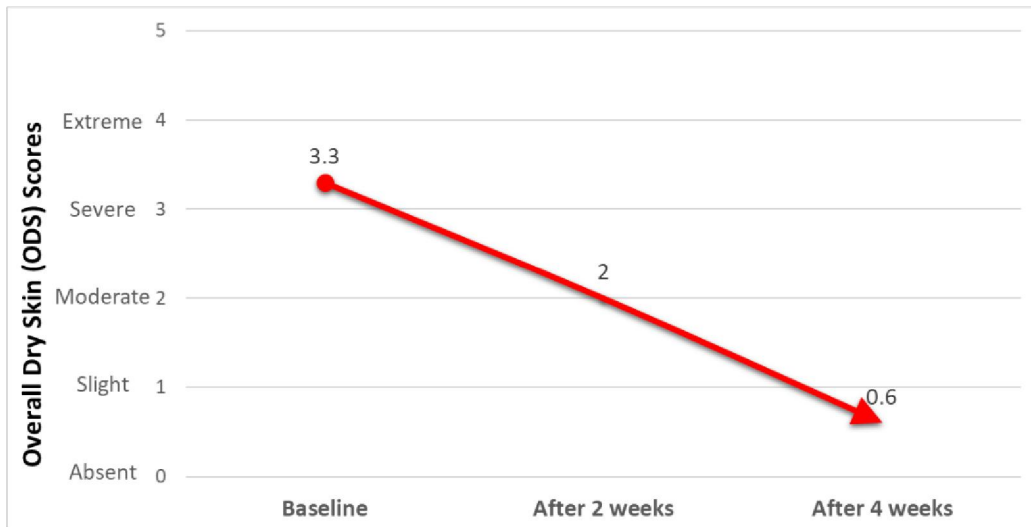
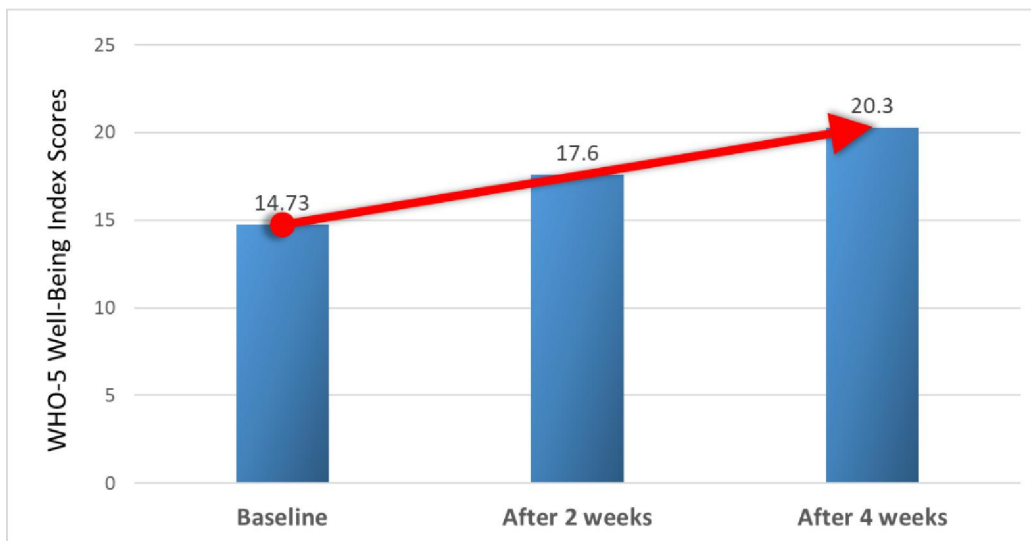


Figure 2

Average Quality of Life Improvements



Artifacts

1. Educational Flyer with Dry Skin Management Information (Front and Back) English
2. Educational Flyer with Dry Skin Management Information (Front and Back) Spanish
3. Patients/Participants Information (Pre, Post-2 and Post-4 Week Intervention)

1. Educational Flyer with Dry Skin Management Information (Front and Back)

English



Content ID: <https://www.arkhiv.com/Real-Dry-Skin-on-Legs>

XEROSIS (DRY SKIN)

What is xerosis?

The term "xerosis" comes from the Greek language. "Xero-" means "dry" and "-osis" is loosely translated to mean "disease."¹

Today, xerosis is the medical term doctors use to talk about dry skin.¹ But this is not just any ordinary case of dry skin—it's the annoying, itchy, severe dryness that you may experience during the cold of winter or when your skin is under a lot of stress.²

Dry skin, in which there is a decrease in the amount of water in the epidermis, affects 75% of those over the age of 65 and is a common problem among the elderly.³ This may cause troublesome symptoms of redness, irritation, or inflammation, scaly or rough texture to the touch, and itchy or painful feeling of tightness in the dry, flaking scaling of the skin.³

If left untreated, xerosis symptoms can progress to scaly skin, cracks, and bleeding.¹

You may wish to discuss with your doctor or medical professional about non-lifestyle risk factors that may affect you.² For example, as you age, your skin becomes thinner and produces less oil.² This is why xerosis is more common in those ages 65 and older.³

Treatment:

Over the counter Cetaphil moisturizing cream.



What, When, & How to Use:

Apply Cetaphil moisturizer right away (within 3 minutes) after a bath or shower, especially on affected areas such as your lower legs. Use it at other times too, as often as you need it.



SEE BACK FOR OVERALL DRY SKIN SCALE & QUALITY OF LIFE SCALE

PLEASE EXPECT A FOLLOW-UP CALL ON THE 2ND & 4TH WEEK OF TREATMENT

CHRISTINE VAJZELI, DSN, RN
DNP/FNP Student
DR. JUSTIN BOGARD, DMS, CHM
University of San Diego Hahn School of Nursing

Overall Dry Skin (ODS) scale:

Score	Description
0	Absent: No dry skin at all.
1	Slight: Faint scaling, faint roughness, and dull appearance.
2	Moderate: Small scales with a few larger scales, slight roughness, and whitish appearance.
3	Severe: Small and larger scales or flakes even throughout, definite roughness, possibly slight redness with light cracks.
4	Extreme: Many large scales or flakes, advanced roughness, redness present, hardening of skin, and deep cracks.

ODS scale retrieved from Kang et al (2017)

Quality of Life (QOL) scale:

WHO 5 WELL-BEING QUESTIONNAIRE						
Please, indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.						
Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a stick in the box with the number 3 in the upper right corner.						
Over the last 2 weeks	All the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1. I have felt cheerful and in good spirits	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
2. I have felt calm and relaxed	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
3. I have felt active and vigorous	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
4. I woke up feeling fresh and rested	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
5. My life has been filled with things that interest me	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

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2. Educational Flyer with Dry Skin Management Information (Front and Back)

Spanish



Obtendida de: <https://www.wikihow.com/Heal-Dry-Skin-on-Legs>

XEROSIS (PIEL SECA)

Que es xerosis?

El término "xerosis" proviene de la lengua griega. "Xero-" significa "seco" y "-osis" se traduce vagamente a significar "enfermedad."¹

Hoy en día, xerosis es el término médico que los médicos usan para hablar sobre la piel seca.¹ Pero este no es un caso ordinario de piel seca, es la sequedad molesta, picazón y severa que puede experimentar durante el frío invernal o cuando su piel está bajo mucho estrés.²

La piel seca, en la que hay una disminución en la cantidad de agua en la epidermis, afecta al 75% de los mayores de 65 años y es un problema común entre los ancianos.³ Esto puede causar síntomas problemáticos de: enrojecimiento, irritación o inflamación; textura escamosa o áspera al tacto; y picazón o sensación dolorosa de opresión en el escalamiento seco y descamado de la piel.³

Si no se trata, xerosis síntomas pueden progresar a piel escamosa, grietas y sangrado.¹

Es posible que desee hablar con su médico o profesional médico sobre los factores de riesgo que no son de estilo de vida que pueden afectarle.² Por ejemplo, a medida que envejece, la piel se vuelve más delgada y produce menos aceite.² Esta es la razón por xerosis es más común en aquellas edades 65 y mayores.³

Tratamiento:

Medicina sin receta Cetaphil crema hidratante.



¿Qué, Cuándo y Cómo Usar:

Aplica el humectante Cetaphil inmediatamente (en un plazo de 3 minutos) después de un baño o una ducha, especialmente en las zonas afectadas, como las piernas más bajas. Utilice también en otras ocasiones, tan a menudo como lo necesite.



VEA HACIA ATRÁS PARA LA ESCALA GENERAL DE LA PIEL SECA Y LA CALIDAD DE VIDA

POR FAVOR, ESPERE UNA LLAMADA DE SEGUIMIENTO EN LA 2ª Y 4ª SEMANA DE TRATAMIENTO

CHRISTINE VAZQUEZ, BSN, RN
DNP/FNP Estudiante
DR. JOSEPH BARBARA, DNSC, CNRN
LA ESCUELA DE ENFERMERÍA DE LA UNIVERSIDAD DE SAN DIEGO

Escala de Piel Seca:

Puntuación	Descripción
0	Ausente: No tiene piel seca.
1	Ligera: La escala tenue, la rugosidad tenue y el aspecto opaco.
2	Moderado: Pequeñas escamas con algunas escamas más grandes, ligera rugosidad y aspecto blanquecino.
3	Severa: Escamas o escamas pequeñas y más grandes incluso a lo largo, rugosidad definida, posiblemente enrojecimiento leve con grietas ligeras.
4	Extremo: Muchas escamas o escamas grandes, aspereza avanzada, enrojecimiento presente, endurecimiento de la piel y grietas profundas.

ODS scale obtenida de Kang et. al (2017)

Escala de calidad de vida:

WHO-5 CUESTIONARIO DE BIENESTAR						
Por favor, indique para cada una de las cinco declaraciones que está más cerca de cómo usted ha estado sintiendo en las últimas dos semanas. Observe que los números más altos significan mejor bienestar.						
Ejemplo: Si te has sentido alegre y de buen humor más de la mitad del tiempo durante las últimas dos semanas, pon un palo en la caja con el número 3 en la esquina superior derecha.						
Durante las últimas 2 semanas	Todo el rato	La mayoría de las veces	Más de la mitad del tiempo	Menos de la mitad del tiempo	Algunas de las veces	En ningún momento
1. Me he sentido alegre y de buen humor	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
2. Me he sentido calmado y relajado	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
3. Me he sentido activo y vigoroso	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
4. Me desperté sintiéndome fresco y descansado	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
5. Mi vida ha estado llena de cosas que me interesan	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>

Referencias

- Andriessen, A. (2013). Prevention, recognition and treatment of dry skin conditions. *British Journal of Nursing*, 22(1), 26-30.
- Hahnel, E., Blume-Peytavi, U., Trojahn, C., & Kotter, J. (2017). Associations between skin barrier characteristics, skin conditions and health of aged nursing home residents: a multi-center prevalence and correlational study. *BMC Geriatrics*, 17, 1-12. <https://doi.org/10.1186/s12877-017-0655-5>
- Watkins, J. (2014). Dry skin: a common but treatable condition. *Nursing & Residential Care*, 16(9), 508-511.

3. Patients/Participants Information Spreadsheet (Pre, Post-2 and Post-4 Week Intervention)

Patients' Information											
Patient/ Contact Info	Gender	Age	Race	ODS Baseline	QOL Baseline	ODS Post 2 Weeks	QOL Post 2 Weeks	ODS Post 4 Weeks	QOL Post 4 Weeks	Follow- up Dates	
1. FH72											
2. MH72											
3. FA95											
4. MC72											
5. FH80											
6. MH84											
7. MH74											
8. FA70											
9. MH83											
10. MH81											

DNP Exemplars

AACN DNP Essentials/NONPF Competencies/USD DNP Program Outcomes Exemplars

AACN DNP Essentials & NONPF Competencies	USD DNP Program Objectives	Exemplars Provide bulleted exemplars that demonstrates achievement of each objective
<p>DNP Essential I: Scientific Underpinnings for Practice</p> <p>NONPF: Scientific Foundation Competencies</p> <p><i>The scientific foundation of nursing practice has expanded and includes a focus on both the natural and social sciences including human biology, genomics, science of therapeutics, psychosocial sciences, as well as the science of complex organizational structures. In addition, philosophical, ethical, and historical issues inherent in the development of science create a context for the application of the natural and social sciences.</i></p>	<p>2. Synthesize nursing and other scientific and ethical theories and concepts to create a foundation for advanced nursing practice.</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Utilized Neuman systems model to guide PICO question in Evidence-Based Synthesis Presentation (DNPC625). <p>Spring 2018</p> <ul style="list-style-type: none"> • Driver diagram model used to outline EBP Reducing Preoperative Anxiety project (DNPC626). • Plan-Do-Study-Act (PDSA) Model selected to guide DNP EBP project to improve quality care (DNPC626). • Synthesized and disseminated evidence-based research in Complementary and Alternative Medicine Modalities Presentation: milk thistle (ANPC523). <p>Spring 2019</p> <ul style="list-style-type: none"> • Logic Model used to outline EBP Overall Dry Skin (ODS) screening & treatment project (DNPC 686). • Iowa Model selected to guide DNP EBP project to improve quality care (DNPC 686).
<p>DNP Essential II: Organizational & System Leadership for Quality Improvement & Systems Thinking</p> <p>NONPF: Leadership Competencies/Health Delivery System Competencies</p> <p><i>Advanced nursing practice includes an organizational and</i></p>	<p>5. Design, implement, and evaluate ethical health care delivery systems and information systems that meet societal needs and ensure accountability for quality outcomes.</p>	<p>Spring 2018</p> <ul style="list-style-type: none"> • Analyzed H.R. Bill 959 Title VIII Nursing Workforce Reauthorization Act of 2017 and shared findings with elected representatives (DNPC 648). • Presented policy presentation on the nursing shortage and importance of passing legislative Bill 959 (DNPC648). <p>Summer 2018</p>

<p><i>systems leadership component that emphasizes practice, ongoing improvement of health outcomes, and ensuring patient safety. Nurses should be prepared with sophisticated expertise in assessing organizations, identifying system's issues, and facilitating organization-wide changes in practice delivery. This also requires political skills, systems thinking, and the business and financial acumen needed for the analysis of practice quality and costs.</i></p>		<ul style="list-style-type: none"> • Reflected on current change management skills including evidence-based research in discussion boards (DPNC630). <p>Spring 2019</p> <ul style="list-style-type: none"> • Iowa Model selected to guide DNP project to improve quality care (DNPC 686). <p>Spring 2020</p> <ul style="list-style-type: none"> • Inducted into Sigma Theta Tau-Zeta Mu Chapter.
<p>DNP Essential III: Clinical Scholarship & Analytical Methods for Evidence-Based Practice</p> <p>NONPF: Quality Competencies/Practice Inquiry Competencies</p> <p><i>Scholarship and research are the hallmarks of doctoral education. Although basic research is viewed as the first and most essential form of scholarly activity, an enlarged perspective of scholarship has emerged through alternative paradigms that involve more than discovery of new knowledge. These paradigms recognize: (1) the scholarship of discovery and integration “reflects the investigative and synthesizing traditions of academic life”; (2) scholars give meaning to isolated facts and make connections across disciplines through the scholarship of integration; and (3) the scholar applies knowledge to solve a problem via the</i></p>	<p>4. Incorporate research into practice through critical appraisal of existing evidence, evaluating practice outcomes, and developing evidence-based practice guidelines.</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Obtained Biomedical Research Human Certification – Basic/Refresher Course through CITI (DNPC625). • Synthesized and critiqued evidence in research paper “Reducing Preoperative Anxiety” (DNPC611). • Discussed pathophysiology of allergic rhinitis including evidence-based research in Clinical Ground Rounds presentation (APNC520). <p>Spring 2018</p> <ul style="list-style-type: none"> • Synthesized and evaluated evidence and developed strategic planning and quality initiatives for future DNP Scholarly Project (DNPC626). <p>Fall 2018</p> <ul style="list-style-type: none"> • Developed evidence-based manuscript to prepare for submission “Childhood Asthma” (DNPC 622). <p>Spring 2019</p> <ul style="list-style-type: none"> • Synthesized & developed an evidence-based paper on “Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up” (DNPC 686).

<p><i>scholarship of application that involves the translation of research into practice and dissemination and integration of new knowledge.</i></p>		<p>Spring 2020</p> <ul style="list-style-type: none"> • Synthesized & evaluated evidence & developed proposal for DNP scholarly project (DNPC 630).
<p>DNP Essential IV: Information Systems/Technology & Patient Care Technology for Improvement & Transformation of Health Care</p> <p>NONPF: Technology & Information Literacy Competencies</p> <p><i>DNP graduates are distinguished by their abilities to use information systems/technology to support and improve patient care and health care systems, and provide leadership within healthcare systems and/or academic settings. Knowledge and skills related to information systems/technology and patient care technology prepare the DNP graduates apply new knowledge, manage individual and aggregate level information, and assess the efficacy of patient care technology appropriate to a specialized area of practice along with the design, selection, and use of information systems/technology to evaluate programs of care, outcomes of care, and care systems. Information systems/technology provide a mechanism to apply budget and productivity tools, practice information systems and decision supports, and web-based learning or intervention tools to support and improve patient care.</i></p>	<p>7. Incorporate ethical, regulatory, and legal guidelines in the delivery of health care and the selection, use, and evaluation of information systems and patient care technology.</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Obtained Biomedical Research Human Certification – Basic/Refresher Course through CITI (DNPC625). <p>Summer 2018</p> <ul style="list-style-type: none"> • Discussed implementation of EHR systems including evidence-based research in discussion boards (DPNC653). <p>Spring 2019</p> <ul style="list-style-type: none"> • Obtained San Ysidro Health Clinic board approval for DNP EBP project (DNPC 630). • Obtained USD IRB approval for DNP EBP project (DNPC 630). • Implemented screening protocol for xerosis cutis project with geriatric patients at local primary care clinic (DNPC 630). <p>Summer 2019, Fall 2019</p> <ul style="list-style-type: none"> • Implemented DNP project in an outpatient clinic setting utilizing innovative screening methods and EB protocol to improve outcomes (DNPC 630).

<p>DNP Essential V: Health Care Policy for Advocacy in Health Care</p> <p>NONPF: Policy Competencies</p> <p><i>Health care policy, whether created through governmental actions, institutional decision-making, or organizational standards, creates a framework that can facilitate or impede the delivery of health care services or the ability of the provider to engage in practice to address health care needs. Engagement in the process of policy development is central to creating a health care system that meets the needs of its constituents. Political activism and a commitment to policy development are central elements of DNP practice.</i></p>	<p>3. Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Became a student member of California Association of Nurse Practitioners (CANP). <p>Spring 2018</p> <ul style="list-style-type: none"> • Analyzed H.R. Bill 959 Title VIII Nursing Workforce Reauthorization Act of 2017 and shared findings with elected representatives (DNPC 648). • Presented policy presentation on the nursing shortage and importance of passing legislative Bill 959 (DNPC648). • Completed policy manuscript on the nursing shortage with literature reviews on legislative H.R. Bill 959 (DNPC648). <p>Spring 2019</p> <ul style="list-style-type: none"> • Collaborated with San Ysidro Health Clinic regarding ODS and QOL screenings on qualifying geriatric patients within San Diego County (DNPC 630). <p>Fall 2019</p> <ul style="list-style-type: none"> • Renewed student CANP membership. • Abstract submission & acceptance for poster presentation of DNP Scholarly Project at 2020 CANP Conference (DNPC 630). <p>Spring 2020</p> <ul style="list-style-type: none"> • Presented DNP project stakeholders to University of San Diego and San Ysidro Health Clinic (DNPC 630).
<p>DNP Essential VI: Interprofessional Collaboration for Improving Patient & Population Health Outcomes</p> <p>NONPF: Leadership Competencies</p>	<p>1. Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Conducted evidence-based literature review regarding preoperative anxiety in a clinical setting indicating need for EBP project (DNPC611). <p>Summer 2018</p>

<p><i>Today's complex, multi-tiered health care environment depends on the contributions of highly skilled and knowledgeable individuals from multiple professions. In order to accomplish the IOM mandate for safe, timely, effective, efficient, equitable, and patient-centered care in this environment, health care professionals must function as highly collaborative teams. DNP's have advanced preparation in the interprofessional dimension of health care that enable them to facilitate collaborative team functioning and overcome impediments to interprofessional practice. DNP graduates have preparation in methods of effective team leadership and are prepared to play a central role in establishing interprofessional teams, participating in the work of the team, and assuming leadership of the team when appropriate.</i></p>	<p>therapeutic interventions for individuals or aggregates.</p> <p>3. Demonstrate leadership in collaborative efforts to develop and implement policies to improve health care delivery and outcomes at all levels of professional practice (institutional, local, state, regional, national, and/or international).</p>	<ul style="list-style-type: none"> • Discussed implementation of EHR systems for improving patient care outcomes including evidence-based research in discussion boards (DPNC653). <p>Spring 2019</p> <ul style="list-style-type: none"> • Collaborated with San Ysidro Health Clinic regarding Overall Dry Skin (ODS) and Quality of Life (QOL) screenings within San Diego County (DNPC 630). <p>Summer 2019</p> <ul style="list-style-type: none"> • Continued to collaborate with San Ysidro Health Clinic regarding ODS and QOL screenings within San Diego County (DNPC 630). <p>Fall 2019</p> <ul style="list-style-type: none"> • Continued to collaborate with San Ysidro Health Clinic regarding ODS and QOL screenings within San Diego County (DNPC 630). <p>Spring 2020</p> <ul style="list-style-type: none"> • Abstract submission & acceptance for poster presentation of DNP Scholarly Project at 2020 CANP Conference. • Presented DNP project stakeholders to University of San Diego and San Ysidro Health Clinic (DNPC 630).
<p>DNP Essential VII: Clinical Prevention & Population Health for Improving Nation's Health</p> <p>NONPF: Leadership Competencies</p> <p><i>Consistent with national calls for action and with the longstanding focus on health promotion and disease prevention in nursing, the DNP graduate has a foundation in clinical prevention and population</i></p>	<p>6. Employ a population health focus in the design, implementation, and evaluation of health care delivery systems that address primary, secondary, and tertiary levels of prevention.</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Completed literature review on screening program Amsterdam Preoperative Anxiety and Information Scale (APAIS) for preoperative anxiety (DNPC611). • Evaluated and discussed current health care gaps in diagnosis and treatment of preoperative anxiety (DNPC611). <p>Spring 2018</p>

<p><i>health. This foundation enables DNP graduates to analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population.</i></p>		<ul style="list-style-type: none"> • Evaluated & discussed nonpharmacological treatment of reducing preoperative anxiety (DNPC 626). <p>Spring 2019</p> <ul style="list-style-type: none"> • Implemented ODS screening in geriatric patients & addressed process and findings at San Ysidro Health Clinic (DNPC 630). • Educational ODS intervention to San Ysidro Health Clinic (DNPC 630). <p>Summer 2019</p> <ul style="list-style-type: none"> • Presented type 2 diabetes mellitus case study and discussed preventative methods, differential diagnosis, and treatment plan (NPTC 535). <p>Fall 2019</p> <ul style="list-style-type: none"> • Continued implementation of ODS screening and intervention at San Ysidro Health Clinic (DNPC 630).
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<p>DNP Essential VIII: Advanced Nursing Practice</p> <p>NONPF: Independent Practice/Ethics Competencies</p> <p><i>The increased knowledge and sophistication of healthcare has resulted in the growth of specialization in nursing in order to ensure competence in these highly complex areas of practice. The reality of the growth of specialization in nursing practice is that no individual can master all advanced roles and the requisite knowledge for enacting these roles. DNP programs provide preparation within distinct specialties that require expertise, advanced knowledge, and mastery in one area of nursing practice. A DNP graduate is prepared to practice in an area of specialization within the larger domain of nursing.</i></p>	<p>1. Demonstrate advanced levels of clinical practice within defined ethical, legal, and regulatory parameters in designing, implementing, and evaluating evidence-based, culturally competent therapeutic interventions for individuals or aggregates.</p>	<p>Fall 2017</p> <ul style="list-style-type: none"> • Synthesized and critiqued evidence in research paper “Reducing Preoperative Anxiety” (DNPC611). <p>Spring 2018</p> <ul style="list-style-type: none"> • Conducted review on evidence-based literature to guide best practice for preoperative anxiety DNP Project (DNPC626). <p>Summer 2019</p> <ul style="list-style-type: none"> • Presented POLST report related to ethics in geriatric end of life and hospice care (NPTC 535). <p>Fall 2018 - Spring 2020</p> <ul style="list-style-type: none"> • Consulted with evidence-based resources to guide clinical decision making during clinical experiences, such as UpToDate, Epocrates, Clinical Practice Guidelines (NPTC 602, NPTC 604, NPTC 605 & 535, NPTC 608, & NPTC 609).z
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Appendix

- A. IRB approval form from each IRB involved**
- B. Letter of support from clinical site to use data for publication**
- C. Poster Abstracts with letter of acceptance**
- D. Copy of poster**
- E. Power point slides for stakeholder presentation**
- F. CITI Certificate**

Appendix A

IRB Approval

From: irb@san Diego.edu
 Sent: Monday, April 8, 2019 9:44 AM
 To: christinevazquez@san Diego.edu; iburkard@san Diego.edu
 Subject: IRB-2019-396 - Initial: Initial - Exempt



Apr 8, 2019 9:44 AM PDT

Christine Vazquez
 Hahn School of Nursing & Health Science

Re: Exempt - Initial - IRB-2019-396, Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up Among Geriatrics in an Outpatient Clinic

Dear Christine Vazquez:

The Institutional Review Board has rendered the decision below for IRB-2019-396, Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up Among Geriatrics in an Outpatient Clinic.

Decision: No Human Subjects Research

Selected Category:

Findings: None

Research Notes:

Internal Notes:

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

The next deadline for submitting project proposals to the Provost's Office for full review is N/A. You may submit a project proposal for expedited or exempt review at any time.

Sincerely,

Dr. Thomas R. Herrinton
 Administrator, Institutional Review Board

Office of the Vice President and Provost
Hughes Administration Center, Room 214
5298 Alcalá Park, San Diego, CA 92110-2492
Phone (619) 260-4553 • Fax (619) 260-2210 • www.sandiego.edu

Appendix B

Letter of Support from Clinical Site



1136 D Avenue
National City, CA 91950

To: Institutional Review Board, University of San Diego
From: Pomai Roberts, MD
San Ysidro Health Center
Re: DNP Xerosis Cutis Scholarly Project

Christine Vazquez has our support to begin their scholarly practice project at the San Ysidro Health Center as part of her coursework for the DNP Program at the University of San Diego. Mrs. Vazquez has agreed to cleanse all data of any patient or institutional identifiers, and we understand that she will request to use data from this experience for publications and professional presentations.

If you have any questions, please do not hesitate to contact me

Sincerely,

Pomai Roberts
MD, San Ysidro Health Center

Appendix C

Poster Abstract with Letter of Acceptance to Conference

California Association of Nurse Practitioners (CANP) Conference - Riverside, CA

March 18th-22nd, 2020

Abstract

Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up Among Geriatrics in an Outpatient Clinic

Background: Current literature supports using the dry skin protocol to help primary care teams identify patients that require xerosis cutis skin care, particularly of the lower extremities. The primary focus of this project will be timely detection of patients with the dry skin condition that will be identified with the standardized Overall Dry Skin (ODS) scale. When the patient meets the ODS criteria, a timely discussion will be held to review the protocol moisturizer treatment and goal of skin care with the patients.

Purpose/Aim: This Evidence-Based project's purpose is to adopt a standardized dry skin protocol for outpatient geriatric patients to promote overall well-being and improve quality of life.

Description of the Innovation: A small team of healthcare providers led by an advanced practice nurse are (a) educating patients in the primary clinic setting on what to expect before, during and after their xerosis cutis treatment; (b) written education materials related to their dry skin; and (c) conducting a survey via telephone to the patients at post 2 weeks and post 4 weeks of treatment. Phone communications are guided by an evidence-based standardized questionnaire while employing the 5 A's Behavior Change Model (assess, advise, agree, assist, and arrange).

Participants: The inter-professional team of participants include the MD, nurse practitioner student, and medical assistant.

Outcomes including evidence of baseline and outcome data: By December 2019, the goal is to achieve a 25 percent reduction in patients' dry skin and 30 percent improvement in patient's quality of life during the three-month project period, compared to the three months prior to implication of project.

Implications and significance: Improved xerosis cutis education along with well-timed post-treatment phone communication should reduce ED visits, related hospital stays, patient's calls and improve overall quality of life. The monetary costs will be monumental to the hospital and resources will be better utilized.

Letter of Acceptance

 University of San Diego

Christine Vazquez <christinevazquez@san Diego.edu>

CANP 43rd Annual Educational Conference Abstract

8 messages

Erin Meyer <erin@shawyoderantwih.com>

Mon, Sep 16, 2019 at 5:30 PM

Dear Presenter,

Thank you for submitting an abstract to present a poster at CANP's 43rd Annual Educational Conference taking place March 19-21, 2020 in Riverside. **Congratulations, your poster has been accepted.**

Poster presenters will be assigned a specific presentation time within one of the following time slots:

Thursday, March 19

- 7:45 – 8:15 a.m.
- 10:15 – 11:15 a.m.

Friday, March 20

- 7:30 – 8:15 a.m.
- 10:30 – 11:15 a.m.

Poster presenters are required to register for at least the day of the conference they are presenting. However, we encourage you to register and attend the entire conference. Additional information including specific presentation times will be sent to poster presenters later this month. Please let me know if you have any questions.

Erin Meyer
Events & Education Director

1415 L Street, Suite 1000
Sacramento, CA 95814
[916.441-1361](tel:916.441.1361)

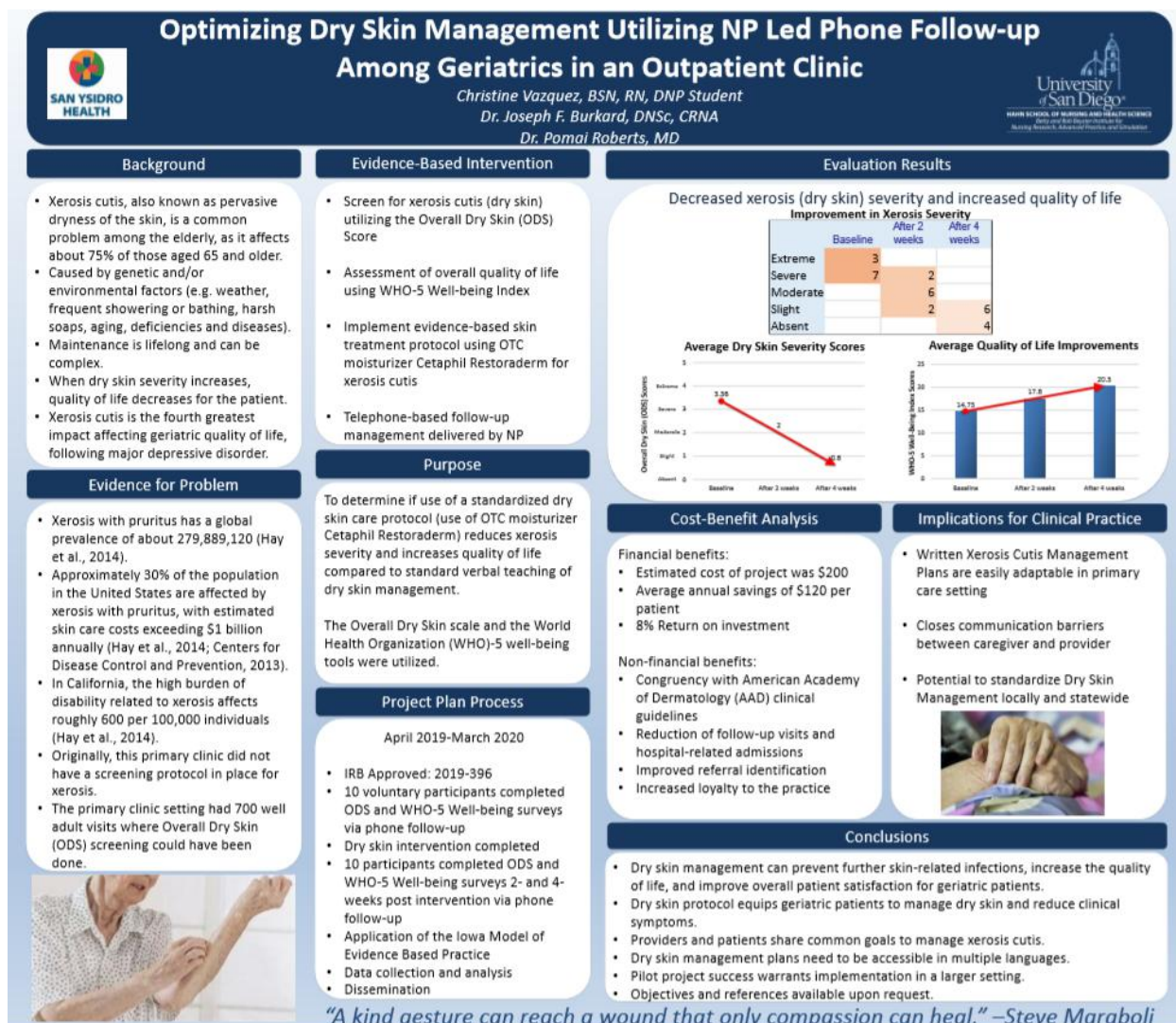
canpweb.org

Power in Practice



Appendix D

Poster Presentation



Appendix E

PowerPoint Stakeholder Presentation

Evidence-Based Practice Project



Optimizing Dry Skin Management Utilizing NP Led Phone Follow-up Among Geriatrics in an Outpatient Clinic

Christine Vazquez, BSN, RN, DNP student

Dr. Pomai Roberts, MD

Dr. Joseph F. Burkard, DNSc, CRNA

Background and Significance

- Xerosis cutis, also known as pervasive dryness of the skin due to a decrease in the amount of water in the epidermis, is a common problem among the elderly aged 65 and older
- Caused by genetic and/or environmental factors (i.e. weather, aging, harsh soaps)



Background and Significance

- There is no cure
- Maintenance is lifelong and can be complex
- When the severity of dry skin increases, quality of life decreases for the patient and the caregiver
- Fourth greatest impact affecting geriatric quality of life, following major depressive disorder.



Needs Assessment

- Xerosis cutis affects about 75% of those aged 65 and older (Watkins, 2014).
- Internationally, the Global Burden of Disease (GBD) found that skin problems such as xerosis was the fourth leading cause of disease burden and were in the top 10 most prevalent diseases worldwide (Hay et al., 2014).
- GBD estimated that xerosis with pruritus has a global prevalence of about 279,889,120 (Hay et al., 2014).



Needs Assessment

- Approximately 30% of the population in the United States are affected by xerosis with pruritus, with estimated skin care costs exceeding \$1 billion annually (Hay et al., 2014; Centers for Disease Control and Prevention, 2013).
- Furthermore, in California, the high burden of disability related to xerosis affects roughly 600 per 100,000 individuals (Hay et al., 2014).
- Treatment failure stems from a lack of self-efficacy for skin maintenance and treatment



Synopsis of the Evidence

Written Xerosis Cutis Management Plans:

- Educates patients to maintain skincare and properly manage xerosis cutis exacerbations
- Improves confidence level in skin management
- Establishes common treatment goals between providers and patients
- The American Academy of Dermatology published guidelines encouraging the use of nonpharmacological treatment for dry skin management to prevent further skin breakdown



Purpose/Aims

To determine if use of a standardized dry skin care protocol (use of OTC moisturizer Cetaphil Restoraderm) reduces xerosis severity and increases quality of life compared to standard verbal teaching of dry skin management.



Practice Change: Dry Skin Management Plan



Illustration by Peter Green, courtesy of the Dry Skin Care Group

KEROSIS (DRY SKIN)

What is xerosis?
The term "xerosis" comes from the Greek language. "Xero" means "dry" and "osis" is loosely translated to mean "disease."
Today, xerosis is the medical term doctors use to talk about dry skin. But this is not just any ordinary case of dry skin—it's the annoying, itchy, severe dryness that you may experience during the cold of winter or when your skin is under a lot of stress.
Dry skin, in which there is a decrease in the amount of water in the epidermis, affects 15% of those over the age of 65 and is a common problem among the elderly.¹ This may cause troublesome symptoms of redness, irritation, or inflammation; scaly or rough texture to the touch; and itchy or painful feeling of tightness in the dry, flaking scaling of the skin.²
If left untreated, xerosis symptoms can progress to scaly skin, cracks, and bleeding.³
You may wish to discuss with your doctor or medical professional about non-lifestyle risk factors that may affect you.⁴ For example, as you age, your skin becomes thinner and produces less oil.⁵ This is why xerosis is more common in those ages 65 and older.⁶

Treatment:
Over the counter Cetaphil moisturizing cream



What, When, & How to Use:
Apply Cetaphil moisturizer (1/2 to 1 ounce) 2-3 times daily after a bath or shower, especially on affected areas such as your lower legs. Use it at other times too, as often as you need it.



SEE BACK FOR OVERALL DRY SKIN SCALE & QUALITY OF LIFE SCALE

PLEASE EXPECT A FOLLOW-UP CALL ON THE 2ND & 4TH WEEK OF TREATMENT

HANITING MARGEL, MSN, RN
2019 DPH #00000000
H.MARGEL@UNIVERSITY.SD.GEORGE.COM
University of San Diego Health
School of Nursing



Patient Education and Resource Handouts

Overall Dry Skin (ODS) scale:

Score	Description
0	Absent: No dry skin at all.
1	Slight: Faint scaling, faint roughness, and dull appearance.
2	Moderate: Small scales with a few larger scales, slight roughness, and whitish appearance.
3	Severe: Small and larger scales or flakes even throughout, definite roughness, possibly slight redness with light cracks.
4	Extreme: Many large scales or flakes, advanced roughness, redness present, hardening of skin, and deep cracks.

ODS scale retrieved from Kang et al (2017)

Quality of Life (QOL) scale:

WHO-5 WELL-BEING QUESTIONNAIRE						
Please, indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.						
Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a cross in the box with the number 4 in the upper right corner.						
Over the last 2 weeks	All the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1. I have felt cheerful and in good spirits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I have felt calm and relaxed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I have felt active and vigorous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I wake up feeling fresh and rested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. My life has been filled with things that interest me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reference:

1. Andriessen, A. (2011). Prevention, recognition and treatment of dry skin conditions. *British Journal of Nursing*, 22(1), 26-30.
2. Mahal, S., Banno-Peters, U., Tejada, C., & Krafur, J. (2017). Associations between skin barrier characteristics, skin conditions and health of aged nursing home residents: a multi-center prevalence and correlational study. *BMC Geriatrics*, 17, 1-12. <https://doi.org/10.1186/s12875-017-0485-4>
3. Watkins, J. (2014). Dry skin: a common but treatable condition. *Nursing & Residential Care*, 18(9), 108-111.



Measurement: Dry Skin Severity

Overall Dry Skin (ODS) Scale

Score	Description
0	Absent: No dry skin at all.
1	Slight: Faint scaling, faint roughness, and dull appearance.
2	Moderate: Small scales with a few larger scales, slight roughness, and whitish appearance.
3	Severe: Small and larger scales or flakes even throughout, definite roughness, possibly slight redness with light cracks.
4	Extreme: Many large scales or flakes, advanced roughness, redness present, hardening of skin, and deep cracks.

ODS scale retrieved from Kang et al (2017)



Measurement: Quality of Life (QOL)

World Health Organization (WHO)-5 Well-being Index

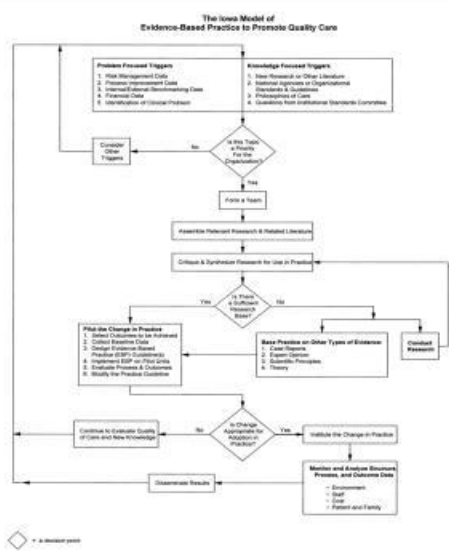
WHO 5 WELL-BEING QUESTIONNAIRE						
Please, indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Notice that higher numbers mean better well-being.						
<i>Example: If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a stick in the box with the number 3 in the upper right corner.</i>						
Over the last 2 weeks	All the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1. I have felt cheerful and in good spirits	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
2. I have felt calm and relaxed	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
3. I have felt active and vigorous	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
4. I woke up feeling fresh and rested	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>
5. My life has been filled with things that interest me	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>	0 <input type="checkbox"/>



Project Plan Process/Timeline



The Iowa Model of EBP



Results

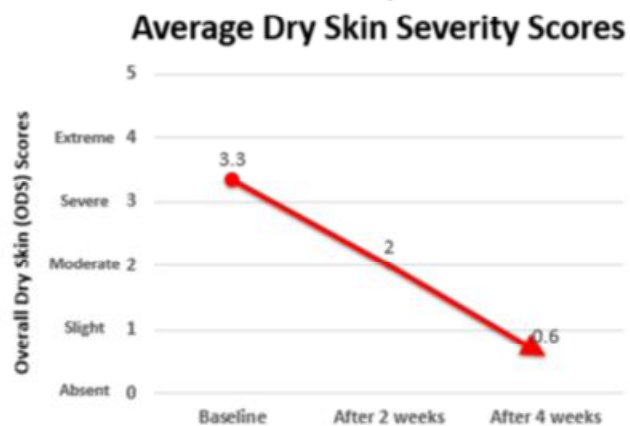
Improvement in xerosis severity

	Baseline	After 2 weeks	After 4 weeks
Extreme	3		
Severe	7	2	
Moderate		6	
Slight		2	6
Absent			4



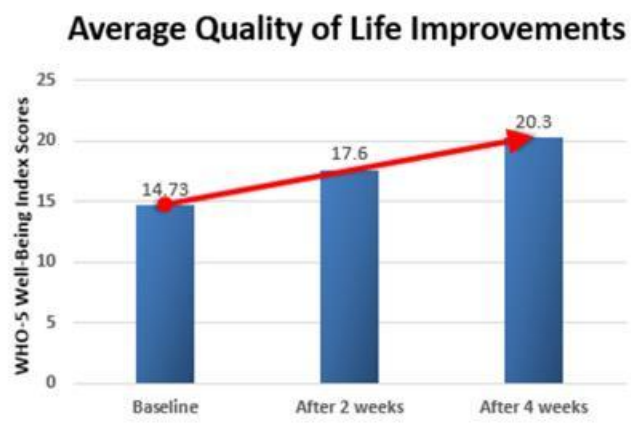
Results

Decreased xerosis cutis severity



Results

Improved quality of life



Cost-Benefit Analysis

Financial benefits:

- Estimated cost of project \$200 (cost of investment)
- Average annual expense for treatment is approximately \$600 before seeing a provider (The Journal of Nursing & Residential Care, 2014)
- Effective provider guided treatment costs about \$40 per month (\$480 annually) (The Journal of Nursing & Residential Care, 2014)
- Average annual savings \$120 per patient (gain from investment)
- 8% return on investment for the patient



Cost-Benefit Analysis

Non-financial benefits:

- Congruency with American Academy of Dermatology (AAD) clinical guidelines
- Reduction of follow-up visits and hospital-related admissions
- Improved referral identification
- Increased loyalty to the practice



Implications for Clinical Practice

- Written Xerosis Cutis Management Plans are easily adaptable in primary care setting
- Closes communication barriers between caregiver and provider
- Potential to standardize Dry Skin Management locally and statewide



Conclusions

- Dry skin protocol equips geriatric patients to manage dry skin and reduce clinical symptoms.
- Providers and patients share common goals to manage xerosis cutis.
- Dry skin management plans need to be accessible in multiple languages.
- Pilot project success warrants implementation in a larger setting.



References

References are available upon request.

E-mail: christinevazquez@sandiego.edu



Appendix F

CITI Certificates



Completion Date 16-Nov-2017
 Expiration Date 15-Nov-2021
 Record ID 25089035

This is to certify that:

Christine Vazquez

Has completed the following CITI Program course:

Responsible Conduct of Research (Curriculum Group)
Social and Behavioral Responsible Conduct of Research Course (Course Learner Group)
1 - Basic Course (Stage)

Under requirements set by:

University of San Diego



Verify at www.citiprogram.org/verify/?w7334fa77-a0e1-45a9-a230-b4ec2387a016-25089035



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COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 1 OF 2 COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- **Name:** Christine Vazquez (ID: 6744473)
- **Institution Affiliation:** University of San Diego (ID: 1652)
- **Institution Email:** christinevazquez@sandiego.edu
- **Institution Unit:** Doctorate in Nursing Practice
- **Phone:**

- **Curriculum Group:** Responsible Conduct of Research
- **Course Learner Group:** Social and Behavioral Responsible Conduct of Research Course
- **Stage:** Stage 1 - Basic Course
- **Description:** This course is for investigators, staff and students with an interest or focus in Social and Behavioral research. This course contains text, embedded case studies AND quizzes.

- **Record ID:** 25089035
- **Completion Date:** 16-Nov-2017
- **Expiration Date:** 15-Nov-2021
- **Minimum Passing:** 80
- **Reported Score*:** 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Authorship (RCR-Basic) (ID: 16597)	16-Nov-2017	5/5 (100%)
Collaborative Research (RCR-Basic) (ID: 16598)	16-Nov-2017	5/5 (100%)
Conflicts of Interest (RCR-Basic) (ID: 16599)	16-Nov-2017	5/5 (100%)
Data Management (RCR-Basic) (ID: 16600)	16-Nov-2017	5/5 (100%)
Mentoring (RCR-Basic) (ID: 16602)	16-Nov-2017	5/5 (100%)
Peer Review (RCR-Basic) (ID: 16603)	16-Nov-2017	5/5 (100%)
Research Misconduct (RCR-Basic) (ID: 16604)	16-Nov-2017	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k64375120-5d13-4b41-98c8-46544ce5271d-25089035

Collaborative Institutional Training Initiative (CITI Program)

Email: support@citiprogram.org

Phone: 888-529-5929

Web: <https://www.citiprogram.org>

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)

COMPLETION REPORT - PART 2 OF 2 COURSEWORK TRANSCRIPT**

** NOTE: Scores on this [Transcript Report](#) reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- **Name:** Christine Vazquez (ID: 6744473)
 - **Institution Affiliation:** University of San Diego (ID: 1652)
 - **Institution Email:** christinevazquez@sandiego.edu
 - **Institution Unit:** Doctorate in Nursing Practice
 - **Phone:**
-
- **Curriculum Group:** Responsible Conduct of Research
 - **Course Learner Group:** Social and Behavioral Responsible Conduct of Research Course
 - **Stage:** Stage 1 - Basic Course
 - **Description:** This course is for investigators, staff and students with an interest or focus in Social and Behavioral research. This course contains text, embedded case studies AND quizzes.
-
- **Record ID:** 25089035
 - **Report Date:** 14-Apr-2020
 - **Current Score**:** 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Authorship (RCR-Basic) (ID: 16597)	16-Nov-2017	5/5 (100%)
Collaborative Research (RCR-Basic) (ID: 16598)	16-Nov-2017	5/5 (100%)
Conflicts of Interest (RCR-Basic) (ID: 16599)	16-Nov-2017	5/5 (100%)
Data Management (RCR-Basic) (ID: 16600)	16-Nov-2017	5/5 (100%)
Mentoring (RCR-Basic) (ID: 16602)	16-Nov-2017	5/5 (100%)
Peer Review (RCR-Basic) (ID: 16603)	16-Nov-2017	5/5 (100%)
Research Misconduct (RCR-Basic) (ID: 16604)	16-Nov-2017	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k64375120-5d13-4b41-98c8-46544ce5271d-25089035

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