Community Health Project Paper Part II

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NURS 473- Community Health Nursing II Clinical

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November 6, 2024

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The unhoused population faces numerous challenges daily, many of which directly impact their overall health status. Temperature declines during the fall and winter seasons bring forth illness and health maintenance difficulties that the unhoused population require assistance in managing to minimize detriments. Impaired health maintenance is a primary nursing diagnosis for unhoused individuals in which intervention is paramount to enhance health outcomes. Kits equipped with illness management and prevention supplies are one way communities that can assist this population in managing their health, particularly as the colder months approach. Items such as tissue packs, sugar-free cough drops, single-use hand sanitizer packets, and blankets offer great assistance. Written and verbal education regarding the items and general positive health practices must also be provided. This paper will evaluate the implementation of these interventions including lessons learned and recommendations for the future.

Planning

Identifying Health Problem

There are several difficulties that the unhoused population faces which build cases for several applicable nursing diagnoses. Risk for impaired sleep is one patient problem that initially comes to mind. Evidence has shown that the environment influences sleep quality and quantity. Unhoused individuals may endure significant difficulty getting adequate sleep as a result of harsh environmental conditions, the cold in this case. One study presented reports of increased adverse health outcomes in unhoused individuals when exposed to cold, wet winters in comparison to extreme heat. Increased accounts of depression and inability to maintain overall wellness were also reported (Taylor et al., 2019).

This brings to the forefront another nursing diagnosis applicable to the unhoused population, which is impaired health maintenance. Lack of adequate resources is a common

explanation for this difficulty that oftentimes overlaps with the nursing diagnosis of financial difficulty. Readiness for enhanced health literacy can also be applied in combination with these nursing diagnoses or alone.

These issues present the need for education and assistance with obtaining resources to improve overall health maintenance. With impaired health maintenance comes the unfortunate opportunity for minor ailments to worsen. One example would be the common cold developing into pneumonia due to improper treatment or management (Choucair & Watts, 2019). As cooler weather sets in, improvements in illness prevention, symptom management, and resource identification require the formation of nursing interventions to improve outcomes in the unhoused population.

Health Planning and Needs

The priority nursing diagnosis in the unhoused community is impaired health maintenance. The unhoused community has higher rates of vulnerability and exposure to cold weather due to a lack of resources, shelter, and education. Intervention is required to help address these issues to decrease the rates of cold weather injury and mortality in the unhoused community. In collaboration with the PIN ministry, the Old Dominion University Community Care PIN ministry group will be able to provide interventions that address the unhoused population's lack of resources and education on cold weather illness prevention. The population at PIN is predominantly unhoused individuals from the Virginia Beach area.

One intervention that can help address impaired health maintenance in the unhoused community is providing winter kits equipped with resources to help reduce incidences of heat loss and cold illness. Because the unhoused community deals with unsteady housing, it is important to help provide resources they can use to help protect them from cold weather.

Blankets and socks can be utilized by these members to help prevent heat from escaping their bodies while outside. Hand Warmers can be used to help warm parts of the body that are more vulnerable to the cold. Tissues, cough drops, and hand sanitizer can be used to help decrease the spread of common cold illnesses as well as relieve symptoms if present. This intervention can be implemented by offering these kits at PIN ministry to the community members and providing education on the components and how they can be of benefit.

Another intervention would be to provide education in the form of a pamphlet on ways to prevent heat loss and common illnesses associated with cold weather such as hypothermia, frostbite, influenza, and the common cold. Many unhoused members have health conditions such as malnourishment, respiratory illness, and dehydration. It is important to educate these individuals on why balanced nutrition is important during cold weather to prevent heat loss and increase cold weather tolerance (Kidd, 2020). Education must also be provided on the parts of the body that are most susceptible to bodily heat loss and therefore must cover with the most priority while outside. Signs and symptoms of frostbite and hypothermia must also be explained since it can become fatal if not addressed. Cold-related illnesses such as the common cold and influenza are highly prevalent with seasonal changes, so it is important to teach this community about the signs and symptoms of these illnesses so proper intervention for management can be utilized. This intervention can be implemented by encouraging the community members to keep the pamphlets along with the kits, and guiding them through learning the information on the pamphlet so they are able to follow the content.

Alternative Interventions

As the months go by and temperatures begin to drop, shelters can become overcrowded. Not only do shelters become overcrowded, but their resources begin to dwindle. Therefore,

alternative interventions should be implemented to supplement the needs of this vulnerable population. An alternative intervention that the unhoused population could benefit from is the opening of more shelters during the winter months or expanding present ones. Having an increase in accessible shelter space offers a prime opportunity to keep them warm during the coldest portion of the day.

The warm space that shelters provide will also in turn reduce the risk of developing hypothermia and other cold-related illnesses (National Coalition for the Homeless, 2023). For this intervention to be implemented there needs to be a great amount of community support and resources available. One example is the donation of winter clothing items such as hats, scarves, gloves, and jackets. Providing winter clothing items helps insulate their body heat when they are unable to be indoors, decreasing the risk of hypothermia development. This intervention could be implemented by orchestrating a winter clothing drive and adding the clothing received as part of winter kits.

Intervention

Implementation

The primary intervention planned to address the health challenges faced by the unhoused population during the colder months is the distribution of health maintenance supply kits. These kits are designed to mitigate the health risks associated with cold weather, which include increased susceptibility to respiratory illnesses, skin conditions, and impaired immune function. By providing essential items, we aim to enhance the overall health outcomes for individuals experiencing homelessness.

Collaborating with the People In Need (PIN) Ministry to assemble and distribute these kits both addresses immediate health needs and fosters community support for the unhoused

population. Primary prevention through distributing these kits allows for an effective intervention that addresses the specific needs of the unhoused population. By proactively equipping unhoused individuals with essential supplies, we can significantly reduce the risk of illness and promote better health practices.

The implementation steps for addressing the health needs of the unhoused population involve several key actions. First, a thorough assessment of community needs will be conducted to identify the specific health challenges faced by this group in the target area. Based on the assessment, a supply kit was developed in collaboration with PIN, professors, and group members with essential items that address the identified needs. A strategic distribution plan was formulated and alternatives changed, including partnerships with PIN to ensure that the kits were able to reach those in need. Additionally, educational materials were provided to promote health maintenance practices. The content of the teaching emphasizes the importance of personal hygiene and strategies to stay warm during colder months, highlighting areas where heat can quickly escape. Finally, after distributing the kits, we completed follow-up surveys to evaluate the effectiveness of the intervention, focusing on health outcomes and engagement with healthcare services.

Rationale for Implementation

The rationale for implementing this intervention is supported by several key factors including health risks associated with cold weather. Cold temperatures constrict blood vessels, leading to reduced circulation and increased risk of hypothermia. Furthermore, prolonged exposure to cold can cause shivering, which expends energy and further stresses the body, potentially exacerbating existing health conditions.

Research indicates that impaired sleep due to colds can lead to decreased immune function, making individuals more vulnerable to infection. The items included in the supply kits such as sugar-free cough drops, single-use hand sanitizer packets, blankets, masks, and vaseline are critical for maintaining health and preventing illness. For instance, sugar-free cough drops can soothe throat irritation and coughs, while hand sanitizer can reduce the transmission of germs, especially during cold and flu season. Blankets provide warmth, reducing the risk of hypothermia and helping individuals sleep better, which is crucial for maintaining immune function.

Barriers

In the initial planning, we had aimed to only give the kits to those of a homeless status at PIN or at least give them priority since they were at most risk from harsh winter season weather conditions. This approach sought to provide essential items such as blankets, hand warmers, and cough drops to those least likely to have access to resources protecting them from the cold and common illnesses. However, as we began the implementation process this approach became a barrier, preventing us from reaching a more diverse population with varying educational backgrounds. To better extend our reach to the target population, we formulated a plan that included those who may have faced the same housing instability but were not officially registered as homeless. The individuals falling in this category were often patients who relied on the services of PIN ministries sporadically and were not marked as needing ongoing care. Other reasons for irregular visits include missing appointments, transportation complications, and lack of clear need determination for care. Overall, addressing this barrier early on was pivotal in the success of our project implementation.

Another barrier we faced was time constraints from misunderstanding during the planning phase of our project. Due to this, we were unsure about how much time we would have to distribute the kits and also provide valuable education. In recognizing these barriers we were able to adjust our approach and reach a more diverse population. In doing so we were able to give 48 kits during our first planned day of implementation. Many of the unhoused expressed gratitude among receiving the kits, but a few did decline. Due to the original time constraint our goal of scoping the level of education and understanding of winter-related health conditions needed to be altered as well, but the adjustment we made allowed us to provide education and the kit on the same day versus not being able to follow up with the participants due to unpredictable re-visit instances and student schedule conflicts.

Evaluation

Evaluation Plan

As we implemented our winter kit program, our goal was to make a meaningful impact on the health maintenance of the unhoused population, especially as colder weather approaches. To evaluate the effectiveness of our kits in supporting this goal, we will collect feedback directly from those who receive them through a brief questionnaire. This feedback will help us understand the real-life utility of each item included and how well they support recipients in managing cold-related symptoms and maintaining hygiene. By analyzing these responses and tracking reported outcomes, we aim to assess how effectively our intervention meets the immediate health needs of the unhoused throughout the winter season.

Our main goal with this winter kit is to help those receiving it gain a better understanding of how cold weather affects their bodies and learn simple ways to protect themselves from cold-related illnesses. We hope that by providing items like tissues, sugar-free cough drops, hand

sanitizers, and blankets, recipients will feel more prepared to face the colder months. Along with the supplies, we aim to share easy-to-understand information about the importance of staying warm, keeping hands clean, and recognizing early signs of illnesses caused by the cold. We hope that, with this knowledge and these resources, people can feel more confident in taking small steps to stay healthier through the winter.

Beyond just addressing immediate needs, we want this kit to give people a sense of care and support, showing that the community recognizes their struggles and is here to help. By offering tools for warmth and health, we also hope to build a foundation for longer-term awareness and help recipients understand that even small actions, like layering clothing or using sanitizer, can make a big difference in staying well. Overall, our expected outcome is that each person who receives a kit will feel better equipped to face the challenges of winter, knowing they have both practical resources and community support behind them.

Our evaluation process involved both teaching recipients about the contents of the kits and then assessing the impact through a short survey and pamphlet. We began by explaining how each item in the kit could help protect against the cold and reduce the risk of common winter illnesses. This initial teaching allowed us to ensure that everyone understood how to use the items to benefit their health.

Following this, we administered out a simple survey that asked questions about the kit's content. The survey was designed to gather objective feedback on education efficacy, whether recipients were more knowledgeable about managing the cold, and if they found the items useful to daily life. By combining both teaching and feedback, we gained insight into what worked well and any areas that might need improvement. This evaluation process not only measured the kit's

effectiveness but also ensured we were meeting real needs and supporting recipients in a meaningful way.

Limits of evaluation

One limitation we faced in our evaluation process was the language barrier with Spanish-speaking individuals, which made it harder to communicate health information and collect feedback. Additionally, limited attendance on the health side of PIN meant that we needed to move to the service side to engage more people. Even then many individuals were focused on getting their food and clothing, so they were less inclined to stay for health information education or survey completion. Six people opted to receive the kit without participating in the survey or reading the pamphlet, which limited the feedback we could gather.

To address these limitations in future efforts, we could work on providing bilingual materials and translators to help bridge the communication gap with Spanish-speaking recipients. Additionally, finding ways to streamline the teaching and feedback process by offering brief, key points that could be shared quickly might allow us to better engage with people who are short on time. Offering an additional incentive for completing the survey could also encourage participation. Beyond that, positioning ourselves closer to the food and clothing distribution areas might help capture the attention of those who typically move quickly through the service side. Lastly, simplifying our materials even further could make it easier for individuals to absorb information at a glance, helping us to meet them where they are while still gathering the feedback needed to improve our future interventions.

Further Evaluation

Our evaluation showed a significant improvement in understanding after the educational session. Before receiving education, only 5 people said they knew the difference between

frostbite and hypothermia, while 7 felt they could distinguish between a cold and the flu. Most participants, 35 individuals, admitted they lacked knowledge about these conditions, highlighting a clear need for education on winter-related health risks.

Following the session, post-education results reflected meaningful progress. Twenty people were able to answer all questions correctly, indicating a solid understanding of the material. This high level of accuracy suggests that the information was effective and recipients could absorb and recall key points. Fourteen people answered three out of four questions correctly, showing that most of the group had a strong grasp of the material, even if they missed one detail. Four participants answered half of the questions correctly, indicating partial understanding, while only 2 people answered one question correctly, suggesting that they likely need additional support.

These results suggest that our educational intervention was successful in increasing awareness and knowledge on recognizing and differentiating winter health conditions. The high number of individuals who could accurately identify symptoms and distinctions between conditions like frostbite, hypothermia, cold, and flu demonstrates that our approach was effective. This improvement in awareness is essential, as it empowers individuals to recognize early signs of these conditions and take preventive measures, potentially reducing health risks during colder months. The overall success of the session emphasizes the value of clear, focused health education and reinforces the importance of community outreach in addressing knowledge gaps in underserved populations.

Recommendations and Implications

Considering the challenges faced and the feedback gathered, future efforts should prioritize enhancing accessibility and engagement. Offering bilingual resources, such as

translated pamphlets and access to a translator, would improve communication with non-English-speaking individuals, ensuring that health information is available and understandable for everyone. Also, expanding the educational content of these kits to cover the management of chronic conditions like diabetes and hypertension would address an essential need within the unhoused community since many face chronic health issues without sufficient resources or knowledge. Providing clear, easy-to-read instructions on recognizing symptoms and managing these conditions with realistically accessible resources could empower individuals to take proactive steps in maintaining their health.

Providing consistent support for the unhoused population can greatly improve long-term health outcomes by minimizing preventable illnesses and complications related to cold weather. By ensuring regular access to resources and offering education on preventative care, nursing interventions can help reduce the risk of serious conditions like hypothermia and pneumonia, which often leads to costly emergency room visits. In the community health context, this driven approach demonstrates the importance of prevention in promoting population health management. If the health of the unhoused population increases, emergency medical care utilization decreases, reducing healthcare costs and making resources more available to the community. This project illustrates the significant role nurses play beyond individual patient care. Nurses can act as advocates and community leaders, developing programs, educating the public, and collaborating with other organizations to enhance public health.

Literature Review - Support for Implementation

Physical activity and sleep problems in homeless adults

Talyor et al. (2019) recruited 747 homeless individuals from Dallas and Oklahoma to examine the relationship between physical activity and subjective sleep problems. Participants

self-reported insufficient sleep by number of days lacking sufficient sleep in the past month, sleep duration averaged over 24 hours, and the number of days in the past month with unintentional sleep during daytime. The study found that failure to meet or exceed physical activity guidelines was associated with an increased likelihood of sleeping for longer and a lower likelihood of having greater than 30 days of insufficient sleep.

Homelessness & health: What's the connection?

Choucair and Watts (2019) discuss the direct impact of homelessness on health, pointing to higher rates of illness and hospitalization among the unhoused population. They explained how environmental exposure, inadequate nutrition, and poor access to health care create significant health risks. This article reinforces the necessity of preventive measures, such as the provision of cold-weather supplies, to reduce the need for emergency care among homeless populations.

The dangers of cold weather

National Health Care for the Homeless Council (NHCHC, 2023) highlights the unique health risks homeless people face during the winter, including hypothermia and frostbite. It suggests implementing strategies like emergency weather shelters and health supply kits to mitigate these risks. This evidence supports the aforementioned intervention of winter supply kits and emphasizes the need for public health measures targeting the specific seasonal vulnerabilities of the unhoused.

Climate change and homelessness: Addressing health and housing needs

Eccovia Solutions (2023) focused on the intersection of climate change and homelessness, underlining how frequent extreme weather events increase health risks for homeless populations. It advocates for emergency response measures and preparedness, stressing

that communities should provide essential resources and shelter during extreme weather events. This reinforces the importance of distributing winter kits to protect homeless individuals from climate-related health threats.

Winter homelessness and health risks

The National Coalition's (2023) guide on winter weather risks for the homeless provides details on the dangers of exposure to cold temperatures, such as hypothermia. It also highlights the need for public awareness and resource provision including winter clothing, blankets, and access to warm shelters. This article's focus on cold-related health issues aligns with this project's goal to reduce illness by supplying essential health items for warmth and hygiene.

Cold weather conditions and risk of hypothermia among people experiencing homelessness: Implications for prevention strategies

The study by Zhang et al. (2019) highlights the increased risk of hypothermia among homeless populations during cold weather, reinforcing the importance of targeted intervention programs. The study supports the effectiveness of cold-weather alerts, often tied to the opening of warming centers and emergency services, but suggests that interventions should extend throughout the entire cold season since moderate temperatures also pose significant health risks. This data-driven approach emphasizes the urgent need for multifaceted cold-weather strategies to protect the health and safety of at-risk populations.

Climate change, weather, housing precarity, and homelessness: A systematic review of reviews

The study by Bezgrebelna et al. (2019) examines the impact of climate change on housing insecurity and homelessness. It highlights how hot and cold weather extremes affect unhoused individuals who are disproportionately vulnerable due to limited access to resources

and shelter. The review synthesizes findings from multiple studies, emphasizing how these populations are at higher risk of health issues, including hypothermia and heat-related illnesses. It also discusses policy recommendations, such as improving access to emergency shelters and implementing urban planning strategies that account for climate risks.

Conclusion

Looking back at our experiences and observations throughout this project, our group has gained a deeper understanding of the health challenges the unhoused population faces throughout the cold season and in daily life. The feedback received through participant assessment confirmed that our health kits and education material were helpful tools in supporting the recipients to take proactive steps in protecting their health, especially in cooler weather.

This experience strengthened the commitment of each member of this group to the unhoused community. We would like to underline the importance of caring for this community with the utmost holistic and culturally sensitive care. Throughout the experience we learned that addressing language barriers and creating more adaptable material for our non-English-speaking recipients would create more success in future practice. As we witnessed the gratitude that the unhoused individuals gave us we were reminded that showing empathy and providing advocacy in nursing is crucial. Through this project we learned that the smallest intentions can impact individuals tremendously, especially in those who face the unique challenge of housing instability when maintaining their health. We are thankful that this experience enhanced our clinical skills, critical thinking, and deepened our commitment to serving this community. As we move forward, we will continue to dedicate ourselves to advocating for this population with compassion and conviction.

References

Bezgrebelna, M., McKenzie, K., Wells, S., Ravindran, A., Kral, M., Christensen, J., Stergiopoulos, V., Gaetz, S., & Kidd, S. A. (2021). Climate change, weather, housing

precarity, and homelessness: A systematic review of reviews. *International Journal of Environmental Research and Public Health, 18*(11), 5812. https://doi.org/10.3390/ijerph18115812

Choucair, B., & Watts, B. (2019). Homelessness & health: What's the connection? In *National Health Care for the Homeless Council*. https://nhchc.org/wp-content/uploads/2019/08/homelessness-and-health.pdf

Eccovia Solutions. (2023). Climate change and homelessness: Addressing health and housing needs. Retrieved from https://eccovia.com/blog/climate-change-homelessness-intersection/

Kidd, S. A., Greco, S., & McKenzie, K. (2020). Global Climate Implications for Homelessness: A Scoping Review. *Journal of Urban Health*, *98*, 385–393. https://doi.org/10.1007/s11524-020-00483-1

Moledina, A., Magwood, O., Agbata, E., Hung, J. H., Saad, A., Thavorn, K., & Pottie, K. (2021). A comprehensive review of prioritized interventions to improve the health and wellbeing of persons with lived experience of homelessness. *Campbell Systematic Reviews*, *17*(2), e1154. https://doi.org/10.1002/cl2.1154

National Coalition for the Homeless. (2023). The dangers of cold weather. Retrieved from https://nationalhomeless.org/winter-homelessness/

National Health Care for the Homeless Council. (2019). Winter homelessness and health risks. *National Coalition for the Homeless.* Retrieved from https://nationalhomeless.org/winter-homelessness/

NHCHC. (2023). The dangers of cold weather. *National Coalition for the Homeless - Building a movement to End Homelessness*. https://nationalhomeless.org/winter-homelessness/

Taylor, A., Murillo, R., Businelle, M. S., Chen, T. A., Kendzor, D. E., McNeill, L. H., & Reitzel, L. R. (2019). Physical activity and sleep problems in homeless adults. *PloS one*, *14*(7), e0218870. https://doi.org/10.1371/journal.pone.0218870

Zhang, P., Wiens, K., Wang, R., Luong, L., Ansara, D., Gower, S., Bassil, K., & Hwang, S. W. (2019). Cold weather conditions and risk of hypothermia among people experiencing homelessness: Implications for prevention strategies. *International Journal of Environmental Research and Public Health, 16*(18), 3259. https://doi.org/10.3390/ijerph16183259