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**Infection Control: Proper Handwashing Technique Within a Vulnerable Population**

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## **Infection Control: Proper Handwashing Technique Within a Vulnerable Population**

Recovery Café is a place of healing and recovery for those experiencing a variety of different kinds of traumas and experiences, whether it be homelessness, substance abuse, domestic violence, and others. This alcohol and drug free space is provided for members so that they can build relationships amongst each other, and gain access to resources such as housing, employment, support circles, social and health services. Typically open from 12-6, this community provides two free meals a day, resources, and ongoing support for their members regardless of past trauma, behaviors, and mistakes. Since the largest population group in this community, with a whopping 87%, is homeless or experienced homelessness, we decided to focus on their needs for our project education. Our team goal was to support this community in any way that we can through volunteer work, relationship building, doing a clothing drive with our Seattle Pacific University (SPU) community, providing hygiene kits, and educating on hand hygiene to promote health and prevent illness. With 22,923 people experiencing homelessness in Washington state (United States Interagency Council on Homelessness, 2020), our hope is that the word about proper hand hygiene will spread and less people in the homeless community will contract and spread illnesses and diseases, and decrease the infection control health literacy disparity.

### **Background**

Research shows that this type of population, one that is looking to recover, responds best to treatment that is focused on relationship building (Dixon et al., 2016; Padgett et al., 2008). To reiterate more specifically, this population has a longing for privacy but at the same time meaningful companionship, most come from a family background of lack of support, has a desire to “fix” themselves first before pursuing meaningful relationships with others, and has trouble

doing so because of their ongoing struggles of recovery from homelessness, substance abuse, mental illness, and more (Padgett et al., 2008). This shows that having the adequate resources is necessary to support relationships building in the community as to provide greater resiliency towards the challenges being faced. Our team's original goal was to work towards improving this, but after visiting Recovery Café, we witnessed how well this is already being implemented in the café amongst the members. Thus, our team decided to reinforce the same idea by showing up to the café to volunteer and speak with the members for as many weeks as we can, but also use this as an opportunity to educate on a specific need we found after doing some more research and speaking with the members of the café. This need being hand hygiene amongst the homeless, substance users, and other vulnerable populations. These populations were found to contract more illnesses compared to other populations, along with more severity of the illness and higher rates of death (Bucher et al., 2006). The reasons for this being the lack of hand and bodily hygiene, use of intravenous drugs, lack of education on self-care, and a general lack of resources to clean water and laundry amongst others (Raoult et al., 2001; Liebler, et al., 2017). While we cannot change the system to ensure that all have access to clean water, what we can do is educate on the importance of proper hand hygiene in order to help reduce sickness and infection spread in the specific population of Recovery Café.

### **Activities with Rationale**

As mentioned earlier, our goal was to support his community through the means of volunteering and relationship building and organizing a clothing drive amongst the SPU community, with the main focus being education on hand hygiene and providing hygiene kits. A research study done to see the impact of hand hygiene found that not performing hand hygiene after exposure to bacteria lead to 44% retention of that bacteria, 23% if only using water, and

down to 8% if using soap and water (Burton et al., 2011). However, this was also dependent on the quality of the hand washing. To test this in the population of Recovery Café, we brought with us a Glo Germ machine and gel, which uses UV light to expose fake bacteria that was retained on the hands after applying fake germs using a lotion and performing hand hygiene. We did so before educating on proper hand washing and after to see the progression of knowledge amongst the members. This was essential to do, since this type of population generally lacks the proper education on hand washing and access to resources because of their living conditions (Sayed Mohammad, 2016). Along with that, we showed two videos on hand hygiene and asked them what was done wrong. On top of this, we found a sponsor to provide us with supplies so that we can build hygiene kits which included hand sanitizer, a bar of soap, socks, deodorant, toothbrush, toothpaste, and shampoo. The reasoning behind this being that lack of education is not always the reason that vulnerable populations do not practice proper hand hygiene, but rather a lack of resources and access (Montgomery et al., 2021). Although these hygiene kits are temporary, this is the best that we can do with our resources, and it gives a fresh start and temporary fix for the ones who need it.

### **Outcomes**

Our evaluation of the effectiveness of the project was based on observation and assessment with the use of the Glo Germ machine, asking questions to the members pertaining to what they learned from the presentation and videos, and giving out a short survey to be completed by the members. What we found was that there was a significant improvement in the quality of hand hygiene after education on proper hand washing technique compared to before. Upon asking questions before education and after, and after showing the two videos, we found that more members understood the importance of hand washing and also what consists of good

quality hand hygiene. Along with that, we asked the members to teach back and demonstrate to us how to perform good quality hand hygiene, with the intent of possibly spreading the knowledge to other members of the community. On top of that, our survey indicated that the members found our presentation to be informative and easy to understand, and their likelihood of incorporating the practices of hand hygiene that they learned was approximately 83%. Overall, we received praise from the staff and the members of the café about the informational presentation and improved knowledge.

### **Limitations and Recommendations**

Health promotion and prevention is very important when it comes to reducing the spread of illnesses and complications of disease, and the best way to do so is through hand hygiene. In the end, our team met our goal of supporting Recovery Café by promoting relationship building through volunteering and spending time with the members, and the proof of that is their increased enthusiasm to learn about hand hygiene and acceptance of hygiene kits and clothing from the drive. The limitations to our project included a short amount of time, and lack of resources. We had a two and a half month time span to complete our project with a budget of \$30. If we were to have more time and financial resources, our impact on providing access to hand hygiene resources would have been far greater, and our evaluation would have been more long-term to truly test how well the education stuck with passing time. Through our own assessments and communication with the Recovery Café liaison, we recommend that for future projects more work will be done to expand on resources for hand hygiene, improved health literacy on current health-related topics for this specific population, and per request of the members, come ready to do basic health assessment checks such as blood pressure and sugar. Finally, the most important recommendation is to continue implementing the idea of relationship

building and volunteering. At the end of the day, it is an amazing experience to learn about the lives of other human beings who live very different lives and serving a vulnerable population that generally does not get served.

## References

- Bucher, S. J., Brickner, P. W., & Vincent, R. L. (2006). Influenza like illness among homeless persons. *Emerging Infectious Diseases*, *12*(7), 1162–1163.  
<http://doi.org/10.3201/eid1207.060217>
- Burton, M., Cobb, E., Donachie, P., Judah, G., Curtis, V., & Schmidt, W. P. (2011). The effect of handwashing with water or soap on bacterial contamination of hands. *International Journal of Environmental Research And Public Health*, *8*(1), 97-104.  
<https://doi.org/10.3390/ijerph8010097>
- Dixon, L. B., Holoshitz, Y., & Nossel, I. (2016). Treatment engagement of individuals experiencing mental illness: review and update. *World Psychiatry*, *15*(1), 13-20.  
<https://doi.org/10.1002/wps.20306>
- Leibler, J., Nguyen, D., León, C., Gaeta, J., & Perez, D., (2017). Personal hygiene practices among urban homeless persons in boston, ma. *International Journal of Environmental Research and Public Health*. <https://doi.org/10.3390/ijerph14080928>
- Montgomery, M. P., Carry, M. G., Garcia-Williams, A. G., Marshall, B., Besrat, B., Bejarano, F., ... & Mosites, E. (2021). Hand hygiene during the COVID-19 pandemic among people experiencing homelessness—Atlanta, Georgia, 2020. *Journal of Community Psychology*, *49*(7), 2441-2453. <https://doi.org/10.1002/jcop.22583>
- Padgett, D., Henwood, B., & Abrams, C. (2008). Social relationships among persons who have experienced serious mental illness, substance abuse, and homelessness: Implications for recovery. *American Journal of Orthopsychiatry*, *78*(3).  
<https://doi.org/10.1037/a0014155>

Raoult, D., Foucault, C., & Brouqui, P. (2001). Infections in the homeless. *The Lancet Infectious Diseases*, 1(2), 77-84. [https://doi.org/10.1016/S1473-3099\(01\)00062-7](https://doi.org/10.1016/S1473-3099(01)00062-7)

Sayed Mohammad, N. U., Walters, V., Gaillard, J. C., Sanjida, M. H., & McSherry, A. (2016). Water, sanitation and hygiene for homeless people. *Journal of Water and Health*, 14(1), 47-51. <https://doi.org/10.2166/wh.2015.248>

United States Interagency Council on Homelessness. (2020). *Washington homelessness statistics*. Homeless in Washington Statistics 2019. Homeless Estimation by State | US Interagency Council on Homelessness. Retrieved November 1, 2022, from <https://www.usich.gov/homelessness-statistics/wa>