

Researchers: Meera Mahidhara

Project Title: Less Stress for the Homeless

Question

Do houseless people who complete HomeScreens screening tests at three different drop-in centers locations seek extra resources when diagnosed with an anxiety disorder?

Background Research

Section 1: Explanation of why this experiment is important

According to the US Department of Housing and Urban Development, there are 564,708 people sleeping on the streets at any given night in the United States. Homelessness is a growing concern in the United States, especially in large states such as California. The intersection between mental illness and homelessness is a complicated process and usually plays off of each other. Mental health issues are actually the fourth leading cause of homelessness. My experiment aims to test whether houseless people who complete HomeScreens screening tests will seek extra resources. I am going to do this by observing ten test-takers from three different drop-in centers around Los Angeles and checking in with them after two weeks to see if they follow through with utilizing extra resources.

Sources:

1. <https://www.bbrfoundation.org/blog/homelessness-and-mental-illness-challenge-our-society>
2. https://www.counties.org/sites/main/files/file-attachments/attachment_a_-_background_document.pdf

Section 2: Concepts involved in the experiment

Concept 1: What is the homeless crisis?

There have been many efforts to increase affordable housing and more shelters, but the state government has not made many strides for the personal and day-to-day problems that many people who are experiencing homelessness face. Voters in Los Angeles approved a law that would add 10,000 new affordable apartments to the county, but fewer than 1,200 were open for public use in 2021. There are currently 69,144 people experiencing homelessness in Los Angeles. This is important to my experiment since it is the reason that I am conducting this experiment. There has been a steady increase in homelessness and this is due to a variety of reasons such as high-cost housing, mental health, and lack of shelters. Many resources that homeless people are provided with cannot be accessed for a multitude of reasons including lack of transport, communication, numbers, and more. It's important that distribution of resources are both local and easy to access, as well as the programs being reached out to are aware of the influx in member enrollment. So, it is important to look at the big picture when evaluating the measures needed to help the homeless. This is an integral piece of information for my project since I am trying to find additional resources to aif with the homelessness crisis.

Concept 2: Why is there a disparity between different locations under Hope of the Valley?

Although HOTV has been in business for quite a while, not all of their centers and access shelters have been. One such program is the Trebek Center, which has been new to the organization. Other locations are made to be less of an access center, but a small space for people to stop and get food, service, and showers. As a result, the Van Nuys center is heavily understaffed and

underprepared as compared to the Sherman Way center. In the Valley, there is a large proportion of homeless people sleeping on the streets rather than interim housing.

Concept 3: What are screening tests?

Medical screening tests are health strategies to look for non-surfaced diseases or underlying health problems. In my experiment, I am using mental health screening tests that have been personalized to homeless shelters and their inhabitants. HomeScreens is geared to help people with surface sleep disorders, anxiety, depression, PTSD, and schizophrenia. The intent of HomeScreens screening tests are to provide an overarching illness that could be given more in-depth treatment. In my experiment, the screening tests being used are from HomeScreens and it is important to know about both content and credibility of the tests. Per the experiment, test-takers will only be eligible for the research if they are given an underlying anxiety disorder.

Concept 4: What is HomeScreens?

HomeScreens is a local 401c3 non profit based in Los Angeles. It was created at the beginning of 2022 by Meera Mahidhara who is a senior at the Archer School for Girls. The goal of HomeScreens is to provide mental health resources to the homeless population through individualized screening tests. HomeScreens volunteers come to different drop-in centers and homeless shelters around Los Angeles and will provide free screening services. Test takers will then meet with the same volunteer who will review results from the test and schedule a therapy appointment for the test-taker.

Concept 5: What is the relationship between homelessness and mental health?

Affective, abusive, and anxiety disorders are among the most common mental health issues that are affecting the homeless. Both mental health and homelessness have a complicated relationship. Both issues are highly comorbid with each other. There are higher interactions with the police and with finding housing or jobs. Possible interventions are interim housing, treatment, and CBT training.

Sources:

1. <https://www.marketplace.org/2022/05/25/what-are-the-fastest-ways-to-address-the-homelessness-crisis-in-los-angeles/>
2. [https://www.usich.gov/homelessness-statistics/ca/#:~:text=As%20of%20January%202020%2C%20California.and%20Urban%20Development%20\(HUD\)](https://www.usich.gov/homelessness-statistics/ca/#:~:text=As%20of%20January%202020%2C%20California.and%20Urban%20Development%20(HUD))
3. <https://web.archive.org/web/20161018223904/https://sf311.org/homeless-resources-drop-centers>
4. <https://www.hopeofthevalley.org/trebekcenter/>
5. <https://web.archive.org/web/20161018223904/https://sf311.org/homeless-resources-drop-centers>
6. <https://www.hopeofthevalley.org/>
7. [https://en.wikipedia.org/wiki/Screening_\(medicine\)](https://en.wikipedia.org/wiki/Screening_(medicine))
8. <https://www.home-screens.org/>

Section 3: Related Experiments that have influenced your own experimental design

Related Experiment 1	Name of experimenter and location of research	S. J. Gordon, K. Grimmer, A. Bradley, T. Direen, N. Baker, T. Marin, M. T. Kelly, S. Gardner, M. Steffens, T. Burgess, C. Hume & J. L. Oliffe. United States systematic analysis of PubMed (and Medline), PsychInfo, Scopus, CINAHL and ERIC
	Brief explanation of experiment	This study was aimed at reviewing the validity and overall effectiveness of pre-existing health assessments for homeless adults. To do the accessing, the International Center for Allied Health Evidence (iCAHE) Ready Reckoner was used (a structured checklist of psychometric properties and utility of application, developed for assessment and outcome measures).
	What the	11 of the 13 tests were conducive of life and health status, injury, substance use, mental

	experiment found	health, psychological and cognitive function. The functions that were not shown or addressed were that of oral health, chronic conditions, anthropometry, demography, nutrition, continence, functional decline and frailty, or vision and hearing.
	What you will apply to your experiment	I would also like to hone in on one specific category/categories of mental health that this study did as well, which will be mood disorders. I am focusing on anxiety disorders for the experiment.
Related Experiment 2	Name of experimenter and location of research	Elizabeth A. Benston, research conducted in the United States.
	Brief explanation of experiment	This study examined the validity of affordable housing for homeless people with mental illnesses. Methods included a literature search from, 1980-2013, analyzing 14 different studies.
	What the experiment found	Results showed that people who were placed in housing programs lived up to one year longer in a home rather than the streets. But, there was a large prevalence of bias, attrition, lack of controls, and organization. Only three of the studies said that an applied house fidelity test was applied.
	What you will apply to your experiment	I think it would be really interesting to look at the inherent bias and also subconscious bias that may be in HomeScreens tests as a possible factor for low turnout. Since HomeScreens tests may be biased, it is important to see if that is a limitation for the experiment. I want to see if being a writer for the HomeScreens' tests may have had a reason why more people were either eligible or not for subsequent resources, anxiety disorder, or the test.
Related Experiment 3	Name of experimenter and location of research	Dimitris Mavridis, Georgia Salanti. Research was at the University of Ioannina School of Medicine, Ioannina, Greece
	Brief explanation of experiment	This study found the methods for distinguishing between publication bias in scholarly articles and studies. The three methods used in the study were funnel plot analysis, trim-and-fill method, regression techniques ,and selection models on antidepressant studies that have already been performed.
	What the experiment found	Tunnel plot methods were found conducive for finding the difference between effect size.
	What you will apply to your experiment	I would like to see if I can find any publication bias in HomeScreens tests that may not have been apparent before.

Sources:

1. <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-019-7234-y>
2. <https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201400294>
3. <https://drive.google.com/file/d/1xgzvEBIP2pDG8T9E9k724uDemyPiDfmp/view>

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Hypothesis

If I give out ten screening tests at each three separate locations part of Hope of the Valley, then test-takers at the Tyrone Access center will seek out extra resources.

Justification

What I have found through my research is that many screening tests that are used for different preventative measures such as alcohol abuse or mental illness are very beneficial. According to a study conducted by BMC Public Health, 11 out of 13 tests were found conducive and effective when screening for underlying mental conditions such as schizophrenia and depression. But what makes the outcome of screening tests so difficult is that there is not a stable and organized way to receive screening tests and get them graded. The disorder that I am specifically targeting during the experiment is anxiety disorder. There has been a lot of data given out about the effect of anxiety with homelessness. Bissell Centre is a resource program located in Canada. They provide a lot of additional resources about the stress that comes with being on the streets. As a result, I feel as if Hope of the Valley will have a better outcome with additional resources since their clients have been frequent members since the pandemic. The center provides a clear and stable foundation for test-takers to feel safe and welcome.

Sources:

1. <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-019-7234-y>
2. <https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201400294>

Experimental Design

Independent Variable	The location of where screening tests are.
Dependent Variable	The number of test-takers who seek extra resources.
Control Group	N/A
Experimental Group/s	Ten test-takers from Sherman Way Ten test-takers from Van Nuys

	Ten test-takers from Trebek Center
Controlled variables	<ol style="list-style-type: none">1. Screening tests2. Volunteer who is giving out the test3. Disorder being screened for4. The number of test-takers5. The event given at each drop-in center6. Person screening the tests7. Available treatment options8. Wait time in between taking tests and receiving results9. Number of tests

Diagram of Design

Hope of the Valley

Trebek

Tyrone Avenue

Sherman Way



x10



x10

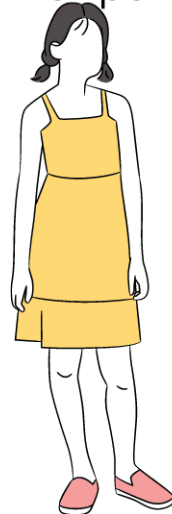
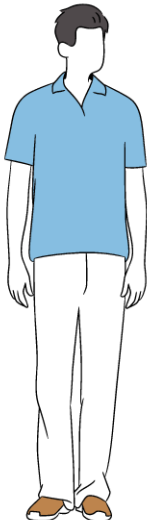


x10



Psychoanalyst and experimenter will screen each of the tests for baseline anxiety disorder (those with it will be eligible for study)

After 10 days, list of resources will be given to test-taker and a preliminary meeting will be scheduled by HomeScreens volunteer for person



Experimenter will call external resource after scheduled meeting to see if test-taker attended

Materials

1. HomeScreen Tests
2. Test-takers
3. Psychoanalyst
4. ID-labels

Procedure

Part A: Ground Work

1. Go to an individual drop-in center (Tyrone Ave, Sherman Way, or Trebek Center Location) under the supervision of a legal guardian.
2. Experimenter will speak with a test-taker for no less than 5 minutes before giving a test where they will ask about persons' day, concerns, and state that questions on the screening test are completely optional.
3. Give a Human Consent Form to the test-taker and make sure they fill out the form and turn in before handing out the HomeScreens screening test.
4. Then give out HomeScreens screening tests.
5. After completed, label test with id label and specific identification number (based on number in line) to ensure that each test-taker is kept confidentially and privately.
6. Hand gift cards to them and put the screening test in a separate folder in a secure place for experiment test-takers. Gift cards provided by HomeScreens.
7. Do this at each center.

Part B: Grading Period

8. Grade test within 10 days so as to get the test properly graded.
 - a. To do this, meet with a psychiatrist resident who will grade tests confidentially.
9. Go back to the center and locate the person by talking to the drop-in center director (who will be able to locate the person for you and get the person in contact with the experimenter).
10. Provide a small brochure list of low-cost support groups or medi-cal based treatment options.
11. Schedule appointments with specific resources for the following week with the test-taker.

Part C: Gathering Data

12. After one week, find out how many people went to get more resources.
 - a. Do this by contacting the person again through drop-in center staff first.
 - b. If that fails, through different treatment options.
13. Plot data.

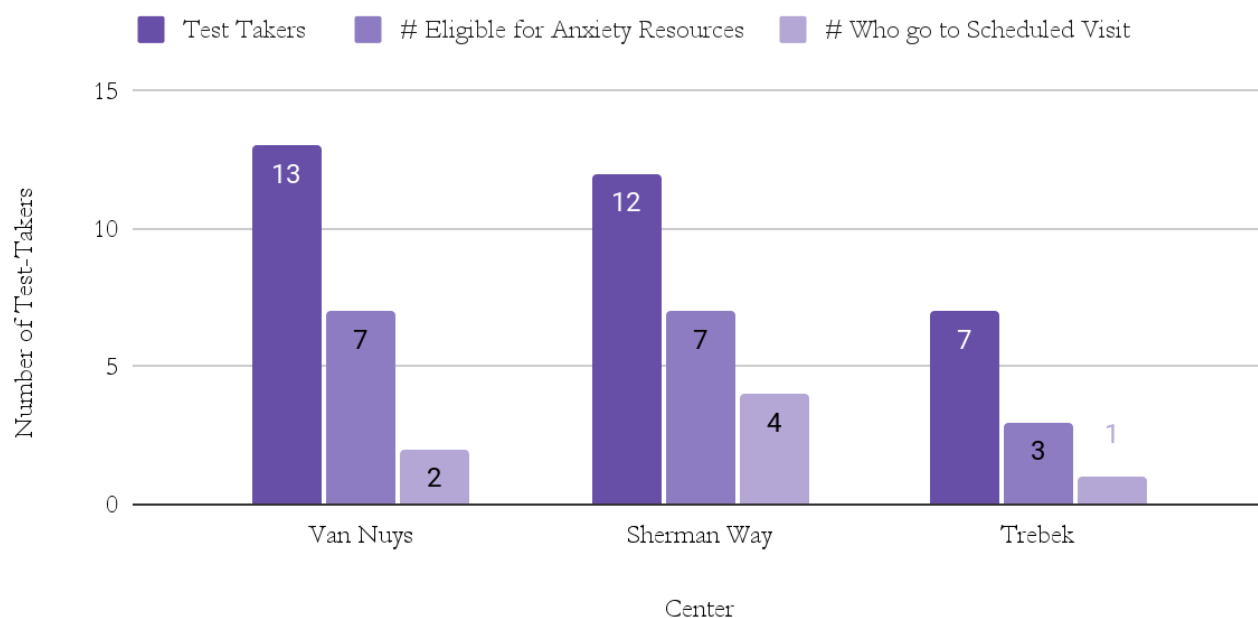
Data Table/s

Number of Houseless People who Take Screening Tests and Seek Extra Resources at Three Drop-In Center Locations Under Hope of the Valley

Center	# of Test-Takers	# of Test-Takers Who are Eligible for Anxiety Resource	# of Past Test-Takers who go to Scheduled Visit
Van Nuys	13	7	2
Sherman Way	12	7	4
Trebek	7	3	1

Graph/s

Number of People who Went for Subsequent Mental Health Resources at Three Different HOTV Locations



Conclusion

Section 1: Summarize your findings in detail

Thirteen people took tests at the Van Nuys center, but only seven were deemed eligible for resources. Of the seven, only two people went to their follow up meeting with a therapist. At the Sherman Way center, twelve people took the tests, seven were eligible, and four people went to their therapy appointment. Finally, only seven people took tests at the Trebek center, three were eligible, and one went to get extra resources. Trends that the data followed were that more more than half of the test takers were eligible for resources yet less than half of the eligible test takers sought them out.

Section 2: Interpret the data

More people got subsequent resources at the Sherman Way center which is the main access center for the department of HOTV. As a result, information, transit, and guidance was probably more available at the center than others. The Tyrone and Trebek centers were both small rest stops for people to take a break from work, take a shower, or converse with others. The data makes sense since the highest resource turnout came from the Sherman Way access center. The second highest turnout came from the Tyrone center. This also makes sense since HomeScreens had been hosting events at that location far longer than the Sherman Way and Trebek centers.

Section 3: Analyze your hypothesis

My hypothesis stated that there would be higher turnout at the Tyrone Ave location. I was wrong in my hypothesis saying that more people would go to their appointments at the Van Nuys center, but it was actually the Sherman Way center. The data did not support my hypothesis. Even though there were less people who took the test at the Sherman Way location, there were already available resources at that access center as well as more accessible transportation for therapy appointments. My findings are consistent with the background information, further confirming that access centers are available outlets for referrals and additional resources.

Section 4: Explain the local, national, or global applications of your data

Locally, this teaches me to work on my HomeScreens tests so that they can be more adaptable as well as accessible to test-takers. I also think that if centers want to connect homeless people with resources, they will need to create connections with resources and the people so that people will feel more comfortable. I hope to use this data for further improvements and adjustments to HomeScreens' process and screening tests. Using meta-analysis with similar studies, and more cohesive interpretation of HomeScreens' practicality is of the utmost importance.

Section 5: Error analysis + Improvements

One of the centers in Trebek was the first time that the HomeScreens team came to visit. As a result the staff and people who frequently visited the center were not as comfortable with us. As compared to the Van Nuys center which we had been to multiple times, there was a higher turnout in test takers since the staff were able to talk with in-comers about our work/encourage them to take our tests. Additionally, many of the test-takers would not follow up with their initial HomeScreens appointments, to go over tests and schedule appointments. As a result, there were many test-takers who were not able to be included in the experiment.

Section 6: Further Questions

My further question would be how to provide medical and mental health resources at specific access centers so non-profit organizations that are feeding and housing test-takers can be more involved with outcomes? Could there be a confidential data base to connect transitional homes and shelters with pre-existing resources? Finally, I want to know how to effectively communicate and connect with those that are taking tests so that they feel comfortable and safe.

Images with captions



(HomeScreens Test-Taking booth at Hope of the Valley Tyrone Avenue

Location)



(HomeScreens Test-Taking booth at the Hope of the

Valley Sherman Way Access Center)

Name *

First Name Last Name

Gender *

Are you on Medi-Cal? *

Yes No

Center Location *

Screening Test

1. Has anything been bothering you or on your mind?
 Yes No

2. If yes, please explain.

(HomeScreens' Test- Required Questions)

28. Who would you go to if you needed help?

250/250

29. Do you get unsettling flashbacks frequently?

Yes No Sometimes Often

30. Do they hinder you from doing your daily tasks?

Yes No Sometimes Often

31. Do you hear or see things throughout the day or at night?

Yes No Sometimes Often

32. Are you feeling hopeless about the present or future?

Yes No Sometimes Often

33. Have you had thoughts about suicide?

Yes No Sometimes Often

34. Do you have a plan to kill yourself?

Yes No Sometimes Often

(HomeScreens' Test- Optional Questions)