

N736 Homework 03 – Answer Key

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Statistical Methods

Data were reviewed for completeness. Descriptive statistics and histograms were made to check for normality assumptions. Variables with normal distributions were summarized and analyzed using parametric statistics whereas skewed variables or ordinal scored variables were summarized and analyzed using non-parametric statistics. Comparisons between the usual care and HELP clinic groups were performed using t-tests or Mann-Whitney tests depending on parametric or non-parametric assumptions respectively. Chi-square tests were performed for categorical variables.

Results

For the 453 subjects in the HELP study, their ages ranged from 19 to 60 averaging 35.7 (+/- 7.7) years old. The majority were male (76.4%) with black race reported most often (46.6%) and then white race (36.6%) with the remaining 16.7% listed as Hispanic or other race. Nearly half of the subjects were homeless (46.1%) with slightly more than one quarter having had thoughts of suicide (28.0%). However, the median number of nights spent in a shelter in the past 6 months was 0 and the median number of nights spent on the street in the last 6 months was also 0. On average the median number of times hospitalized for medical problems for their lifetime was one.

Perceived social support from friends had an average score of 6.71 (+/- 4.0). The physical component score of the SF36 quality of life was slightly below the population norm of 50 with an average of 48.05 (+/- 10.8). However, the mental component scores of the SF36 quality of life was well below the population norm of 50 with subjects averaging a score of only 31.7 (+/- 12.8). Additionally, the subjects' CESD depression scores were all very high well above the clinical risk cutpoint of 16 with average scores of 32.9 (+/- 12.5). Comparison statistics run between the 2 groups usual care and the HELP clinic did not show any significant differences between the 2 groups at baseline, indicating that the two groups were similar on their demographics, risk questions and other baseline assessments.

Table 1: Descriptive Statistics of Subjects Demographics and Baseline Measures – overall and by Randomization Group

		Overall N=453	Usual Care N=228	HELP Clinic N=225	Group Difference	
		Mean (SD)	Mean(SD)	Mean(SD)	t(df)	p-value
Age		35.65 (7.71)	36.30 (8.14)	35.00 (7.21)	$t_{(451)}=1.809$	p=.071
PSS-fr		6.71 (4.00)	6.82 (3.90)	6.60 (4.09)	$t_{(451)}=0.586$	p=.558
PCS		48.05 (10.78)	47.83 (10.66)	48.27 (10.93)	$t_{(451)}=-0.428$	p=.669
MCS		31.68 (12.84)	31.65 (13.12)	31.70 (12.58)	$t_{(451)}=-0.038$	p=.970
CESD		32.85 (12.51)	32.86 (12.64)	32.84 (12.42)	$t_{(451)}=0.013$	p=.990
		Median [IQR]	Median [IQR]	Median [IQR]	MW Z	p-value
Number of Nights in Shelter In past 6 months		0 [0, 3]	0 [0, 2.8]	0 [0, 3]	Z=-0.232	p=.816
Number of Nights on Street In past 6 months		0 [0, 3]	0 [0, 3.8]	0 [0, 3]	Z=-0.255	p=.798
Times hospitalized for Medical Problems (lifetime)		2 [1, 3.5]	2 [1, 4]	2 [1, 3]	Z=-1.242	p=.214
Number of times in detox In last 6 months ¹		2 [1, 3]	2 [1, 3]	2 [1, 3]	Z=-1.491	p=.136
Average number of drinks consumed per day (in past 30 days)		13 [3, 26]	13 [3, 26]	10 [2, 26]	Z=-1.285	p=.199
Maximum number of drinks consumed per day (in past 30 days)		15 [3, 32]	16.5 [3, 32]	13 [2, 30.5]	Z=-1.160	p=.246
		N (%)	N (%)	N (%)	$\chi^2(df)/FET$	p-value
Gender	female	107 (23.6%)	55 (24.1%)	52 (23.1%)	$\chi^2(1)=0.064$	p=.800
	male	346 (76.4%)	173 (75.9%)	173 (76.9%)		
Race	black	211 (46.6%)	106 (46.5%)	105 (46.7%)	$\chi^2(3)=1.066$	p=.785
	white	166 (36.6%)	87 (38.2%)	79 (35.1%)		
	Hispanic	50 (11.0%)	24 (10.5%)	26 (11.6%)		
	other	26 (5.7%)	11 (4.8%)	15 (6.7%)		
Homeless	yes	209 (46.1%)	109 (47.8%)	100 (44.4%)	$\chi^2(1)=0.515$	p=.473
Thoughts of suicide	yes	127 (28.0%)	60 (26.3%)	67 (29.8%)	$\chi^2(1)=0.673$	p=.412

¹239 subjects have missing data for “Number of times in detox In last 6 months” as this only applied to those who needed detox

HELP = Health Evaluation and Linkage to Primary Care

SD = standard deviation

df = degrees of freedom

IQR = Interquartile Range

MW = Mann Whitney test

PSS-fr = Perceived Social Support – Friends

CESD = Center for Epidemiological Studies-Depression

PCS = Physical Health Composite Score (from SF36 Quality of Life Instrument)

MCS = Mental Health Composite Score (from SF36 Quality of Life Instrument)

FET = Fisher’s Exact Test