

# Untitled

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### 0.1 Quarto

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

### 0.2 Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
1 + 1
```

```
[1] 2
```

You can add options to executable code like this

```
[1] 4
```

The `echo: false` option disables the printing of code (only output is displayed).

## 1 Packages & Library

```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.4      v readr      2.1.5
v forcats    1.0.0      v stringr    1.5.1
v ggplot2    3.5.1      v tibble     3.2.1
v lubridate  1.9.4      v tidyr      1.3.1
v purrr      1.0.4
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
```

```
library(descr)
library(knitr)
library(dplyr)
library(readr)
library(readxl)
library(ggplot2)
```

## 2 Load

```
file.path <- "/cloud/project/Data/Dataset.csv"
Dataset.csv <- read.csv(file.path)
head(Dataset.csv)
```

	S.NoSort.column	Case.Identification.Number	CONTROL..COMPLETES.1.PHONE.2....	
1	NA	CASEIDSort column	MODESort column	
2	1		1	(2) Mail
3	2		2	(9) Web

4	3	3	(9) Web
5	4	4	(9) Web
6	5	5	(1) Phone

CENSUS.STATE.FIPS.CODES.LABE.... Added..Census.Region Added..Census.Division

1	STFIPSSort column	REGIONSort column	DIVISIONSort column
2	(51) VIRGINIA	(3) South	(5) South Atlantic
3	(6) CALIFORNIA	(4) West	(9) Pacific
4	(28) MISSISSIPPI	(3) South	(6) East South Central
5	(36) NEW YORK	(1) Northeast	(2) Mid-Atlantic
6	(18) INDIANA	(2) Midwest	(3) East North Central

OFFERED.INTAKE.ASS.MNT.REFER.... Offered.Detox.3.31.03 Offered.SA.Tx.3.31.03

1	OTHNONTXSort column	DETOXSort column	TREATMTSort column
2	(1) Yes	(0) No	(1) Yes
3	(1) Yes	(0) No	(1) Yes
4	(1) Yes	(1) Yes	(1) Yes
5	(0) No	(0) No	(1) Yes
6	(1) Yes	(0) No	(1) Yes

Setting..Halfway.House OFFERED.OTHER.SA.SERVICES.SU....

1	LOC5Sort column	ADMINSort column
2	(1) Yes	(1) Yes
3	(1) Yes	(1) Yes
4	(0) No	(0) No
5	(0) No	(0) No
6	(0) No	(0) No

PRIMARY.FOCUS.SA.TX.MH.MIX.G....

1	FOCUSSort column
2	(1) Substance abuse treatment services
3	(1) Substance abuse treatment services
4	(3) Mix of mental health and substance abuse
5	(1) Substance abuse treatment services
6	(3) Mix of mental health and substance abuse

Ownership Federal.Government.Agency

1	OWNERSHPSort column	FEDOWNSort column
2	(2) Private non-profit organization	<NA>
3	(2) Private non-profit organization	<NA>
4	(1) Private for-profit organization	<NA>
5	(4) Local, county, or community government	<NA>
6	(2) Private non-profit organization	<NA>

Solo.practice AFFILIATED.W..RELIGIOUS.ORG....

1	LOC15Sort column	RELIGSort column
2	(0) No	(0) No
3	(0) No	(0) No
4	(0) No	(0) No

5	<NA>	<NA>
6	(0) No	(0) No
	LOCATED.IN.OPERATED.BY.HOSPI....	Hospital.Type Hotline...yes.no
1	HOSPITALSort column	LOCSSort column HOTYNSort column
2	(0) No	<NA> (0) No
3	(0) No	<NA> (0) No
4	(1) Yes (2) Psychiatric hospital	(1) Yes
5	(0) No	<NA> (0) No
6	(0) No	<NA> (0) No
	Assessment.comprehensive.SA	Assessment.mental.health
1	SRVC1Sort column	SRVC2Sort column
2	(0) No	(0) No
3	(1) Yes	<NA>
4	(1) Yes	(1) Yes
5	(1) Yes	<NA>
6	(1) Yes	(1) Yes
	Therapy.family.counseling	Therapy.group
1	SRVC4Sort column	SRVC5Sort column
2	(0) No	(1) Yes
3	(1) Yes	(1) Yes
4	(1) Yes	(1) Yes
5	<NA>	(1) Yes
6	(1) Yes	(1) Yes

```
Dataset.csv <-Dataset.csv[-c(1,2), ]
#View(Dataset.csv)
```

### 3 Freq Table

```
colnames(Dataset.csv)
```

[1] "S.NoSort.column"	"Case.Identification.Number"
[3] "CONTROL..COMPLETES.1.PHONE.2...."	"CENSUS.STATE.FIPS.CODES.LABE...."
[5] "Added..Census.Region"	"Added..Census.Division"
[7] "OFFERED.INTAKE.ASS.MNT.REFER...."	"Offered.Detox.3.31.03"
[9] "Offered.SA.Tx.3.31.03"	"Setting..Halfway.House"
[11] "OFFERED.OTHER.SA.SERVICES.SU...."	"PRIMARY.FOCUS.SA.TX.MH.MIX.G...."
[13] "Ownership"	"Federal.Government.Agency"
[15] "Solo.practice"	"AFFILIATED.W..RELIGIOUS.ORG...."

```
[17] "LOCATED.IN.OPERATED.BY.HOSPI...." "Hospital.Type"
[19] "Hotline...yes.no"                  "Assessment.comprehensive.SA"
[21] "Assessment.mental.health"          "Therapy.family.counseling"
[23] "Therapy.group"
```

I choose this variable of ownership, because I think it will be important to understand what kind of facilities are available for treatment, to different communities such as low income and wealthy communities.

```
freq(as.ordered(Dataset.csv$Ownership), plot = FALSE)
```

```
as.ordered(Dataset.csv$Ownership)
```

	Frequency	Percent	Cum Percent
(1) Private for-profit organization	5	20.833	20.83
(2) Private non-profit organization	15	62.500	83.33
(3) State government	1	4.167	87.50
(4) Local, county, or community government	3	12.500	100.00
Total	24	100.000	

When choosing this variable, I thought about what type of facilities are available for substance use disorder? This variable will also play an important role, because addicts who are in recovery need the support of family and society, so is important to know about the services that facilities will provide not only to the patient but to their love ones in order to support their rehab process.

```
freq(as.ordered(Dataset.csv$Therapy.family.counseling), plot = FALSE)
```

```
as.ordered(Dataset.csv$Therapy.family.counseling)
```

	Frequency	Percent	Valid Percent	Cum Percent
(0) No	7	29.167	31.82	31.82
(1) Yes	15	62.500	68.18	100.00
NA's	2	8.333		
Total	24	100.000	100.00	

This variable took my attention because there are many places that only might take in patients only by referrals, but this could be a barrier for treatment. Also is there more people reaching for help by themselves or because they were referred? I think this will be very interesting to explore

```
freq(as.ordered(Dataset.csv$OFFERED.INTAKE.ASS.MNT.REFER...), plot = FALSE)
```

```
as.ordered(Dataset.csv$OFFERED.INTAKE.ASS.MNT.REFER...)
```

	Frequency	Percent	Cum Percent
(0) No	3	12.5	12.5
(1) Yes	21	87.5	100.0
Total	24	100.0	

This variable is important because it will be important to understand how important is the group therapy to maintaining in abstinence during after rehab.

```
freq(as.ordered(Dataset.csv$Therapy.group), plot = FALSE)
```

```
as.ordered(Dataset.csv$Therapy.group)
```

	Frequency	Percent	Cum Percent
(0) No	4	16.67	16.67
(1) Yes	20	83.33	100.00
Total	24	100.00	

## 4 Data Management

won't be using this but it was created as an example for the assignment required on pdf

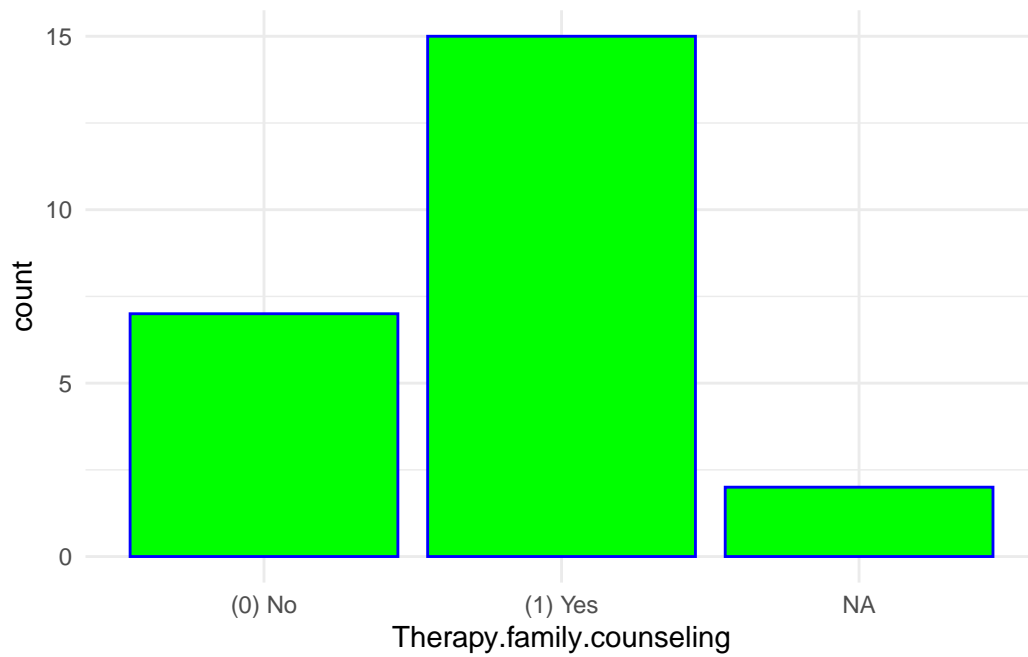
```
Dataset.csv$THERAPY <-factor(ifelse((Dataset.csv$Therapy.family.counseling ==1 | Dataset.csv$THERAPY ==1), "Yes", "No"))
summary(Dataset.csv$THERAPY)
```

```
no NA's
22    2
```

## 5 GRAPHS

Univariate Graphs

```
Dataset.csv %>%
  ggplot(aes(x=Therapy.family.counseling)) + geom_bar(fill="green",color = "blue") + theme_minimal()
```



```
Dataset.csv %>%  
  ggplot(aes(x=Ownership)) +  
  
  geom_bar(fill= "yellow", color = "blue") +  
  
  ggtitle("Facilities Providing Services") +  
  xlab("Ownership") +  
  
  ylab("Count") +  
  theme_minimal()
```

