Section: Reach (P/PT & QPR data)

Summarizing Reach by Group

Josephine McKelvy

March 17, 2021

## R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

Click the **+c Insert** button to insert code chunks (or functions). Add documentation outside of the code chunks as reminders of what your code does.

When you click the **Knit** button, it compiles all of the code chunks and generates a document that includes both content as well as the output of any embedded R code chunks within the document. Use the **gear** icon to adjust settings (e.g., “show output only”) for each code chunk.

The shortcut key for “<-” is ALT + [dash] CTRL + ENTER will run the highlighted line(s) of code. The hashtag is code that is commented out.

# 0. First time:

Create a new project with version control (Git) on the top right corner. # Every time: Select your existing project. Pull any changes from GitHub, using the Git tab in the Environment panel/window.

Copy the template .rmd into a project folder and upload the dataset.

# 1. Find/Set the working directory, where you’ll import/export files.

getwd()

## [1] "C:/Users/Josephine/Documents/AYC"

# Wherever this code is saved, the file(s) for your dataset(s) should be there too

# 2. Name & import your data frame, or set of information (like a .csv file of survey responses), as factor variables.

* I created a dataframe object (which I named “raw.df”) for each dataset that will read in the respective .csv files and convert categorical variables into factor variables.

rawppt.df <- read.csv("Participant Pre- Post-Test Survey.csv", stringsAsFactors = TRUE)  
rawflqpr.df <- read.csv("Facilitators Evaluation Tools.csv", stringsAsFactors = TRUE)  
  
# Export .CSV from your survey platform and confirm numeric values, NOT choice text.   
# Make sure filters are turned on or off.

# 3. Clean the analytic dataset.

* I created an analytic dataset (which I named “ppt.df”) that will select/subset the data columns and remove informational header rows that are not survey responses.

(**1-based index**: R starts with the first row of obs. being “1”; 2:nrow means that your responses/obs. start on row 3 until the Nth row. Check your dataset to see which row the actual observations start.)

ppt.df <- rawppt.df[2:nrow(rawppt.df),c(12:18,20:68,76:114)] #95 variables  
flqpr.df <- rawflqpr.df[2:nrow(rawflqpr.df),c(10:30,32:36,38:47,49:53,55:64,66:70,72:81,83:87,89:93,95:99,101:106,114:131,133:143,145:155,157:170)] #141 variables  
# Confirm the number of obs and variables.  
  
names(ppt.df) <- c("Group Name", "Participant", "Time",  
 "Live in County",  
 "Home County",  
 "Birthdate",  
 "Grade",  
 "White",  
 "Black",  
 "Asian",  
 "Native American",  
 "Other Race",  
 "Hispanic",  
 "Language",  
 "Other Language",  
 "Gender not reported",  
 "Woman",  
 "Man",  
 "Transgender",  
 "Nonbinary/Does not identify",  
 "Other Gender",  
 "Sexual Identity",  
 "Other Sexual Identity",  
 "Oral Sex",  
 "Vaginal Sex",  
 "Anal Sex",  
 "Pregnancy",  
 "Sex using alcohol",  
 "Sex using drugs",  
 "Never had sex",  
 "Ever had sex",  
 "No barrier method",  
 "No birth control",  
 "EC",  
 "IUD",  
 "Implant",  
 "Shot",  
 "Ring",  
 "Patch",  
 "Pill",  
 "Barrier Method",  
 "Not sure",  
 "Prefer not to answer",  
 "Other Method",  
 "Group leader understood me",  
 "Group mates respect each other",  
 "I felt judged\*",  
 "Group leader knew the material",  
 "I understood the material",  
 "Group leader made the activities fun",  
 "I felt free to speak",  
 "I felt uncomfortable participating\*",  
 "Topics I will remember",  
 "Group did this well",  
 "Improvements",  
 "First name",  
 "Email address",  
 "Phone number",  
 "Future",  
 "Healthy Relationship",  
 "Dating Abuse",  
 "Consent",  
 "PrEP",  
 "abstinence-neither",  
 "abstinence-pregnancy",  
 "abstinence-STI",  
 "birth control-neither",  
 "birth control-pregnancy",  
 "birth control-STI",  
 "external condom-neither",  
 "external condom-pregnancy",  
 "external condom-STI",  
 "lambskin condom-neither",  
 "lambskin condom-pregnancy",  
 "lambskin condom-STI",  
 "internal condom-neither",  
 "internal condom-pregnancy",  
 "internal condom-STI",  
 "withdrawal-neither",  
 "withdrawal-pregnancy",  
 "withdrawal-STI",  
 "Store the condom",  
 "Open the package",  
 "Pinch the tip",  
 "Unroll the condom",  
 "Hold the base",  
 "STI infection",  
 "Water-based lubricants",  
 "EC up to 5 days",  
 "EC without prescription",  
 "Prepared to say no if not ready",  
 "Prepared to use a barrier method",  
 "Prepared to say no if no barrier method",  
 "Prepared to use birth control",  
 "Prepared to go to a doctor for birth control")  
  
names(flqpr.df) <- c("tool",  
 "FL io",  
 "FL grp",  
 "FL fac1",  
 "FL fac2",  
 "FL fac3",  
 "FL TA topic",  
 "FL success",  
 "FL ref srh","FL ref mh","FL ref sa","FL ref pcp","FL ref edu","FL ref voc","FL ref viol",  
 "FL ebp",  
 "LN1 name","LN1 start","LN1 how","LN1 change","LN1 incomp",  
 "LN2 name","LN2 start","LN2 how","LN2 change","LN2 incomp",  
 "LN3 name","LN3 start","LN3 how","LN3 change","LN3 incomp",  
 "MPC1 name","MPC1 start","MPC1 how","MPC1 change","MPC1 incomp",  
 "MPC2 name","MPC2 start","MPC2 how","MPC2 change","MPC2 incomp",  
 "MPC3 name","MPC3 start","MPC3 how","MPC3 change","MPC3 incomp",  
 "IN1 name","IN1 start","IN1 how","IN1 change","IN1 incomp",  
 "IN2 name","IN2 start","IN2 how","IN2 change","IN2 incomp",  
 "IN3 name","IN3 start","IN3 how","IN3 change","IN3 incomp",  
 "SL1 name","SL1 start","SL1 how","SL1 change","SL1 incomp",  
 "SL2 name","SL2 start","SL2 how","SL2 change","SL2 incomp",  
 "SL3 name","SL3 start","SL3 how","SL3 change","SL3 incomp",  
 "SL4 name","SL4 start","SL4 how","SL4 change","SL4 incomp",  
 "SL5 name","SL5 start","SL5 how","SL5 change","SL5 incomp",  
 "QPR fac",  
 "QPR email",  
 "QPR phone",  
 "QPR io",  
 "QPR setting",  
 "QPR prog spec",  
 "QPR period",  
 "QPR ebp",  
 "QPR1 name","QPR1 start","QPR1 end","QPR1 change","QPR1 reach","QPR1 attend","QPR1 retent","QPR1 eval-none","QPR1 eval-pre","QPR1 eval-FL","QPR1 eval-post",  
 "QPR2 name","QPR2 start","QPR2 end","QPR2 change","QPR2 reach","QPR2 attend","QPR2 retent","QPR2 eval-none","QPR2 eval-pre","QPR2 eval-FL","QPR2 eval-post",  
 "QPR3 name","QPR3 start","QPR3 end","QPR3 change","QPR3 reach","QPR3 attend","QPR3 retent","QPR3 eval-none","QPR3 eval-pre","QPR3 eval-FL","QPR3 eval-post",  
 "QPR4 name","QPR4 start","QPR4 end","QPR4 change","QPR4 reach","QPR4 attend","QPR4 retent","QPR4 eval-none","QPR4 eval-pre","QPR4 eval-FL","QPR4 eval-post",  
 "add'l info","TA concerns","AL upload")

* Recode missing data:

flqpr.df[flqpr.df==""] <- NA  
  
#recode "prefer not to answer" as missing  
library(naniar)

## Warning: package 'naniar' was built under R version 4.0.4

replace\_with\_na\_at(data = ppt.df,  
 .vars = c( "Oral Sex",  
 "Vaginal Sex",  
 "Anal Sex",  
 "Pregnancy",  
 "Sex using alcohol",  
 "Sex using drugs"),  
 condition = ~.x == 5) #"prefer not to answer"

## Group Name Participant Time Live in County Home County Birthdate  
## 2 DREAMCENTER030521 1 a a 05/05/1985  
## 3 Payc022521 1 Alamance America 01/10/2007  
## 4 payc022521 1 Alamance Alamance 10/16/2006  
## 5 PAYC022521 1 alamance Alamance 10/03/2008  
## 6 PAYC022521 1 North Carolina Alamance 03/04/2006  
## 7 Payc022521 1 Alamance Alamance 04/18/2008  
## 8 Payc022521 1 Alamance Alamance 07/22/2008  
## 9 Payc022521 1 Alamance Alamance 9/18/2008  
## 10 Payc022521 1 Alamance Alamance 8/23/2008  
## 11 pAyc022521 1 Alamance Alamance 01/08/2007  
## 12 Payc022521 1 Alamance Alamance 4/19/2008  
## 13 Payc022521 1 Alamance Alamance 01/10/2007  
## Grade White Black Asian Native American Other Race Hispanic Language  
## 2 12 0  
## 3 3 2 2  
## 4 3 2 5 0  
## 5 1 2 2  
## 6 4 2 2  
## 7 1 2 2  
## 8 2 2 2  
## 9 1 2 2  
## 10 2 2 0  
## 11 3 2 2  
## 12 2 2 2  
## 13 3 2 2  
## Other Language Gender not reported Woman Man Transgender  
## 2 0 0   
## 3 1 1   
## 4 1 1   
## 5 1 1   
## 6 1 1   
## 7 1 2  
## 8 1 2  
## 9 1 2  
## 10 0 2  
## 11 1 2  
## 12 1 2  
## 13 1 2  
## Nonbinary/Does not identify Other Gender Sexual Identity  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Other Sexual Identity Oral Sex Vaginal Sex Anal Sex Pregnancy  
## 2 0 1 NA NA NA  
## 3 2 1 1 1 1  
## 4 2 1 1 1 1  
## 5 2 1 1 1 1  
## 6 2 1 1 1 1  
## 7 2 1 1 1 1  
## 8 2 1 1 1 1  
## 9 2 1 1 1 1  
## 10 0 1 NA NA NA  
## 11 2 1 1 1 1  
## 12 2 1 1 1 1  
## 13 2 1 1 1 1  
## Sex using alcohol Sex using drugs Never had sex Ever had sex  
## 2 NA NA 5   
## 3 1 1 4 0  
## 4 1 1 4 0  
## 5 1 1 4 0  
## 6 1 1 4 0  
## 7 1 1 4 0  
## 8 1 1 4 0  
## 9 1 1 4 0  
## 10 NA NA 5   
## 11 1 1 4   
## 12 1 1 4 0  
## 13 1 1 4 0  
## No barrier method No birth control EC IUD Implant Shot Ring Patch Pill  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Barrier Method Not sure Prefer not to answer Other Method  
## 2 13  
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 13  
## 11 12   
## 12   
## 13   
## Group leader understood me Group mates respect each other I felt judged\*  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 2 3  
## 11   
## 12   
## 13   
## Group leader knew the material I understood the material  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 1 3  
## 11   
## 12   
## 13   
## Group leader made the activities fun I felt free to speak  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 2  
## 11   
## 12   
## 13   
## I felt uncomfortable participating\* Topics I will remember  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 1  
## 11   
## 12   
## 13   
## Group did this well Improvements First name Email address Phone number  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 Everything Communicate N/A   
## 11   
## 12   
## 13   
## Future  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Healthy Relationship  
## 2 a  
## 3 I wanna be a nurse   
## 4 I would like to be a cosmetologist and do hair and nails.  
## 5 my goal 9s to become a cosmetologist and I plan to have kids at the age 23  
## 6 I want to go to college Play basketball Cosmetologist Lawyer   
## 7 to have kids   
## 8 Not having sex   
## 9 Have kids  
## 10 Heathy  
## 11 Have a kid at 28  
## 12 I want to go to college and I don't want a relationship until I get out of college   
## 13 Go to college  
## Dating Abuse Consent PrEP abstinence-neither abstinence-pregnancy  
## 2 4 3 1 3 0  
## 3 4 5 2 2   
## 4 4 5 1 2   
## 5 4 5 3 3 0  
## 6 4 5 2 2   
## 7 4 5 3 4   
## 8 4 4 3 4 0  
## 9 1 2 3 4   
## 10 4 2 5 4 0  
## 11 2 5 2 4 0  
## 12 4 1 3 4   
## 13 4 5 2 3   
## abstinence-STI birth control-neither birth control-pregnancy  
## 2 0  
## 3 2   
## 4 1 2   
## 5 0  
## 6 2   
## 7 1   
## 8   
## 9 1 0  
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## birth control-STI external condom-neither external condom-pregnancy  
## 2 0  
## 3 1   
## 4 1   
## 5 0  
## 6 1   
## 7 1   
## 8 1 2 0  
## 9   
## 10 0  
## 11 0  
## 12 1   
## 13 1   
## external condom-STI lambskin condom-neither lambskin condom-pregnancy  
## 2 0  
## 3 1 0  
## 4 1 2   
## 5 0  
## 6 1   
## 7 1 0  
## 8   
## 9 1   
## 10 0  
## 11 0  
## 12 1   
## 13 1 2   
## lambskin condom-STI internal condom-neither internal condom-pregnancy  
## 2 0  
## 3   
## 4 1   
## 5 0  
## 6 1   
## 7   
## 8 2   
## 9 1   
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## internal condom-STI withdrawal-neither withdrawal-pregnancy withdrawal-STI  
## 2 0   
## 3 2 1  
## 4 1 2 1  
## 5 1  
## 6 1 1  
## 7 2   
## 8 1 1  
## 9 2   
## 10 0   
## 11 0   
## 12 1   
## 13 1 2 0   
## Store the condom Open the package Pinch the tip Unroll the condom  
## 2 1 2 3  
## 3 1 2 4  
## 4 1 2 3  
## 5 2 1 3  
## 6 3 5 1  
## 7 2 3 2 4  
## 8 2 2 1 5  
## 9 2 2 4 5  
## 10 5 3 4  
## 11 1 3 2  
## 12 2 1 2 3  
## 13 1 2 3  
## Hold the base STI infection Water-based lubricants EC up to 5 days  
## 2 4 5 3 3  
## 3 3 5 2 1  
## 4 5 4 2 3  
## 5 4 5 3 1  
## 6 4 2 2 1  
## 7 1 5 3 3  
## 8 4 3 2 2  
## 9 1 3 3 3  
## 10 2 1 2 3  
## 11 4 5 2 3  
## 12 4 5 2 1  
## 13 4 5 2 1  
## EC without prescription Prepared to say no if not ready  
## 2 3 3  
## 3 3 1  
## 4 3 3  
## 5 1 3  
## 6 2 3  
## 7 3 3  
## 8 1 2  
## 9 3 3  
## 10 1 1  
## 11 3 3  
## 12 1 2  
## 13 1 1  
## Prepared to use a barrier method Prepared to say no if no barrier method  
## 2 5 5  
## 3 3 3  
## 4 3 3  
## 5 3 3  
## 6 5 5  
## 7 3 3  
## 8 3 3  
## 9 3 3  
## 10 1 3  
## 11 3 3  
## 12 3 1  
## 13 3 3  
## Prepared to use birth control Prepared to go to a doctor for birth control  
## 2 5 5  
## 3 3 3  
## 4 3 3  
## 5 3 3  
## 6 5 5  
## 7 3 2  
## 8 3 3  
## 9 3 3  
## 10 1 3  
## 11 3 3  
## 12 3 3  
## 13 3 3

replace\_with\_na\_at(data = ppt.df,  
 .vars = c("Prepared to say no if not ready",  
 "Prepared to use a barrier method",  
 "Prepared to say no if no barrier method",  
 "Prepared to use birth control",  
 "Prepared to go to a doctor for birth control"),  
 condition = ~.x == 4) #"not applicable to me"

## Group Name Participant Time Live in County Home County Birthdate  
## 2 DREAMCENTER030521 1 a a 05/05/1985  
## 3 Payc022521 1 Alamance America 01/10/2007  
## 4 payc022521 1 Alamance Alamance 10/16/2006  
## 5 PAYC022521 1 alamance Alamance 10/03/2008  
## 6 PAYC022521 1 North Carolina Alamance 03/04/2006  
## 7 Payc022521 1 Alamance Alamance 04/18/2008  
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## 9 Payc022521 1 Alamance Alamance 9/18/2008  
## 10 Payc022521 1 Alamance Alamance 8/23/2008  
## 11 pAyc022521 1 Alamance Alamance 01/08/2007  
## 12 Payc022521 1 Alamance Alamance 4/19/2008  
## 13 Payc022521 1 Alamance Alamance 01/10/2007  
## Grade White Black Asian Native American Other Race Hispanic Language  
## 2 12 0  
## 3 3 2 2  
## 4 3 2 5 0  
## 5 1 2 2  
## 6 4 2 2  
## 7 1 2 2  
## 8 2 2 2  
## 9 1 2 2  
## 10 2 2 0  
## 11 3 2 2  
## 12 2 2 2  
## 13 3 2 2  
## Other Language Gender not reported Woman Man Transgender  
## 2 0 0   
## 3 1 1   
## 4 1 1   
## 5 1 1   
## 6 1 1   
## 7 1 2  
## 8 1 2  
## 9 1 2  
## 10 0 2  
## 11 1 2  
## 12 1 2  
## 13 1 2  
## Nonbinary/Does not identify Other Gender Sexual Identity  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Other Sexual Identity Oral Sex Vaginal Sex Anal Sex Pregnancy  
## 2 0 5 5 5  
## 3 2 4 4 4  
## 4 2 4 4 4  
## 5 2 4 4 4  
## 6 2 4 4 4  
## 7 2 4 4 4  
## 8 2 4 4 4  
## 9 2 4 4 4  
## 10 0 5 5 5  
## 11 2 4 4 4  
## 12 2 4 4 4  
## 13 2 4 4 4  
## Sex using alcohol Sex using drugs Never had sex Ever had sex  
## 2 5 5 5   
## 3 4 4 4 0  
## 4 4 4 4 0  
## 5 4 4 4 0  
## 6 4 4 4 0  
## 7 4 4 4 0  
## 8 4 4 4 0  
## 9 4 4 4 0  
## 10 5 5 5   
## 11 4 4 4   
## 12 4 4 4 0  
## 13 4 4 4 0  
## No barrier method No birth control EC IUD Implant Shot Ring Patch Pill  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Barrier Method Not sure Prefer not to answer Other Method  
## 2 13  
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 13  
## 11 12   
## 12   
## 13   
## Group leader understood me Group mates respect each other I felt judged\*  
## 2   
## 3   
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## 5   
## 6   
## 7   
## 8   
## 9   
## 10 2 3  
## 11   
## 12   
## 13   
## Group leader knew the material I understood the material  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 1 3  
## 11   
## 12   
## 13   
## Group leader made the activities fun I felt free to speak  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 2  
## 11   
## 12   
## 13   
## I felt uncomfortable participating\* Topics I will remember  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 1  
## 11   
## 12   
## 13   
## Group did this well Improvements First name Email address Phone number  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 Everything Communicate N/A   
## 11   
## 12   
## 13   
## Future  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
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## Healthy Relationship  
## 2 a  
## 3 I wanna be a nurse   
## 4 I would like to be a cosmetologist and do hair and nails.  
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## 6 I want to go to college Play basketball Cosmetologist Lawyer   
## 7 to have kids   
## 8 Not having sex   
## 9 Have kids  
## 10 Heathy  
## 11 Have a kid at 28  
## 12 I want to go to college and I don't want a relationship until I get out of college   
## 13 Go to college  
## Dating Abuse Consent PrEP abstinence-neither abstinence-pregnancy  
## 2 4 3 1 3 0  
## 3 4 5 2 2   
## 4 4 5 1 2   
## 5 4 5 3 3 0  
## 6 4 5 2 2   
## 7 4 5 3 4   
## 8 4 4 3 4 0  
## 9 1 2 3 4   
## 10 4 2 5 4 0  
## 11 2 5 2 4 0  
## 12 4 1 3 4   
## 13 4 5 2 3   
## abstinence-STI birth control-neither birth control-pregnancy  
## 2 0  
## 3 2   
## 4 1 2   
## 5 0  
## 6 2   
## 7 1   
## 8   
## 9 1 0  
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## birth control-STI external condom-neither external condom-pregnancy  
## 2 0  
## 3 1   
## 4 1   
## 5 0  
## 6 1   
## 7 1   
## 8 1 2 0  
## 9   
## 10 0  
## 11 0  
## 12 1   
## 13 1   
## external condom-STI lambskin condom-neither lambskin condom-pregnancy  
## 2 0  
## 3 1 0  
## 4 1 2   
## 5 0  
## 6 1   
## 7 1 0  
## 8   
## 9 1   
## 10 0  
## 11 0  
## 12 1   
## 13 1 2   
## lambskin condom-STI internal condom-neither internal condom-pregnancy  
## 2 0  
## 3   
## 4 1   
## 5 0  
## 6 1   
## 7   
## 8 2   
## 9 1   
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## internal condom-STI withdrawal-neither withdrawal-pregnancy withdrawal-STI  
## 2 0   
## 3 2 1  
## 4 1 2 1  
## 5 1  
## 6 1 1  
## 7 2   
## 8 1 1  
## 9 2   
## 10 0   
## 11 0   
## 12 1   
## 13 1 2 0   
## Store the condom Open the package Pinch the tip Unroll the condom  
## 2 1 2 3  
## 3 1 2 4  
## 4 1 2 3  
## 5 2 1 3  
## 6 3 5 1  
## 7 2 3 2 4  
## 8 2 2 1 5  
## 9 2 2 4 5  
## 10 5 3 4  
## 11 1 3 2  
## 12 2 1 2 3  
## 13 1 2 3  
## Hold the base STI infection Water-based lubricants EC up to 5 days  
## 2 4 5 3 3  
## 3 3 5 2 1  
## 4 5 4 2 3  
## 5 4 5 3 1  
## 6 4 2 2 1  
## 7 1 5 3 3  
## 8 4 3 2 2  
## 9 1 3 3 3  
## 10 2 1 2 3  
## 11 4 5 2 3  
## 12 4 5 2 1  
## 13 4 5 2 1  
## EC without prescription Prepared to say no if not ready  
## 2 3 3  
## 3 3 1  
## 4 3 3  
## 5 1 3  
## 6 2 3  
## 7 3 3  
## 8 1 2  
## 9 3 3  
## 10 1 1  
## 11 3 3  
## 12 1 2  
## 13 1 1  
## Prepared to use a barrier method Prepared to say no if no barrier method  
## 2 3 3  
## 3 2 2  
## 4 2 2  
## 5 2 2  
## 6 3 3  
## 7 2 2  
## 8 2 2  
## 9 2 2  
## 10 1 2  
## 11 2 2  
## 12 2 1  
## 13 2 2  
## Prepared to use birth control Prepared to go to a doctor for birth control  
## 2 3 3  
## 3 2 2  
## 4 2 2  
## 5 2 2  
## 6 3 3  
## 7 2 1  
## 8 2 2  
## 9 2 2  
## 10 1 2  
## 11 2 2  
## 12 2 2  
## 13 2 2

replace\_with\_na\_at(data = ppt.df,  
 .vars = c("Prepared to say no if not ready",  
 "Prepared to use a barrier method",  
 "Prepared to say no if no barrier method",  
 "Prepared to use birth control",  
 "Prepared to go to a doctor for birth control"),  
 condition = ~.x == 5) #"prefer not to answer"

## Group Name Participant Time Live in County Home County Birthdate  
## 2 DREAMCENTER030521 1 a a 05/05/1985  
## 3 Payc022521 1 Alamance America 01/10/2007  
## 4 payc022521 1 Alamance Alamance 10/16/2006  
## 5 PAYC022521 1 alamance Alamance 10/03/2008  
## 6 PAYC022521 1 North Carolina Alamance 03/04/2006  
## 7 Payc022521 1 Alamance Alamance 04/18/2008  
## 8 Payc022521 1 Alamance Alamance 07/22/2008  
## 9 Payc022521 1 Alamance Alamance 9/18/2008  
## 10 Payc022521 1 Alamance Alamance 8/23/2008  
## 11 pAyc022521 1 Alamance Alamance 01/08/2007  
## 12 Payc022521 1 Alamance Alamance 4/19/2008  
## 13 Payc022521 1 Alamance Alamance 01/10/2007  
## Grade White Black Asian Native American Other Race Hispanic Language  
## 2 12 0  
## 3 3 2 2  
## 4 3 2 5 0  
## 5 1 2 2  
## 6 4 2 2  
## 7 1 2 2  
## 8 2 2 2  
## 9 1 2 2  
## 10 2 2 0  
## 11 3 2 2  
## 12 2 2 2  
## 13 3 2 2  
## Other Language Gender not reported Woman Man Transgender  
## 2 0 0   
## 3 1 1   
## 4 1 1   
## 5 1 1   
## 6 1 1   
## 7 1 2  
## 8 1 2  
## 9 1 2  
## 10 0 2  
## 11 1 2  
## 12 1 2  
## 13 1 2  
## Nonbinary/Does not identify Other Gender Sexual Identity  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Other Sexual Identity Oral Sex Vaginal Sex Anal Sex Pregnancy  
## 2 0 5 5 5  
## 3 2 4 4 4  
## 4 2 4 4 4  
## 5 2 4 4 4  
## 6 2 4 4 4  
## 7 2 4 4 4  
## 8 2 4 4 4  
## 9 2 4 4 4  
## 10 0 5 5 5  
## 11 2 4 4 4  
## 12 2 4 4 4  
## 13 2 4 4 4  
## Sex using alcohol Sex using drugs Never had sex Ever had sex  
## 2 5 5 5   
## 3 4 4 4 0  
## 4 4 4 4 0  
## 5 4 4 4 0  
## 6 4 4 4 0  
## 7 4 4 4 0  
## 8 4 4 4 0  
## 9 4 4 4 0  
## 10 5 5 5   
## 11 4 4 4   
## 12 4 4 4 0  
## 13 4 4 4 0  
## No barrier method No birth control EC IUD Implant Shot Ring Patch Pill  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Barrier Method Not sure Prefer not to answer Other Method  
## 2 13  
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 13  
## 11 12   
## 12   
## 13   
## Group leader understood me Group mates respect each other I felt judged\*  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 2 3  
## 11   
## 12   
## 13   
## Group leader knew the material I understood the material  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 1 3  
## 11   
## 12   
## 13   
## Group leader made the activities fun I felt free to speak  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 2  
## 11   
## 12   
## 13   
## I felt uncomfortable participating\* Topics I will remember  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 3 1  
## 11   
## 12   
## 13   
## Group did this well Improvements First name Email address Phone number  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 Everything Communicate N/A   
## 11   
## 12   
## 13   
## Future  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Healthy Relationship  
## 2 a  
## 3 I wanna be a nurse   
## 4 I would like to be a cosmetologist and do hair and nails.  
## 5 my goal 9s to become a cosmetologist and I plan to have kids at the age 23  
## 6 I want to go to college Play basketball Cosmetologist Lawyer   
## 7 to have kids   
## 8 Not having sex   
## 9 Have kids  
## 10 Heathy  
## 11 Have a kid at 28  
## 12 I want to go to college and I don't want a relationship until I get out of college   
## 13 Go to college  
## Dating Abuse Consent PrEP abstinence-neither abstinence-pregnancy  
## 2 4 3 1 3 0  
## 3 4 5 2 2   
## 4 4 5 1 2   
## 5 4 5 3 3 0  
## 6 4 5 2 2   
## 7 4 5 3 4   
## 8 4 4 3 4 0  
## 9 1 2 3 4   
## 10 4 2 5 4 0  
## 11 2 5 2 4 0  
## 12 4 1 3 4   
## 13 4 5 2 3   
## abstinence-STI birth control-neither birth control-pregnancy  
## 2 0  
## 3 2   
## 4 1 2   
## 5 0  
## 6 2   
## 7 1   
## 8   
## 9 1 0  
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## birth control-STI external condom-neither external condom-pregnancy  
## 2 0  
## 3 1   
## 4 1   
## 5 0  
## 6 1   
## 7 1   
## 8 1 2 0  
## 9   
## 10 0  
## 11 0  
## 12 1   
## 13 1   
## external condom-STI lambskin condom-neither lambskin condom-pregnancy  
## 2 0  
## 3 1 0  
## 4 1 2   
## 5 0  
## 6 1   
## 7 1 0  
## 8   
## 9 1   
## 10 0  
## 11 0  
## 12 1   
## 13 1 2   
## lambskin condom-STI internal condom-neither internal condom-pregnancy  
## 2 0  
## 3   
## 4 1   
## 5 0  
## 6 1   
## 7   
## 8 2   
## 9 1   
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## internal condom-STI withdrawal-neither withdrawal-pregnancy withdrawal-STI  
## 2 0   
## 3 2 1  
## 4 1 2 1  
## 5 1  
## 6 1 1  
## 7 2   
## 8 1 1  
## 9 2   
## 10 0   
## 11 0   
## 12 1   
## 13 1 2 0   
## Store the condom Open the package Pinch the tip Unroll the condom  
## 2 1 2 3  
## 3 1 2 4  
## 4 1 2 3  
## 5 2 1 3  
## 6 3 5 1  
## 7 2 3 2 4  
## 8 2 2 1 5  
## 9 2 2 4 5  
## 10 5 3 4  
## 11 1 3 2  
## 12 2 1 2 3  
## 13 1 2 3  
## Hold the base STI infection Water-based lubricants EC up to 5 days  
## 2 4 5 3 3  
## 3 3 5 2 1  
## 4 5 4 2 3  
## 5 4 5 3 1  
## 6 4 2 2 1  
## 7 1 5 3 3  
## 8 4 3 2 2  
## 9 1 3 3 3  
## 10 2 1 2 3  
## 11 4 5 2 3  
## 12 4 5 2 1  
## 13 4 5 2 1  
## EC without prescription Prepared to say no if not ready  
## 2 3 3  
## 3 3 1  
## 4 3 3  
## 5 1 3  
## 6 2 3  
## 7 3 3  
## 8 1 2  
## 9 3 3  
## 10 1 1  
## 11 3 3  
## 12 1 2  
## 13 1 1  
## Prepared to use a barrier method Prepared to say no if no barrier method  
## 2 NA NA  
## 3 2 2  
## 4 2 2  
## 5 2 2  
## 6 NA NA  
## 7 2 2  
## 8 2 2  
## 9 2 2  
## 10 1 2  
## 11 2 2  
## 12 2 1  
## 13 2 2  
## Prepared to use birth control Prepared to go to a doctor for birth control  
## 2 NA NA  
## 3 2 2  
## 4 2 2  
## 5 2 2  
## 6 NA NA  
## 7 2 1  
## 8 2 2  
## 9 2 2  
## 10 1 2  
## 11 2 2  
## 12 2 2  
## 13 2 2

replace\_with\_na\_at(data = ppt.df,  
 .vars = c( "Group leader understood me",  
 "Group mates respect each other",  
 "I felt judged\*",  
 "Group leader knew the material",  
 "I understood the material",  
 "Group leader made the activities fun",  
 "I felt free to speak",  
 "I felt uncomfortable participating\*"),  
 condition = ~.x == 4) #"prefer not to answer"

## Group Name Participant Time Live in County Home County Birthdate  
## 2 DREAMCENTER030521 1 a a 05/05/1985  
## 3 Payc022521 1 Alamance America 01/10/2007  
## 4 payc022521 1 Alamance Alamance 10/16/2006  
## 5 PAYC022521 1 alamance Alamance 10/03/2008  
## 6 PAYC022521 1 North Carolina Alamance 03/04/2006  
## 7 Payc022521 1 Alamance Alamance 04/18/2008  
## 8 Payc022521 1 Alamance Alamance 07/22/2008  
## 9 Payc022521 1 Alamance Alamance 9/18/2008  
## 10 Payc022521 1 Alamance Alamance 8/23/2008  
## 11 pAyc022521 1 Alamance Alamance 01/08/2007  
## 12 Payc022521 1 Alamance Alamance 4/19/2008  
## 13 Payc022521 1 Alamance Alamance 01/10/2007  
## Grade White Black Asian Native American Other Race Hispanic Language  
## 2 12 0  
## 3 3 2 2  
## 4 3 2 5 0  
## 5 1 2 2  
## 6 4 2 2  
## 7 1 2 2  
## 8 2 2 2  
## 9 1 2 2  
## 10 2 2 0  
## 11 3 2 2  
## 12 2 2 2  
## 13 3 2 2  
## Other Language Gender not reported Woman Man Transgender  
## 2 0 0   
## 3 1 1   
## 4 1 1   
## 5 1 1   
## 6 1 1   
## 7 1 2  
## 8 1 2  
## 9 1 2  
## 10 0 2  
## 11 1 2  
## 12 1 2  
## 13 1 2  
## Nonbinary/Does not identify Other Gender Sexual Identity  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Other Sexual Identity Oral Sex Vaginal Sex Anal Sex Pregnancy  
## 2 0 5 5 5  
## 3 2 4 4 4  
## 4 2 4 4 4  
## 5 2 4 4 4  
## 6 2 4 4 4  
## 7 2 4 4 4  
## 8 2 4 4 4  
## 9 2 4 4 4  
## 10 0 5 5 5  
## 11 2 4 4 4  
## 12 2 4 4 4  
## 13 2 4 4 4  
## Sex using alcohol Sex using drugs Never had sex Ever had sex  
## 2 5 5 5   
## 3 4 4 4 0  
## 4 4 4 4 0  
## 5 4 4 4 0  
## 6 4 4 4 0  
## 7 4 4 4 0  
## 8 4 4 4 0  
## 9 4 4 4 0  
## 10 5 5 5   
## 11 4 4 4   
## 12 4 4 4 0  
## 13 4 4 4 0  
## No barrier method No birth control EC IUD Implant Shot Ring Patch Pill  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Barrier Method Not sure Prefer not to answer Other Method  
## 2 13  
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 13  
## 11 12   
## 12   
## 13   
## Group leader understood me Group mates respect each other I felt judged\*  
## 2 1 1 1  
## 3 1 1 1  
## 4 1 1 1  
## 5 1 1 1  
## 6 1 1 1  
## 7 1 1 1  
## 8 1 1 1  
## 9 1 1 1  
## 10 1 2 2  
## 11 1 1 1  
## 12 1 1 1  
## 13 1 1 1  
## Group leader knew the material I understood the material  
## 2 1 1  
## 3 1 1  
## 4 1 1  
## 5 1 1  
## 6 1 1  
## 7 1 1  
## 8 1 1  
## 9 1 1  
## 10 2 2  
## 11 1 1  
## 12 1 1  
## 13 1 1  
## Group leader made the activities fun I felt free to speak  
## 2 1 1  
## 3 1 1  
## 4 1 1  
## 5 1 1  
## 6 1 1  
## 7 1 1  
## 8 1 1  
## 9 1 1  
## 10 2 2  
## 11 1 1  
## 12 1 1  
## 13 1 1  
## I felt uncomfortable participating\* Topics I will remember  
## 2 1   
## 3 1   
## 4 1   
## 5 1   
## 6 1   
## 7 1   
## 8 1   
## 9 1   
## 10 2 1  
## 11 1   
## 12 1   
## 13 1   
## Group did this well Improvements First name Email address Phone number  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10 Everything Communicate N/A   
## 11   
## 12   
## 13   
## Future  
## 2   
## 3   
## 4   
## 5   
## 6   
## 7   
## 8   
## 9   
## 10   
## 11   
## 12   
## 13   
## Healthy Relationship  
## 2 a  
## 3 I wanna be a nurse   
## 4 I would like to be a cosmetologist and do hair and nails.  
## 5 my goal 9s to become a cosmetologist and I plan to have kids at the age 23  
## 6 I want to go to college Play basketball Cosmetologist Lawyer   
## 7 to have kids   
## 8 Not having sex   
## 9 Have kids  
## 10 Heathy  
## 11 Have a kid at 28  
## 12 I want to go to college and I don't want a relationship until I get out of college   
## 13 Go to college  
## Dating Abuse Consent PrEP abstinence-neither abstinence-pregnancy  
## 2 4 3 1 3 0  
## 3 4 5 2 2   
## 4 4 5 1 2   
## 5 4 5 3 3 0  
## 6 4 5 2 2   
## 7 4 5 3 4   
## 8 4 4 3 4 0  
## 9 1 2 3 4   
## 10 4 2 5 4 0  
## 11 2 5 2 4 0  
## 12 4 1 3 4   
## 13 4 5 2 3   
## abstinence-STI birth control-neither birth control-pregnancy  
## 2 0  
## 3 2   
## 4 1 2   
## 5 0  
## 6 2   
## 7 1   
## 8   
## 9 1 0  
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## birth control-STI external condom-neither external condom-pregnancy  
## 2 0  
## 3 1   
## 4 1   
## 5 0  
## 6 1   
## 7 1   
## 8 1 2 0  
## 9   
## 10 0  
## 11 0  
## 12 1   
## 13 1   
## external condom-STI lambskin condom-neither lambskin condom-pregnancy  
## 2 0  
## 3 1 0  
## 4 1 2   
## 5 0  
## 6 1   
## 7 1 0  
## 8   
## 9 1   
## 10 0  
## 11 0  
## 12 1   
## 13 1 2   
## lambskin condom-STI internal condom-neither internal condom-pregnancy  
## 2 0  
## 3   
## 4 1   
## 5 0  
## 6 1   
## 7   
## 8 2   
## 9 1   
## 10 0  
## 11 0  
## 12 2   
## 13 1 2   
## internal condom-STI withdrawal-neither withdrawal-pregnancy withdrawal-STI  
## 2 0   
## 3 2 1  
## 4 1 2 1  
## 5 1  
## 6 1 1  
## 7 2   
## 8 1 1  
## 9 2   
## 10 0   
## 11 0   
## 12 1   
## 13 1 2 0   
## Store the condom Open the package Pinch the tip Unroll the condom  
## 2 1 2 3  
## 3 1 2 4  
## 4 1 2 3  
## 5 2 1 3  
## 6 3 5 1  
## 7 2 3 2 4  
## 8 2 2 1 5  
## 9 2 2 4 5  
## 10 5 3 4  
## 11 1 3 2  
## 12 2 1 2 3  
## 13 1 2 3  
## Hold the base STI infection Water-based lubricants EC up to 5 days  
## 2 4 5 3 3  
## 3 3 5 2 1  
## 4 5 4 2 3  
## 5 4 5 3 1  
## 6 4 2 2 1  
## 7 1 5 3 3  
## 8 4 3 2 2  
## 9 1 3 3 3  
## 10 2 1 2 3  
## 11 4 5 2 3  
## 12 4 5 2 1  
## 13 4 5 2 1  
## EC without prescription Prepared to say no if not ready  
## 2 3 3  
## 3 3 1  
## 4 3 3  
## 5 1 3  
## 6 2 3  
## 7 3 3  
## 8 1 2  
## 9 3 3  
## 10 1 1  
## 11 3 3  
## 12 1 2  
## 13 1 1  
## Prepared to use a barrier method Prepared to say no if no barrier method  
## 2 5 5  
## 3 3 3  
## 4 3 3  
## 5 3 3  
## 6 5 5  
## 7 3 3  
## 8 3 3  
## 9 3 3  
## 10 1 3  
## 11 3 3  
## 12 3 1  
## 13 3 3  
## Prepared to use birth control Prepared to go to a doctor for birth control  
## 2 5 5  
## 3 3 3  
## 4 3 3  
## 5 3 3  
## 6 5 5  
## 7 3 2  
## 8 3 3  
## 9 3 3  
## 10 1 3  
## 11 3 3  
## 12 3 3  
## 13 3 3

ppt.df[ppt.df==""] <- NA  
ppt.df$Hispanic[ppt.df$Hispanic=="0" | ppt.df$Hispanic=="2"] <- NA

#3a. Clean the dichotomous (CATA/MRdum) variables: - Create an object (called “cleanIt”) that performs a function to a vector, which serves as a placeholder for something like a column. In that function, convert the vector to a character variable. You have to convert this factor variable to a character variable first because you may see two types of labels (e.g., “1” and “NA”), but there could be more than 2 hidden levels in your factor variable. Where the variable is “NA” or a blank, replace with zero (0). Then convert the vector to a numeric variable that can be summed.

# SurveyMonkey Quirk: Even though each check in "Check all that apply" (multiple response dummies) is dichotomous or binary (i.e., zeroes and ones), selecting the "none of the above" or "prefer not to answer" option/column is marked as "zero". Also, the 4th option/column, if checked, is marked as "four". With dummy variables, zero = "no" and one = "yes", which helps with summing each option. The function below converts the CATA/MR into dummy variables. But sometimes, zero means yes. So convert those "yeses" to one. Then convert remaining blanks to zero  
  
cleanIt <- function(vec){  
 chars <- as.character(vec)  
 chars[chars!=""] <- "1" #if not blank (including zeroes), replace with "one"  
 chars[is.na(chars)] <- "0" #if missing, replace with zero  
 chars[chars==""] <- "0" #if blank, replace with zero  
 return(as.numeric(chars)) #convert values to numbers  
}

* Use list apply (lapply) to repeat the “cleanIt” function to those columns, i.e., your vectors.

#Pre/Post Tests  
ppt.df[8:11] <- lapply(ppt.df[8:11], cleanIt) #racial identity options  
ppt.df[13] <- lapply(ppt.df[13],cleanIt)  
ppt.df[16:20] <- lapply(ppt.df[16:20], cleanIt) #gender identity options  
ppt.df[30:43] <- lapply(ppt.df[30:43], cleanIt) #last time sex options  
ppt.df[64:81] <- lapply(ppt.df[64:81], cleanIt) #if used correctly Qs  
  
#Quarterly Program Report  
flqpr.df[102:105] <- lapply(flqpr.df[102:105], cleanIt) #QPR1 eval  
flqpr.df[113:116] <- lapply(flqpr.df[113:116], cleanIt) #QPR2 eval  
flqpr.df[124:127] <- lapply(flqpr.df[124:127], cleanIt) #QPR3 eval  
flqpr.df[135:138] <- lapply(flqpr.df[135:138], cleanIt) #QPR4 eval

# 3b. Clean the nominal (categorical, ordinal) variables:

* For each multiple choice statement, change the response values to factor, specify levels, and rename the value labels, based on the survey/codebook: (open both the dataset and the codebook/survey with question numbers and recode values to make sure the labels and levels are correct)
* Labels for each categorical response

#Pre/Post Tests  
labelgrade <- c("6th Grade",  
 "7th Grade",  
 "8th Grade",  
 "9th Grade",  
 "10th Grade",  
 "11th Grade",  
 "12th Grade",  
 "GED Program",  
 "Technical Training or College",  
 "Not in school",  
 "Prefer not to answer")  
#not in the order of the paper survey so that it's in order for the scale's legend  
labelfreq <- c("Never",  
 "Not sure",  
 "Within the last 30 days",  
 "Ever (more than 30 days ago")  
labellikert <- c("Disagree",  
 "Not Sure",  
 "Agree")  
  
#Fidelity Log/Quarerly Program Reports  
labeltool <- c("P/PT","FL","QPR")  
labelio <- c("ACDSS","ACHD","CHS","DreamCenter","CrossRoads","Elon","PAYC","SA")  
labelepb <- c("HF-NC","IN-clued","Love Notes","MPC","PPP","SSI","Supplementals")  
labelln <- c("N&B","1","2","3","4","5","6","7","8","9","10","11","12","13","KTA")  
labelmpc <- c("N&B","1","2","3","EC","TMHYLI","4","5","6","7","8","9","10","KTA")  
labelinc <- c("N&B1-2","1","N&B3","2","3","KTA")  
labelsl <- c("KTA1","KTA2","KTA3","TMHYLI1","TMHYLI2","TMHYLI3","TMHYLI4","TMHYLI5")  
labelhow <- c("as written","with changes","incomplete")  
labelset <- c("school","other CBO","out-of-home","homeless","juvenile justice","clinic","faith-based")  
labelperiod <- c("Y1-Q1","Y1-Q2","Y1-Q3","Y1-Q4","Y2-Q1","Y2-Q2","Y2-Q3","Y2-Q4","Y3-Q1","Y3-Q2","Y3-Q3","Y3-Q4")

* demographics

# Convert column/variable to "date" class (%m = 2-digit month; %d = 2-digit day; %[capital]Y = 4-digit year)(https://www.statmethods.net/input/dates.html; https://www.statology.org/subset-by-date-range-in-r/)  
ppt.df$Birthdate <- as.Date(ppt.df$Birthdate, "%m/%d/%Y")  
  
# create a variable, called "age" in the dataframe "ppt.df" that is a calculated age in years, based on Q5 (P's DOB), using the age\_calc function in the eeptools library  
# install.packages("eeptools")  
library(eeptools)

## Loading required package: ggplot2

ppt.df$Age <- floor(age\_calc(ppt.df$Birthdate, units = "years")) #make sure your date variable is formatted  
  
ppt.df$Grade <- factor(ppt.df$Grade,  
 levels = c(1,2,3,4,5,6,7,8,9,10,11),  
 labels = labelgrade)  
ppt.df$Time <- factor(ppt.df$Time,  
 levels = c(1,2),  
 labels = c("Before", "After"))  
ppt.df$Language <- factor(ppt.df$Language,  
 levels = c(0,1,2),  
 labels = c("Prefer not to answer",  
 "English",  
 "Spanish"))  
ppt.df$`Sexual Identity` <- factor(ppt.df$`Sexual Identity`,  
 levels = c(0,1,2),  
 labels = c("Prefer not to answer",  
 "LGBQ",  
 "Straight"))

* experiences

#the levels are re-ordered to how I want them to appear in the legend with "prefer not to answer" on one end or the other of the Likert scale  
ppt.df$`Oral Sex` <- factor(ppt.df$`Oral Sex`,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)  
ppt.df$`Vaginal Sex` <- factor(ppt.df$`Vaginal Sex`,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)  
ppt.df$`Anal Sex` <- factor(ppt.df$`Anal Sex`,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)  
ppt.df$Pregnancy <- factor(ppt.df$Pregnancy,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)  
ppt.df$`Sex using alcohol` <- factor(ppt.df$`Sex using alcohol`,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)  
ppt.df$`Sex using drugs` <- factor(ppt.df$`Sex using drugs`,  
 levels = c(4,3,1,2),  
 labels = labelfreq,  
 ordered = FALSE)

* thoughts

ppt.df$`Prepared to say no if not ready` <- factor(ppt.df$`Prepared to say no if not ready`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Prepared to use a barrier method` <- factor(ppt.df$`Prepared to use a barrier method`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Prepared to say no if no barrier method` <- factor(ppt.df$`Prepared to say no if no barrier method`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Prepared to use birth control` <- factor(ppt.df$`Prepared to use birth control`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Prepared to go to a doctor for birth control` <- factor(ppt.df$`Prepared to go to a doctor for birth control`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)

* group satisfaction

ppt.df$`Group leader understood me` <- factor(ppt.df$`Group leader understood me`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Group mates respect each other` <- factor(ppt.df$`Group mates respect each other`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`I felt judged\*` <- factor(ppt.df$`I felt judged`,  
 levels = c(3,2,1), # reverse-coded  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`Group leader knew the material` <- factor(ppt.df$`Group leader knew the material`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`I understood the material` <- factor(ppt.df$`I understood the material`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE )  
ppt.df$`Group leader made the activities fun` <- factor(ppt.df$`Group leader made the activities fun`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`I felt free to speak` <- factor(ppt.df$`I felt free to speak`,  
 levels = c(1,2,3),  
 labels = labellikert,  
 ordered = FALSE)  
ppt.df$`I felt uncomfortable participating\*` <- factor(ppt.df$`I felt uncomfortable participating`,  
 levels = c(3,2,1), # reverse-coded  
 labels = labellikert,  
 ordered = FALSE)

* Fidelity Logs

flqpr.df$tool <- factor(flqpr.df$tool,  
 levels = c(1,2,3),  
 labels = labeltool)  
flqpr.df$`FL io` <- factor(flqpr.df$`FL io`,  
 levels = c(1,2,3,4,5,6,7,8),  
 labels = labelio)  
flqpr.df$`FL ebp` <- factor(flqpr.df$`FL ebp`,  
 levels = c(1,2,3,4,5,6,7),  
 labels = labelepb)  
#lesson names  
flqpr.df$`MPC1 name` <- factor(flqpr.df$`MPC1 name`,  
 levels = c(1,2,3,4,5,6,7,8,9,10,11,12,13,14),  
 labels = labelmpc)  
flqpr.df$`MPC2 name` <- factor(flqpr.df$`MPC2 name`,  
 levels = c(1,2,3,4,5,6,7,8,9,10,11,12,13,14),  
 labels = labelmpc)  
flqpr.df$`MPC3 name` <- factor(flqpr.df$`MPC3 name`,  
 levels = c(1,2,3,4,5,6,7,8,9,10,11,12,13,14),  
 labels = labelmpc)  
  
flqpr.df$`IN1 name` <- factor(flqpr.df$`IN1 name`,  
 levels = c(1,2,3,4,5,6),  
 labels = labelinc)  
flqpr.df$`IN2 name` <- factor(flqpr.df$`IN2 name`,  
 levels = c(1,2,3,4,5,6),  
 labels = labelinc)  
flqpr.df$`IN3 name` <- factor(flqpr.df$`IN3 name`,  
 levels = c(1,2,3,4,5,6),  
 labels = labelinc)  
#lesson implementation  
flqpr.df$`LN1 how` <- factor(flqpr.df$`LN1 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`LN2 how` <- factor(flqpr.df$`LN2 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`LN3 how` <- factor(flqpr.df$`LN3 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
  
flqpr.df$`MPC1 how` <- factor(flqpr.df$`MPC1 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`MPC2 how` <- factor(flqpr.df$`MPC2 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`MPC3 how` <- factor(flqpr.df$`MPC3 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
  
flqpr.df$`IN1 how` <- factor(flqpr.df$`IN1 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`IN2 how` <- factor(flqpr.df$`IN2 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`IN3 how` <- factor(flqpr.df$`IN3 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
  
flqpr.df$`SL1 how` <- factor(flqpr.df$`SL1 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`SL2 how` <- factor(flqpr.df$`SL2 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`SL3 how` <- factor(flqpr.df$`SL3 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`SL4 how` <- factor(flqpr.df$`SL4 how`,  
 levels = c(1,2,3),  
 labels = labelhow)  
flqpr.df$`SL5 how` <- factor(flqpr.df$`SL5 how`,  
 levels = c(1,2,3),  
 labels = labelhow)

* Quarterly Program Reports

flqpr.df$`QPR io` <- factor(flqpr.df$`QPR io`,  
 levels = c(1,2,3,4,5,6,7,8),  
 labels = labelio)  
flqpr.df$`QPR setting` <- factor(flqpr.df$`QPR setting`,  
 levels = c(1,2,3,4,5,6,7),  
 labels = labelset)  
flqpr.df$`QPR prog spec` <- factor(flqpr.df$`QPR prog spec`,  
 levels = c(1,2),  
 labels = c("Lisa","Caro"))  
flqpr.df$`QPR period` <- factor(flqpr.df$`QPR period`,  
 levels = c(1,2,3,4,5,6,7,8,9,10,11,12),  
 labels = labelperiod)  
flqpr.df$`QPR ebp` <- factor(flqpr.df$`QPR ebp`,  
 levels = c(1,2,3,4,5,6,7),  
 labels = labelepb)

# 4. Select/subset specific variables/columns or observations/rows.

#lowercase that group name to standardize it  
library(data.table)  
ppt.df$`Group Name` <- tolower(ppt.df$`Group Name`)   
flqpr.df$`FL grp`<- tolower(flqpr.df$`FL grp`)   
  
#Pre/Post Test by group if group name is exact:  
demographics.df <- ppt.df [ppt.df$`Group Name`=="payc022521" & ppt.df$Time=="Before",c(1:23,96)]   
experiences.df <- ppt.df [ppt.df$`Group Name`=="payc022521",c(1:3,24:44)]  
thoughts.df <- ppt.df[ppt.df$`Group Name`=="payc022521" & ppt.df$Time=="Before" | ppt.df$Time=="After",c(1,3,91:95)]   
ksa.df <- ppt.df [ppt.df$`Group Name`=="payc022521" & ppt.df$Time=="Before" | ppt.df$Time=="After",c(1:3,59:90)]   
satisfaction.df <- ppt.df [ppt.df$`Group Name`=="payc022521" & ppt.df$Time=="After",c(1:3,45:58)]   
  
#Fidelity Logs by group if group name is approximate:  
group.df <- flqpr.df[flqpr.df$tool=="FL" & flqpr.df$`FL grp` %like% "payc",c(3:15,32:46)] #change value of the group name and EBP columns   
  
#Love Notes Fidelity Logs  
FLLN.df <- flqpr.df[flqpr.df$tool=="FL" & flqpr.df$`FL ebp` =="Love Notes",c(3:15,17:31)]  
  
#MPC Fidelity Logs  
FLMPC.df <- flqpr.df[flqpr.df$tool=="FL" & flqpr.df$`FL ebp`=="MPC", c(3:15,32:46)]  
  
#IN-clued Fidelity Logs  
FLIN.df <- flqpr.df[flqpr.df$tool=="FL" & flqpr.df$`FL ebp`=="IN-clued", c(3:15,47:61)]  
  
#Supplemental Lessons Fidelity Logs  
FLSL.df <- flqpr.df[flqpr.df$tool=="FL" & flqpr.df$`FL ebp`=="Supplementals", c(3:15,62:86)]  
  
#Quarterly Program reports  
QPR.df <- flqpr.df[flqpr.df$tool=="QPR" & flqpr.df$`QPR period` %like% "Y1",c(87:141)] #change value of reporting period

# 5. Compute frequencies and percentages for each multi-response category; categorical variable.

age <- data.frame(table(demographics.df$Age))  
names(age) <- c("Demographics","Freq")  
grade <- data.frame(table(demographics.df$Grade))  
names(grade) <- c("Demographics","Freq")  
  
mrdumgender <- data.frame(Freq=colSums(demographics.df[16:20]))  
mrdumrace <- data.frame(Freq=colSums(demographics.df[8:11]))  
mrdumhisp <- data.frame(Freq=colSums(demographics.df[13]))  
mrdumlastsex <- data.frame(Freq=colSums(experiences.df[10:23]))  
  
# how to combine with different number of columns? will need to manually create tables for MRDUMs  
  
gender <- data.frame(Demographics=c("Male","Female","Transgender","Nonbinary/Does not identify","Gender not reported"),Freq=c(6,4,0,0,0))  
race <- data.frame(Demographics=c("White","Black","Asian","Alaska Native", "Native Hawaiian","Multiracial", "Race not Reported","Hispanic"),Freq=c(0,9,0,0,0,1,0,0))  
  
payc022521 <- rbind.data.frame(gender,race,age,grade)  
  
library(sjPlot)  
tab\_df(payc022521,  
 title = "Reach for Group PAYC022521",  
 file = "PPT Demographics Table.doc")

Reach for Group PAYC022521

Demographics

Freq

Male

6

Female

4

Transgender

0

Nonbinary/Does not identify

0

Gender not reported

0

White

0

Black

9

Asian

0

Alaska Native

0

Native Hawaiian

0

Multiracial

1

Race not Reported

0

Hispanic

0

12

6

14

4

15

1

6th Grade

3

7th Grade

3

8th Grade

4

9th Grade

1

10th Grade

0

11th Grade

0

12th Grade

0

GED Program

0

Technical Training or College

0

Not in school

0

Prefer not to answer

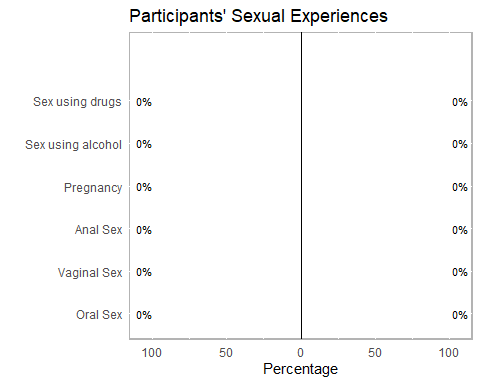
0

# 6. Plot and save diverging bar charts for each set of Likert statements.

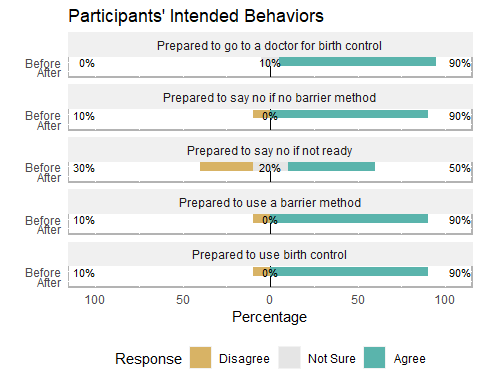
#remove non-answers from ordinal scales  
experience <- experiences.df[4:9]  
experience <- na.omit(experience)  
  
thoughts.df <- na.omit(thoughts.df)  
  
library(likert)

## Loading required package: xtable

experiencelkt <- likert(items=experience)  
plot(experiencelkt, positive.order = TRUE) + ggtitle("Participants' Sexual Experiences")



ggsave("PPT Experiences.png", width = 9, height = 2.5)  
  
thoughtlkt <- likert(thoughts.df[,3:7], grouping = thoughts.df$Time)  
plot(thoughtlkt, group.order = c("Before","After")) + ggtitle("Participants' Intended Behaviors")



ggsave("PPT Thoughts.png", width = 9, height = 6)