

# Stacked Bar Plots

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```
library(ggplot2)
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 lubridate  1.9.3      v tibble    3.2.1
## v purrr      1.0.2      v tidyr     1.3.1
## -- 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 errors

library(gridExtra)

##
## Attaching package: 'gridExtra'
##
## The following object is masked from 'package:dplyr':
##
##      combine

#load data
lifespan <- read.csv("~/Desktop/Client Projects/Kristen Connors/KSProject/KS_lifespan.csv")
lifespan$X <- str_replace(lifespan$X, " impact", "")
lifespan$X <- str_replace(lifespan$X, "and", "&")
#data set for references to symptoms
symptoms <- lifespan[2:15,-6]
colnames(symptoms) <- c("symptom", "1", "2", "3", "4")
symptoms <- symptoms %>% pivot_longer(names_to = "age", values_to = "value", cols = 2:5)
#data set for references to individual impacts
ind_impacts <- lifespan[18:21,-6]
colnames(ind_impacts) <- c("impact", "1", "2", "3", "4")
ind_impacts <- ind_impacts %>% pivot_longer(names_to = "age", values_to = "value", cols = 2:5)
#data set for references to caregiver impacts
care_impacts <- lifespan[24:27,-6]
colnames(care_impacts) <- c("impact", "1", "2", "3", "4")
care_impacts <- care_impacts %>% pivot_longer(names_to = "age", values_to = "value", cols = 2:5)

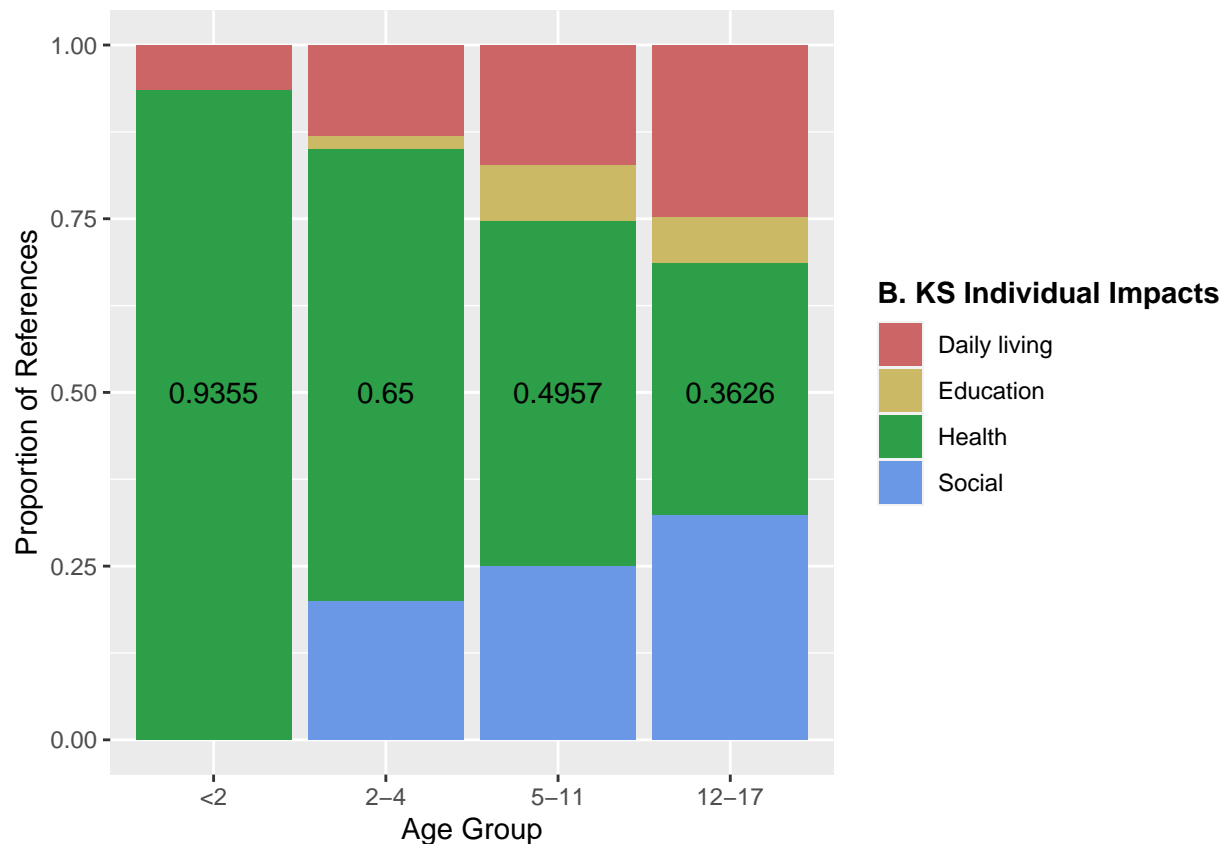
#frequencies
symptoms_freq <- symptoms %>% group_by(age) %>%
  mutate(sum = sum(value), freq = value/sum)

#stacked barplots for KS Defining Concepts
```



```
scale_x_discrete(labels=c("<2", "2-4", "5-11", "12-17")) +
theme(legend.title = element_text(face = "bold")) +
annotate("text", x = 1, y = 0.5, label = 0.9355) +
annotate("text", x = 2, y = 0.5, label = 0.65) +
annotate("text", x = 3, y = 0.5, label = 0.4957) +
annotate("text", x = 4, y = 0.5, label = 0.3626)
```

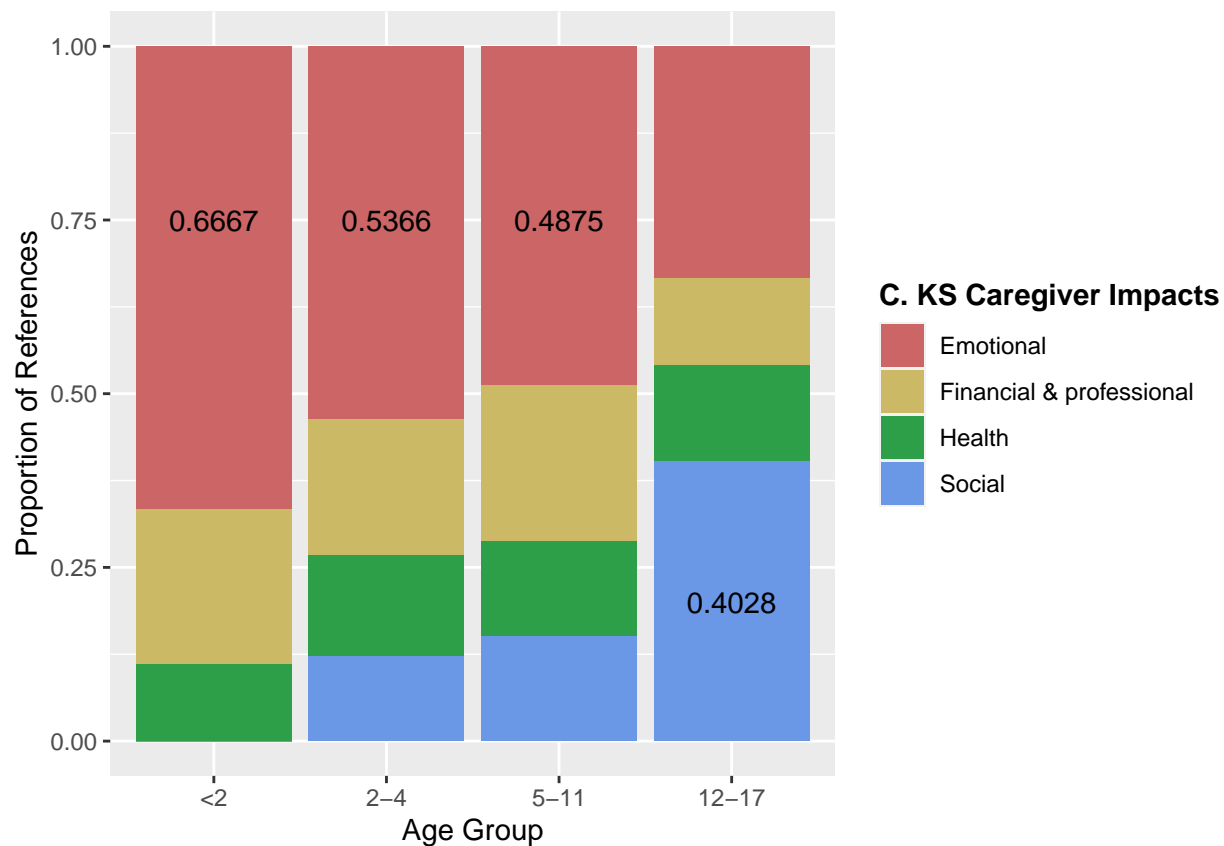
plot2



```
#frequencies
care_freq <- care_impacts %>% group_by(age) %>%
  mutate(sum = sum(value), freq = value/sum)

#stacked barplots for KS caregiver impacts
plot3 <- ggplot(care_impacts, aes(fill=impact, y=value, x=age)) +
  geom_bar(position="fill", stat="identity") +
  labs(x = "Age Group", y = "Proportion of References") +
  theme_grey() +
  scale_fill_manual(name = "C. KS Caregiver Impacts",
                    values = c("#cc6666", "#ccb966", "#2d9f48", "#6b98e6"))+
  scale_x_discrete(labels=c("<2", "2-4", "5-11", "12-17")) +
  theme(legend.title = element_text(face = "bold")) +
  annotate("text", x = 1, y = 0.75, label = 0.6667) +
  annotate("text", x = 2, y = 0.75, label = 0.5366) +
  annotate("text", x = 3, y = 0.75, label = 0.4875) +
  annotate("text", x = 4, y = 0.2, label = 0.4028)
```

plot3



`grid.arrange(plot1, arrangeGrob(plot2, plot3), ncol = 2)`

