RMarkdown_Term Paper_Mental Health

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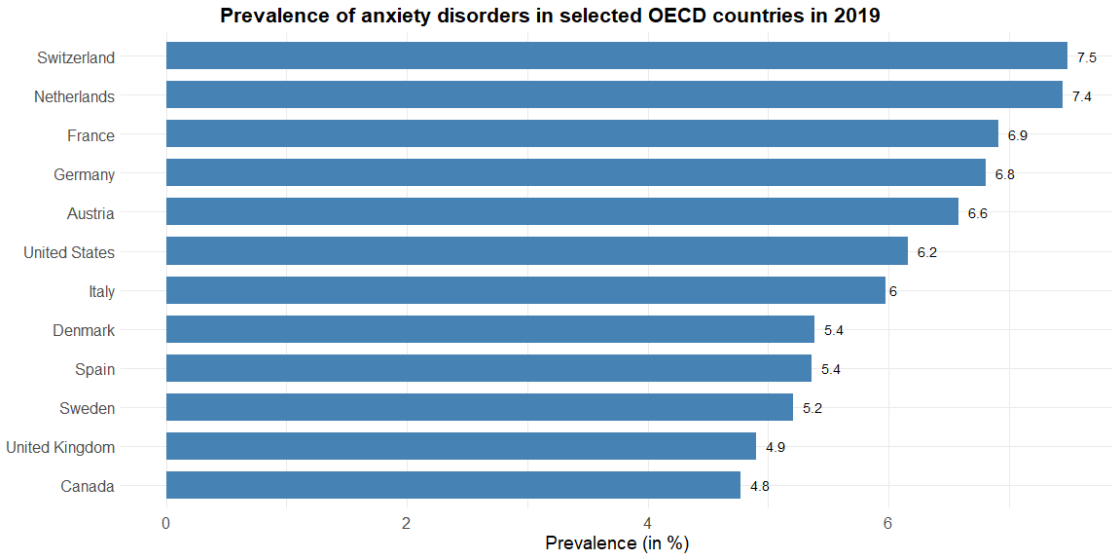
```
# Benötigte Bibliotheken
library(readxl)
library(ggplot2)
library(dplyr)

##
## Attache Paket: 'dplyr'

## Die folgenden Objekte sind maskiert von 'package:stats':
##
##     filter, lag

## Die folgenden Objekte sind maskiert von 'package:base':
##
##     intersect, setdiff, setequal, union

# Erstellen der Dataframes für die nachfolgenden Visualisierungen

data_mental_illnesses_prevalence <- read.csv("prevalence-by-mental-and-
substance-use-disorder.csv", na = "NA")

data_mental_illnesses_Western_countries_2019 <-
subset(data_mental_illnesses_prevalence,
                                                    Year == "2019" &
                                                    Code %in% c("AUT",
"CAN", "CHE", "DEU", "DNK", "ESP", "FRA", "GBR", "ITA", "NLD", "SWE", "USA"))


dataframe_worldwide_prevalence_of_anxiety_disorders_and_depression <-
data.frame(
  Year = c(2019, 2021),
  Prevalence_anxiety_disorders = c(3.94, 4.40),
  Prevalence_depression = c(3.59, 4)
)


dataframe_adolescent_prevalence_of_depression_anxiety_ocd_in_Germany_2022 <-
data.frame(
  Prevalence = c(4.24, 12.68, 8.34, 8.05, 15.15, 11.50),
  Condition = c("depression", "depression", "depression",
"anxiety_disorders_and_ocd", "anxiety_disorders_and_ocd",
"anxiety_disorders_and_ocd"),
  Gender = c("b", "g", "o", "b", "g", "o")
)
```

```r
ggplot(data = data_mental_illnesses_Western_countries_2019,
       aes(x = reorder(Entity,
Prevalence...Anxiety.disorders...Sex..Both...Age..Age.standardized..Percent.)
,
           y =
Prevalence...Anxiety.disorders...Sex..Both...Age..Age.standardized..Percent.)
) +
  geom_bar(stat = "identity", width = 0.7, fill = "steelblue") +
  geom_text(aes(label =
round(Prevalence...Anxiety.disorders...Sex..Both...Age..Age.standardized..Per
cent., 1)),
            hjust = -0.5, size = 3.8) +
  labs(x = NULL,
       y = "Prevalence (in %)",
       title = "Prevalence of anxiety disorders in selected OECD countries in
2019",
       fill = NULL) +
  theme_minimal() +
  theme(legend.position = "none", plot.title = element_text(size = 16, face =
"bold", hjust = 0.3),
        axis.text.x = element_text(size = 12),
        axis.text.y = element_text(size = 12),
        axis.title.x = element_text(size = 14),
        axis.title.y = element_text(size = 14)) +
  coord_flip()
```




```r
ggplot(data =
dataframe_worldwide_prevalence_of_anxiety_disorders_and_depression, aes (x =
Year))+
  geom_line(aes(y = Prevalence_anxiety_disorders,
                color = "1"), linetype = 1, linewidth = 2)+
  geom_point(aes(y = Prevalence_anxiety_disorders,
                 color = "1"), size = 4)+
  geom_text(aes(y = Prevalence_anxiety_disorders,
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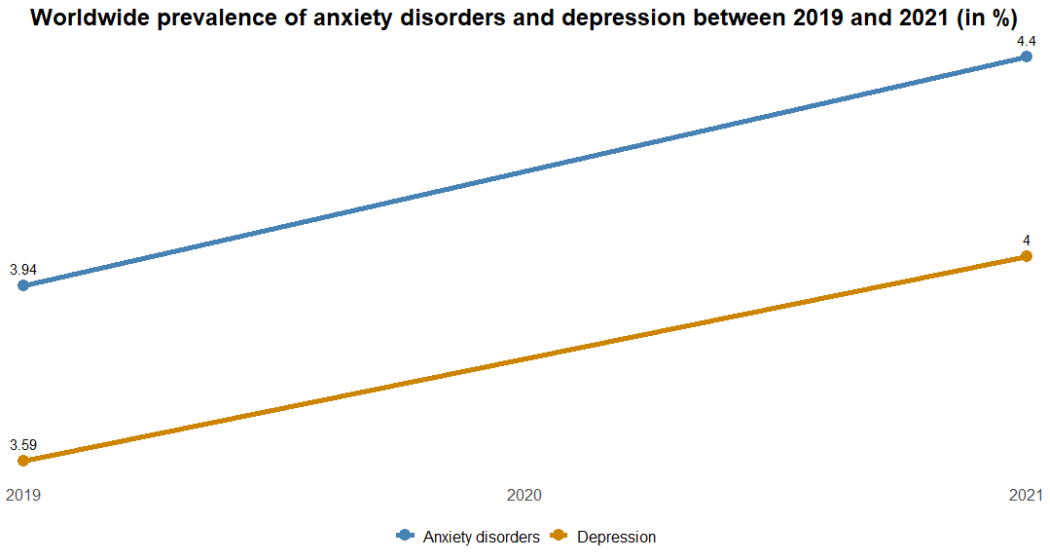
```
                label = round(Prevalence_anxiety_disorders, 2)),
            vjust = -1, size = 4) +
  geom_line(aes(y = Prevalence_depression,
                color = "2"), linetype = 1, linewidth = 2)+
  geom_point(aes(y = Prevalence_depression,
                 color = "2"), size = 4)+
  geom_text(aes(y = Prevalence_depression,
                label = round(Prevalence_depression, 2)),
            vjust = -1, size = 4) +
  labs(x = NULL, y = "Prevalence (in %)", title = "Worldwide prevalence of
anxiety disorders and depression between 2019 and 2021 (in %)") +
  scale_x_continuous(breaks = seq(2019, 2021, by = 1)) +
  scale_color_manual(values = c("steelblue", "orange3"),
                     labels = c("Anxiety disorders", "Depression"),
                     name = NULL) +
  theme_minimal() +
        theme(legend.position = "bottom",
        legend.text = element_text(size = 12),
        plot.title = element_text(size = 18, face = "bold", hjust = 0.5),
        axis.text.x = element_text(size = 12),
        axis.text.y = element_blank(),
        axis.title.x = element_text(size = 14),
        axis.title.y = element_blank(),
        panel.grid = element_blank()  # Entfernt alle Gitterlinien mit einer
einzigen Codezeile
        )
```




```
ggplot(data =
dataframe_adolescent_prevalence_of_depression_anxiety_ocd_in_Germany_2022,
       aes(x = Condition, y = Prevalence, fill = Gender)) +
  geom_bar(stat = "identity", position = position_dodge(width = 1)) +
  geom_text(aes(label = round(Prevalence, 2)), position =
position_dodge(width = 1),
            vjust = -0.5, size = 3.8) +
```

```r
  labs(x = NULL,
       y = "Cases (per 1000)",
       title = "Prevalence of depression and anxiety & obsessive-compulsive
disorders \namong children and adolescents in Germany divided by gender in
2022",
       fill = NULL) +
  scale_fill_manual(values = c("royalblue", "darkblue", "gray"),
                    labels = c("Boys", "Girls", "Total")) +
  facet_wrap(~ Condition, scales = "free_x") +  # Jede Bedingung in eigener
Facette darstellen
  scale_x_discrete(labels = c("depression" = "Depression",
                              "anxiety_disorders_and_ocd" = "Anxiety &
obsessive-compulsive disorders")) +  # Neue Namen für die x-Achse
  theme_minimal() +
  theme(legend.position = "bottom", legend.text = element_text(size = 12),
        plot.title = element_text(size = 18, face = "bold", hjust = 0.5),
        axis.text.x = element_text(size = 12),
        axis.text.y = element_text(size = 12),
        axis.title.x = element_text(size = 14),
        axis.title.y = element_text(size = 14),
        strip.text = element_blank())  # Entfernt die Gruppenbezeichnungen
über den Säulen
```