First\_report

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## 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>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

Migraine<-readRDS("migraine.rds")  
positive\_cases<-readRDS("positive\_cases.rds")  
library(gtsummary)  
library(tidyverse)

## ── Attaching core tidyverse packages ──────────────────────── tidyverse 2.0.0 ──  
## ✔ dplyr 1.1.4 ✔ readr 2.1.5  
## ✔ forcats 1.0.0 ✔ stringr 1.5.1  
## ✔ ggplot2 3.5.1 ✔ tibble 3.2.1  
## ✔ lubridate 1.9.3 ✔ tidyr 1.3.1  
## ✔ purrr 1.0.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()  
## ℹ Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors

Migraine<-Migraine[-136,]  
Migraine <- Migraine %>%  
 mutate(  
 age\_group = case\_when(  
 age >= 18 & age <= 20 ~ "18-20",  
 age >= 21 & age <= 24 ~ "21-24",  
 age >= 25 & age <= 30 ~ "25-30"))

## Demographic data

| **Demographic data** | **N = 283***1* |
| --- | --- |
| sex |  |
| female | 170 (60%) |
| male | 113 (40%) |
| age\_group |  |
| 18-20 | 79 (28%) |
| 21-24 | 175 (62%) |
| 25-30 | 29 (10%) |
| academic\_level |  |
| fifth | 72 (25%) |
| first | 29 (10%) |
| fourth | 68 (24%) |
| second | 65 (23%) |
| third | 49 (17%) |
| family\_history |  |
| no | 171 (60%) |
| yes | 112 (40%) |
| smoking |  |
| no | 252 (89%) |
| yes | 31 (11%) |
| *1*n (%) | |

## prevalance of migraine using ID migraine criteria

Migraine %>% select(id\_migraine,migraine\_test) %>% tbl\_summary(by=migraine\_test)

## 92 missing rows in the "migraine\_test" column have been removed.

|  | **negative** N = 75*1* | **positive** N = 116*1* |
| --- | --- | --- |
| id\_migraine\_scores |  |  |
| 0 | 32 (43%) | 0 (0%) |
| 1 | 43 (57%) | 0 (0%) |
| 2 | 0 (0%) | 60 (52%) |
| 3 | 0 (0%) | 56 (48%) |
| *1*n (%) | | |

## prevelance of migraine screening section

Migraine %>%  
 select(sex,age\_group,academic\_level,family\_history,smoking,migraine\_test) %>%  
 tbl\_summary(by=migraine\_test,type = list(family\_history~"categorical",smoking~"categorical"))

## 92 missing rows in the "migraine\_test" column have been removed.

| Demographics | **negative** N = 75*1* | **positive** N = 116*1* |
| --- | --- | --- |
| sex |  |  |
| female | 46 (61%) | 82 (71%) |
| male | 29 (39%) | 34 (29%) |
| age\_group |  |  |
| 18-20 | 20 (27%) | 33 (28%) |
| 21-24 | 45 (60%) | 74 (64%) |
| 25-30 | 10 (13%) | 9 (7.8%) |
| academic\_level |  |  |
| fifth | 23 (31%) | 28 (24%) |
| first | 9 (12%) | 12 (10%) |
| fourth | 20 (27%) | 25 (22%) |
| second | 13 (17%) | 34 (29%) |
| third | 10 (13%) | 17 (15%) |
| family\_history |  |  |
| no | 55 (73%) | 52 (45%) |
| yes | 20 (27%) | 64 (55%) |
| smoking |  |  |
| no | 67 (89%) | 101 (87%) |
| yes | 8 (11%) | 15 (13%) |
| *1*n (%) | | |

## trigerring factors for migraine

Migraine<- Migraine %>% mutate\_at(vars(sunlight,pressure,noise,exams,reading,eathabit,fasting,period,irregular\_sleep,excercise,tobacco,migraine\_test),as.factor)  
positive\_cases %>%  
 select(sunlight,pressure,noise,exams,reading,eathabit,fasting,period,irregular\_sleep,excercise,tobacco) %>% tbl\_summary(type=list(sunlight~"categorical",pressure~"categorical",noise~"categorical",exams~"categorical",reading~"categorical",eathabit~"categorical",fasting~"categorical",period~"categorical",irregular\_sleep~"categorical",excercise~"categorical",tobacco~"categorical"))

| Triggering factors | **N = 116***1* |
| --- | --- |
| Exposure to sun |  |
| no | 33 (28%) |
| yes | 83 (72%) |
| Emotional stress or anxiety |  |
| no | 33 (28%) |
| yes | 83 (72%) |
| Noise |  |
| no | 27 (23%) |
| yes | 89 (77%) |
| Exams |  |
| no | 38 (33%) |
| yes | 78 (67%) |
| Reading for long hours |  |
| no | 28 (24%) |
| yes | 88 (76%) |
| Eating habits |  |
| no | 76 (66%) |
| yes | 40 (34%) |
| Fasting |  |
| no | 75 (65%) |
| yes | 41 (35%) |
| Menstruation |  |
| no | 66 (57%) |
| yes | 50 (43%) |
| Irregular sleep |  |
| no | 19 (16%) |
| yes | 97 (84%) |
| Physical activity |  |
| no | 65 (56%) |
| yes | 51 (44%) |
| Smoking |  |
| no | 97 (84%) |
| yes | 19 (16%) |
| *1*n (%) | |

## relieving factors

positive\_cases %>% select(relieve) %>% tbl\_summary()

| Relieving factors |  |
| --- | --- |
| analgesics | 85(38%) |
| massage | 34(15%) |
| others | 8(4%) |
| rest | 94(43%) |
| *1*n (%)(note: this is a multiple choice question) | |

## associated symptoms

positive\_cases %>% select(symptoms) %>% tbl\_summary()

| **Associated symptoms** |  |
| --- | --- |
|  |  |
| GI distress | 5 (4.3%) |
| nausea | 6 (5.2%) |
| nothing | 5 (4.3%) |
| phonophobia | 4 (3.4%) |
| photophobia | 21 (18%) |
| vomiting | 1 (0.9%) |
| *1*n (%)(note: this is a multiple choice question) | |

## severity of headache

positive\_cases %>% select(intensity) %>% tbl\_summary()

| Headache severity | **N = 116***1* |
| --- | --- |
|  |  |
| light | 4 (3.4%) |
| moderate | 53 (46%) |
| nothing | 1 (0.9%) |
| severe | 58 (50%) |
| *1*n (%) | |

## impact of academic performance

positive\_cases %>% select(academic\_impact) %>% tbl\_summary()

| **Academic impact** | **N = 116***1* |
| --- | --- |
|  |  |
| light | 23 (20%) |
| moderate | 53 (46%) |
| nothing | 7 (6.0%) |
| severe | 33 (28%) |
| *1*n (%) | |