anlayzing stat differences in imputed and non imputed

2022-09-07

library(tidyverse)

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.2 ──  
## ✔ ggplot2 3.3.6 ✔ purrr 0.3.4  
## ✔ tibble 3.1.8 ✔ dplyr 1.0.9  
## ✔ tidyr 1.2.0 ✔ stringr 1.4.0  
## ✔ readr 2.1.2 ✔ forcats 0.5.1  
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()

library(flextable)

##   
## Attaching package: 'flextable'  
##   
## The following object is masked from 'package:purrr':  
##   
## compose

library(readxl)  
library(extrafont)

## Registering fonts with R

library(psych)

##   
## Attaching package: 'psych'  
##   
## The following objects are masked from 'package:ggplot2':  
##   
## %+%, alpha

#times new roman tables  
my\_ft\_theme <- function(ft, ...) {  
 # Remove vertical cell padding  
 ft <- padding(ft, padding.top = 0, padding.bottom = 0, part = "all")  
   
 # Change font to TNR 11  
 ft <- font(ft, fontname = "Times New Roman", part = "all")  
 ft <- fontsize(ft, part = "all", size = 12)  
 ft  
}

chosen\_withna <- read\_excel("C:\\Users\\19177\\OneDrive - Colostate\\Desktop\\Dissertation\\headscan\_dissertation\\chosen\_withna.xlsx")  
  
chosen\_withna <- column\_to\_rownames(chosen\_withna,'ID')  
  
chosen\_num <- select\_if(chosen\_withna, is.numeric)

summary(chosen\_num)

## AA\_C BiW\_C BiW\_L GoSub\_C   
## Min. :44.00 Min. :101.0 Min. : 82.0 Min. : 49.00   
## 1st Qu.:57.00 1st Qu.:124.0 1st Qu.:104.0 1st Qu.: 88.00   
## Median :61.00 Median :133.0 Median :111.0 Median : 98.00   
## Mean :61.23 Mean :133.4 Mean :111.2 Mean : 98.75   
## 3rd Qu.:65.00 3rd Qu.:141.0 3rd Qu.:118.0 3rd Qu.:108.00   
## Max. :87.00 Max. :187.0 Max. :152.0 Max. :152.00   
## NA's :40 NA's :37 NA's :35 NA's :145   
## NRB\_L ProS\_L SelP\_L SelM\_L   
## Min. : 3.00 Min. :12.00 Min. :30.00 Min. : 84.0   
## 1st Qu.:15.00 1st Qu.:17.00 1st Qu.:42.00 1st Qu.:110.0   
## Median :18.00 Median :19.00 Median :44.00 Median :116.0   
## Mean :17.95 Mean :19.12 Mean :44.53 Mean :116.3   
## 3rd Qu.:21.00 3rd Qu.:21.00 3rd Qu.:47.00 3rd Qu.:123.0   
## Max. :35.00 Max. :27.00 Max. :58.00 Max. :145.0   
## NA's :34 NA's :40 NA's :35 NA's :243   
## SnasM\_C TrSman\_C TrTr\_C TrTr\_L   
## Min. : 44.00 Min. :117.0 Min. :241.0 Min. :127.0   
## 1st Qu.: 68.00 1st Qu.:143.0 1st Qu.:272.0 1st Qu.:141.0   
## Median : 75.00 Median :152.0 Median :282.0 Median :146.0   
## Mean : 74.96 Mean :153.3 Mean :282.7 Mean :146.5   
## 3rd Qu.: 82.00 3rd Qu.:162.0 3rd Qu.:293.0 3rd Qu.:152.0   
## Max. :105.00 Max. :208.0 Max. :332.0 Max. :173.0   
## NA's :254 NA's :151 NA's :56 NA's :52

chosen\_stats <- describe(chosen\_num)  
  
  
chosen\_stats$na <- 2016 - chosen\_stats$n  
chosen\_stats <- rownames\_to\_column(chosen\_stats, "measure")

AA\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(AA\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(AA\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(AA\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(AA\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(AA\_C, 0.95, na.rm=TRUE))  
AA\_C\_sum$measure <- "AA\_C"  
  
  
BiW\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(BiW\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(BiW\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(BiW\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(BiW\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(BiW\_C, 0.95, na.rm=TRUE))  
BiW\_C\_sum$measure <- "BiW\_C"  
  
BiW\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(BiW\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(BiW\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(BiW\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(BiW\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(BiW\_L, 0.95, na.rm=TRUE))  
BiW\_L\_sum$measure <- "BiW\_L"  
  
GoSub\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(GoSub\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(GoSub\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(GoSub\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(GoSub\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(GoSub\_C, 0.95, na.rm=TRUE))  
GoSub\_C\_sum$measure <- "GoSub\_C"  
  
NRB\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(NRB\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(NRB\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(NRB\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(NRB\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(NRB\_L, 0.95, na.rm=TRUE))  
NRB\_L\_sum$measure <- "NRB\_L"  
  
ProS\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(ProS\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(ProS\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(ProS\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(ProS\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(ProS\_L, 0.95, na.rm=TRUE))  
ProS\_L\_sum$measure <- "ProS\_L"  
  
  
SelP\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(SelP\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(SelP\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(SelP\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(SelP\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(SelP\_L, 0.95, na.rm=TRUE))  
SelP\_L\_sum$measure <- "SelP\_L"  
  
  
SelM\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(SelM\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(SelM\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(SelM\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(SelM\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(SelM\_L, 0.95, na.rm=TRUE))  
SelM\_L\_sum$measure <- "SelM\_L"  
  
SnasM\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(SnasM\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(SnasM\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(SnasM\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(SnasM\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(SnasM\_C, 0.95, na.rm=TRUE))  
SnasM\_C\_sum$measure <- "SnasM\_C"  
  
  
  
TrSman\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(TrSman\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrSman\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrSman\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrSman\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrSman\_C, 0.95, na.rm=TRUE))  
TrSman\_C\_sum$measure <- "TrSman\_C"  
  
  
TrTr\_C\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(TrTr\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrTr\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrTr\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrTr\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrTr\_C, 0.95, na.rm=TRUE))  
TrTr\_C\_sum$measure <- "TrTr\_C"  
  
TrTr\_L\_sum <- chosen\_num %>%   
 summarise(percent5th = quantile(TrTr\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrTr\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrTr\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrTr\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrTr\_L, 0.95, na.rm=TRUE))  
TrTr\_L\_sum$measure <- "TrTr\_L"

quantile\_data <- rbind(AA\_C\_sum, BiW\_L\_sum, BiW\_C\_sum,  
 GoSub\_C\_sum, NRB\_L\_sum,  
 ProS\_L\_sum, SelP\_L\_sum, SelM\_L\_sum,  
 SnasM\_C\_sum, TrSman\_C\_sum,  
 TrTr\_C\_sum, TrTr\_L\_sum)

chosen\_stats$mdn <- chosen\_stats$median  
  
chosen\_stats <- chosen\_stats[c(1,3,15,9,10,4,16,5,14)]  
  
chosen\_stats <- full\_join(chosen\_stats, quantile\_data, by="measure")  
  
chosen\_stats <- chosen\_stats %>%   
 mutate(across(where(is.numeric), round, 2))

#Autofit Width Table TNR  
flextable(chosen\_stats) %>%  
 my\_ft\_theme()%>%   
 bold(part = "header") %>%   
 set\_caption("Non-imputed SumStats (mm)") %>%   
 fit\_to\_width(7.5)

**Table** : Non-imputed SumStats (mm)

| **measure** | **n** | **na** | **min** | **max** | **mean** | **mdn** | **sd** | **se** | **percent5th** | **percent25th** | **percent50th** | **percent75th** | **percent95th** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AA\_C | 1,976 | 40 | 44 | 87 | 61.23 | 61 | 6.22 | 0.14 | 52 | 57 | 61 | 65 | 72.00 |
| BiW\_C | 1,979 | 37 | 101 | 187 | 133.39 | 133 | 12.81 | 0.29 | 114 | 124 | 133 | 141 | 156.00 |
| BiW\_L | 1,981 | 35 | 82 | 152 | 111.19 | 111 | 9.75 | 0.22 | 96 | 104 | 111 | 118 | 128.00 |
| GoSub\_C | 1,871 | 145 | 49 | 152 | 98.75 | 98 | 14.89 | 0.34 | 75 | 88 | 98 | 108 | 124.00 |
| NRB\_L | 1,982 | 34 | 3 | 35 | 17.95 | 18 | 4.71 | 0.11 | 11 | 15 | 18 | 21 | 26.95 |
| ProS\_L | 1,976 | 40 | 12 | 27 | 19.12 | 19 | 2.56 | 0.06 | 15 | 17 | 19 | 21 | 23.00 |
| SelP\_L | 1,981 | 35 | 30 | 58 | 44.53 | 44 | 4.34 | 0.10 | 38 | 42 | 44 | 47 | 52.00 |
| SelM\_L | 1,773 | 243 | 84 | 145 | 116.29 | 116 | 9.24 | 0.22 | 101 | 110 | 116 | 123 | 131.00 |
| SnasM\_C | 1,762 | 254 | 44 | 105 | 74.96 | 75 | 10.39 | 0.25 | 57 | 68 | 75 | 82 | 92.00 |
| TrSman\_C | 1,865 | 151 | 117 | 208 | 153.28 | 152 | 13.98 | 0.32 | 132 | 143 | 152 | 162 | 178.00 |
| TrTr\_C | 1,960 | 56 | 241 | 332 | 282.70 | 282 | 14.33 | 0.32 | 261 | 272 | 282 | 293 | 307.05 |
| TrTr\_L | 1,964 | 52 | 127 | 173 | 146.49 | 146 | 7.72 | 0.17 | 135 | 141 | 146 | 152 | 160.00 |

chosen\_imputed <- read\_excel("C:\\Users\\19177\\OneDrive - Colostate\\Desktop\\Dissertation\\headscan\_dissertation\\chosen\_imputed.xlsx")

imputed\_stats <- chosen\_imputed[-c(1, 14:16)]  
imputed\_stats <- describe(imputed\_stats)  
  
  
imputed\_stats$na <- 2016 - imputed\_stats$n  
imputed\_stats <- rownames\_to\_column(imputed\_stats, "measure")

AA\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(AA\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(AA\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(AA\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(AA\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(AA\_C, 0.95, na.rm=TRUE))  
AA\_C\_sum1$measure <- "AA\_C"  
  
  
BiW\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(BiW\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(BiW\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(BiW\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(BiW\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(BiW\_C, 0.95, na.rm=TRUE))  
BiW\_C\_sum1$measure <- "BiW\_C"  
  
BiW\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(BiW\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(BiW\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(BiW\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(BiW\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(BiW\_L, 0.95, na.rm=TRUE))  
BiW\_L\_sum1$measure <- "BiW\_L"  
  
  
GoSub\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(GoSub\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(GoSub\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(GoSub\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(GoSub\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(GoSub\_C, 0.95, na.rm=TRUE))  
GoSub\_C\_sum1$measure <- "GoSub\_C"  
  
NRB\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(NRB\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(NRB\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(NRB\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(NRB\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(NRB\_L, 0.95, na.rm=TRUE))  
NRB\_L\_sum1$measure <- "NRB\_L"  
  
  
ProS\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(ProS\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(ProS\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(ProS\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(ProS\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(ProS\_L, 0.95, na.rm=TRUE))  
ProS\_L\_sum1$measure <- "ProS\_L"  
  
  
SelP\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(SelP\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(SelP\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(SelP\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(SelP\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(SelP\_L, 0.95, na.rm=TRUE))  
SelP\_L\_sum1$measure <- "SelP\_L"  
  
  
SelM\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(SelM\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(SelM\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(SelM\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(SelM\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(SelM\_L, 0.95, na.rm=TRUE))  
SelM\_L\_sum1$measure <- "SelM\_L"  
  
SnasM\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(SnasM\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(SnasM\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(SnasM\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(SnasM\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(SnasM\_C, 0.95, na.rm=TRUE))  
SnasM\_C\_sum1$measure <- "SnasM\_C"  
  
  
TrSman\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(TrSman\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrSman\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrSman\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrSman\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrSman\_C, 0.95, na.rm=TRUE))  
TrSman\_C\_sum1$measure <- "TrSman\_C"  
  
TrTr\_C\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(TrTr\_C, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrTr\_C, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrTr\_C, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrTr\_C, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrTr\_C, 0.95, na.rm=TRUE))  
TrTr\_C\_sum1$measure <- "TrTr\_C"  
  
TrTr\_L\_sum1 <- chosen\_imputed %>%   
 summarise(percent5th = quantile(TrTr\_L, 0.05, na.rm=TRUE),  
 percent25th = quantile(TrTr\_L, 0.25, na.rm=TRUE),  
 percent50th = quantile(TrTr\_L, 0.50, na.rm=TRUE),  
 percent75th = quantile(TrTr\_L, 0.75, na.rm=TRUE),  
 percent95th = quantile(TrTr\_L, 0.95, na.rm=TRUE))  
TrTr\_L\_sum1$measure <- "TrTr\_L"

quantile\_data <- rbind(AA\_C\_sum1, BiW\_L\_sum1, BiW\_C\_sum1,  
 GoSub\_C\_sum1, NRB\_L\_sum1,  
 ProS\_L\_sum1, SelP\_L\_sum1, SelM\_L\_sum1,  
 SnasM\_C\_sum1, TrSman\_C\_sum1,  
 TrTr\_C\_sum1, TrTr\_L\_sum1)

imputed\_stats$mdn <- imputed\_stats$median  
  
imputed\_stats <- imputed\_stats[c(1,3,15,9,10,4,16,5,14)]  
  
imputed\_stats <- full\_join(imputed\_stats, quantile\_data, by="measure")  
  
imputed\_stats <- imputed\_stats %>%   
 mutate(across(where(is.numeric), round, 2))

#Autofit Width Table TNR  
flextable(imputed\_stats) %>%  
 my\_ft\_theme()%>%   
 bold(part = "header") %>%   
 set\_caption("Imputed SumStats (mm)") %>%   
 fit\_to\_width(7.5)

**Table** : Imputed SumStats (mm)

| **measure** | **n** | **na** | **min** | **max** | **mean** | **mdn** | **sd** | **se** | **percent5th** | **percent25th** | **percent50th** | **percent75th** | **percent95th** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AA\_C | 2,016 | 0 | 44 | 87 | 61.22 | 61 | 6.17 | 0.14 | 52.00 | 57 | 61 | 65 | 72.00 |
| BiW\_C | 2,016 | 0 | 101 | 187 | 133.39 | 133 | 12.71 | 0.28 | 114.00 | 124 | 133 | 141 | 156.00 |
| BiW\_L | 2,016 | 0 | 82 | 152 | 111.19 | 111 | 9.66 | 0.22 | 96.00 | 105 | 111 | 117 | 128.00 |
| GoSub\_C | 2,016 | 0 | 49 | 152 | 99.17 | 99 | 14.60 | 0.33 | 75.00 | 89 | 99 | 109 | 123.00 |
| NRB\_L | 2,016 | 0 | 3 | 35 | 17.95 | 18 | 4.68 | 0.10 | 11.00 | 15 | 18 | 21 | 26.00 |
| ProS\_L | 2,016 | 0 | 12 | 27 | 19.12 | 19 | 2.54 | 0.06 | 15.00 | 17 | 19 | 21 | 23.00 |
| SelP\_L | 2,016 | 0 | 30 | 58 | 44.53 | 44 | 4.30 | 0.10 | 38.00 | 42 | 44 | 47 | 52.00 |
| SelM\_L | 2,016 | 0 | 84 | 145 | 116.96 | 117 | 9.10 | 0.20 | 101.00 | 111 | 117 | 123 | 132.00 |
| SnasM\_C | 2,016 | 0 | 44 | 105 | 75.62 | 76 | 10.18 | 0.23 | 58.00 | 69 | 76 | 83 | 92.00 |
| TrSman\_C | 2,016 | 0 | 117 | 208 | 153.75 | 154 | 13.80 | 0.31 | 132.75 | 144 | 154 | 162 | 177.25 |
| TrTr\_C | 2,016 | 0 | 241 | 332 | 282.70 | 283 | 14.21 | 0.32 | 261.00 | 273 | 283 | 292 | 307.00 |
| TrTr\_L | 2,016 | 0 | 127 | 173 | 146.47 | 146 | 7.64 | 0.17 | 135.00 | 141 | 146 | 152 | 160.00 |

diff <- chosen\_stats  
  
diff <- diff %>%   
 rename(original\_n=n,  
 original\_na=na,  
 original\_min=min,  
 original\_max=max,  
 original\_mean=mean,  
 original\_mdn=mdn,  
 original\_sd=sd,  
 original\_se=se,  
 original5th=percent5th,  
 original25th=percent25th,  
 original50th=percent50th,  
 original75th=percent75th,  
 original95th=percent95th)  
  
diff$imputed\_n <- imputed\_stats$n  
diff$imputed\_na <- imputed\_stats$na  
diff$imputed\_min <- imputed\_stats$min  
diff$imputed\_max <- imputed\_stats$max  
diff$imputed\_mean <- imputed\_stats$mean  
diff$imputed\_mdn <- imputed\_stats$mdn  
diff$imputed\_sd <- imputed\_stats$sd  
diff$imputed\_se <- imputed\_stats$se  
diff$imputed5th <- imputed\_stats$percent5th  
diff$imputed25th <- imputed\_stats$percent25th  
diff$imputed50th <- imputed\_stats$percent50th  
diff$imputed75th <- imputed\_stats$percent75th  
diff$imputed95th <- imputed\_stats$percent95th  
  
  
diff <- diff %>%   
 mutate(across(where(is.numeric), round, 2))  
  
diff$n\_diff <- diff$imputed\_n - diff$original\_n  
diff$na\_diff <- diff$imputed\_na - diff$original\_na  
diff$min\_diff <- diff$imputed\_min - diff$original\_min  
diff$max\_diff <- diff$imputed\_max - diff$original\_max  
diff$mean\_diff <- diff$imputed\_mean - diff$original\_mean  
diff$mdn\_diff <- diff$imputed\_mdn - diff$original\_mdn  
diff$sd\_diff <- diff$imputed\_sd - diff$original\_sd  
diff$se\_diff <- diff$imputed\_se - diff$original\_se  
diff$diff\_5th <- diff$imputed5th - diff$original5th  
diff$diff\_25th <- diff$imputed25th - diff$original25th  
diff$diff\_50th <- diff$imputed50th - diff$original50th  
diff$diff\_75th <- diff$imputed75th - diff$original75th  
diff$diff\_95th <- diff$imputed95th - diff$original95th  
  
diff <- diff[c(1, 28:40)]  
  
str(diff)

## Classes 'psych', 'describe' and 'data.frame': 12 obs. of 14 variables:  
## $ measure : chr "AA\_C" "BiW\_C" "BiW\_L" "GoSub\_C" ...  
## $ n\_diff : num 40 37 35 145 34 40 35 243 254 151 ...  
## $ na\_diff : num -40 -37 -35 -145 -34 -40 -35 -243 -254 -151 ...  
## $ min\_diff : num 0 0 0 0 0 0 0 0 0 0 ...  
## $ max\_diff : num 0 0 0 0 0 0 0 0 0 0 ...  
## $ mean\_diff: num -0.01 0 0 0.42 0 ...  
## $ mdn\_diff : num 0 0 0 1 0 0 0 1 1 2 ...  
## $ sd\_diff : num -0.05 -0.1 -0.09 -0.29 -0.03 ...  
## $ se\_diff : num 0 -0.01 0 -0.01 -0.01 ...  
## $ diff\_5th : num 0 0 0 0 0 0 0 0 1 0.75 ...  
## $ diff\_25th: num 0 0 1 1 0 0 0 1 1 1 ...  
## $ diff\_50th: num 0 0 0 1 0 0 0 1 1 2 ...  
## $ diff\_75th: num 0 0 -1 1 0 0 0 0 1 0 ...  
## $ diff\_95th: num 0 0 0 -1 -0.95 0 0 1 0 -0.75 ...

#Autofit Width Table TNR  
flextable(diff) %>%  
 my\_ft\_theme()%>%   
 bold(part = "header") %>%   
 set\_caption("Differences (mm) Between Imputed and Original SumStats") %>%   
 fit\_to\_width(7.5)

**Table** : Differences (mm) Between Imputed and Original SumStats

| **measure** | **n\_diff** | **na\_diff** | **min\_diff** | **max\_diff** | **mean\_diff** | **mdn\_diff** | **sd\_diff** | **se\_diff** | **diff\_5th** | **diff\_25th** | **diff\_50th** | **diff\_75th** | **diff\_95th** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| AA\_C | 40 | -40 | 0 | 0 | -0.01 | 0 | -0.05 | 0.00 | 0.00 | 0 | 0 | 0 | 0.00 |
| BiW\_C | 37 | -37 | 0 | 0 | 0.00 | 0 | -0.10 | -0.01 | 0.00 | 0 | 0 | 0 | 0.00 |
| BiW\_L | 35 | -35 | 0 | 0 | 0.00 | 0 | -0.09 | 0.00 | 0.00 | 1 | 0 | -1 | 0.00 |
| GoSub\_C | 145 | -145 | 0 | 0 | 0.42 | 1 | -0.29 | -0.01 | 0.00 | 1 | 1 | 1 | -1.00 |
| NRB\_L | 34 | -34 | 0 | 0 | 0.00 | 0 | -0.03 | -0.01 | 0.00 | 0 | 0 | 0 | -0.95 |
| ProS\_L | 40 | -40 | 0 | 0 | 0.00 | 0 | -0.02 | 0.00 | 0.00 | 0 | 0 | 0 | 0.00 |
| SelP\_L | 35 | -35 | 0 | 0 | 0.00 | 0 | -0.04 | 0.00 | 0.00 | 0 | 0 | 0 | 0.00 |
| SelM\_L | 243 | -243 | 0 | 0 | 0.67 | 1 | -0.14 | -0.02 | 0.00 | 1 | 1 | 0 | 1.00 |
| SnasM\_C | 254 | -254 | 0 | 0 | 0.66 | 1 | -0.21 | -0.02 | 1.00 | 1 | 1 | 1 | 0.00 |
| TrSman\_C | 151 | -151 | 0 | 0 | 0.47 | 2 | -0.18 | -0.01 | 0.75 | 1 | 2 | 0 | -0.75 |
| TrTr\_C | 56 | -56 | 0 | 0 | 0.00 | 1 | -0.12 | 0.00 | 0.00 | 1 | 1 | -1 | -0.05 |
| TrTr\_L | 52 | -52 | 0 | 0 | -0.02 | 0 | -0.08 | 0.00 | 0.00 | 0 | 0 | 0 | 0.00 |