BPRM Malaysia Data Analysis

library(readxl)  
library(dplyr)  
library(magrittr)  
library(haven)  
library(ordinal)  
library(ggplot2)  
library(xtable)  
library(stringr)  
library(sjlabelled)  
library(reporttools)  
setwd("C:/Users/ajame/Dropbox/BPRM/Malaysia")

campaign <- read\_sav("campaign.sav")  
phase3 <- read\_sav("phase3.sav")  
conditions <- read\_excel("conditions\_key.xlsx")  
campaign %<>% rename(ID = Q2)  
phase3 %<>% rename(ID = Q2, Dem1\_gender = Q4, Dem2\_age = Q5, Dem3\_partner\_status = Q6, Dem4\_partner\_age = Q8, Dem5\_num\_wives = Q9, Dem6\_husbands\_num\_wives = Q10, Dem7\_age\_married = Q11, Dem8\_how\_partner\_chosen = Q12, Dem9\_num\_children = Q13, Dem10\_num\_children\_in\_house = Q14, Dem11\_num\_family\_in\_house = Q15, Dem12\_num\_people\_in\_house = Q16, Dem13\_education = Q17, Dem14\_employed = Q18, Dem16\_monthly\_income = Q20, Dem17\_time\_in\_country = Q21, Dem18\_time\_in\_community = Q22)  
campaign$ID <- trimws(toupper(campaign$ID))  
phase3$ID <- trimws(toupper(phase3$ID))  
conditions$ID <- trimws(toupper(conditions$ID))  
conditions$cond[conditions$ID == "W108"] <- 1  
conditions$cond[conditions$ID == "W149"] <- 1  
conditions$cond <- factor(conditions$cond, labels = c("Control", "Campaign"))  
  
campaign$ID[campaign$StartDate == as.POSIXct("2018-04-25 04:50:57", tz = "UTC")] <- "W2"  
campaign$ID[campaign$StartDate == as.POSIXct("2018-04-23 05:52:17", tz = "UTC")] <- "W108"  
campaign$ID[campaign$ID == "N115"] <- "M115"  
campaign$ID\_gender <- factor(substr(campaign$ID, 1, 1), labels = c("Men", "Women"))  
campaign <- left\_join(campaign, conditions %>% select(ID, cond), by = c("ID" = "ID"))

## Warning: Column `ID` has different attributes on LHS and RHS of join

phase3$ID[phase3$StartDate == as.POSIXct("2018-04-23 20:03:02", tz = "UTC")] <- "W108"  
phase3$ID[phase3$ID == "M103" & phase3$Dem2\_age == "20"] <- "M100"  
phase3$ID[phase3$ID == "17"] <- "W17"  
phase3$ID[phase3$ID == "M90" & phase3$Q113 == 2] <- "M86"  
phase3$ID[phase3$ID == "W137" & phase3$Dem2\_age == "29"] <- "W132"  
phase3$ID[phase3$ID == "W140" & phase3$Dem2\_age == "27"] <- "W143"  
phase3 <- phase3[phase3$ID != "M4" & phase3$ID != "W67" & phase3$ID != "W43",]   
phase3$ID[phase3$ID == "W43 (1)"] <- "W43"  
phase3$ID\_gender <- factor(substr(phase3$ID, 1, 1), labels = c("Men", "Women"))  
phase3 <- phase3[phase3$ID != "M56" & phase3$ID != "W123",]  
phase3 <- left\_join(phase3, conditions %>% select(ID, cond), by = c("ID" = "ID"))  
  
phase3$Dem1\_gender <- as\_label(phase3$Dem1\_gender)   
phase3$Dem2\_age <- as.numeric(str\_replace\_all(phase3$Dem2\_age, ' years old', ''))  
phase3$Dem2\_age[phase3$Dem2\_age == 3] <- NA  
phase3$Dem3\_partner\_status <- as\_label(phase3$Dem3\_partner\_status)  
levels(phase3$Dem3\_partner\_status) <- c('Married, living with', 'Married, not living with', 'Formerly married', 'Never married/lived')  
phase3$Dem4\_partner\_age <- as.numeric(str\_replace\_all(phase3$Dem4\_partner\_age, ' years old', ''))  
phase3$Dem5\_num\_wives <- as.numeric(phase3$Dem5\_num\_wives)  
phase3$Dem6\_husbands\_num\_wives <- as.numeric(phase3$Dem6\_husbands\_num\_wives)  
phase3$Dem7\_age\_married <- as.numeric(substr(phase3$Dem7\_age\_married, 1, 2))

## Warning: NAs introduced by coercion

phase3$Dem8\_how\_partner\_chosen <- as\_label(phase3$Dem8\_how\_partner\_chosen)  
levels(phase3$Dem8\_how\_partner\_chosen) <- c('Arranged, agreed', 'Arranged, not agreed', 'Met on own')  
phase3$Dem9\_num\_children[phase3$Dem9\_num\_children == "No"] <- "0"  
phase3$Dem9\_num\_children <- as.numeric(substr(phase3$Dem9\_num\_children, 1, 2))  
phase3$Dem10\_num\_children\_in\_house <- as.numeric(substr(phase3$Dem10\_num\_children\_in\_house, 1, 2))  
phase3$Dem11\_num\_family\_in\_house[phase3$Dem11\_num\_family\_in\_house == ",6"] <- "6"  
phase3$Dem11\_num\_family\_in\_house[substr(phase3$Dem11\_num\_family\_in\_house, 1, 2) == "No"] <- "0"  
phase3$Dem11\_num\_family\_in\_house <- as.numeric(phase3$Dem11\_num\_family\_in\_house)  
phase3$Dem12\_num\_people\_in\_house[phase3$Dem12\_num\_people\_in\_house == ",5"] <- "5"  
phase3$Dem12\_num\_people\_in\_house[phase3$Dem12\_num\_people\_in\_house == "5ek"] <- "5"  
phase3$Dem12\_num\_people\_in\_house <- as.numeric(phase3$Dem12\_num\_people\_in\_house)  
phase3$Dem13\_education <- as\_label(phase3$Dem13\_education)  
levels(phase3$Dem13\_education)[levels(phase3$Dem13\_education)=="Education level, other (e.g., religious education, etc.), specify"] <- "Other"  
phase3$Dem14\_employed <- as\_label(phase3$Dem14\_employed)  
levels(phase3$Dem14\_employed) <- c('No','Yes')  
type\_employment\_vars <- phase3 %>% select(starts\_with("Q19\_")) %>% select(-Q19\_8\_TEXT) %>% names  
for(i in type\_employment\_vars) {  
 phase3$Dem15\_type\_employment[phase3[[i]]==1] <- names(attr(phase3[[i]], 'labels'))  
}

## Warning: Unknown or uninitialised column: 'Dem15\_type\_employment'.

phase3$Dem15\_type\_employment <- factor(phase3$Dem15\_type\_employment)  
levels(phase3$Dem15\_type\_employment)[levels(phase3$Dem15\_type\_employment)=="Service related (such as working in a restaurant or retail shop)"] <- "Service related"  
phase3$Dem16\_monthly\_income <- as\_label(phase3$Dem16\_monthly\_income)  
phase3$Dem17\_time\_in\_country <- as\_label(phase3$Dem17\_time\_in\_country)  
levels(phase3$Dem17\_time\_in\_country)[levels(phase3$Dem17\_time\_in\_country)=="Less than 1 year, specify months"] <- "Less than 1 year"  
phase3$Dem18\_time\_in\_community <- as\_label(phase3$Dem18\_time\_in\_community)  
levels(phase3$Dem18\_time\_in\_community)[levels(phase3$Dem18\_time\_in\_community)=="Less than 1 year, specify months"] <- "Less than 1 year"  
ij\_c <- inner\_join(campaign, phase3, by = "ID")

## Warning: Column `ID` has different attributes on LHS and RHS of join

aj\_c <- anti\_join(campaign, phase3, by = "ID")

## Warning: Column `ID` has different attributes on LHS and RHS of join

aj\_p <- anti\_join(phase3, campaign, by = "ID")

## Warning: Column `ID` has different attributes on LHS and RHS of join

table(phase3$ID\_gender, 2 - phase3$Q113)

##   
## 0 1  
## Men 63 56  
## Women 64 57

table(phase3$ID\_gender, phase3$cond)

##   
## Control Campaign  
## Men 63 56  
## Women 62 59

Demographics

ID\_gender <- phase3 %>% select(ID\_gender) %>% as.data.frame  
demos\_nominal <- phase3 %>% select(starts\_with("Dem"), ID\_gender) %>% select\_if(is.factor)  
demos\_continuous <- phase3 %>% select(starts\_with("Dem")) %>% select\_if(is.numeric)

tableNominal(vars = as.data.frame(demos\_nominal), group = ID\_gender[,1], print.pval = "fisher", cumsum = FALSE, longtable = TRUE, cap = "Nominal demographics vars - descriptive statistics and Fisher's exact test p-values for genders")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:26 2018

tableContinuous(vars = as.data.frame(demos\_continuous), group = ID\_gender[,1], stats = c('n', 'min', 'q1', 'median', 'mean','q3', 'max', 's'), prec = 2, print.pval = "anova", longtable = TRUE, cap = "Numeric demographic vars - descriptive statistics and ANOVA p-values")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:26 2018

phase3 %<>% rename(GenRel1 = Q25, GenRel2 = Q26, GenRel3 = Q27, GenRel4 = Q28, GenRel5 = Q29, GenRel6 = Q30, GenRel7 = Q31, GenRel8 = Q32, GenRel9 = Q33, GenRel10 = Q34, GenRel11 = Q35, GenRel12 = Q36, GenRel13 = Q37, GenRel14 = Q38, GenRel15 = Q39, GenRel16 = Q40, GenRel17 = Q41, GenRel18 = Q42, GenRel19 = Q43, GenRel20 = Q44)  
  
rev\_code <- phase3 %>% select(starts\_with("GenRel")) %>% select(-GenRel3, -GenRel4, -GenRel15, -GenRel16) %>% names  
phase3 %<>% mutate\_at(rev\_code, funs(dplyr::recode(as.numeric(.), `1` = 4, `2` = 3, `3` = 2, `4` = 1)))  
  
GenRel\_comm\_names <- c('GenRel1', 'GenRel3', 'GenRel5', 'GenRel7', 'GenRel9', 'GenRel11', 'GenRel13', 'GenRel15', 'GenRel17', 'GenRel19')  
GenRel\_indiv\_names <- c('GenRel2', 'GenRel4', 'GenRel6', 'GenRel8', 'GenRel10', 'GenRel12', 'GenRel14', 'GenRel16', 'GenRel18', 'GenRel20')  
phase3$GenRel\_comm <- phase3 %>% select(GenRel\_comm\_names) %>% rowMeans(na.rm = TRUE)  
phase3$GenRel\_indiv <- phase3 %>% select(GenRel\_indiv\_names) %>% rowMeans(na.rm = TRUE)  
phase3$GenRel\_comm\_excluded\_items <- phase3 %>% select(GenRel\_comm\_names) %>% select(-GenRel17, -GenRel19) %>% rowMeans(na.rm = TRUE)  
phase3$GenRel\_indiv\_excluded\_items <- phase3 %>% select(GenRel\_indiv\_names) %>% select(-GenRel18, -GenRel20) %>% rowMeans(na.rm = TRUE)  
  
phase3 %<>% mutate\_at(c(GenRel\_comm\_names, GenRel\_indiv\_names), funs(factor(.)))  
GenRel\_comm\_models\_m <- lapply(GenRel\_comm\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", data = phase3))  
GenRel\_comm\_models\_f <- lapply(GenRel\_comm\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", data = phase3))  
GenRel\_indiv\_models\_m <- lapply(GenRel\_indiv\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", data = phase3))  
GenRel\_indiv\_models\_f <- lapply(GenRel\_indiv\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", data = phase3))  
GenRel\_comm\_scale\_m <- lm(GenRel\_comm ~ cond, subset = ID\_gender == "Men", data = phase3)  
GenRel\_comm\_scale\_f <- lm(GenRel\_comm ~ cond, subset = ID\_gender == "Women", data = phase3)  
GenRel\_indiv\_scale\_m <- lm(GenRel\_indiv ~ cond, subset = ID\_gender == "Men", data = phase3)  
GenRel\_indiv\_scale\_f <- lm(GenRel\_indiv ~ cond, subset = ID\_gender == "Women", data = phase3)  
GenRel\_comm\_excluded\_scale\_m <- lm(GenRel\_comm\_excluded\_items ~ cond, subset = ID\_gender == "Men", data = phase3)  
GenRel\_comm\_excluded\_scale\_f <- lm(GenRel\_comm\_excluded\_items ~ cond, subset = ID\_gender == "Women", data = phase3)  
GenRel\_indiv\_excluded\_scale\_m <- lm(GenRel\_indiv\_excluded\_items ~ cond, subset = ID\_gender == "Men", data = phase3)  
GenRel\_indiv\_excluded\_scale\_f <- lm(GenRel\_indiv\_excluded\_items ~ cond, subset = ID\_gender == "Women", data = phase3)  
  
  
GenRel\_comm\_table\_m <- t(sapply(GenRel\_comm\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
GenRel\_comm\_table\_f <- t(sapply(GenRel\_comm\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
GenRel\_comm\_table <- data.frame(cbind(GenRel\_comm\_table\_m, GenRel\_comm\_table\_f), row.names = GenRel\_comm\_names)  
colnames(GenRel\_comm\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')  
  
GenRel\_indiv\_table\_m <- t(sapply(GenRel\_indiv\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
GenRel\_indiv\_table\_f <- t(sapply(GenRel\_indiv\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
GenRel\_indiv\_table <- data.frame(cbind(GenRel\_indiv\_table\_m, GenRel\_indiv\_table\_f), row.names = GenRel\_indiv\_names)  
colnames(GenRel\_indiv\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')  
  
GenRel\_scale\_table\_m <- coef(summary(GenRel\_comm\_scale\_m))[nrow(coef(summary(GenRel\_comm\_scale\_m))),]  
GenRel\_scale\_table\_m <- bind\_rows(GenRel\_scale\_table\_m, coef(summary(GenRel\_indiv\_scale\_m))[nrow(coef(summary(GenRel\_indiv\_scale\_m))),],  
 coef(summary(GenRel\_comm\_excluded\_scale\_m))[nrow(coef(summary(GenRel\_comm\_excluded\_scale\_m))),],  
 coef(summary(GenRel\_indiv\_excluded\_scale\_m))[nrow(coef(summary(GenRel\_indiv\_excluded\_scale\_m))),])  
GenRel\_scale\_table\_f <- coef(summary(GenRel\_comm\_scale\_f))[nrow(coef(summary(GenRel\_comm\_scale\_f))),]  
GenRel\_scale\_table\_f <- bind\_rows(GenRel\_scale\_table\_f, coef(summary(GenRel\_indiv\_scale\_f))[nrow(coef(summary(GenRel\_indiv\_scale\_f))),],  
 coef(summary(GenRel\_comm\_excluded\_scale\_f))[nrow(coef(summary(GenRel\_comm\_excluded\_scale\_f))),],  
 coef(summary(GenRel\_indiv\_excluded\_scale\_f))[nrow(coef(summary(GenRel\_indiv\_excluded\_scale\_f))),])  
GenRel\_scale\_table <- data.frame(bind\_cols(GenRel\_scale\_table\_m, GenRel\_scale\_table\_f), row.names = c('Community scale', 'Individual scale', 'Community scale no Q41-Q44', 'Individual scale no Q41-Q44'))  
colnames(GenRel\_scale\_table) <- c('m.Coef', 'm.SE', 'm.t', 'm.p','f.Coef', 'f.SE', 'f.t', 'f.p')  
  
GenRelDescript <- phase3 %>% select(matches("GenRel\\d")) %>% mutate\_all(funs(as.numeric))  
GenRelDescript %<>% mutate\_at(rev\_code, funs(dplyr::recode(as.numeric(.), `1` = 4, `2` = 3, `3` = 2, `4` = 1)))  
GenRelDescript %<>% mutate\_all(funs(if\_else(. < 3, 1, 0)))

print(xtable(GenRel\_comm\_table, "Attitudes towards gender relations - community items", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:27 2018

print(xtable(GenRel\_indiv\_table, "Attitudes towards gender relations - individual items", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

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print(xtable(GenRel\_scale\_table, "Attitudes towards gender relations - scales", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

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tableNominal(vars = as.data.frame(GenRelDescript), group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for attitudes torwards gender relations items. Agree and strongly agree collapsed.")

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phase3 %<>% rename(AcceptIPA1 = Q46, AcceptIPA2 = Q47, AcceptIPA3 = Q48, AcceptIPA4 = Q49, AcceptIPA5 = Q50, AcceptIPA6 = Q51, AcceptIPA7 = Q52, AcceptIPA8 = Q53, AcceptIPA9 = Q54, AcceptIPA10 = Q55)  
AcceptIPA\_names <- phase3 %>% select(starts\_with("AcceptIPA")) %>% names  
phase3 %<>% mutate\_at(AcceptIPA\_names, funs(dplyr::recode(as.numeric(.), `2` = 0)))  
phase3$AcceptIPA\_scale <- phase3 %>% select(starts\_with("AcceptIPA")) %>% rowSums  
  
AcceptIPA\_scale\_m <- lm(AcceptIPA\_scale ~ cond, subset = ID\_gender == "Men", data = phase3)  
AcceptIPA\_scale\_f <- lm(AcceptIPA\_scale ~ cond, subset = ID\_gender == "Women", data = phase3)  
AcceptIPA\_scale\_m\_binomial <- glm(cbind(AcceptIPA\_scale, 10 - AcceptIPA\_scale) ~ cond, data=phase3, subset= ID\_gender=="Men", family=binomial(link="logit"))  
AcceptIPA\_scale\_f\_binomial <- glm(cbind(AcceptIPA\_scale, 10 - AcceptIPA\_scale) ~ cond, data=phase3, subset= ID\_gender=="Women", family=binomial(link="logit"))  
  
AcceptIPA\_items\_m <- lapply(AcceptIPA\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))  
AcceptIPA\_items\_f <- lapply(AcceptIPA\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))   
  
AcceptIPA\_table\_m <- t(sapply(AcceptIPA\_items\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
AcceptIPA\_table\_f <- t(sapply(AcceptIPA\_items\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
AcceptIPA\_table\_m[c(8,9),]<- NA  
AcceptIPA\_table\_f[8,] <- NA  
AcceptIPA\_table\_m <- rbind(AcceptIPA\_table\_m, t(coef(summary(AcceptIPA\_scale\_m))[nrow(coef(summary(AcceptIPA\_scale\_m))),]),  
 t(coef(summary(AcceptIPA\_scale\_m\_binomial))[nrow(coef(summary(AcceptIPA\_scale\_m\_binomial))),]))  
AcceptIPA\_table\_f <- rbind(AcceptIPA\_table\_f, t(coef(summary(AcceptIPA\_scale\_f))[nrow(coef(summary(AcceptIPA\_scale\_f))),]),  
 t(coef(summary(AcceptIPA\_scale\_f\_binomial))[nrow(coef(summary(AcceptIPA\_scale\_f\_binomial))),]))  
AcceptIPA\_table <- data.frame(cbind(AcceptIPA\_table\_m, AcceptIPA\_table\_f), row.names = c(AcceptIPA\_names, 'Accept IPA', 'Accept IPA binomial model'))  
colnames(AcceptIPA\_table) <- c('m.Coef', 'm.SE', 'm.t/z', 'm.p','f.Coef', 'f.SE', 'f.t/z', 'f.p')

print(xtable(AcceptIPA\_table, "Acceptability of IPA - individual items and then scale. Items eliminated with too few yes answers. Note that IPA6 for males only has 8 yes responses, kept in for now because near sig.", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

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tableNominal(vars = phase3 %>% select(matches("AcceptIPA\\d")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for acceptability of IPA items.")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:27 2018

phase3 %<>% rename(ChildIPA1 = Q57, ChildIPA2 = Q58, ChildIPA3 = Q59, ChildIPA5\_seek\_help\_family\_friends = Q61\_1, ChildIPA5\_seek\_help\_org = Q61\_2, ChildIPA5\_seek\_help\_authorities = Q61\_3, ChildIPA5\_leave\_relationship = Q61\_4, ChildIPA5\_tolerate\_avoid\_divorce = Q61\_5, ChildIPA5\_tolerate\_hope\_not\_hurt = Q61\_6, ChildIPA5\_dont\_tell = Q61\_7, ChildIPA5\_tell\_children\_leave = Q61\_10, ChildIPA5\_none\_of\_above = Q61\_12)  
phase3$ChildIPA\_scale <- phase3 %>% select(ChildIPA1, ChildIPA2, ChildIPA3) %>% rowMeans  
ChildIPA\_m <- lm(ChildIPA\_scale ~ cond, subset = ID\_gender == "Men", data = phase3)  
ChildIPA\_f <- lm(ChildIPA\_scale ~ cond, subset = ID\_gender == "Women", data = phase3)  
  
ChildIPA5\_names <- phase3 %>% select(starts\_with("ChildIPA5\_")) %>% names  
phase3 %<>% mutate\_at(ChildIPA5\_names, funs(replace(., is.na(.), 0)))  
ChildIPA5\_models\_m <- lapply(ChildIPA5\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))

## Warning: glm.fit: algorithm did not converge  
  
## Warning: glm.fit: algorithm did not converge

ChildIPA5\_models\_f <- lapply(ChildIPA5\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))  
  
ChildIPA\_table\_m <- t(coef(summary(ChildIPA\_m))[nrow(coef(summary(ChildIPA\_m))),])  
ChildIPA\_table\_f <- t(coef(summary(ChildIPA\_f))[nrow(coef(summary(ChildIPA\_f))),])  
ChildIPA\_table\_m <- rbind(ChildIPA\_table\_m, t(sapply(ChildIPA5\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),])))  
ChildIPA\_table\_m[c(3:8),] <- NA  
ChildIPA\_table\_f <- rbind(ChildIPA\_table\_f, t(sapply(ChildIPA5\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),])))  
  
ChildIPA\_table <- data.frame(cbind(ChildIPA\_table\_m, ChildIPA\_table\_f), row.names = c('IPA and children scale', ChildIPA5\_names))  
colnames(ChildIPA\_table) <- c('m.Coef', 'm.SE', 'm.t/z', 'm.p','f.Coef', 'f.SE', 'f.t/z', 'f.p')  
  
ChildIPA123\_Descript <- phase3 %>% select(ChildIPA1, ChildIPA2, ChildIPA3) %>% mutate\_all(funs(as.numeric)) %>% mutate\_all(funs(if\_else(. > 2, 1, 0)))

print(xtable(ChildIPA\_table, "IPA and children - scale followed by Q61 items (removed if less than 7 yes responses).", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:28 2018

tableNominal(vars = as.data.frame(ChildIPA123\_Descript), group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for Child IPA 1-3 items. Agree and strongly agree collapsed.")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:28 2018

tableNominal(vars = phase3 %>% select(starts\_with("ChildIPA5")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for child IPA 5 options.")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:28 2018

phase3 %<>% rename(HelpAtt1a = Q63, HelpAtt1b\_family = Q64\_1, HelpAtt1b\_partners\_family = Q64\_2, HelpAtt1b\_friends = Q64\_3, HelpAtt1b\_relig\_leaders = Q64\_4, HelpAtt1b\_police = Q64\_5, HelpAtt1b\_soc\_inst = Q64\_6, HelpAtt1b\_laywer = Q64\_7, HelpAtt1b\_doctor = Q64\_8, HelpAtt1b\_mental\_health = Q64\_9, HelpAtt2a = Q65, HelpAtt2b\_family = Q66\_1, HelpAtt2b\_partners\_family = Q66\_2, HelpAtt2b\_friends = Q66\_3, HelpAtt2b\_relig\_leaders = Q66\_4, HelpAtt2b\_police = Q66\_5, HelpAtt2b\_soc\_inst = Q66\_6, HelpAtt2b\_laywer = Q66\_7, HelpAtt2b\_doctor = Q66\_8, HelpAtt2b\_mental\_health = Q66\_9, HelpAtt3b = Q68a, HelpAtt3d = Q70a, HelpAttQ68\_dont\_get\_involved = Q68\_1, HelpAttQ68\_call\_organization = Q68\_6, HelpAttQ68\_rahima\_seek\_organization = Q68\_8, HelpAttQ68\_rahima\_seek\_family\_friends = Q68\_10, HelpAttQ68\_yusuf\_seek\_organization = Q68\_12, HelpAttQ68\_yusuf\_seek\_family\_friends = Q68\_13, HelpAttQ70\_ashamed = Q70\_1, HelpAttQ70\_stigma = Q70\_2, HelpAttQ70\_dont\_know\_where = Q70\_3, HelpAttQ70\_nobody\_able\_help = Q70\_4, HelpAttQ70\_thinks\_private = Q70\_5, HelpAttQ70\_partner\_could\_hurt = Q70\_6, HelpAttQ70\_worse\_for\_children = Q70\_7, HelpAttQ70\_financially\_dependent = Q70\_8, HelpAttQ70\_none = Q70\_9, HelpAttQ72\_ashamed = Q72\_1, HelpAttQ72\_stigma = Q72\_2, HelpAttQ72\_dont\_know\_where = Q72\_3, HelpAttQ72\_nobody\_able\_help = Q72\_4, HelpAttQ72\_thinks\_private = Q72\_5, HelpAttQ72\_worse\_for\_children = Q72\_6, HelpAttQ72\_violence\_ok = Q72\_7, HelpAttQ72\_none = Q72\_8)  
  
HelpAtt1a2a\_names <- c('HelpAtt1a', 'HelpAtt2a', 'HelpAtt3b', 'HelpAtt3d')  
phase3 %<>% mutate\_at(HelpAtt1a2a\_names, funs(factor(.)))  
  
HelpAtt1a2a\_names <- c('HelpAtt1a', 'HelpAtt2a', 'HelpAtt3d')  
HelpAtt\_models\_m <- lapply(HelpAtt1a2a\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", data = phase3))  
HelpAtt1a2a\_names <- c('HelpAtt1a', 'HelpAtt2a', 'HelpAtt3b')  
HelpAtt\_models\_f <- lapply(HelpAtt1a2a\_names, function(x) clm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", data = phase3))  
  
HelpAtt1b2b\_names <- phase3 %>% select(starts\_with("HelpAtt1b")) %>% names  
phase3 %<>% mutate\_at(HelpAtt1b2b\_names, funs(replace(., is.na(.), 0)))  
HelpAtt1b\_models\_f <- lapply(HelpAtt1b2b\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))  
  
HelpAtt1b2b\_names <- phase3 %>% select(starts\_with("HelpAtt2b")) %>% names  
phase3 %<>% mutate\_at(HelpAtt1b2b\_names, funs(replace(., is.na(.), 0)))  
HelpAtt2b\_models\_m <- lapply(HelpAtt1b2b\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))

## Warning: glm.fit: algorithm did not converge  
  
## Warning: glm.fit: algorithm did not converge

HelpAttQ68\_names <- phase3 %>% select(starts\_with("HelpAttQ68"), starts\_with("HelpAttQ70"), starts\_with("HelpAttQ72")) %>% names  
phase3 %<>% mutate\_at(HelpAttQ68\_names, funs(replace(., is.na(.), 0)))  
HelpAttQ68\_names <- phase3 %>% select(starts\_with("HelpAttQ68")) %>% names  
HelpAttQ68\_models\_m <- lapply(HelpAttQ68\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))   
HelpAttQ68\_models\_f <- lapply(HelpAttQ68\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))   
  
HelpAttQ70\_names <- phase3 %>% select(starts\_with("HelpAttQ70")) %>% names  
HelpAttQ70\_models\_f <- lapply(HelpAttQ70\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))   
  
HelpAttQ72\_names <- phase3 %>% select(starts\_with("HelpAttQ72")) %>% names  
HelpAttQ72\_models\_m <- lapply(HelpAttQ72\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))  
  
HelpAtt\_models\_m <- c(HelpAtt\_models\_m, HelpAtt2b\_models\_m, HelpAttQ68\_models\_m)  
HelpAtt\_models\_f <- c(HelpAtt\_models\_f, HelpAtt1b\_models\_f, HelpAttQ68\_models\_f)  
HelpAtt\_table\_m <- t(sapply(HelpAtt\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
HelpAtt\_table\_f <- t(sapply(HelpAtt\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
HelpAtt\_table\_m[c(8,10,11,16:18),] <- NA  
HelpAtt\_table\_f[c(10,17),] <- NA  
HelpAtt1b2b\_names <- str\_replace\_all(HelpAtt1b2b\_names, '2', '1/2')  
HelpAtt1a2a\_names <- c('HelpAtt1a', 'HelpAtt2a', 'HelpAtt3b/d')  
HelpAtt\_table <- data.frame(cbind(HelpAtt\_table\_m, HelpAtt\_table\_f), row.names = c(HelpAtt1a2a\_names, HelpAtt1b2b\_names, HelpAttQ68\_names))  
colnames(HelpAtt\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')  
  
HelpAttQ70\_table\_f <- data.frame(t(sapply(HelpAttQ70\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),])), row.names = HelpAttQ70\_names)  
HelpAttQ70\_table\_f[9,] <- NA  
colnames(HelpAttQ70\_table\_f) <- c('f.Coef', 'f.SE', 'f.Z', 'f.p')  
HelpAttQ72\_table\_m <- data.frame(t(sapply(HelpAttQ72\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),])), row.names = HelpAttQ72\_names)  
HelpAttQ72\_table\_m[c(3,6),] <- NA  
colnames(HelpAttQ72\_table\_m) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p')  
  
HelpAtt\_Descript <- phase3 %>% select(HelpAtt1a, HelpAtt2a, HelpAtt3d, HelpAtt3b) %>% mutate\_all(funs(as.numeric))  
HelpAtt\_Descript %<>% mutate(HelpAtt1a = if\_else(HelpAtt1a > 3, 1, 0), HelpAtt2a = if\_else(HelpAtt2a > 3, 1, 0), HelpAtt3d = if\_else(HelpAtt3d == 3, 1, 0), HelpAtt3b = if\_else(HelpAtt3b == 3, 1, 0))

print(xtable(HelpAtt\_table, "Help-seeking attitudes - Q63, Q65; Q64 (females), Q65 (males); Q68 selected items - if less than 7 yes responses in sample, item not analyzed", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:28 2018

print(xtable(HelpAttQ70\_table\_f, "Help-seeking attitudes - Q70, females - if less than 7 yes responses in sample, item not analyzed", auto = TRUE, digits = c(2,2,2,2,4)), type = "latex")

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print(xtable(HelpAttQ72\_table\_m, "Help-seeking attitudes - Q72, males - if less than 7 yes responses in sample, item not analyzed", auto = TRUE, digits = c(2,2,2,2,4)), type = "latex")

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tableNominal(vars = as.data.frame(HelpAtt\_Descript), group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes 1a, 2a, 3d, 3b. Maybe or less collapsed into no.")

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tableNominal(vars = phase3 %>% select(starts\_with("HelpAtt2b")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes 2b.")

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tableNominal(vars = phase3 %>% select(starts\_with("HelpAtt1b")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes 1b.")

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tableNominal(vars = phase3 %>% select(starts\_with("HelpAttQ68")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes Q68.")

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tableNominal(vars = phase3 %>% select(starts\_with("HelpAttQ70")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes Q70")

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tableNominal(vars = phase3 %>% select(starts\_with("HelpAttQ72")) %>% as.data.frame, group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for help-seeking attitudes Q72.")

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phase3 %<>% rename(EffIndiv1 = Q78, EffIndiv2 = Q79, EffIndiv3 = Q80, EffIndiv4 = Q81, EffIndiv5 = Q82, EffComm1 = Q85, EffComm2 = Q86)  
phase3$EffIndiv\_scale <- phase3 %>% select(starts\_with("EffIndiv")) %>% rowMeans  
phase3$EffComm\_scale <- phase3 %>% select(starts\_with("EffComm")) %>% rowMeans  
  
EffComm\_scale\_m <- lm(EffComm\_scale ~ cond, subset = ID\_gender == "Men", data = phase3)  
EffComm\_scale\_f <- lm(EffComm\_scale ~ cond, subset = ID\_gender == "Women", data = phase3)  
EffIndiv\_scale\_m <- lm(EffIndiv\_scale ~ cond, subset = ID\_gender == "Men", data = phase3)  
EffIndiv\_scale\_f <- lm(EffIndiv\_scale ~ cond, subset = ID\_gender == "Women", data = phase3)  
  
Eff\_scale\_table\_m <- coef(summary(EffComm\_scale\_m))[nrow(coef(summary(EffComm\_scale\_m))),]  
Eff\_scale\_table\_m <- bind\_rows(Eff\_scale\_table\_m, coef(summary(EffIndiv\_scale\_m))[nrow(coef(summary(EffIndiv\_scale\_m))),])  
Eff\_scale\_table\_f <- coef(summary(EffComm\_scale\_f))[nrow(coef(summary(EffComm\_scale\_f))),]  
Eff\_scale\_table\_f <- bind\_rows(Eff\_scale\_table\_f, coef(summary(EffIndiv\_scale\_f))[nrow(coef(summary(EffIndiv\_scale\_f))),])  
Eff\_scale\_table <- data.frame(bind\_cols(Eff\_scale\_table\_m, Eff\_scale\_table\_f), row.names = c('Community scale', 'Individual scale'))  
colnames(Eff\_scale\_table) <- c('m.Coef', 'm.SE', 'm.t', 'm.p','f.Coef', 'f.SE', 'f.t', 'f.p')  
  
Eff\_Descript <- phase3 %>% select(matches("EffIndiv\\d"), matches("EffComm\\d")) %>% mutate\_all(funs(if\_else(. > 2, 1, 0)))

print(xtable(Eff\_scale\_table, "Efficacy - scales", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:28 2018

tableNominal(vars = as.data.frame(Eff\_Descript), group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for efficacy items. Moderately and very true collapsed, a little bit true and not true at all collapsed.")

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phase3 %<>% rename(WASS1 = Q88, WASS2 = Q89, WASS3 = Q90, WASS4 = Q91, WASS5 = Q92, WASS6 = Q93)  
phase3$WASS\_scale <- phase3 %>% select(starts\_with("WASS")) %>% select(-WASS6) %>% rowMeans  
phase3$WASS6 <- factor(phase3$WASS6)  
  
WASS\_scale\_m <- lm(WASS\_scale ~ cond, subset = ID\_gender == "Men", data = phase3)  
WASS\_scale\_f <- lm(WASS\_scale ~ cond, subset = ID\_gender == "Women", data = phase3)  
  
WASS6\_m <- clm(WASS6 ~ cond, subset = ID\_gender == "Men", data = phase3)  
WASS6\_f <- clm(WASS6 ~ cond, subset = ID\_gender == "Women", data = phase3)  
  
WASS\_scale\_table\_m <- coef(summary(WASS\_scale\_m))[nrow(coef(summary(WASS\_scale\_m))),]  
WASS\_scale\_table\_f <- coef(summary(WASS\_scale\_f))[nrow(coef(summary(WASS\_scale\_f))),]  
WASS\_scale\_table <- data.frame(t(c(WASS\_scale\_table\_m, WASS\_scale\_table\_f)), row.names = 'WASS 1-5 scale')  
colnames(WASS\_scale\_table) <- c('m.Coef', 'm.SE', 'm.t', 'm.p','f.Coef', 'f.SE', 'f.t', 'f.p')  
  
WASS6\_table\_m <- coef(summary(WASS6\_m))[nrow(coef(summary(WASS6\_m))),]  
WASS6\_table\_f <- coef(summary(WASS6\_f))[nrow(coef(summary(WASS6\_f))),]  
WASS6\_table <- data.frame(t(c(WASS6\_table\_m, WASS6\_table\_f)), row.names = 'WASS6 item')  
colnames(WASS6\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')

print(xtable(WASS\_scale\_table, "WASS 1-5 - scale", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:29 2018

print(xtable((WASS6\_table), "WASS6 - single item 6", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:29 2018

phase3 %<>% rename(IPACTS1 = Q95, IPACTS2 = Q96, IPACTS3 = Q97, IPACTS4 = Q98, IPACTS5 = Q99, IPACTS6 = Q100, IPACTS7 = Q101, IPACTS8 = Q102, IPACTS9 = Q103, IPACTS10 = Q104)  
IPACTS\_items <- phase3 %>% select(starts\_with("IPACTS")) %>% mutate\_all(funs(if\_else(. < 7, 1, 0)))  
phase3$IPACTS\_scale <- IPACTS\_items %>% rowSums  
phase3$IPACTS\_scale\_size <- 10  
  
IPACTS\_scale\_m <- glm(cbind(IPACTS\_scale, IPACTS\_scale\_size-IPACTS\_scale) ~ cond, family = binomial(link = "logit"), subset = ID\_gender == "Men", data = phase3)  
IPACTS\_scale\_f <- glm(cbind(IPACTS\_scale, IPACTS\_scale\_size-IPACTS\_scale) ~ cond, family = binomial(link = "logit"), subset = ID\_gender == "Women", data = phase3)  
  
IPACTS\_table\_m <- coef(summary(IPACTS\_scale\_m))[nrow(coef(summary(IPACTS\_scale\_m))),]  
IPACTS\_table\_f <- coef(summary(IPACTS\_scale\_f))[nrow(coef(summary(IPACTS\_scale\_f))),]  
IPACTS\_table <- data.frame(t(c(IPACTS\_table\_m, IPACTS\_table\_f)), row.names = 'IPA CTS2-S')  
colnames(IPACTS\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')

print(xtable((IPACTS\_table), "IPA exposure CTS2-S scale, 1 if exposure in past year.", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

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tableNominal(vars = as.data.frame(IPACTS\_items), group = ID\_gender[,1], cumsum = FALSE, longtable = TRUE, cap = "Descriptive statistics for IPA exposure CTS2-S items, exposure in past year collapsed.")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:29 2018

phase3 %<>% rename(Referrals1 = Q109, Referrals2 = Q110)  
referrals\_names <- phase3 %>% select(starts\_with("Referrals")) %>% names  
phase3 %<>% mutate\_at(referrals\_names, funs(replace(., equals(., 2), 0)))  
  
referrals\_models\_m <- lapply(referrals\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Men", family = binomial(link = "logit"), data = phase3))  
referrals\_models\_f <- lapply(referrals\_names, function(x) glm(as.formula(paste0(x, ' ~ cond')), subset = ID\_gender == "Women", family = binomial(link = "logit"), data = phase3))  
  
referrals\_table\_m <- t(sapply(referrals\_models\_m, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
referrals\_table\_f <- t(sapply(referrals\_models\_f, function(x) coef(summary(x))[nrow(coef(summary(x))),]))  
  
referrals\_table <- data.frame(cbind(referrals\_table\_m, referrals\_table\_f), row.names = referrals\_names)  
colnames(referrals\_table) <- c('m.Coef', 'm.SE', 'm.Z', 'm.p','f.Coef', 'f.SE', 'f.Z', 'f.p')

print(xtable((referrals\_table), "Referrals items - Q109 Q110.", auto = TRUE, digits = c(2,2,2,2,4,2,2,2,4)), type = "latex")

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Sat Jun 30 02:46:29 2018