

# BPRM Lebanon 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/Lebanon")

campaign <- read_excel("campaign.xlsx")
phase3 <- read_excel("phase3.xlsx")
conditions <- read_excel("conditions_key.xlsx")
campaign %<>% rename(ID = Q2)
phase3 %<>% rename(ID = Q2, usable = `Usable subjects`)
campaign$ID <- trimws(toupper(campaign$ID))
phase3$ID <- trimws(toupper(phase3$ID))
conditions$ID <- trimws(toupper(conditions$ID))
conditions$cond <- factor(conditions$cond, levels = levels(factor(conditions$cond))[c(3,1,2)], labels = c('Control', 'Men', 'Women'))

campaign$ID[campaign$ID == "86"] <- "W86"
campaign$ID[campaign$ID == "M123"] <- "W123"
campaign$ID[campaign$ID == "M158"] <- "W158"
campaign$ID[campaign$StartDate == as.POSIXct("2018-04-23 04:22:22", tz = "UTC")] <- "M201"
campaign <- campaign[campaign$StartDate != as.POSIXct("2018-04-24 06:44:51", tz = "UTC") & campaign$StartDate < as.POSIXct("2018-05-11 06:35:37", tz = "UTC"), ]
#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"))

phase3$ID[phase3$ID == "M260"] <- "M260"
phase3$ID[phase3$StartDate == as.POSIXct("2018-04-27 03:21:04", tz = "UTC")] <- "W74"
phase3$ID[phase3$StartDate == as.POSIXct("2018-04-27 07:54:00", tz = "UTC")] <- "W68"
phase3 <- phase3[phase3$StartDate != as.POSIXct("2018-05-11 06:35:37", tz = "UTC") & phase3$StartDate < as.POSIXct("2018-05-11 06:35:37", tz = "UTC"), ]
phase3$ID_gender <- factor(substr(phase3$ID, 1, 1), labels = c("Men", "Women"))
phase3$usable <- factor(phase3$usable, levels = levels(factor(phase3$usable))[c(3,1,2)], labels = c('Control', 'Men', 'Women'))
phase3 <- left_join(phase3, conditions %>% select(ID, cond), by = c("ID" = "ID"))

#excluding campaign 2 for now
phase3 <- phase3[phase3$usable != "Campaign2" & !is.na(phase3$usable), ]
#ij_c <- inner_join(campaign, phase3, by = "ID")
#ij_p <- inner_join(phase3, campaign, by = "ID")
#aj_c <- anti_join(campaign, phase3, by = "ID")
#aj_p <- anti_join(phase3, campaign, by = "ID")
#controls <- phase3 %>% filter(cond == 3)

ID_gender <- phase3 %>% select(ID_gender) %>% as.data.frame

phase3 %<>% rename(EffIndiv1 = Q78, EffIndiv2 = Q80, EffIndiv3 = Q82, EffComm1 = Q85)

phase3 %<>% mutate_at(vars(starts_with("EffIndiv"), EffComm1), funs(replace(., equals(., 5), NA)))
phase3$EffComm1 <- factor(phase3$EffComm1)
phase3$EffIndiv_scale <- phase3 %>% select(starts_with("EffIndiv")) %>% rowMeans

EffComm <- clm(EffComm1 ~ usable, data = phase3)
# EffComm_m <- clm(EffComm1 ~ usable, subset = ID_gender == "Men", data = phase3)
```

```

# EffComm_f <- clm(EffComm1 ~ usable, subset = ID_gender == "Women", data = phase3)
EffIndiv_scale <- lm(EffIndiv_scale ~ usable, data = phase3)
# EffIndiv_scale_m <- lm(EffIndiv_scale ~ usable, subset = ID_gender == "Men", data = phase3)
# EffIndiv_scale_f <- lm(EffIndiv_scale ~ usable, subset = ID_gender == "Women", data = phase3)

Eff_scale_table <- t(coef(summary(EffComm))[nrow(coef(summary(EffComm))),])
Eff_scale_table <- rbind(Eff_scale_table, t(coef(summary(EffIndiv_scale))[nrow(coef(summary(EffIndiv_scale))),])
Eff_scale_table <- data.frame(cbind(Eff_scale_table), row.names = c('Community scale', 'Individual item'))
colnames(Eff_scale_table) <- c('Coef', 'SE', 't/z', 'p')
# Eff_scale_table_m <- t(coef(summary(EffComm_m))[nrow(coef(summary(EffComm_m))),])
# Eff_scale_table_m <- rbind(Eff_scale_table_m, t(coef(summary(EffIndiv_scale_m))[nrow(coef(summary(EffIndiv_scale_m))),])
# Eff_scale_table_f <- t(coef(summary(EffComm_f))[nrow(coef(summary(EffComm_f))),])
# Eff_scale_table_f <- rbind(Eff_scale_table_f, t(coef(summary(EffIndiv_scale_f))[nrow(coef(summary(EffIndiv_scale_f))),])
# Eff_scale_table <- data.frame(cbind(Eff_scale_table_m, Eff_scale_table_f), row.names = c('Community scale',

#colnames(Eff_scale_table) <- c('m.Coef', 'm.SE', 'm.t/z', 'm.p', 'f.Coef', 'f.SE', 'f.t/z', 'f.p')

Eff_Descript <- phase3 %>% select(matches("EffIndiv\\d"), matches("EffComm\\d")) %>% mutate_all(funs(if_else(a

print(xtable(Eff_scale_table, "Efficacy - individual scale and single community item", auto = TRUE, digits = c

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:52 2018

	Coef	SE	t/z	p
Community scale	-0.01	0.31	-0.03	0.9747
Individual item	0.37	0.13	2.76	0.0065

Table 1: Efficacy - individual scale and single community item

```
tableNominal(vars = as.data.frame(Eff_Descript), group = ID_gender[,1], cumsum = FALSE, longtable = TRUE, cap

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:52 2018

Variable	Levels	nMen	%Men	nWomen	%Women	nall	%all
EffIndiv1	0	6	9.2	21	26.2	27	18.6
	1	59	90.8	59	73.8	118	81.4
	all	65	100.0	80	100.0	145	100.0
EffIndiv2	0	14	21.5	30	38.0	44	30.6
	1	51	78.5	49	62.0	100	69.4
	all	65	100.0	79	100.0	144	100.0
EffIndiv3	0	22	33.9	53	66.2	75	51.7
	1	43	66.2	27	33.8	70	48.3
	all	65	100.0	80	100.0	145	100.0
EffComm1	0	35	53.9	51	63.8	86	59.3
	1	30	46.1	29	36.2	59	40.7
	all	65	100.0	80	100.0	145	100.0

Table 2: Descriptive statistics for efficacy items. Moderately and very true collapsed, a little bit true and not true at all collapsed.

```

phase3 %>% rename(GenRel1 = Q25, GenRel2 = Q26, GenRel3 = Q27, GenRel4 = Q28, GenRel5 = Q35, GenRel6 = Q36, G

phase3 %>% mutate_at(vars(starts_with("GenRel")), funs(replace(., equals(., 5), NA)))
rev_code <- c('GenRel1', 'GenRel2', 'GenRel5', 'GenRel6', 'GenRel7', 'GenRel8', 'GenRel11', 'GenRel12')
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')
GenRel_indiv_names <- c('GenRel2', 'GenRel4', 'GenRel6', 'GenRel8', 'GenRel10', 'GenRel12')

# there is a lot of missing data in GenRel_comm items but never more than 2 items per subject so we won't excl
phase3$GenRel_comm <- phase3 %>% select(GenRel_comm_names) %>% rowMeans(na.rm = TRUE)
phase3$GenRel_indiv <- phase3 %>% select(GenRel_indiv_names) %>% rowMeans(na.rm = TRUE)
GenRel_comm_scale <- lm(GenRel_comm ~ usable, data = phase3)

```

```

GenRel_indiv_scale <- lm(GenRel_indiv ~ usable, data = phase3)
# GenRel_comm_scale_m <- lm(GenRel_comm ~ usable, subset = ID_gender == "Men", data = phase3)
# GenRel_comm_scale_f <- lm(GenRel_comm ~ usable, subset = ID_gender == "Women", data = phase3)
# GenRel_indiv_scale_m <- lm(GenRel_indiv ~ usable, subset = ID_gender == "Men", data = phase3)
# GenRel_indiv_scale_f <- lm(GenRel_indiv ~ usable, subset = ID_gender == "Women", data = phase3)

phase3 %<>% mutate_at(c(GenRel_comm_names, GenRel_indiv_names), funs(factor(.)))

GenRel_comm_models <- lapply(GenRel_comm_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), data = phase3))
GenRel_indiv_models <- lapply(GenRel_indiv_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), data = phase3))
# GenRel_comm_models_m <- lapply(GenRel_comm_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = ID_gender == "Men", data = phase3))
# GenRel_comm_models_f <- lapply(GenRel_comm_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = ID_gender == "Women", data = phase3))
# GenRel_indiv_models_m <- lapply(GenRel_indiv_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = ID_gender == "Men", data = phase3))
# GenRel_indiv_models_f <- lapply(GenRel_indiv_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = ID_gender == "Women", data = phase3))

GenRel_comm_table <- t(sapply(GenRel_comm_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]))
GenRel_comm_table <- data.frame(GenRel_comm_table, row.names = GenRel_comm_names)
colnames(GenRel_comm_table) <- c('Coef', 'SE', 'Z', 'p')
# 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 <- t(sapply(GenRel_indiv_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]))
GenRel_indiv_table <- data.frame(GenRel_indiv_table, row.names = GenRel_indiv_names)
colnames(GenRel_indiv_table) <- c('Coef', 'SE', 'Z', '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 <- coef(summary(GenRel_comm_scale))[nrow(coef(summary(GenRel_comm_scale))),]
GenRel_scale_table <- bind_rows(GenRel_scale_table, coef(summary(GenRel_indiv_scale))[nrow(coef(summary(GenRel_indiv_scale))),])
GenRel_scale_table <- data.frame(GenRel_scale_table, row.names = c('Community scale', 'Individual scale'))
colnames(GenRel_scale_table) <- c('Coef', 'SE', 't', '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))),])
# 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))),])
# GenRel_scale_table <- data.frame(bind_cols(GenRel_scale_table_m, GenRel_scale_table_f), row.names = c('Community scale', 'Individual scale'))
# 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(. > 2, 1, 0)))

print(xtable(GenRel_comm_table, "Attitudes towards gender relations - community items", auto = TRUE, digits = 4))

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:53 2018

	Coef	SE	Z	p
GenRel1	-0.08	0.31	-0.27	0.7889
GenRel3	-0.52	0.31	-1.66	0.0964
GenRel5	0.10	0.30	0.31	0.7540
GenRel7	-0.44	0.33	-1.31	0.1896
GenRel9	-0.79	0.32	-2.43	0.0149
GenRel11	-0.00	0.31	-0.01	0.9947

Table 3: Attitudes towards gender relations - community items



Table 6: Descriptive statistics for attitudes towards gender relations items.  
Agree and strongly agree collapsed.

```

phase3 %<>% rename(AcceptIPA1 = Q46, AcceptIPA2 = Q47, AcceptIPA3 = Q48, AcceptIPA4 = Q49, AcceptIPA5 = Q50, A
AcceptIPA_names <- phase3 %>% select(starts_with("AcceptIPA")) %>% names
phase3 %<>% mutate_at(AcceptIPA_names, funs(replace(., equals(., 2), 0)))
phase3 %<>% mutate_at(AcceptIPA_names, funs(replace(., equals(., 3), NA)))
phase3$AcceptIPA_scale <- phase3 %>% select(starts_with("AcceptIPA")) %>% rowSums

AcceptIPA_scale <- lm(AcceptIPA_scale ~ usable, data = phase3)
AcceptIPA_scale_binomial <- glm(cbind(AcceptIPA_scale, 9 - AcceptIPA_scale) ~ usable, data=phase3, family=binom
# AcceptIPA_scale_m <- lm(AcceptIPA_scale ~ usable, subset = ID_gender == "Men", data = phase3)
# AcceptIPA_scale_f <- lm(AcceptIPA_scale ~ usable, subset = ID_gender == "Women", data = phase3)
# AcceptIPA_scale_m_binomial <- glm(cbind(AcceptIPA_scale, 9 - AcceptIPA_scale) ~ usable, data=phase3, subset=
# AcceptIPA_scale_f_binomial <- glm(cbind(AcceptIPA_scale, 9 - AcceptIPA_scale) ~ usable, data=phase3, subset=

AcceptIPA_items <- lapply(AcceptIPA_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = binomi
# AcceptIPA_items_m <- lapply(AcceptIPA_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), subset = ID
# AcceptIPA_items_f <- lapply(AcceptIPA_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), subset = ID

AcceptIPA_table <- t(sapply(AcceptIPA_items, function(x) coef(summary(x))[nrow(coef(summary(x))),]))
AcceptIPA_table <- rbind(AcceptIPA_table, t(coef(summary(AcceptIPA_scale))[nrow(coef(summary(AcceptIPA_scale))
t(coef(summary(AcceptIPA_scale_binomial))[nrow(coef(summary(AcceptIPA_scale_binomial))]))))
AcceptIPA_table <- data.frame(AcceptIPA_table, row.names = c(AcceptIPA_names, 'Accept IPA', 'Accept IPA binomi
colnames(AcceptIPA_table) <- c('Coef', 'SE', 't/z', 'p')
# 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 <- rbind(AcceptIPA_table_m, t(coef(summary(AcceptIPA_scale_m))[nrow(coef(summary(AcceptIPA
#
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
#
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, 'A
# 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.", auto = TRUE, digits =

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:53 2018

	Coef	SE	t/z	p
AcceptIPA1	-0.02	0.52	-0.04	0.9653
AcceptIPA2	0.48	0.41	1.16	0.2446
AcceptIPA3	-0.32	0.37	-0.88	0.3786
AcceptIPA4	-0.26	0.37	-0.71	0.4770
AcceptIPA5	-0.41	0.37	-1.14	0.2561
AcceptIPA6	-1.32	0.71	-1.86	0.0636
AcceptIPA7	0.34	0.73	0.46	0.6441
AcceptIPA8	0.02	0.35	0.06	0.9554
AcceptIPA9	0.11	0.35	0.32	0.7513
Accept IPA	-0.22	0.39	-0.56	0.5770
Accept IPA binomial model	-0.14	0.14	-1.00	0.3172

Table 7: Acceptability of IPA - individual items and then scale.

```

tableNominal(vars = phase3 %>% select(matches("AcceptIPA\\d")) %>% as.data.frame, group = ID_gender[,1], cumsu

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:53 2018

Variable	Levels	nMen	%Men	nWomen	%Women	nall	%all
AcceptIPA1	0	53	81.5	75	93.8	128	88.3
	1	12	18.5	5	6.2	17	11.7
	all	65	100.0	80	100.0	145	100.0

AcceptIPA2	0	47	72.3	63	79.8	110	76.4
	1	18	27.7	16	20.2	34	23.6
	all	65	100.0	79	100.0	144	100.0
AcceptIPA3	0	47	72.3	54	68.3	101	70.1
	1	18	27.7	25	31.6	43	29.9
	all	65	100.0	79	100.0	144	100.0
AcceptIPA4	0	46	70.8	57	71.2	103	71.0
	1	19	29.2	23	28.8	42	29.0
	all	65	100.0	80	100.0	145	100.0
AcceptIPA5	0	44	67.7	57	71.2	101	69.7
	1	21	32.3	23	28.8	44	30.3
	all	65	100.0	80	100.0	145	100.0
AcceptIPA6	0	58	90.6	75	94.9	133	93.0
	1	6	9.4	4	5.1	10	7.0
	all	64	100.0	79	100.0	143	100.0
AcceptIPA7	0	59	90.8	77	96.2	136	93.8
	1	6	9.2	3	3.8	9	6.2
	all	65	100.0	80	100.0	145	100.0
AcceptIPA8	0	44	67.7	49	61.2	93	64.1
	1	21	32.3	31	38.8	52	35.9
	all	65	100.0	80	100.0	145	100.0
AcceptIPA9	0	45	70.3	44	55.7	89	62.2
	1	19	29.7	35	44.3	54	37.8
	all	64	100.0	79	100.0	143	100.0

Table 8: Descriptive statistics for acceptability of IPA items.

```

split_into_vars <- function(df, var_name, max) {
  for(i in 1:max) {
    df[[paste0(var_name, '_', i)]] <- NA
  }
  splitted <- strsplit(df[[var_name]], ',', fixed = TRUE)
  for(i in 1:length(splitted)) {
    for(j in splitted[[i]]) {
      if(!is.na(j)) {
        df[[paste0(var_name, '_', j)]] [i] <- 1
      }
    }
  }
  return(df)
}

phase3 <- split_into_vars(phase3, 'Q61', 10)
phase3 %<>% mutate_at(vars(starts_with("Q61")), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q61"), -Q61_9), funs(ifelse(Q61_9==1, NA, .)))
phase3 %<>% select(-Q61_9)

phase3 %<>% rename(ChildIPA1b_seek_help_family_friends = Q61_1, ChildIPA1b_seek_help_org = Q61_2, ChildIPA1b_s

ChildIPA1b_names <- phase3 %>% select(starts_with("ChildIPA1b_")) %>% names

ChildIPA1b_models <- lapply(ChildIPA1b_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = bin

phase3$ChildIPA1b_seek_scale <- phase3 %>% select(starts_with("ChildIPA1b_seek_")) %>% rowSums
phase3$ChildIPA1b_seek_scale_size <- 3
ChildIPA1b_seek_scale <- glm(cbind(ChildIPA1b_seek_scale, ChildIPA1b_seek_scale_size - ChildIPA1b_seek_scale)

ChildIPA23_names <- c('ChildIPA2', 'ChildIPA3')
phase3 %<>% mutate_at(ChildIPA23_names, funs(replace(., equals(., 5), NA)))
phase3 %<>% mutate_at(ChildIPA23_names, funs(factor(.)))

ChildIPA23_models <- lapply(ChildIPA23_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), data = phase

```



```

ChildIPA_table <- t(sapply(ChildIPA1b_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]))
ChildIPA_table <- rbind(ChildIPA_table, t(coef(summary(ChildIPA1b_seek_scale))[nrow(coef(summary(ChildIPA1b_se
t(sapply(ChildIPA23_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]))))

ChildIPA_table <- data.frame(ChildIPA_table, row.names = c(ChildIPA1b_names, 'ChildIPA1b_seek_scale', ChildIPA
colnames(ChildIPA_table) <- c('Coef', 'SE', 'z', 'p')

# ChildIPA_table <- data.frame(cbind(ChildIPA_table_m, ChildIPA_table_f), row.names = c(ChildIPA1b_names, 'Chi
# colnames(ChildIPA_table) <- c('m.Coef', 'm.SE', 'm.t/z', 'm.p', 'f.Coef', 'f.SE', 'f.t/z', 'f.p')

print(xtable(ChildIPA_table, "IPA and children - Q61 items, 3 item help-seeking subscale, followed by Q58 and

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:53 2018

	Coef	SE	z	p
ChildIPA1b_seek_help_family_friends	0.14	0.38	0.37	0.7135
ChildIPA1b_seek_help_org	0.19	0.65	0.29	0.7752
ChildIPA1b_seek_help_authorities	17.85	3871.93	0.00	0.9963
ChildIPA1b_leave_relationship	0.33	0.64	0.52	0.6020
ChildIPA1b_tolerate_avoid_divorce	0.64	0.56	1.16	0.2475
ChildIPA1b_tolerate_hope_not_hurt_children	-0.10	0.44	-0.22	0.8286
ChildIPA1b_dont_tell	0.11	0.49	0.24	0.8136
ChildIPA1b_none_of_above	-1.53	1.17	-1.31	0.1906
ChildIPA1b_tell_children_leave	0.34	0.36	0.93	0.3508
ChildIPA1b_seek_scale	0.20	0.30	0.66	0.5109
ChildIPA2	0.42	0.66	0.64	0.5215
ChildIPA3	0.47	0.34	1.39	0.1655

Table 9: IPA and children - Q61 items, 3 item help-seeking subscale, followed by Q58 and Q270.

```

tableNominal(vars = phase3 %>% select(starts_with("ChildIPA1b")) %>% as.data.frame, group = ID_gender[,1], cum

```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:53 2018

Variable	Levels	nMen	%Men	nWomen	%Women	nall	%all
ChildIPA1b_seek_help_family_friends	0	44	69.8	55	70.5	99	70.2
	1	19	30.2	23	29.5	42	29.8
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_seek_help_org	0	63	100.0	67	85.9	130	92.2
	1	0	0.0	11	14.1	11	7.8
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_seek_help_authorities	0	63	100.0	76	97.4	139	98.6
	1	0	0.0	2	2.6	2	1.4
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_leave_relationship	0	63	100.0	66	84.6	129	91.5
	1	0	0.0	12	15.4	12	8.5
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_tolerate_avoid_divorce	0	63	100.0	60	76.9	123	87.2
	1	0	0.0	18	23.1	18	12.8
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_tolerate_hope_not_hurt_children	0	62	98.4	53	68.0	115	81.6
	1	1	1.6	25	32.0	26	18.4
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_dont_tell	0	61	96.8	59	75.6	120	85.1
	1	2	3.2	19	24.4	21	14.9
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_none_of_above	0	61	96.8	76	97.4	137	97.2
	1	2	3.2	2	2.6	4	2.8
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_tell_children_leave	0	19	30.2	71	91.0	90	63.8
	1	44	69.8	7	9.0	51	36.2
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_seek_scale	0	44	69.8	50	64.1	94	66.7

	1	19	30.2	20	25.6	39	27.7
	2	0	0.0	8	10.3	8	5.7
	all	63	100.0	78	100.0	141	100.0
ChildIPA1b_seek_scale_size	3	65	100.0	80	100.0	145	100.0
	all	65	100.0	80	100.0	145	100.0

Table 10: Descriptive statistics for child IPA 1b/Q61 options.

```

phase3 %<>% rename(HelpAtt1a = Q63, HelpAtt2a = Q65)
HelpAtt1a2a_names <- c('HelpAtt1a', 'HelpAtt2a')
phase3 %<>% mutate_at(HelpAtt1a2a_names, funs(replace(., equals(., 6), NA)))
phase3 %<>% mutate_at(HelpAtt1a2a_names, funs(factor(.)))

HelpAtt1a2a_models <- lapply(HelpAtt1a2a_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), data = pha
# HelpAtt_models_m <- lapply(HelpAtt1a2a_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = I
# HelpAtt_models_f <- lapply(HelpAtt1a2a_names, function(x) clm(as.formula(paste0(x, ' ~ usable')), subset = I

phase3 <- split_into_vars(phase3, 'Q64', 10)
phase3 %<>% mutate_at(vars(starts_with("Q64_"), -ends_with("_TEXT")), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q64_"), -ends_with("_TEXT")), funs(ifelse(is.na(Q64), NA, .)))
phase3 <- split_into_vars(phase3, 'Q66', 10)
phase3 %<>% mutate_at(vars(starts_with("Q66_"), -ends_with("_TEXT")), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q66_"), -ends_with("_TEXT")), funs(ifelse(is.na(Q66), NA, .)))

phase3 %<>% rename(HelpAtt1b_family = Q64_1, HelpAtt1b_partners_family = Q64_2, HelpAtt1b_friends = Q64_3, Hel

HelpAtt1b2b_names <- phase3 %>% select(starts_with("HelpAtt1b_"), starts_with("HelpAtt2b_")) %>% names
HelpAtt1b2b_models <- lapply(HelpAtt1b2b_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = b

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

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

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

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

phase3 <- split_into_vars(phase3, 'Q70', 10)
phase3 %<>% mutate_at(vars(starts_with("Q70_"), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q70_"), funs(ifelse(is.na(Q70), NA, .)))
phase3 %<>% mutate_at(vars(starts_with("Q70_"), -Q70_10), funs(ifelse(Q70_10==1, NA, .)))
phase3 %<>% select(-Q70_10)
phase3 %<>% rename(HelpAtt1d_ashamed = Q70_1, HelpAtt1d_stigma = Q70_2, HelpAtt1d_dont_know_where = Q70_3, Hel

HelpAtt1d_names <- phase3 %>% select(starts_with("HelpAtt1d_")) %>% names
HelpAtt1d_models <- lapply(HelpAtt1d_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = binom

phase3 <- split_into_vars(phase3, 'Q72', 9)
phase3 %<>% mutate_at(vars(starts_with("Q72_"), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q72_"), funs(ifelse(is.na(Q72), NA, .)))
phase3 %<>% mutate_at(vars(starts_with("Q72_"), -Q72_9), funs(ifelse(Q72_9==1, NA, .)))
phase3 %<>% select(-Q72_9)
phase3 %<>% rename(HelpAtt2d_ashamed = Q72_1, HelpAtt2d_stigma = Q72_2, HelpAtt2d_dont_know_where = Q72_3, Hel

HelpAtt2d_names <- phase3 %>% select(starts_with("HelpAtt2d_")) %>% names
HelpAtt2d_models <- lapply(HelpAtt2d_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = binom

phase3 <- split_into_vars(phase3, 'Q68', 17)
phase3 %<>% mutate_at(vars(starts_with("Q68_"), funs(replace(., is.na(.), 0)))
phase3 %<>% mutate_at(vars(starts_with("Q68_"), funs(ifelse(is.na(Q68), NA, .)))
phase3 %<>% mutate_at(vars(starts_with("Q68_"), -Q68_17), funs(ifelse(Q68_17==1, NA, .)))

```



```

phase3 %<>% select(-Q68_17)

phase3 %<>% rename(HelpAtt3b_dont_get_involved = Q68_1, HelpAtt3b_separate_couple = Q68_2, HelpAtt3b_talk_to_w

HelpAtt3d_names <- phase3 %>% select(starts_with("HelpAtt3b_")) %>% names
HelpAtt3d_models <- lapply(HelpAtt3d_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = binom

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

HelpAtt1a2a_table <- data.frame(t(sapply(HelpAtt1a2a_models, function(x) coef(summary(x))[nrow(coef(summary(x))
colnames(HelpAtt1a2a_table) <- c('Coef', 'SE', 'Z', 'p')
HelpAtt1b2b_table <- data.frame(t(sapply(HelpAtt1b2b_models, function(x) coef(summary(x))[nrow(coef(summary(x))
colnames(HelpAtt1b2b_table) <- c('Coef', 'SE', 'Z', 'p')
HelpAtt1d_table <- data.frame(t(sapply(HelpAtt1d_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]
colnames(HelpAtt1d_table) <- c('Coef', 'SE', 'Z', 'p')
HelpAtt2d_table <- data.frame(t(sapply(HelpAtt2d_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]
colnames(HelpAtt2d_table) <- c('Coef', 'SE', 'Z', 'p')
HelpAtt3d_table <- data.frame(t(sapply(HelpAtt3d_models, function(x) coef(summary(x))[nrow(coef(summary(x))),]
colnames(HelpAtt3d_table) <- c('Coef', 'SE', 'Z', 'p')

```

```
print(xtable(HelpAtt1a2a_table, "Help-seeking attitudes - Q63, Q65", auto = TRUE, digits = c(2,2,2,2,4)), type
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
HelpAtt1a	0.02	0.32	0.05	0.9563
HelpAtt2a	0.14	0.31	0.44	0.6567

Table 11: Help-seeking attitudes - Q63, Q65

```
print(xtable(HelpAtt1b2b_table, "Help-seeking attitudes - Q64, Q66", auto = TRUE, digits = c(2,2,2,2,4)), type
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
HelpAtt1b_family	-0.26	0.39	-0.67	0.5028
HelpAtt1b_partners_family	0.35	0.39	0.91	0.3654
HelpAtt1b_friends	-0.17	0.49	-0.35	0.7256
HelpAtt1b_relig_leaders	0.28	0.89	0.32	0.7525
HelpAtt1b_police	17.35	4357.71	0.00	0.9968
HelpAtt1b_soc_inst	0.86	0.69	1.25	0.2095
HelpAtt1b_laywer	17.05	2643.09	0.01	0.9949
HelpAtt1b_doctor	0.00	68237.46	0.00	1.0000
HelpAtt1b_mental_health	-18.78	5802.13	-0.00	0.9974
HelpAtt1b_other	17.05	2643.09	0.01	0.9949
HelpAtt2b_family	-0.03	0.40	-0.06	0.9505
HelpAtt2b_partners_family	0.46	0.54	0.86	0.3893
HelpAtt2b_friends	-0.17	0.41	-0.42	0.6773
HelpAtt2b_relig_leaders	0.24	0.89	0.27	0.7906
HelpAtt2b_police	-0.00	71779.09	-0.00	1.0000
HelpAtt2b_soc_inst	0.24	0.89	0.27	0.7906
HelpAtt2b_laywer	-0.00	71779.09	-0.00	1.0000
HelpAtt2b_doctor	-18.90	6024.52	-0.00	0.9975
HelpAtt2b_mental_health	0.94	0.69	1.37	0.1704
HelpAtt2b_other	-0.00	71779.09	-0.00	1.0000

Table 12: Help-seeking attitudes - Q64, Q66

```
print(xtable(HelpAtt1d_table, "Help-seeking attitudes - Q70", auto = TRUE, digits = c(2,2,2,2,4)), type = "lat
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
HelpAtt1d_ashamed	-0.04	0.54	-0.07	0.9441
HelpAtt1d_stigma	0.59	0.49	1.21	0.2269
HelpAtt1d_dont_know_where	17.88	5428.33	0.00	0.9974
HelpAtt1d_nobody_able_help	-1.39	0.74	-1.88	0.0597
HelpAtt1d_thinks_private	0.06	0.49	0.13	0.9003
HelpAtt1d_if_partner_find_would_hurt	-18.96	4565.34	-0.00	0.9967
HelpAtt1d_worse_for_children	18.03	3292.45	0.01	0.9956
HelpAtt1d_NA_none_of_options_mentioned	-0.36	1.44	-0.25	0.8038
HelpAtt1d_dont_know	0.00	86409.07	0.00	1.0000

Table 13: Help-seeking attitudes - Q70

```
print(xtable(HelpAtt2d_table, "Help-seeking attitudes - Q72", auto = TRUE, digits = c(2,2,2,2,4)), type = "lat
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
HelpAtt2d_ashamed	0.24	0.52	0.46	0.6480
HelpAtt2d_stigma	0.74	0.47	1.55	0.1202
HelpAtt2d_dont_know_where	17.93	3086.46	0.01	0.9954
HelpAtt2d_nobody_able_help	0.47	0.60	0.78	0.4361
HelpAtt2d_thinks_private	-0.07	0.46	-0.16	0.8738
HelpAtt2d_worse_for_children	17.78	5088.71	0.00	0.9972
HelpAtt2d_none_of_options_mentioned	0.40	1.25	0.32	0.7498
HelpAtt2d_dont_know	-0.00	81617.88	-0.00	1.0000

Table 14: Help-seeking attitudes - Q72

```
print(xtable(HelpAtt3d_table, "Help-seeking attitudes - Q68", auto = TRUE, digits = c(2,2,2,2,4)), type = "lat
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
HelpAtt3b_dont_get_involved	-1.07	0.38	-2.81	0.0049
HelpAtt3b_separate_couple	0.97	0.37	2.60	0.0093
HelpAtt3b_talk_to_wife	0.58	0.35	1.63	0.1023
HelpAtt3b_talk_to_husband	0.68	0.36	1.91	0.0563
HelpAtt3b_take_children_out	0.98	0.54	1.80	0.0718
HelpAtt3b_call_organization	17.31	2390.76	0.01	0.9942
HelpAtt3b_call_police	17.18	3941.70	0.00	0.9965
HelpAtt3b_lama_seek_help_org	-0.10	0.78	-0.13	0.8937
HelpAtt3b_lama_seek_help_police	-0.00	62222.41	-0.00	1.0000
HelpAtt3b_lama_seek_help_family_friends	0.77	0.37	2.07	0.0387
HelpAtt3b_lama_seek_help_relig_leaders	-0.71	0.78	-0.91	0.3638
HelpAtt3b_bassel_seek_help_org	0.02	0.93	0.02	0.9837
HelpAtt3b_bassel_seek_help_family_friends	0.42	0.40	1.07	0.2857
HelpAtt3b_bassel_seek_help_relig_leaders	0.22	0.59	0.38	0.7040
HelpAtt3b_NA_none_of_above	17.89	3941.70	0.00	0.9964

Table 15: Help-seeking attitudes - Q68

```
phase3 %<>% rename(WASS1 = Q88, WASS2 = Q89, WASS3 = Q90, WASS4 = Q91, WASS5 = Q92, WASS6 = Q93)
phase3 %<>% mutate_at(vars(starts_with("WASS")), funs(replace(., equals(., 7), NA)))
phase3$WASS_scale <- phase3 %>% select(starts_with("WASS")) %>% select(-WASS6) %>% rowMeans
phase3$WASS6 <- factor(phase3$WASS6)
```

```
WASS_scale <- lm(WASS_scale ~ usable, data = phase3)
WASS6 <- clm(WASS6 ~ usable, data = phase3)
# WASS_scale_m <- lm(WASS_scale ~ usable, subset = ID_gender == "Men", data = phase3)
```

```
# WASS_scale_f <- lm(WASS_scale ~ usable, subset = ID_gender == "Women", data = phase3)
# WASS6_m <- clm(WASS6 ~ usable, subset = ID_gender == "Men", data = phase3)
# WASS6_f <- clm(WASS6 ~ usable, subset = ID_gender == "Women", data = phase3)

WASS_scale_table <- t(coef(summary(WASS_scale))[nrow(coef(summary(WASS_scale))),])
WASS_scale_table <- data.frame(WASS_scale_table, row.names = 'WASS 1-5 scale')
colnames(WASS_scale_table) <- c('Coef', 'SE', 't', 'p')
# 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 <- t(coef(summary(WASS6))[nrow(coef(summary(WASS6))),])
WASS6_table <- data.frame(WASS6_table, row.names = 'WASS6 item')
colnames(WASS6_table) <- c('Coef', 'SE', 't', '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)), type = "latex")
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	t	p
WASS 1-5 scale	-0.16	0.22	-0.72	0.4705

Table 16: WASS 1-5 - scale

```
print(xtable(WASS6_table, "WASS6 - single item 6", auto = TRUE, digits = c(2,2,2,2,4)), type = "latex")
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	t	p
WASS6 item	-0.08	0.31	-0.25	0.8035

Table 17: WASS6 - single item 6

```
phase3 %<>% rename(IPACTS1 = Q95, IPACTS2 = Q96, IPACTS3 = Q99, IPACTS4 = Q100, IPACTS5 = Q101, IPACTS6 = Q102)
IPACTS_names <- phase3 %>% select(starts_with("IPACTS")) %>% names
phase3 %<>% mutate_at(IPACTS_names, funs(replace(., equals(., 9), NA)))
IPACTS_items <- phase3 %>% select(IPACTS_names) %>% mutate_all(funs(if_else(. < 7, 1, 0)))

phase3$IPACTS_scale <- IPACTS_items %>% rowSums
phase3$IPACTS_scale_size <- 6
IPACTS_items$usable <- phase3$usable

IPACTS_items_models <- lapply(IPACTS_names, function(x) glm(as.formula(paste0(x, ' ~ usable')), family = binomial))

IPACTS_scale <- glm(cbind(IPACTS_scale, IPACTS_scale_size-IPACTS_scale) ~ usable, family = binomial(link = "logit"))
# IPACTS_scale_m <- glm(cbind(IPACTS_scale, IPACTS_scale_size-IPACTS_scale) ~ usable, family = binomial(link = "logit"))
# IPACTS_scale_f <- glm(cbind(IPACTS_scale, IPACTS_scale_size-IPACTS_scale) ~ usable, family = binomial(link = "logit"))

IPACTS_table <- t(coef(summary(IPACTS_scale))[nrow(coef(summary(IPACTS_scale))),])
IPACTS_table <- rbind(IPACTS_table, t(sapply(IPACTS_items_models, function(x) coef(summary(x))[nrow(coef(summary(x))),])))
IPACTS_table <- data.frame(IPACTS_table, row.names = c('IPA CTS2-S', IPACTS_names))
colnames(IPACTS_table) <- c('Coef', 'SE', 'Z', 'p')
# 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.Coeff', 'm.SE', 'm.Z', 'm.p', 'f.Coeff', 'f.SE', 'f.Z', 'f.p')
```

```
print(xtable((IPACTS_table), "IPA exposure CTS2-S scale, then items, 1 if exposure in past year.", auto = TRUE
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

	Coef	SE	Z	p
IPA CTS2-S	0.33	0.17	1.88	0.0596
IPACTS1	-0.13	0.36	-0.36	0.7202
IPACTS2	0.47	0.37	1.27	0.2047
IPACTS3	0.65	0.52	1.25	0.2120
IPACTS4	0.85	0.48	1.76	0.0787
IPACTS5	-0.04	0.61	-0.07	0.9471
IPACTS6	0.57	0.47	1.22	0.2209

Table 18: IPA exposure CTS2-S scale, then items, 1 if exposure in past year.

```
tableNominal(vars = as.data.frame(IPACTS_items %>% select(-usable)), group = ID_gender[,1], cumsum = FALSE, lo
```

% latex table generated in R 3.4.4 by xtable 1.8-2 package % Tue Jul 03 13:19:54 2018

Variable	Levels	nMen	%Men	nWomen	%Women	nall	%all
IPACTS1	0	34	63.0	39	52.0	73	56.6
	1	20	37.0	36	48.0	56	43.4
	all	54	100.0	75	100.0	129	100.0
IPACTS2	0	46	90.2	28	37.3	74	58.7
	1	5	9.8	47	62.7	52	41.3
	all	51	100.0	75	100.0	126	100.0
IPACTS3	0	43	82.7	63	84.0	106	83.5
	1	9	17.3	12	16.0	21	16.5
	all	52	100.0	75	100.0	127	100.0
IPACTS4	0	45	86.5	55	73.3	100	78.7
	1	7	13.5	20	26.7	27	21.3
	all	52	100.0	75	100.0	127	100.0
IPACTS5	0	52	94.5	66	88.0	118	90.8
	1	3	5.4	9	12.0	12	9.2
	all	55	100.0	75	100.0	130	100.0
IPACTS6	0	49	92.5	53	70.7	102	79.7
	1	4	7.5	22	29.3	26	20.3
	all	53	100.0	75	100.0	128	100.0

Table 19: Descriptive statistics for IPA exposure CTS2-S items, exposure in past year collapsed.