Nepal flood RCT analysis

```
melt_data_suffix <- function(var_name) {
  new_var <- vector(mode = "numeric", length = nrow(data))
  new_var[data$timePoint_factor == '1'] <- as.numeric(data[[paste0(var_name, '1')]][data$timePoint_facto
  new_var[data$timePoint_factor == '2'] <- as.numeric(data[[paste0(var_name, '2')]][data$timePoint_facto
  new_var[data$timePoint_factor == '3'] <- as.numeric(data[[paste0(var_name, '3')]][data$timePoint_facto
  return(new_var)
}

melt_data_prefix <- function(var_name) {
  var_name <- substr(var_name, 3, nchar(var_name))
  new_var <- vector(mode = "numeric", length = nrow(data))
  new_var <- as.numeric(data[[paste0('T1', var_name)]])
  new_var[data$timePoint_factor == '1'] <- as.numeric(data[[paste0('T1',var_name)]][data$timePoint_facto
  new_var[data$timePoint_factor == '2'] <- as.numeric(data[[paste0('T2',var_name)]][data$timePoint_facto
  new_var[data$timePoint_factor == '3'] <- as.numeric(data[[paste0('T3',var_name)]][data$timePoint_facto
  return(new_var)
}

reverse_melt <- function(data, var_name) {
  data[[paste0(var_name,'1')]][data$timePoint_factor == "1"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'1')]][data$timePoint_factor == "2"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'1')]][data$timePoint_factor == "3"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'2')]][data$timePoint_factor == "1"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'2')]][data$timePoint_factor == "2"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'2')]][data$timePoint_factor == "3"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'3')]][data$timePoint_factor == "1"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'3')]][data$timePoint_factor == "2"] <- as.numeric(data[[var_name]][data$timePo
  data[[paste0(var_name,'3')]][data$timePoint_factor == "3"] <- as.numeric(data[[var_name]][data$timePo
  return(data)
}

count_nas <- function(df, time) {
  result <- sapply(df[data$timePoint_factor == as.character(time),], function(x) sum(is.na(x)))
  return(result)
}
```

```
library(haven)
library(ggplot2)
library(dplyr)
library(gridExtra)
library(scales)
library(lme4)
library(lsmeans)
library(car)
library(RLRsim)
library(stringr)
library(lmerTest)
library(ordinal)
library(RVAideMemoire)
library(magrittr)
```

```
library(xtable)
library(texreg)
library(reporttools)
setwd("C:/Users/ajame/Dropbox/Alex - Nepal/Flood data")
data <- read_dta("NEPAL T1 T2 T3 partial reshape.dta")
randomization_data <- read_sav("NEPAL T1 T2 T3 Feb2018.sav")
data <- left_join(data, randomization_data %>% select(PartID, RANDOMIZATION), by = "PartID")
```

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

```
data$interventiongroup <- factor(data$interventiongroup, levels = levels(factor(data$interventiongroup))
data$RANDOMIZATION <- factor(data$RANDOMIZATION, labels = c('Control', 'Intervention'))
data$timePoint_factor <- factor(data$timePointZerod, labels = c('1','2','3'))
#data$interventiongroup[data$timePoint_factor == '3'] <- 'Intervention'
data$gender_factor <- factor(data$T1gender, labels = c('Female','Male'))
data$functioning <- data$FuncFmean6_T
data$functioning[!is.na(data$FuncMmean6_T)] <- data$FuncMmean6_T[!is.na(data$FuncMmean6_T)]
data$ID_factor <- factor(data$PartID)
data$loc_factor <- factor(data$T1loccode)

data$Relig1PrivateactivT[data$Relig1PrivateactivT == 7] <- 6
data$Relig2PublicactivT[data$Relig2PublicactivT == 7] <- 6
cope_var_names <- data %>% select(starts_with("T1Cope")) %>% names
for(i in cope_var_names){
  data[[paste0(substr(i,3,nchar(i)), '_T')]] <- melt_data_prefix(i)
}

cope_var_names <- paste0(substr(cope_var_names, 3, nchar(cope_var_names)),"_T")
factor_dvs <- c('SelfEff1timeT', 'SelfEff2affordT', 'SelfEff3infoT', 'Fat1dontworryT', 'Fat2injuredT',
data %<>% mutate_at(factor_dvs, funs(factor(.)))

HSMH_sources_names <- c('HSMH2bGodsT', 'HSMH2bPriestT', 'HSMH2bNeighborsT', 'HSMH2bFamilyT', 'HSMH2bFri
for(name in HSMH_sources_names) {
  data[[name]][is.na(data[[name]])] <- ifelse(is.na(data$HSDis2ComfortseekinghelpT[is.na(data[[name]])]
}
data$interventPlotting <- data$interventiongroup
data$interventPlotting[data$interventiongroup=="Control" & data$timePoint_factor=='3'] <- 'Intervention
data$interventionLinePlotting <- data$interventPlotting
data$interventionLinePlotting[data$interventiongroup=="Control" & data$timePoint_factor=='2'] <- 'Inter

data$T1DP1Supplykit[is.na(data$T1DP1Supplykit)] <- mean(data$T1DP1Supplykit, na.rm = TRUE)
data$T1DP3Meds[data$T1DP3Meds == 3] <- mean(data$T1DP3Meds[data$T1DP3Meds != 3], na.rm = TRUE)
data$T2DP3Meds[data$T2DP3Meds == 3] <- mean(data$T2DP3Meds[data$T2DP3Meds != 3], na.rm = TRUE)
data$T3DP3Meds[data$T3DP3Meds == 3] <- mean(data$T3DP3Meds[data$T3DP3Meds != 3], na.rm = TRUE)
data$T1DP5Foodanimals[data$T1DP5Foodanimals == 3] <- mean(data$T1DP5Foodanimals[data$T1DP5Foodanimals !=
data$T2DP5Foodanimals[data$T2DP5Foodanimals == 3] <- mean(data$T2DP5Foodanimals[data$T2DP5Foodanimals !=
data$T3DP5Foodanimals[data$T3DP5Foodanimals == 3] <- mean(data$T3DP5Foodanimals[data$T3DP5Foodanimals !=
data$T1DP15Talktochildren[data$T1DP15Talktochildren == 3] <- mean(data$T1DP15Talktochildren[data$T1DP15
data$T2DP15Talktochildren[data$T2DP15Talktochildren == 3] <- mean(data$T2DP15Talktochildren[data$T2DP15
data$T3DP15Talktochildren[data$T3DP15Talktochildren == 3] <- mean(data$T3DP15Talktochildren[data$T3DP15

data %<>% mutate(DP_cleaned_T1 = select(., T1DP1Supplykit, T1DP2Itemsinhouse, T1DP3Meds, T1DP4Foodpeopl
    T1DP5Foodanimals, T1DP6Docs, T1DP7Firewood, T1DP8Secureddwelling, T1DP9Raiseitems,
    T1DP10Divertwater, T1DP11Removeblowingobj, T1DP12Famemergplan, T1DP13Evacplan,
```

```
    T1DP14Reconnectfamplan, T1DP15Talktochildren, T1DP16RadioTVcomp, T1DP17Firstaid,
    T1DP18Cleanwater, T1DP19Disinfect, T1DP20Sanitation, T1DP21Safeplacewaterrise,
    T1DP22SafeplaceEQ, T1DP23Riskysafeplacemap, T1DP24Helpneighbors) %>% rowSums,

 DP_cleaned_T2 = select(., T2DP1Supplykit, T2DP2Itemsinhouse, T2DP3Meds, T2DP4Foodpeople,
    T2DP5Foodanimals, T2DP6Docs, T2DP7Firewood, T2DP8Secureddwelling, T2DP9Raiseitems,
    T2DP10Divertwater, T2DP11Removeblowingobj, T2DP12Famemergplan, T2DP13Evacplan,
    T2DP14Reconnectfamplan, T2DP15Talktochildren, T2DP16RadioTVcomp, T2DP17Firstaid,
    T2DP18Cleanwater, T2DP19Disinfect, T2DP20Sanitation, T2DP21Safeplacewaterrise,
    T2DP22SafeplaceEQ, T2DP23Riskysafeplacemap, T2DP24Helpneighbors) %>% rowSums,

 DP_cleaned_T3 = select(., T3DP1Supplykit, T3DP2Itemsinhouse, T3DP3Meds, T3DP4Foodpeople,
    T3DP5Foodanimals, T3DP6Docs, T3DP7Firewood, T3DP8Secureddwelling, T3DP9Raiseitems,
    T3DP10Divertwater, T3DP11Removeblowingobj, T3DP12Famemergplan, T3DP13Evacplan,
    T3DP14Reconnectfamplan, T3DP15Talktochildren, T3DP16RadioTVcomp, T3DP17Firstaid,
    T3DP18Cleanwater, T3DP19Disinfect, T3DP20Sanitation, T3DP21Safeplacewaterrise,
    T3DP22SafeplaceEQ, T3DP23Riskysafeplacemap, T3DP24Helpneighbors) %>% rowSums)

data$DP_cleaned_T <- melt_data_suffix('DP_cleaned_T')
to_reverse_melt <- c('BDImean16_T', 'BDIsumT', 'SocCohmean7_T', 'SocCohsum7_T', 'PTSDmean13_T', 'PTSDsu
for(i in to_reverse_melt) {
  data %<>% reverse_melt(i)
}

data$interventiongroup <- data$RANDOMIZATION
filtered <- data
#filtered <- data %>% filter(!is.na(interventiongroup))
#write_dta(filtered, 'C:/Users/ajame/Dropbox/Alex - Nepal/Flood data/Nepal RCT partial reshape DP clean
```

First let's get descriptive statistics on disaster preparedness items.

```
T1_DP_vars <- filtered %>% filter(timePoint_factor == "1") %>% dplyr::select(T1DP1Supplykit, T1DP2Items
    T1DP5Foodanimals, T1DP6Docs, T1DP7Firewood, T1DP8Secureddwelling, T1DP9Raiseitems,
    T1DP10Divertwater, T1DP11Removeblowingobj, T1DP12Famemergplan, T1DP13Evacplan,
    T1DP14Reconnectfamplan, T1DP15Talktochildren, T1DP16RadioTVcomp, T1DP17Firstaid,
    T1DP18Cleanwater, T1DP19Disinfect, T1DP20Sanitation, T1DP21Safeplacewaterrise,
    T1DP22SafeplaceEQ, T1DP23Riskysafeplacemap, T1DP24Helpneighbors, T1loccode)

T2_DP_vars <- filtered %>% filter(timePoint_factor == "2") %>% dplyr::select(T2DP1Supplykit, T2DP2Items
    T2DP5Foodanimals, T2DP6Docs, T2DP7Firewood, T2DP8Secureddwelling, T2DP9Raiseitems,
    T2DP10Divertwater, T2DP11Removeblowingobj, T2DP12Famemergplan, T2DP13Evacplan,
    T2DP14Reconnectfamplan, T2DP15Talktochildren, T2DP16RadioTVcomp, T2DP17Firstaid,
    T2DP18Cleanwater, T2DP19Disinfect, T2DP20Sanitation, T2DP21Safeplacewaterrise,
    T2DP22SafeplaceEQ, T2DP23Riskysafeplacemap, T2DP24Helpneighbors)

T3_DP_vars <- filtered %>% filter(timePoint_factor == "3") %>% dplyr::select(T3DP1Supplykit, T3DP2Items
    T3DP5Foodanimals, T3DP6Docs, T3DP7Firewood, T3DP8Secureddwelling, T3DP9Raiseitems,
    T3DP10Divertwater, T3DP11Removeblowingobj, T3DP12Famemergplan, T3DP13Evacplan,
    T3DP14Reconnectfamplan, T3DP15Talktochildren, T3DP16RadioTVcomp, T3DP17Firstaid,
    T3DP18Cleanwater, T3DP19Disinfect, T3DP20Sanitation, T3DP21Safeplacewaterrise,
    T3DP22SafeplaceEQ, T3DP23Riskysafeplacemap, T3DP24Helpneighbors)
```

First by time point then by community within time point 1.

```
tableNominal(vars = as.data.frame(dplyr::select(T1_DP_vars, -T1loccode)), lab = "tabdp1", longtable = T
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 15:51:54 2018

Variable	Levels	n	%
T1DP1Supplykit	0	21	4.4
	0.954446854663774	19	4.0
	1	440	91.7
	all	480	100.0
T1DP2Itemsinhouse	0	31	6.5
	1	448	93.5
	all	479	100.0
T1DP3Meds	0	59	12.3
	0.822289156626506	148	30.8
	1	273	56.9
	all	480	100.0
T1DP4Foodpeople	0	24	5.0
	1	454	95.0
	all	478	100.0
T1DP5Foodanimals	0	30	6.2
	0.933628318584071	28	5.8
	1	422	87.9
	all	480	100.0
T1DP6Docs	0	1	0.2
	1	477	99.8
	all	478	100.0
T1DP7Firewood	0	9	1.9
	1	469	98.1
	all	478	100.0
T1DP8Secureddwelling	0	39	8.2
	1	439	91.8
	all	478	100.0
T1DP9Raiseitems	0	3	0.6
	1	476	99.4
	all	479	100.0
T1DP10Divertwater	0	122	25.6
	1	354	74.4
	all	476	100.0
T1DP11Removeblowingobj	0	30	6.3
	1	446	93.7
	all	476	100.0
T1DP12Famemergplan	0	20	4.2
	1	460	95.8
	all	480	100.0
T1DP13Evacplan	0	18	3.8
	1	462	96.2
	all	480	100.0
T1DP14Reconnectfamplan	0	130	27.2
	1	347	72.8
	all	477	100.0
T1DP15Talktochildren	0	44	9.2
	0.902004454342984	30	6.3
	1	405	84.5
	all	479	100.0
T1DP16RadioTVcomp	0	35	7.3
	1	444	92.7
	all	479	100.0
T1DP17Firstaid	0	267	55.7
	1	212	44.3
	all	479	100.0
T1DP18Cleanwater	0	79	16.5

	1	401	83.5
	all	480	100.0
T1DP19Disinfect	0	84	17.6
	1	394	82.4
	all	478	100.0
T1DP20Sanitation	0	23	4.8
	1	453	95.2
	all	476	100.0
T1DP21Safeplacewaterrise	0	10	2.1
	1	465	97.9
	all	475	100.0
T1DP22SafeplaceEQ	0	183	38.7
	1	290	61.3
	all	473	100.0
T1DP23Riskysafeplacemap	0	8	1.7
	1	471	98.3
	all	479	100.0
T1DP24Helpneighbors	0	11	2.3
	1	468	97.7
	all	479	100.0

Table 1: Descriptive statistics of disaster preparation behaviors time 1 questions

```
tableNominal(vars = as.data.frame(T2_DP_vars), lab = "tabdp2", longtable = TRUE, cumsum = FALSE, cap =
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 15:51:54 2018

Variable	**Levels**	**n**	%
T2DP1Supplykit	0	60	14.8
	1	346	85.2
	all	406	100.0
T2DP2Itemsinhouse	0	18	4.4
	1	388	95.6
	all	406	100.0
T2DP3Meds	0	15	3.7
	0.935897435897436	172	42.4
	1	219	53.9
	all	406	100.0
T2DP4Foodpeople	0	30	7.4
	1	376	92.6
	all	406	100.0
T2DP5Foodanimals	0	30	7.4
	0.922077922077922	21	5.2
	1	355	87.4
	all	406	100.0
T2DP6Docs	1	405	100.0
	all	405	100.0
T2DP7Firewood	0	8	2.0
	1	398	98.0
	all	406	100.0
T2DP8Secureddwelling	0	57	14.0
	1	349	86.0
	all	406	100.0
T2DP9Raiseitems	0	15	3.7
	1	391	96.3
	all	406	100.0
T2DP10Divertwater	0	97	23.9
	1	309	76.1
	all	406	100.0
T2DP11Removeblowingobj	0	7	1.7
	1	399	98.3

	all	406	100.0
T2DP12Famemergplan	0	107	26.4
	1	299	73.7
	all	406	100.0
T2DP13Evacplan	0	41	10.1
	1	365	89.9
	all	406	100.0
T2DP14Reconnectfamplan	0	117	28.8
	1	289	71.2
	all	406	100.0
T2DP15Talktochildren	0	44	10.8
	0.881720430107527	34	8.4
	1	328	80.8
	all	406	100.0
T2DP16RadioTVcomp	0	61	15.0
	1	345	85.0
	all	406	100.0
T2DP17Firstaid	0	168	41.4
	1	238	58.6
	all	406	100.0
T2DP18Cleanwater	0	31	7.7
	1	373	92.3
	all	404	100.0
T2DP19Disinfect	0	54	13.3
	1	352	86.7
	all	406	100.0
T2DP20Sanitation	0	6	1.5
	1	400	98.5
	all	406	100.0
T2DP21Safeplacewaterrise	0	6	1.5
	1	399	98.5
	all	405	100.0
T2DP22SafeplaceEQ	0	51	12.6
	1	353	87.4
	all	404	100.0
T2DP23Riskysafeplacemap	0	4	1.0
	1	401	99.0
	all	405	100.0
T2DP24Helpneighbors	0	18	4.4
	1	388	95.6
	all	406	100.0

Table 2: Descriptive statistics of disaster preparation behaviors time 2 questions

```
tableNominal(vars = as.data.frame(T3_DP_vars), lab = "tabdp3", longtable = TRUE, cumsum = FALSE, cap =
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 15:51:55 2018

Variable	**Levels**	**n**	%
T3DP1Supplykit	0	123	28.7
	1	306	71.3
	all	429	100.0
T3DP2Itemsinhouse	0	10	2.3
	1	418	97.7
	all	428	100.0
T3DP3Meds	0	5	1.2
	0.979423868312757	185	43.2
	1	238	55.6
	all	428	100.0
T3DP4Foodpeople	0	9	2.1
	1	419	97.9

	all	428	100.0
T3DP5Foodanimals	0	9	2.1
	0.977040816326531	37	8.6
	1	383	89.3
	all	429	100.0
T3DP6Docs	0	1	0.2
	1	428	99.8
	all	429	100.0
T3DP7Firewood	0	22	5.2
	1	405	94.8
	all	427	100.0
T3DP8Secureddwelling	0	90	21.0
	1	339	79.0
	all	429	100.0
T3DP9Raiseitems	0	8	1.9
	1	420	98.1
	all	428	100.0
T3DP10Divertwater	0	124	28.9
	1	305	71.1
	all	429	100.0
T3DP11Removeblowingobj	0	2	0.5
	1	427	99.5
	all	429	100.0
T3DP12Famemergplan	0	124	28.9
	1	305	71.1
	all	429	100.0
T3DP13Evacplan	0	66	15.4
	1	362	84.6
	all	428	100.0
T3DP14Reconnectfamplan	0	112	26.1
	1	317	73.9
	all	429	100.0
T3DP15Talktochildren	0	72	16.8
	0.816326530612245	37	8.6
	1	320	74.6
	all	429	100.0
T3DP16RadioTVcomp	0	59	13.8
	1	369	86.2
	all	428	100.0
T3DP17Firstaid	0	101	23.5
	1	328	76.5
	all	429	100.0
T3DP18Cleanwater	0	20	4.7
	1	408	95.3
	all	428	100.0
T3DP19Disinfect	0	24	5.6
	1	404	94.4
	all	428	100.0
T3DP20Sanitation	0	2	0.5
	1	426	99.5
	all	428	100.0
T3DP21Safeplacewaterrise	0	6	1.4
	1	423	98.6
	all	429	100.0
T3DP22SafeplaceEQ	0	42	9.8
	1	386	90.2
	all	428	100.0
T3DP23Riskysafeplacemap	0	5	1.2
	1	423	98.8
	all	428	100.0
T3DP24Helpneighbors	0	9	2.1

1	420	97.9
all	429	100.0

Table 3: Descriptive statistics of disaster preparation behaviors time 3 questions

```
tableNominal(vars = as.data.frame(dplyr::select(T1_DP_vars, -T1loccode)), group = T1_DP_vars$T1loccode,
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 15:51:55 2018

Variable	**Levels**	$\mathbf{n}_1$	$\%_1$	$\mathbf{n}_2$	$\%_2$	$\mathbf{n}_3$	$\%_3$	$\mathbf{n}_{all}$	$\%_{all}$
T1DP1Supplykit	0	6	3.7	5	3.1	10	6.3	21	4.4
	0.954446854663774	10	6.2	5	3.1	4	2.5	19	4.0
	1	145	90.1	150	93.8	144	91.1	440	91.7
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP2Itemsinhouse	0	20	12.4	1	0.6	10	6.3	31	6.5
	1	141	87.6	158	99.4	148	93.7	448	93.5
	all	161	100.0	159	100.0	158	100.0	479	100.0
T1DP3Meds	0	22	13.7	15	9.4	21	13.3	59	12.3
	0.822289156626506	60	37.3	48	30.0	40	25.3	148	30.8
	1	79	49.1	97	60.6	97	61.4	273	56.9
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP4Foodpeople	0	14	8.8	1	0.6	9	5.7	24	5.0
	1	146	91.2	158	99.4	149	94.3	454	95.0
	all	160	100.0	159	100.0	158	100.0	478	100.0
T1DP5Foodanimals	0	24	14.9	2	1.2	4	2.5	30	6.2
	0.933628318584071	9	5.6	7	4.4	12	7.6	28	5.8
	1	128	79.5	151	94.4	142	89.9	422	87.9
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP6Docs	0	0	0.0	0	0.0	1	0.6	1	0.2
	1	159	100.0	160	100.0	157	99.4	477	99.8
	all	159	100.0	160	100.0	158	100.0	478	100.0
T1DP7Firewood	0	6	3.8	0	0.0	3	1.9	9	1.9
	1	154	96.2	159	100.0	155	98.1	469	98.1
	all	160	100.0	159	100.0	158	100.0	478	100.0
T1DP8Secureddwelling	0	13	8.1	10	6.2	16	10.3	39	8.2
	1	148	91.9	150	93.8	140	89.7	439	91.8
	all	161	100.0	160	100.0	156	100.0	478	100.0
T1DP9Raiseitems	0	0	0.0	3	1.9	0	0.0	3	0.6
	1	161	100.0	156	98.1	158	100.0	476	99.4
	all	161	100.0	159	100.0	158	100.0	479	100.0
T1DP10Divertwater	0	34	21.4	47	29.6	41	26.1	122	25.6
	1	125	78.6	112	70.4	116	73.9	354	74.4
	all	159	100.0	159	100.0	157	100.0	476	100.0
T1DP11Removeblowingobj	0	12	7.6	13	8.2	5	3.2	30	6.3
	1	146	92.4	146	91.8	153	96.8	446	93.7
	all	158	100.0	159	100.0	158	100.0	476	100.0
T1DP12Famemergplan	0	5	3.1	5	3.1	10	6.3	20	4.2
	1	156	96.9	155	96.9	148	93.7	460	95.8
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP13Evacplan	0	11	6.8	3	1.9	4	2.5	18	3.8
	1	150	93.2	157	98.1	154	97.5	462	96.2
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP14Reconnectfamplan	0	43	27.2	41	25.6	46	29.1	130	27.2
	1	115	72.8	119	74.4	112	70.9	347	72.8
	all	158	100.0	160	100.0	158	100.0	477	100.0
T1DP15Talktochildren	0	15	9.4	14	8.8	15	9.5	44	9.2
	0.902004454342984	6	3.8	12	7.5	12	7.6	30	6.3
	1	139	86.9	134	83.8	131	82.9	405	84.5
	all	160	100.0	160	100.0	158	100.0	479	100.0
T1DP16RadioTVcomp	0	12	7.4	13	8.1	10	6.4	35	7.3
	1	149	92.5	147	91.9	147	93.6	444	92.7
	all	161	100.0	160	100.0	157	100.0	479	100.0

T1DP17Firstaid	0	90	56.2	94	58.8	83	52.5	267	55.7
	1	70	43.8	66	41.2	75	47.5	212	44.3
	all	160	100.0	160	100.0	158	100.0	479	100.0
T1DP18Cleanwater	0	29	18.0	18	11.2	32	20.2	79	16.5
	1	132	82.0	142	88.8	126	79.8	401	83.5
	all	161	100.0	160	100.0	158	100.0	480	100.0
T1DP19Disinfect	0	33	20.5	28	17.5	23	14.7	84	17.6
	1	128	79.5	132	82.5	133	85.3	394	82.4
	all	161	100.0	160	100.0	156	100.0	478	100.0
T1DP20Sanitation	0	2	1.3	16	10.1	5	3.2	23	4.8
	1	156	98.7	143	89.9	153	96.8	453	95.2
	all	158	100.0	159	100.0	158	100.0	476	100.0
T1DP21Safeplacewaterrise	0	6	3.8	2	1.2	2	1.3	10	2.1
	1	153	96.2	158	98.8	153	98.7	465	97.9
	all	159	100.0	160	100.0	155	100.0	475	100.0
T1DP22SafeplaceEQ	0	68	43.3	52	32.9	63	40.1	183	38.7
	1	89	56.7	106	67.1	94	59.9	290	61.3
	all	157	100.0	158	100.0	157	100.0	473	100.0
T1DP23Riskysafeplacemap	0	5	3.1	1	0.6	2	1.3	8	1.7
	1	156	96.9	159	99.4	155	98.7	471	98.3
	all	161	100.0	160	100.0	157	100.0	479	100.0
T1DP24Helpneighbors	0	6	3.8	1	0.6	4	2.5	11	2.3
	1	154	96.2	159	99.4	154	97.5	468	97.7
	all	160	100.0	160	100.0	158	100.0	479	100.0

Table 4: Descriptive statsitics of disaster preparation behaviors time 1 questions by community

Now let's perform a Cronbach's alpha analysis on disaster preparedness items - we can use the alphas if item is omitted to detect outliers.

```
psych::alpha(x = T1_DP_vars , cumulative = TRUE)
```

```
## Warning in psych::alpha(x = T1_DP_vars, cumulative = TRUE): Some items were negatively correlated wi
## should be reversed.
## To do this, run the function again with the 'check.keys=TRUE' option

## Some items ( T1DP23Riskysafeplacemap ) were negatively correlated with the total scale and
## probably should be reversed.
## To do this, run the function again with the 'check.keys=TRUE' option

##
## Reliability analysis
## Call: psych::alpha(x = T1_DP_vars, cumulative = TRUE)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd
##       0.66      0.69    0.73      0.08 2.2 0.022   23 2.7
##
##  lower alpha upper     95% confidence boundaries
## 0.61 0.66 0.7
##
##  Reliability if an item is dropped:
##                          raw_alpha std.alpha G6(smc) average_r S/N
## T1DP1Supplykit                0.66      0.69    0.74     0.086 2.3
## T1DP2Itemsinhouse             0.64      0.67    0.72     0.078 2.0
## T1DP3Meds                     0.64      0.68    0.72     0.081 2.1
## T1DP4Foodpeople               0.65      0.68    0.73     0.081 2.1
## T1DP5Foodanimals              0.64      0.67    0.72     0.077 2.0
```

```
## T1DP6Docs                     0.66      0.69    0.74     0.086 2.3
## T1DP7Firewood                 0.65      0.68    0.72     0.080 2.1
## T1DP8Secureddwelling          0.65      0.67    0.72     0.079 2.1
## T1DP9Raiseitems               0.66      0.69    0.73     0.084 2.2
## T1DP10Divertwater             0.64      0.67    0.72     0.080 2.1
## T1DP11Removeblowingobj        0.64      0.68    0.72     0.080 2.1
## T1DP12Famemergplan            0.65      0.68    0.72     0.080 2.1
## T1DP13Evacplan                0.65      0.67    0.72     0.079 2.1
## T1DP14Reconnectfamplan        0.61      0.65    0.70     0.073 1.9
## T1DP15Talktochildren          0.65      0.68    0.73     0.082 2.1
## T1DP16RadioTVcomp             0.64      0.68    0.72     0.080 2.1
## T1DP17Firstaid                0.63      0.67    0.71     0.077 2.0
## T1DP18Cleanwater              0.63      0.67    0.71     0.077 2.0
## T1DP19Disinfect               0.62      0.66    0.70     0.074 1.9
## T1DP20Sanitation              0.64      0.67    0.71     0.079 2.0
## T1DP21Safeplacewaterrise      0.65      0.69    0.73     0.083 2.2
## T1DP22SafeplaceEQ             0.64      0.67    0.72     0.079 2.1
## T1DP23Riskysafeplacemap       0.66      0.70    0.74     0.088 2.3
## T1DP24Helpneighbors           0.65      0.68    0.72     0.080 2.1
## T1loccode                     0.71      0.69    0.73     0.085 2.2
##                          alpha se
## T1DP1Supplykit             0.022
## T1DP2Itemsinhouse          0.023
## T1DP3Meds                  0.023
## T1DP4Foodpeople            0.022
## T1DP5Foodanimals           0.023
## T1DP6Docs                  0.022
## T1DP7Firewood              0.022
## T1DP8Secureddwelling       0.022
## T1DP9Raiseitems            0.022
## T1DP10Divertwater          0.022
## T1DP11Removeblowingobj     0.023
## T1DP12Famemergplan         0.022
## T1DP13Evacplan             0.022
## T1DP14Reconnectfamplan     0.025
## T1DP15Talktochildren       0.022
## T1DP16RadioTVcomp          0.023
## T1DP17Firstaid             0.024
## T1DP18Cleanwater           0.023
## T1DP19Disinfect            0.025
## T1DP20Sanitation           0.023
## T1DP21Safeplacewaterrise   0.022
## T1DP22SafeplaceEQ          0.023
## T1DP23Riskysafeplacemap    0.022
## T1DP24Helpneighbors        0.022
## T1loccode                  0.017
##
##  Item statistics
##                            n raw.r std.r   r.cor r.drop mean    sd
## T1DP1Supplykit           480 0.083  0.15  0.0492 0.0098 0.95 0.205
## T1DP2Itemsinhouse        479 0.367  0.42  0.3840 0.2861 0.94 0.246
## T1DP3Meds                480 0.363  0.34  0.2791 0.2592 0.82 0.318
## T1DP4Foodpeople          478 0.266  0.31  0.2433 0.1924 0.95 0.219
## T1DP5Foodanimals         480 0.419  0.44  0.4055 0.3399 0.93 0.242
```

```
## T1DP6Docs                478 0.021  0.14  0.0548 0.0055 1.00 0.046
## T1DP7Firewood            478 0.251  0.36  0.3184 0.1965 0.98 0.136
## T1DP8Secureddwelling     478 0.328  0.37  0.3229 0.2377 0.92 0.274
## T1DP9Raiseitems          479 0.156  0.23  0.1572 0.1309 0.99 0.079
## T1DP10Divertwater        476 0.389  0.37  0.3242 0.2500 0.74 0.437
## T1DP11Removeblowingobj   476 0.359  0.36  0.3183 0.2829 0.94 0.243
## T1DP12Famemergplan       480 0.299  0.36  0.3245 0.2153 0.96 0.200
## T1DP13Evacplan           480 0.335  0.38  0.3497 0.2619 0.96 0.190
## T1DP14Reconnectfamplan   477 0.592  0.58  0.5922 0.4778 0.73 0.446
## T1DP15Talktochildren     479 0.257  0.29  0.2198 0.1491 0.90 0.288
## T1DP16RadioTVcomp        479 0.342  0.34  0.2853 0.2578 0.93 0.261
## T1DP17Firstaid           479 0.520  0.46  0.4289 0.3698 0.44 0.497
## T1DP18Cleanwater         480 0.471  0.47  0.4461 0.3594 0.84 0.371
## T1DP19Disinfect          478 0.593  0.55  0.5683 0.4910 0.82 0.381
## T1DP20Sanitation         476 0.374  0.40  0.3835 0.3101 0.95 0.215
## T1DP21Safeplacewaterrise 475 0.193  0.24  0.1567 0.1465 0.98 0.144
## T1DP22SafeplaceEQ        473 0.431  0.38  0.3307 0.2713 0.61 0.488
## T1DP23Riskysafeplacemap  479 0.072  0.11 -0.0053 0.0073 0.98 0.128
## T1DP24Helpneighbors      479 0.267  0.34  0.2864 0.2109 0.98 0.150
## T1loccode                479 0.367  0.19  0.0946 0.0561 1.99 0.817
##
## Non missing response frequency for each item
##                                0 0.822289156626506 0.902004454342984
## T1DP1Supplykit              0.04              0.00              0.00
## T1DP2Itemsinhouse           0.06              0.00              0.00
## T1DP3Meds                   0.12              0.31              0.00
## T1DP4Foodpeople             0.05              0.00              0.00
## T1DP5Foodanimals            0.06              0.00              0.00
## T1DP6Docs                   0.00              0.00              0.00
## T1DP7Firewood               0.02              0.00              0.00
## T1DP8Secureddwelling        0.08              0.00              0.00
## T1DP9Raiseitems             0.01              0.00              0.00
## T1DP10Divertwater           0.26              0.00              0.00
## T1DP11Removeblowingobj      0.06              0.00              0.00
## T1DP12Famemergplan          0.04              0.00              0.00
## T1DP13Evacplan              0.04              0.00              0.00
## T1DP14Reconnectfamplan      0.27              0.00              0.00
## T1DP15Talktochildren        0.09              0.00              0.06
## T1DP16RadioTVcomp           0.07              0.00              0.00
## T1DP17Firstaid              0.56              0.00              0.00
## T1DP18Cleanwater            0.16              0.00              0.00
## T1DP19Disinfect             0.18              0.00              0.00
## T1DP20Sanitation            0.05              0.00              0.00
## T1DP21Safeplacewaterrise    0.02              0.00              0.00
## T1DP22SafeplaceEQ           0.39              0.00              0.00
## T1DP23Riskysafeplacemap     0.02              0.00              0.00
## T1DP24Helpneighbors         0.02              0.00              0.00
## T1loccode                   0.00              0.00              0.00
##                          0.933628318584071 0.954446854663774    1    2
## T1DP1Supplykit                        0.00              0.04 0.92 0.00
## T1DP2Itemsinhouse                     0.00              0.00 0.94 0.00
## T1DP3Meds                             0.00              0.00 0.57 0.00
## T1DP4Foodpeople                       0.00              0.00 0.95 0.00
## T1DP5Foodanimals                      0.06              0.00 0.88 0.00
```

```
## T1DP6Docs                              0.00             0.00 1.00 0.00
## T1DP7Firewood                          0.00             0.00 0.98 0.00
## T1DP8Secureddwelling                   0.00             0.00 0.92 0.00
## T1DP9Raiseitems                        0.00             0.00 0.99 0.00
## T1DP10Divertwater                      0.00             0.00 0.74 0.00
## T1DP11Removeblowingobj                 0.00             0.00 0.94 0.00
## T1DP12Famemergplan                     0.00             0.00 0.96 0.00
## T1DP13Evacplan                         0.00             0.00 0.96 0.00
## T1DP14Reconnectfamplan                 0.00             0.00 0.73 0.00
## T1DP15Talktochildren                   0.00             0.00 0.85 0.00
## T1DP16RadioTVcomp                      0.00             0.00 0.93 0.00
## T1DP17Firstaid                         0.00             0.00 0.44 0.00
## T1DP18Cleanwater                       0.00             0.00 0.84 0.00
## T1DP19Disinfect                        0.00             0.00 0.82 0.00
## T1DP20Sanitation                       0.00             0.00 0.95 0.00
## T1DP21Safeplacewaterrise               0.00             0.00 0.98 0.00
## T1DP22SafeplaceEQ                      0.00             0.00 0.61 0.00
## T1DP23Riskysafeplacemap                0.00             0.00 0.98 0.00
## T1DP24Helpneighbors                    0.00             0.00 0.98 0.00
## T1loccode                              0.00             0.00 0.34 0.33
##                                3 miss
## T1DP1Supplykit              0.00 0.00
## T1DP2Itemsinhouse           0.00 0.00
## T1DP3Meds                   0.00 0.00
## T1DP4Foodpeople             0.00 0.00
## T1DP5Foodanimals            0.00 0.00
## T1DP6Docs                   0.00 0.00
## T1DP7Firewood               0.00 0.00
## T1DP8Secureddwelling        0.00 0.00
## T1DP9Raiseitems             0.00 0.00
## T1DP10Divertwater           0.00 0.01
## T1DP11Removeblowingobj      0.00 0.01
## T1DP12Famemergplan          0.00 0.00
## T1DP13Evacplan              0.00 0.00
## T1DP14Reconnectfamplan      0.00 0.01
## T1DP15Talktochildren        0.00 0.00
## T1DP16RadioTVcomp           0.00 0.00
## T1DP17Firstaid              0.00 0.00
## T1DP18Cleanwater            0.00 0.00
## T1DP19Disinfect             0.00 0.00
## T1DP20Sanitation            0.00 0.01
## T1DP21Safeplacewaterrise    0.00 0.01
## T1DP22SafeplaceEQ           0.00 0.01
## T1DP23Riskysafeplacemap     0.00 0.00
## T1DP24Helpneighbors         0.00 0.00
## T1loccode                   0.33 0.00
```

```
psych::alpha(x = T2_DP_vars, cumulative = TRUE)
```

```
## Warning in psych::alpha(x = T2_DP_vars, cumulative = TRUE): Item =
## T2DP6Docs had no variance and was deleted
```

```
##
## Reliability analysis
## Call: psych::alpha(x = T2_DP_vars, cumulative = TRUE)
```

```
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd
##       0.75      0.76     0.8      0.12 3.2 0.015   17 7.8
##
##  lower alpha upper     95% confidence boundaries
## 0.72 0.75 0.78
##
##  Reliability if an item is dropped:
##                          raw_alpha std.alpha G6(smc) average_r S/N
## T2DP1Supplykit                0.76      0.76    0.80      0.13 3.2
## T2DP2Itemsinhouse             0.74      0.75    0.78      0.12 2.9
## T2DP3Meds                     0.75      0.76    0.79      0.12 3.1
## T2DP4Foodpeople               0.74      0.74    0.78      0.12 2.9
## T2DP5Foodanimals              0.75      0.75    0.79      0.12 3.0
## T2DP7Firewood                 0.75      0.76    0.79      0.12 3.1
## T2DP8Secureddwelling          0.74      0.74    0.78      0.12 2.9
## T2DP9Raiseitems               0.74      0.75    0.78      0.12 2.9
## T2DP10Divertwater             0.75      0.75    0.79      0.12 3.1
## T2DP11Removeblowingobj        0.75      0.76    0.79      0.13 3.1
## T2DP12Famemergplan            0.75      0.75    0.79      0.12 3.1
## T2DP13Evacplan                0.73      0.74    0.77      0.11 2.8
## T2DP14Reconnectfamplan        0.72      0.74    0.78      0.11 2.8
## T2DP15Talktochildren          0.74      0.74    0.78      0.12 2.9
## T2DP16RadioTVcomp             0.75      0.76    0.79      0.12 3.1
## T2DP17Firstaid                0.74      0.75    0.78      0.12 2.9
## T2DP18Cleanwater              0.75      0.75    0.79      0.12 3.1
## T2DP19Disinfect               0.74      0.75    0.79      0.12 3.0
## T2DP20Sanitation              0.75      0.76    0.79      0.12 3.1
## T2DP21Safeplacewaterrise      0.75      0.76    0.80      0.13 3.3
## T2DP22SafeplaceEQ             0.75      0.76    0.79      0.12 3.1
## T2DP23Riskysafeplacemap       0.75      0.76    0.79      0.13 3.2
## T2DP24Helpneighbors           0.74      0.74    0.78      0.12 2.9
##                          alpha se
## T2DP1Supplykit             0.015
## T2DP2Itemsinhouse          0.016
## T2DP3Meds                  0.016
## T2DP4Foodpeople            0.016
## T2DP5Foodanimals           0.016
## T2DP7Firewood              0.016
## T2DP8Secureddwelling       0.017
## T2DP9Raiseitems            0.016
## T2DP10Divertwater          0.016
## T2DP11Removeblowingobj     0.016
## T2DP12Famemergplan         0.015
## T2DP13Evacplan             0.017
## T2DP14Reconnectfamplan     0.018
## T2DP15Talktochildren       0.016
## T2DP16RadioTVcomp          0.016
## T2DP17Firstaid             0.016
## T2DP18Cleanwater           0.016
## T2DP19Disinfect            0.016
## T2DP20Sanitation           0.016
## T2DP21Safeplacewaterrise   0.015
## T2DP22SafeplaceEQ          0.016
```

```
## T2DP23Riskysafeplacemap     0.015
## T2DP24Helpneighbors         0.016
##
##  Item statistics
##                              n raw.r std.r r.cor r.drop mean    sd
## T2DP1Supplykit             406  0.23  0.23  0.15  0.100 0.85 0.355
## T2DP2Itemsinhouse          406  0.45  0.47  0.45  0.391 0.96 0.206
## T2DP3Meds                  406  0.29  0.31  0.24  0.222 0.94 0.186
## T2DP4Foodpeople            406  0.54  0.54  0.54  0.463 0.93 0.262
## T2DP5Foodanimals           406  0.36  0.39  0.35  0.269 0.92 0.261
## T2DP7Firewood              406  0.27  0.32  0.26  0.217 0.98 0.139
## T2DP8Secureddwelling       406  0.53  0.52  0.49  0.427 0.86 0.348
## T2DP9Raiseitems            406  0.45  0.47  0.44  0.392 0.96 0.189
## T2DP10Divertwater          406  0.40  0.36  0.31  0.263 0.76 0.427
## T2DP11Removeblowingobj     406  0.25  0.29  0.23  0.205 0.98 0.130
## T2DP12Famemergplan         406  0.40  0.37  0.32  0.255 0.74 0.441
## T2DP13Evacplan             406  0.62  0.59  0.60  0.541 0.90 0.302
## T2DP14Reconnectfamplan     406  0.64  0.57  0.57  0.531 0.71 0.453
## T2DP15Talktochildren       406  0.51  0.50  0.48  0.413 0.88 0.310
## T2DP16RadioTVcomp          406  0.39  0.35  0.29  0.269 0.85 0.358
## T2DP17Firstaid             406  0.55  0.48  0.45  0.401 0.59 0.493
## T2DP18Cleanwater           404  0.36  0.36  0.30  0.273 0.92 0.266
## T2DP19Disinfect            406  0.42  0.43  0.39  0.308 0.87 0.340
## T2DP20Sanitation           406  0.22  0.31  0.27  0.173 0.99 0.121
## T2DP21Safeplacewaterrise   405  0.12  0.20  0.13  0.073 0.99 0.121
## T2DP22SafeplaceEQ          404  0.36  0.33  0.28  0.251 0.87 0.333
## T2DP23Riskysafeplacemap    405  0.15  0.25  0.19  0.110 0.99 0.099
## T2DP24Helpneighbors        406  0.48  0.50  0.47  0.418 0.96 0.206
##
## Non missing response frequency for each item
##                                0 0.881720430107527 0.922077922077922
## T2DP1Supplykit              0.15              0.00              0.00
## T2DP2Itemsinhouse           0.04              0.00              0.00
## T2DP3Meds                   0.04              0.00              0.00
## T2DP4Foodpeople             0.07              0.00              0.00
## T2DP5Foodanimals            0.07              0.00              0.05
## T2DP7Firewood               0.02              0.00              0.00
## T2DP8Secureddwelling        0.14              0.00              0.00
## T2DP9Raiseitems             0.04              0.00              0.00
## T2DP10Divertwater           0.24              0.00              0.00
## T2DP11Removeblowingobj      0.02              0.00              0.00
## T2DP12Famemergplan          0.26              0.00              0.00
## T2DP13Evacplan              0.10              0.00              0.00
## T2DP14Reconnectfamplan      0.29              0.00              0.00
## T2DP15Talktochildren        0.11              0.08              0.00
## T2DP16RadioTVcomp           0.15              0.00              0.00
## T2DP17Firstaid              0.41              0.00              0.00
## T2DP18Cleanwater            0.08              0.00              0.00
## T2DP19Disinfect             0.13              0.00              0.00
## T2DP20Sanitation            0.01              0.00              0.00
## T2DP21Safeplacewaterrise    0.01              0.00              0.00
## T2DP22SafeplaceEQ           0.13              0.00              0.00
## T2DP23Riskysafeplacemap     0.01              0.00              0.00
## T2DP24Helpneighbors         0.04              0.00              0.00
```

```
##                          0.935897435897436    1 miss
## T2DP1Supplykit                        0.00 0.85 0.15
## T2DP2Itemsinhouse                     0.00 0.96 0.15
## T2DP3Meds                             0.42 0.54 0.15
## T2DP4Foodpeople                       0.00 0.93 0.15
## T2DP5Foodanimals                      0.00 0.87 0.15
## T2DP7Firewood                         0.00 0.98 0.15
## T2DP8Secureddwelling                  0.00 0.86 0.15
## T2DP9Raiseitems                       0.00 0.96 0.15
## T2DP10Divertwater                     0.00 0.76 0.15
## T2DP11Removeblowingobj                0.00 0.98 0.15
## T2DP12Famemergplan                    0.00 0.74 0.15
## T2DP13Evacplan                        0.00 0.90 0.15
## T2DP14Reconnectfamplan                0.00 0.71 0.15
## T2DP15Talktochildren                  0.00 0.81 0.15
## T2DP16RadioTVcomp                     0.00 0.85 0.15
## T2DP17Firstaid                        0.00 0.59 0.15
## T2DP18Cleanwater                      0.00 0.92 0.16
## T2DP19Disinfect                       0.00 0.87 0.15
## T2DP20Sanitation                      0.00 0.99 0.15
## T2DP21Safeplacewaterrise              0.00 0.99 0.16
## T2DP22SafeplaceEQ                     0.00 0.87 0.16
## T2DP23Riskysafeplacemap               0.00 0.99 0.16
## T2DP24Helpneighbors                   0.00 0.96 0.15
```

```
psych::alpha(x = T3_DP_vars, cumulative = TRUE)
```

```
## Warning in psych::alpha(x = T3_DP_vars, cumulative = TRUE): Some items were negatively correlated wi
## should be reversed.
## To do this, run the function again with the 'check.keys=TRUE' option
```

```
## Some items ( T3DP3Meds T3DP6Docs ) were negatively correlated with the total scale and
## probably should be reversed.
## To do this, run the function again with the 'check.keys=TRUE' option
```

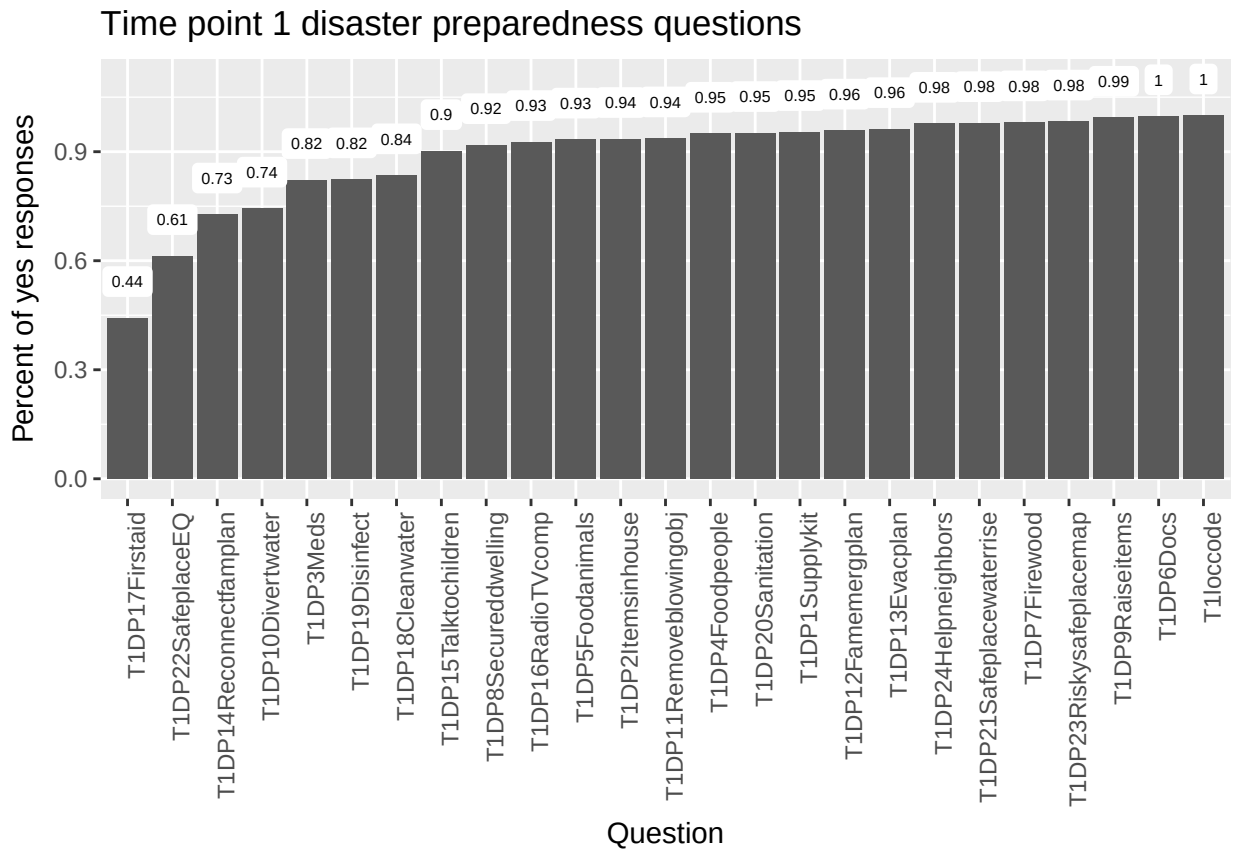
```
##
## Reliability analysis
## Call: psych::alpha(x = T3_DP_vars, cumulative = TRUE)
##
##   raw_alpha std.alpha G6(smc) average_r S/N   ase mean  sd
##       0.79      0.76    0.81      0.12 3.3 0.012   19 7.2
##
##  lower alpha upper     95% confidence boundaries
## 0.77 0.79 0.82
##
##  Reliability if an item is dropped:
##                          raw_alpha std.alpha G6(smc) average_r S/N
## T3DP1Supplykit                0.79      0.76    0.80      0.12 3.2
## T3DP2Itemsinhouse             0.79      0.76    0.80      0.12 3.2
## T3DP3Meds                     0.79      0.77    0.81      0.13 3.4
## T3DP4Foodpeople               0.79      0.76    0.80      0.12 3.2
## T3DP5Foodanimals              0.79      0.76    0.80      0.12 3.2
## T3DP6Docs                     0.79      0.77    0.81      0.13 3.4
## T3DP7Firewood                 0.78      0.75    0.79      0.12 3.0
## T3DP8Secureddwelling          0.78      0.75    0.80      0.12 3.0
## T3DP9Raiseitems               0.79      0.76    0.80      0.12 3.2
```

```
## T3DP10Divertwater             0.77      0.74    0.79      0.11 2.9
## T3DP11Removeblowingobj        0.79      0.77    0.81      0.13 3.3
## T3DP12Famemergplan            0.77      0.75    0.79      0.11 2.9
## T3DP13Evacplan                0.77      0.74    0.79      0.11 2.9
## T3DP14Reconnectfamplan        0.76      0.74    0.78      0.11 2.9
## T3DP15Talktochildren          0.77      0.75    0.79      0.12 3.0
## T3DP16RadioTVcomp             0.78      0.75    0.80      0.12 3.1
## T3DP17Firstaid                0.78      0.75    0.79      0.12 3.0
## T3DP18Cleanwater              0.78      0.75    0.79      0.12 3.0
## T3DP19Disinfect               0.78      0.75    0.79      0.12 3.0
## T3DP20Sanitation              0.79      0.76    0.80      0.12 3.2
## T3DP21Safeplacewaterrise      0.79      0.76    0.80      0.12 3.2
## T3DP22SafeplaceEQ             0.78      0.75    0.80      0.12 3.1
## T3DP23Riskysafeplacemap       0.79      0.76    0.80      0.12 3.2
## T3DP24Helpneighbors           0.79      0.76    0.80      0.12 3.1
##                           alpha se
## T3DP1Supplykit            0.012
## T3DP2Itemsinhouse         0.012
## T3DP3Meds                 0.012
## T3DP4Foodpeople           0.012
## T3DP5Foodanimals          0.012
## T3DP6Docs                 0.012
## T3DP7Firewood             0.012
## T3DP8Secureddwelling      0.012
## T3DP9Raiseitems           0.012
## T3DP10Divertwater         0.013
## T3DP11Removeblowingobj    0.012
## T3DP12Famemergplan        0.013
## T3DP13Evacplan            0.013
## T3DP14Reconnectfamplan    0.014
## T3DP15Talktochildren      0.013
## T3DP16RadioTVcomp         0.012
## T3DP17Firstaid            0.012
## T3DP18Cleanwater          0.012
## T3DP19Disinfect           0.012
## T3DP20Sanitation          0.012
## T3DP21Safeplacewaterrise  0.012
## T3DP22SafeplaceEQ         0.012
## T3DP23Riskysafeplacemap   0.012
## T3DP24Helpneighbors       0.012
##
##  Item statistics
##                             n  raw.r std.r r.cor  r.drop mean    sd
## T3DP1Supplykit            429 0.4282  0.36 0.300  0.2858 0.71 0.453
## T3DP2Itemsinhouse         428 0.2764  0.33 0.277  0.2298 0.98 0.151
## T3DP3Meds                 428 0.0423  0.11 0.015  0.0055 0.98 0.107
## T3DP4Foodpeople           428 0.2062  0.28 0.215  0.1486 0.98 0.144
## T3DP5Foodanimals          429 0.2509  0.33 0.281  0.1951 0.98 0.143
## T3DP6Docs                 429 0.0086  0.12 0.030 -0.0079 1.00 0.048
## T3DP7Firewood             427 0.4676  0.47 0.438  0.4025 0.95 0.221
## T3DP8Secureddwelling      429 0.5098  0.45 0.417  0.3928 0.79 0.408
## T3DP9Raiseitems           428 0.2459  0.31 0.251  0.1914 0.98 0.136
## T3DP10Divertwater         429 0.6417  0.58 0.565  0.5351 0.71 0.454
## T3DP11Removeblowingobj    429 0.1690  0.23 0.151  0.1474 1.00 0.068
```

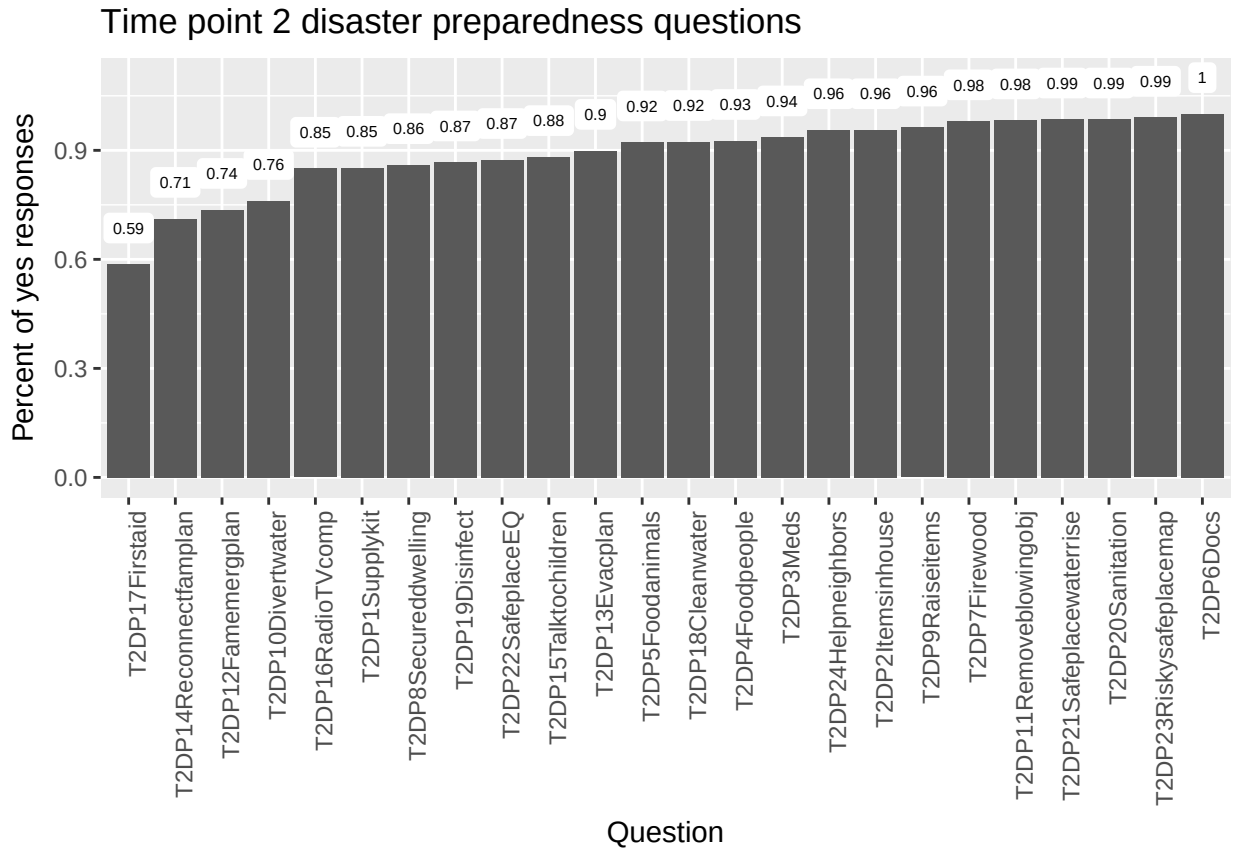
```
## T3DP12Famemergplan       429 0.6389  0.55 0.554  0.5293 0.71 0.454
## T3DP13Evacplan           428 0.6386  0.58 0.590  0.5590 0.85 0.362
## T3DP14Reconnectfamplan   429 0.7189  0.62 0.637  0.6328 0.74 0.440
## T3DP15Talktochildren     429 0.5950  0.50 0.486  0.5038 0.82 0.371
## T3DP16RadioTVcomp        428 0.4970  0.45 0.410  0.3851 0.86 0.345
## T3DP17Firstaid           429 0.5389  0.49 0.463  0.4196 0.76 0.425
## T3DP18Cleanwater         428 0.4078  0.45 0.433  0.3398 0.95 0.211
## T3DP19Disinfect          428 0.4049  0.46 0.433  0.3325 0.94 0.230
## T3DP20Sanitation         428 0.1614  0.30 0.245  0.1361 1.00 0.068
## T3DP21Safeplacewaterrise 429 0.2517  0.35 0.306  0.2154 0.99 0.118
## T3DP22SafeplaceEQ        428 0.4418  0.44 0.412  0.3553 0.90 0.298
## T3DP23Riskysafeplacemap  428 0.1964  0.31 0.259  0.1622 0.99 0.108
## T3DP24Helpneighbors      429 0.3033  0.39 0.345  0.2602 0.98 0.143
##
## Non missing response frequency for each item
##                              0 0.816326530612245 0.977040816326531
## T3DP1Supplykit            0.29                0.00               0.00
## T3DP2Itemsinhouse         0.02                0.00               0.00
## T3DP3Meds                 0.01                0.00               0.00
## T3DP4Foodpeople           0.02                0.00               0.00
## T3DP5Foodanimals          0.02                0.00               0.09
## T3DP6Docs                 0.00                0.00               0.00
## T3DP7Firewood             0.05                0.00               0.00
## T3DP8Secureddwelling      0.21                0.00               0.00
## T3DP9Raiseitems           0.02                0.00               0.00
## T3DP10Divertwater         0.29                0.00               0.00
## T3DP11Removeblowingobj    0.00                0.00               0.00
## T3DP12Famemergplan        0.29                0.00               0.00
## T3DP13Evacplan            0.15                0.00               0.00
## T3DP14Reconnectfamplan    0.26                0.00               0.00
## T3DP15Talktochildren      0.17                0.09               0.00
## T3DP16RadioTVcomp         0.14                0.00               0.00
## T3DP17Firstaid            0.24                0.00               0.00
## T3DP18Cleanwater          0.05                0.00               0.00
## T3DP19Disinfect           0.06                0.00               0.00
## T3DP20Sanitation          0.00                0.00               0.00
## T3DP21Safeplacewaterrise  0.01                0.00               0.00
## T3DP22SafeplaceEQ         0.10                0.00               0.00
## T3DP23Riskysafeplacemap   0.01                0.00               0.00
## T3DP24Helpneighbors       0.02                0.00               0.00
##                          0.979423868312757    1 miss
## T3DP1Supplykit                        0.00 0.71 0.11
## T3DP2Itemsinhouse                     0.00 0.98 0.11
## T3DP3Meds                             0.43 0.56 0.11
## T3DP4Foodpeople                       0.00 0.98 0.11
## T3DP5Foodanimals                      0.00 0.89 0.11
## T3DP6Docs                             0.00 1.00 0.11
## T3DP7Firewood                         0.00 0.95 0.11
## T3DP8Secureddwelling                  0.00 0.79 0.11
## T3DP9Raiseitems                       0.00 0.98 0.11
## T3DP10Divertwater                     0.00 0.71 0.11
## T3DP11Removeblowingobj                0.00 1.00 0.11
## T3DP12Famemergplan                    0.00 0.71 0.11
## T3DP13Evacplan                        0.00 0.85 0.11
```

```
## T3DP14Reconnectfamplan                0.00 0.74 0.11
## T3DP15Talktochildren                  0.00 0.75 0.11
## T3DP16RadioTVcomp                     0.00 0.86 0.11
## T3DP17Firstaid                        0.00 0.76 0.11
## T3DP18Cleanwater                      0.00 0.95 0.11
## T3DP19Disinfect                       0.00 0.94 0.11
## T3DP20Sanitation                      0.00 1.00 0.11
## T3DP21Safeplacewaterrise              0.00 0.99 0.11
## T3DP22SafeplaceEQ                     0.00 0.90 0.11
## T3DP23Riskysafeplacemap               0.00 0.99 0.11
## T3DP24Helpneighbors                   0.00 0.98 0.11
```

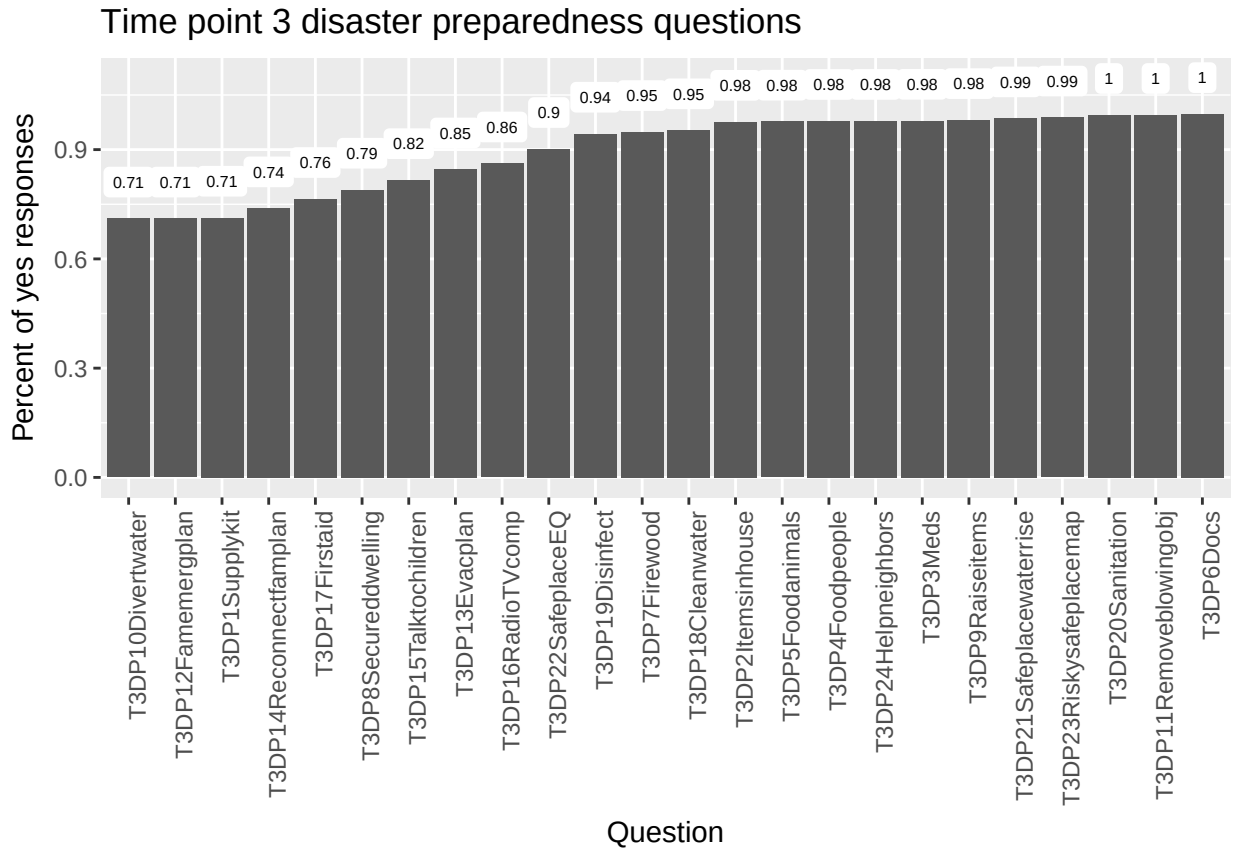
```
per_yes_T1 <-  t(summarise_all(T1_DP_vars, funs(sum(. == 1, na.rm = T) / (sum(. == 0, na.rm = T) + sum(
per_yes_T2 <-  t(summarise_all(T2_DP_vars, funs(sum(. == 1, na.rm = T) / (sum(. == 0, na.rm = T) + sum(
per_yes_T3 <-  t(summarise_all(T3_DP_vars, funs(sum(. == 1, na.rm = T) / (sum(. == 0, na.rm = T) + sum(
per_yes_T1 <- data.frame(percent_yes = per_yes_T1[,1], question = row.names(per_yes_T1))
per_yes_T2 <- data.frame(percent_yes = per_yes_T2[,1], question = row.names(per_yes_T2))
per_yes_T3 <- data.frame(percent_yes = per_yes_T3[,1], question = row.names(per_yes_T3))

ggplot(per_yes_T1, aes(x=reorder(question, percent_yes), y=percent_yes)) + geom_bar(stat = "identity") +
```




```
ggplot(per_yes_T2, aes(x=reorder(question, percent_yes), y=percent_yes)) + geom_bar(stat = "identity") +
```




```
ggplot(per_yes_T3, aes(x=reorder(question, percent_yes), y=percent_yes)) + geom_bar(stat = "identity") +
```



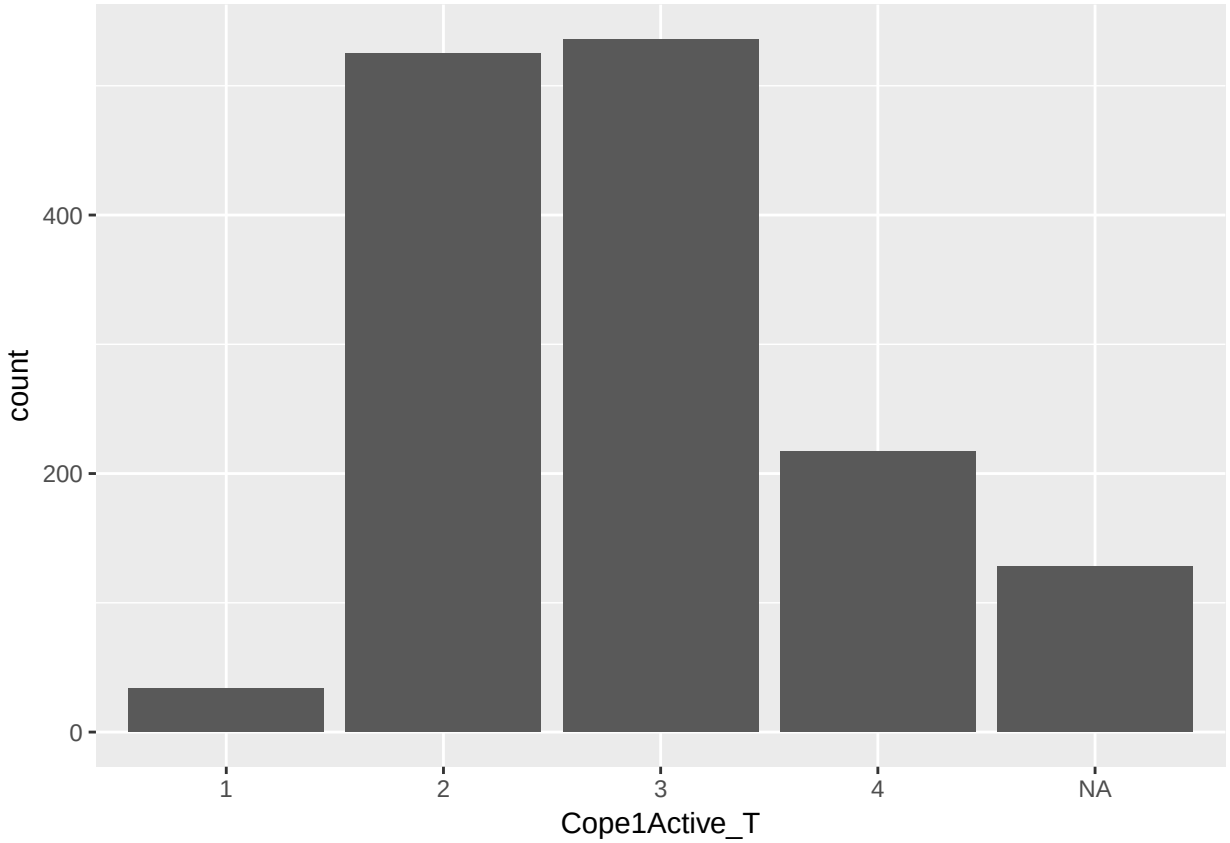
Many of the disaster preparation questions are answered 'yes' at an extremely high rate. Let's make a new variable that includes only questions where less than 95% of respondants said yes at time 1.

```
per_yes_T1$question <- as.character(per_yes_T1$question)
vars_95_less <- per_yes_T1$question[per_yes_T1$percent_yes < .95]
vars_95_less <- substr(vars_95_less, 3, nchar(vars_95_less))
data %<>% mutate(DP_95_T1 = select(., paste0('T1', vars_95_less)) %>% rowSums,

                 DP_95_T2 = select(., paste0('T2', vars_95_less)) %>% rowSums,

                 DP_95_T3 = select(., paste0('T3', vars_95_less)) %>% rowSums)

data$DP_95_T <- melt_data_suffix('DP_95_T')

filtered <- data %>% filter(!is.na(interventiongroup))
write_dta(filtered, 'C:/Users/ajame/Dropbox/Alex - Nepal/Flood data/Nepal RCT partial reshape DP cleane
```

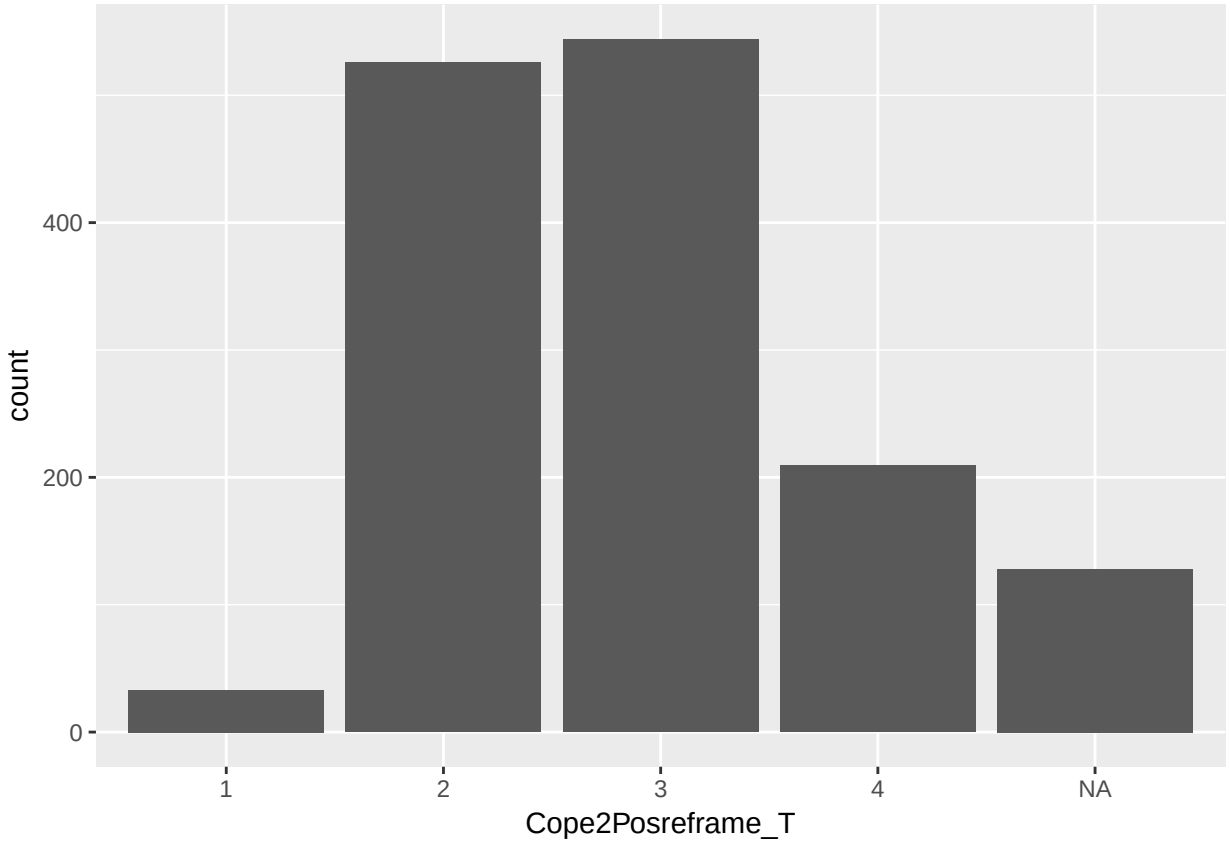
Let's look at the distribution of the coping variables to see how suitable for analysis they are individually.

```
for(var in cope_var_names) {
  print(ggplot(filtered, aes_string(x = var)) + geom_histogram(stat = "count"))
}
```

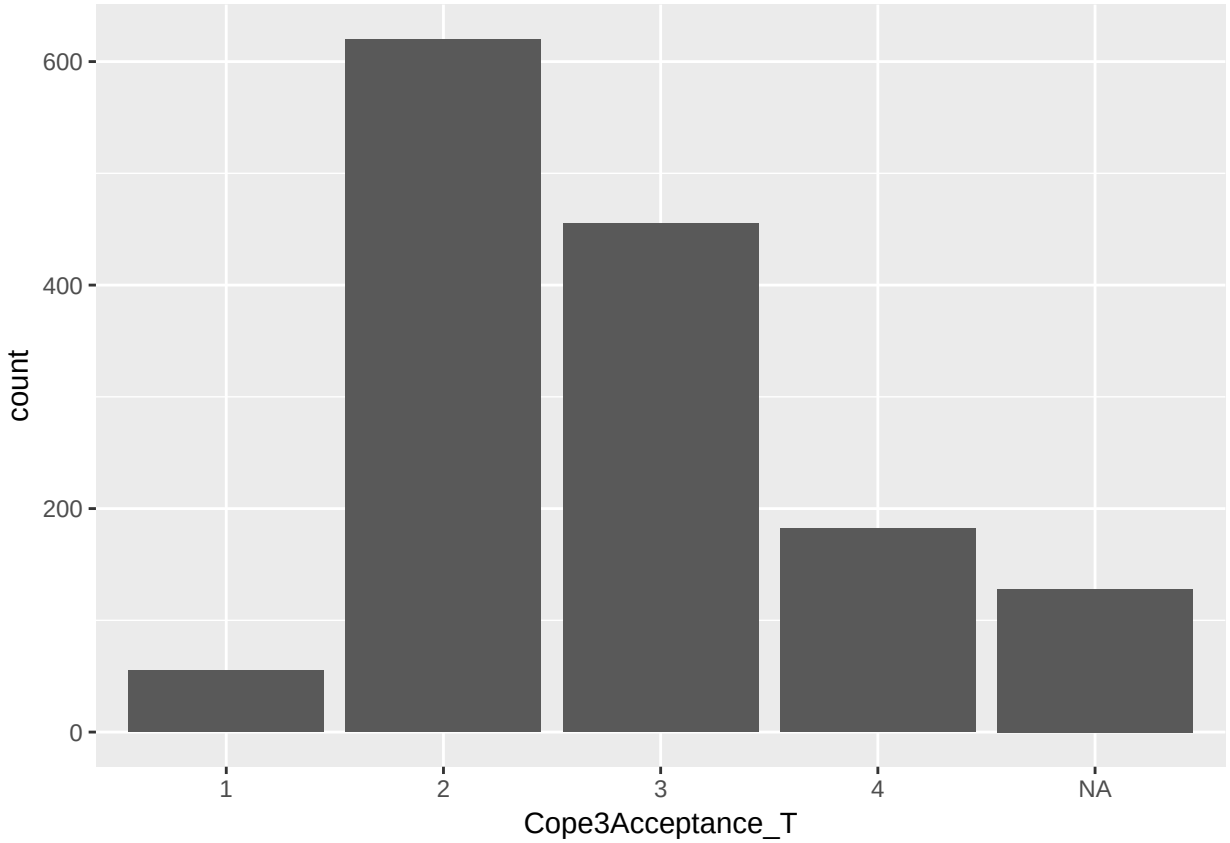
```
## Warning: Ignoring unknown parameters: binwidth, bins, pad

## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



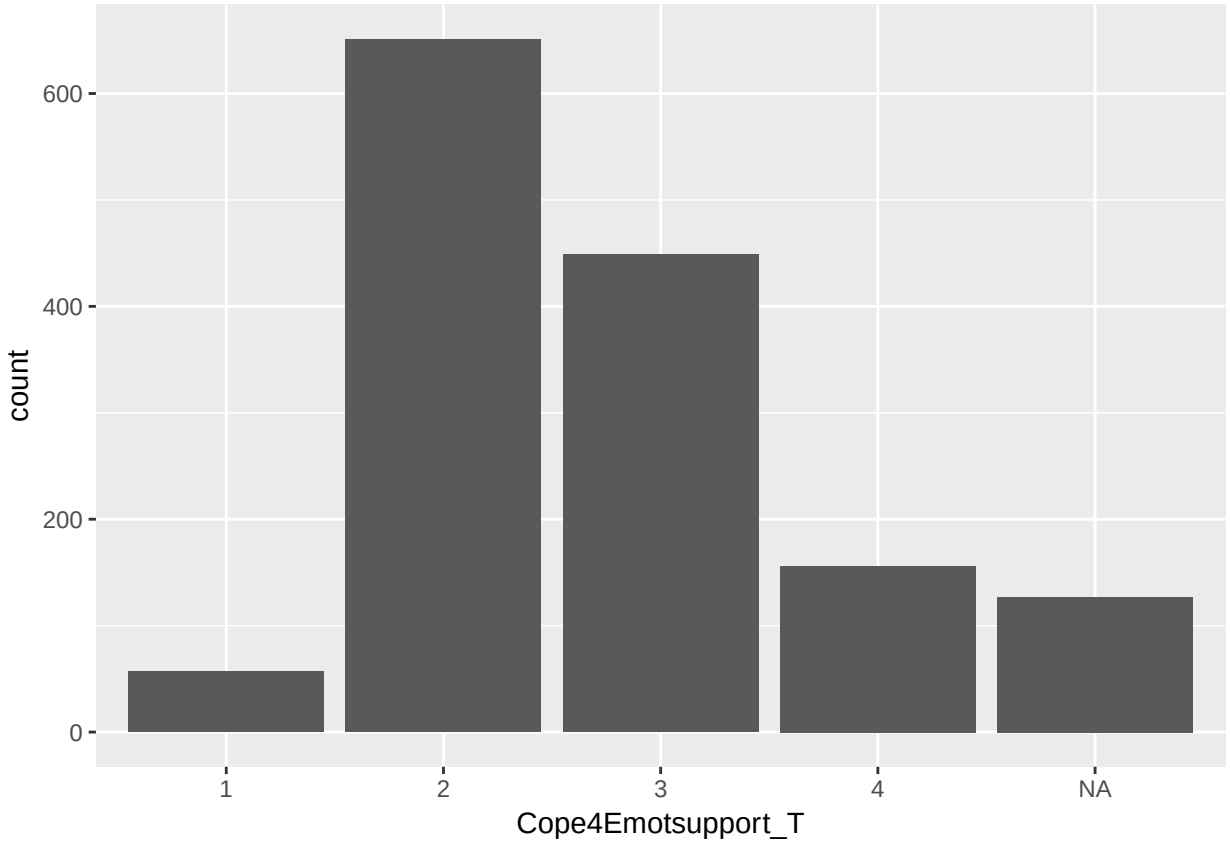

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



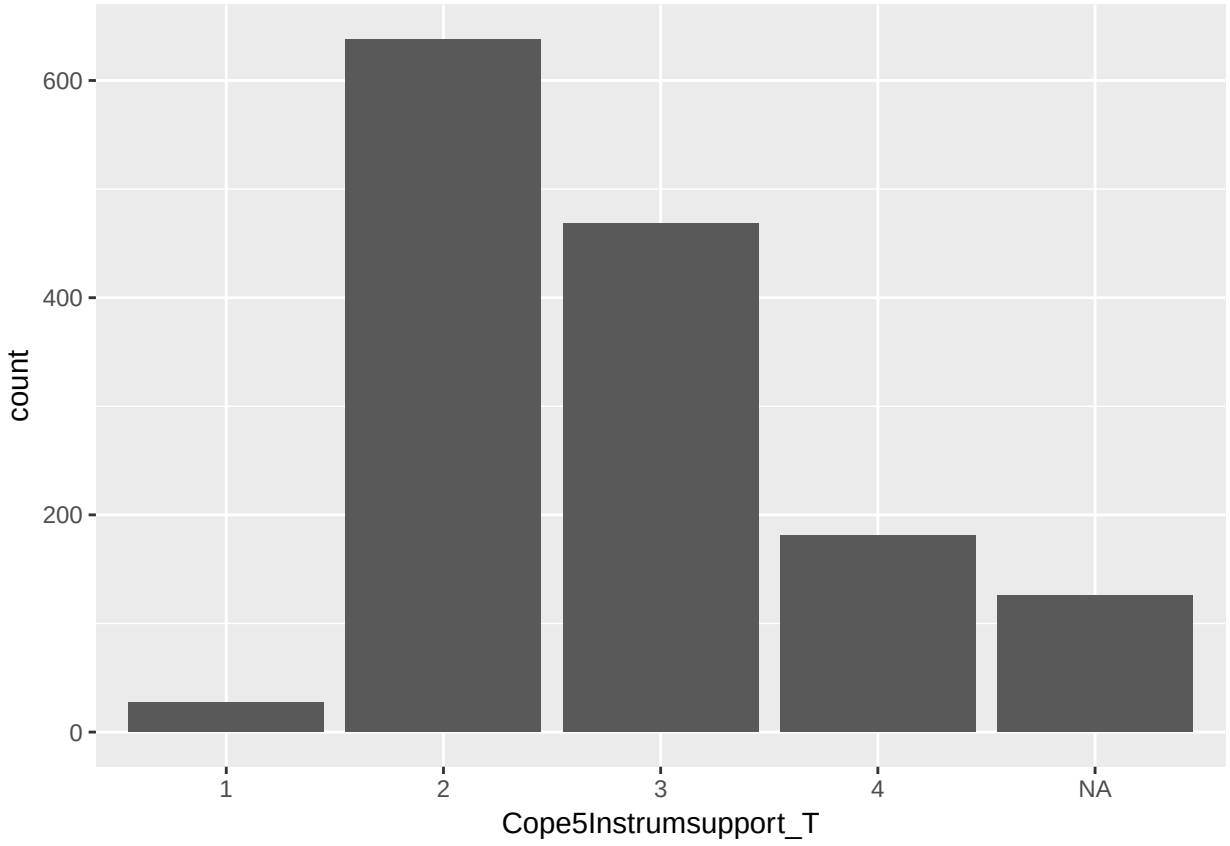

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



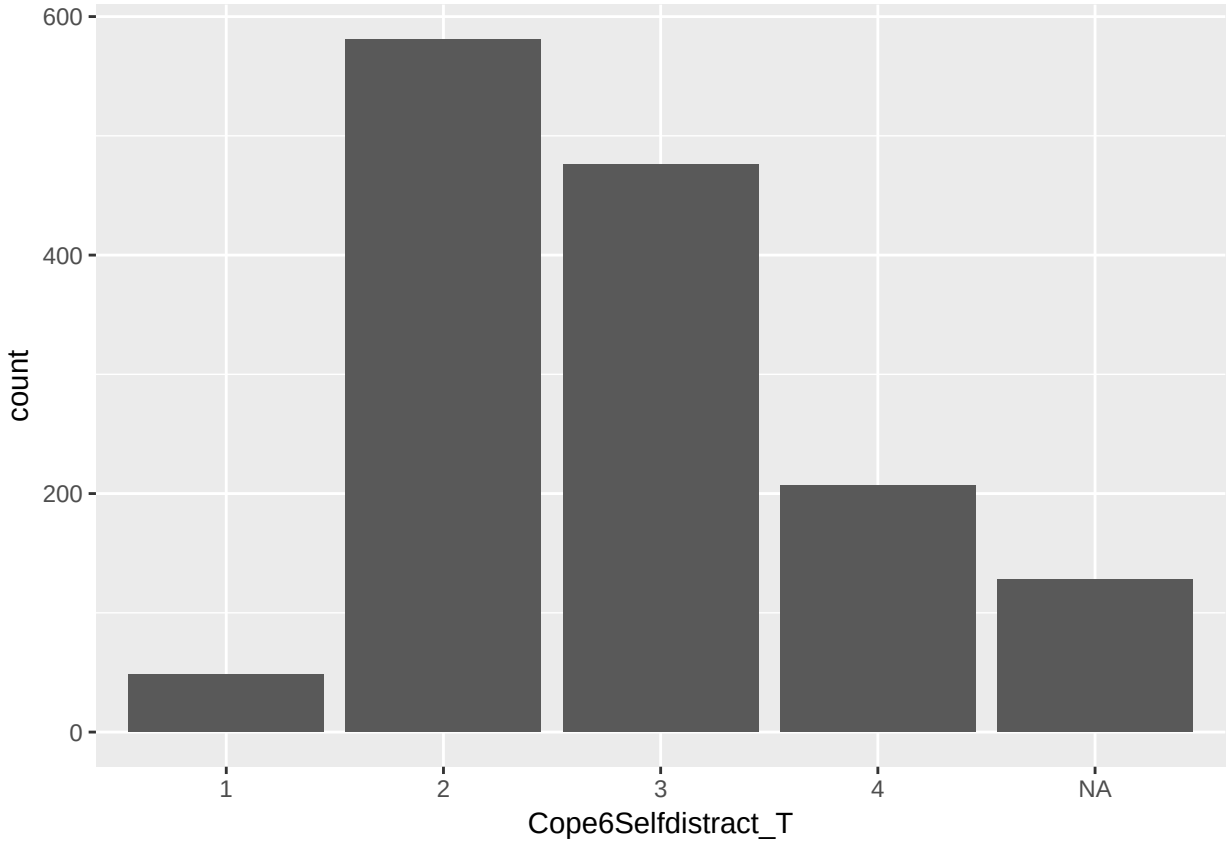

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



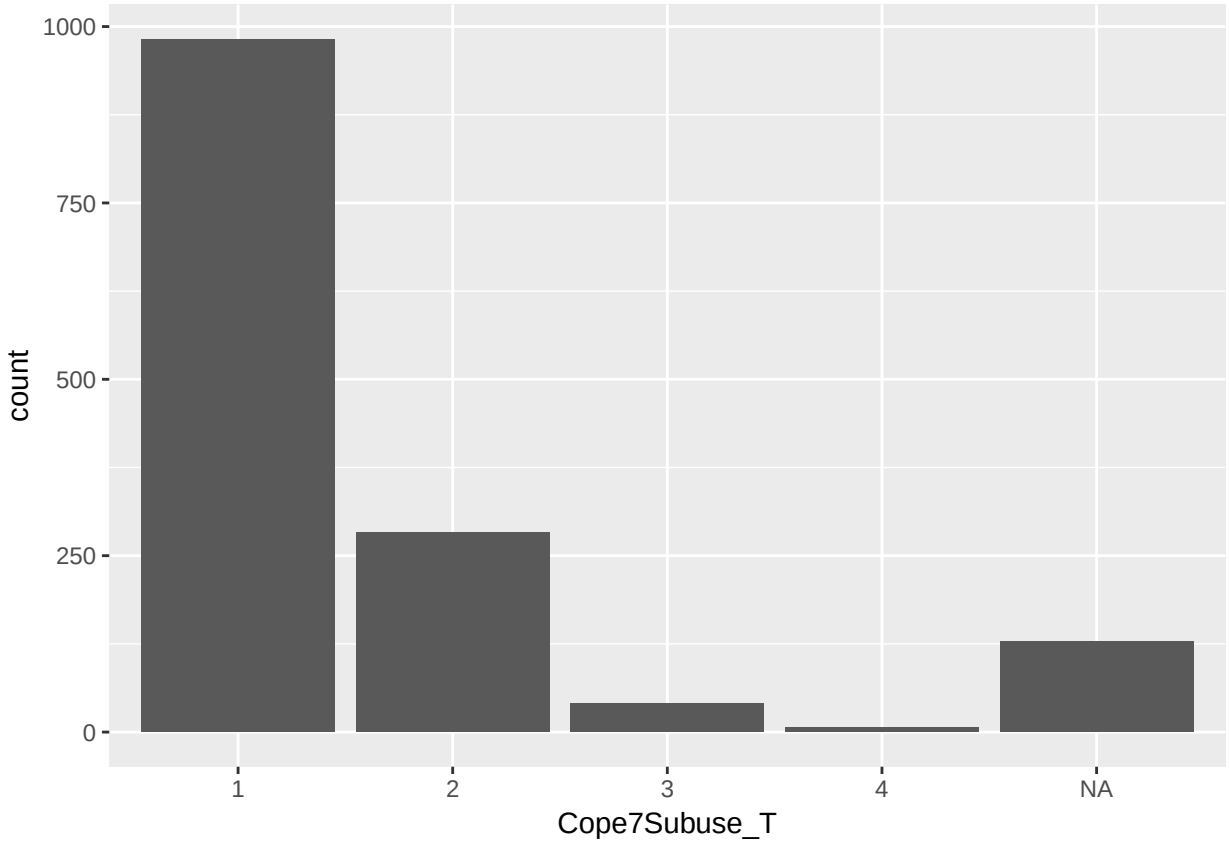

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



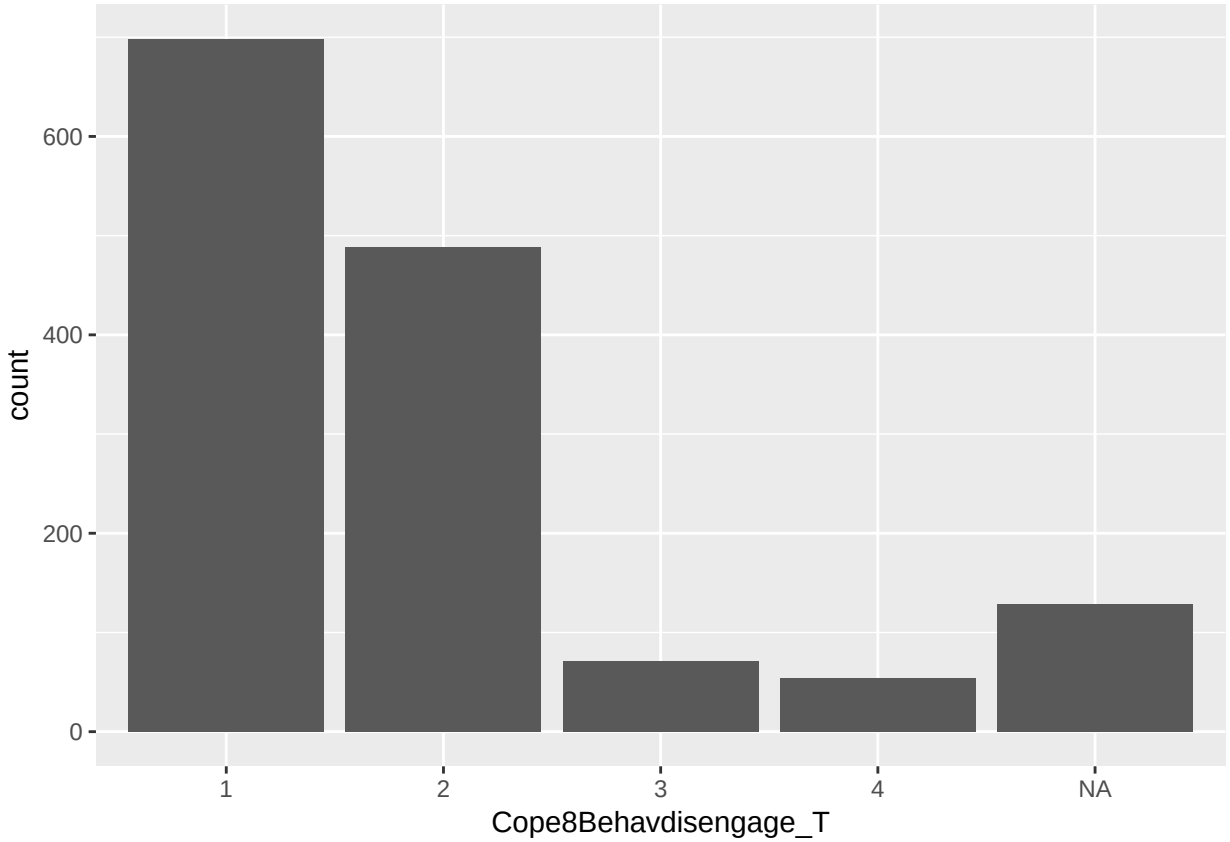

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



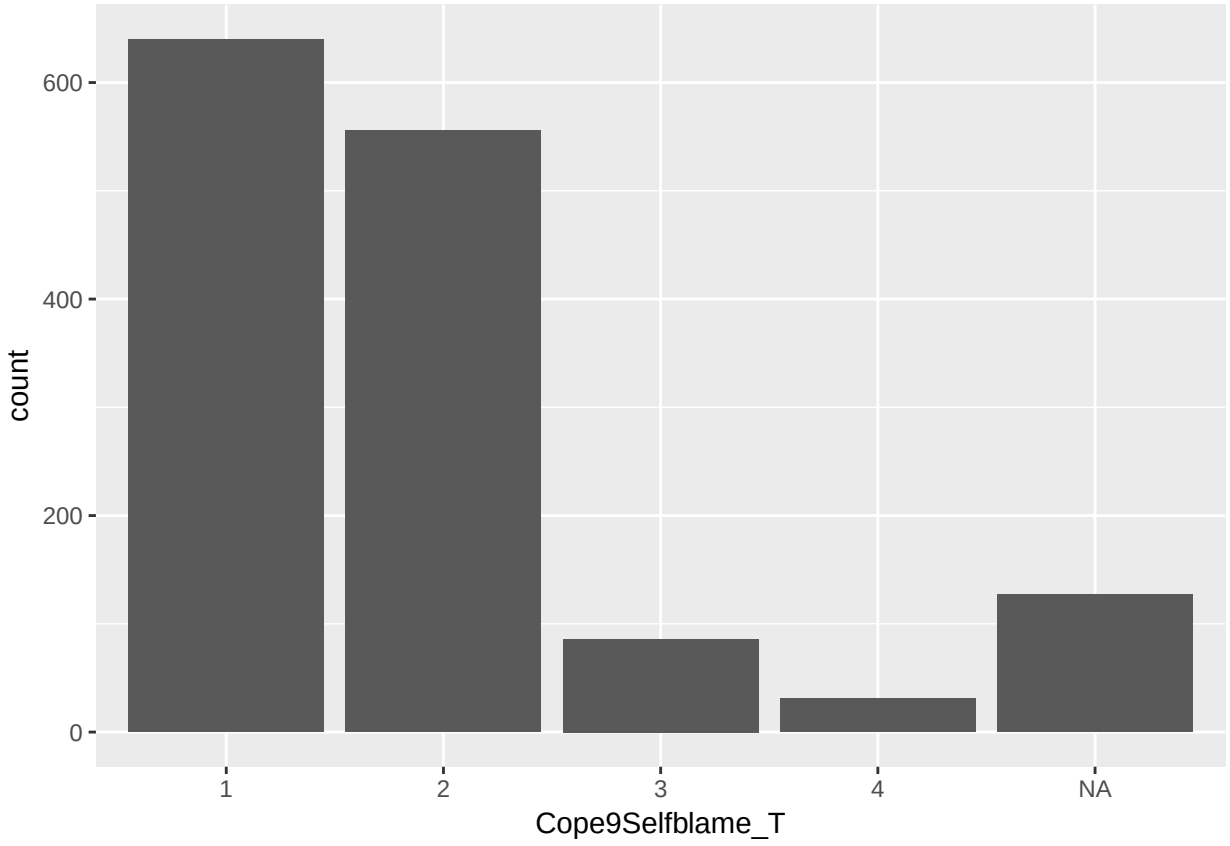

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



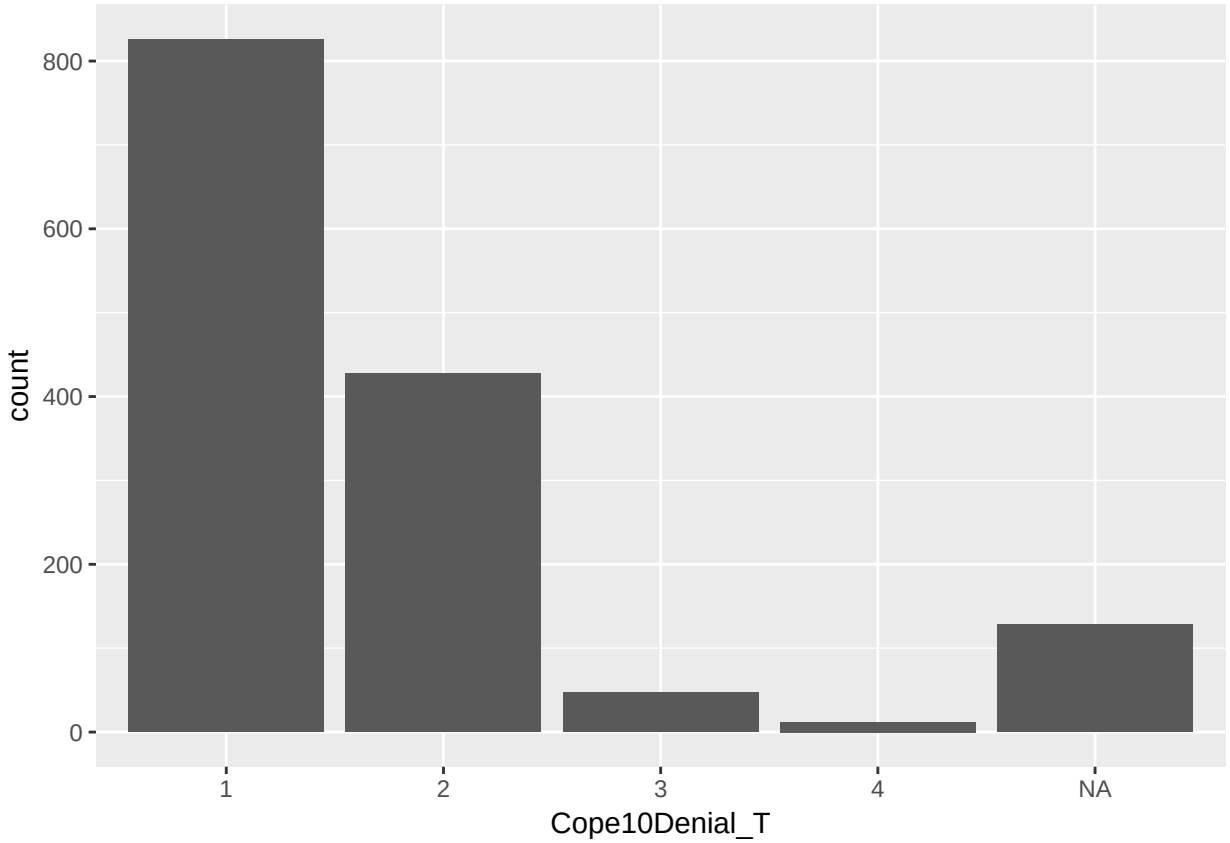

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



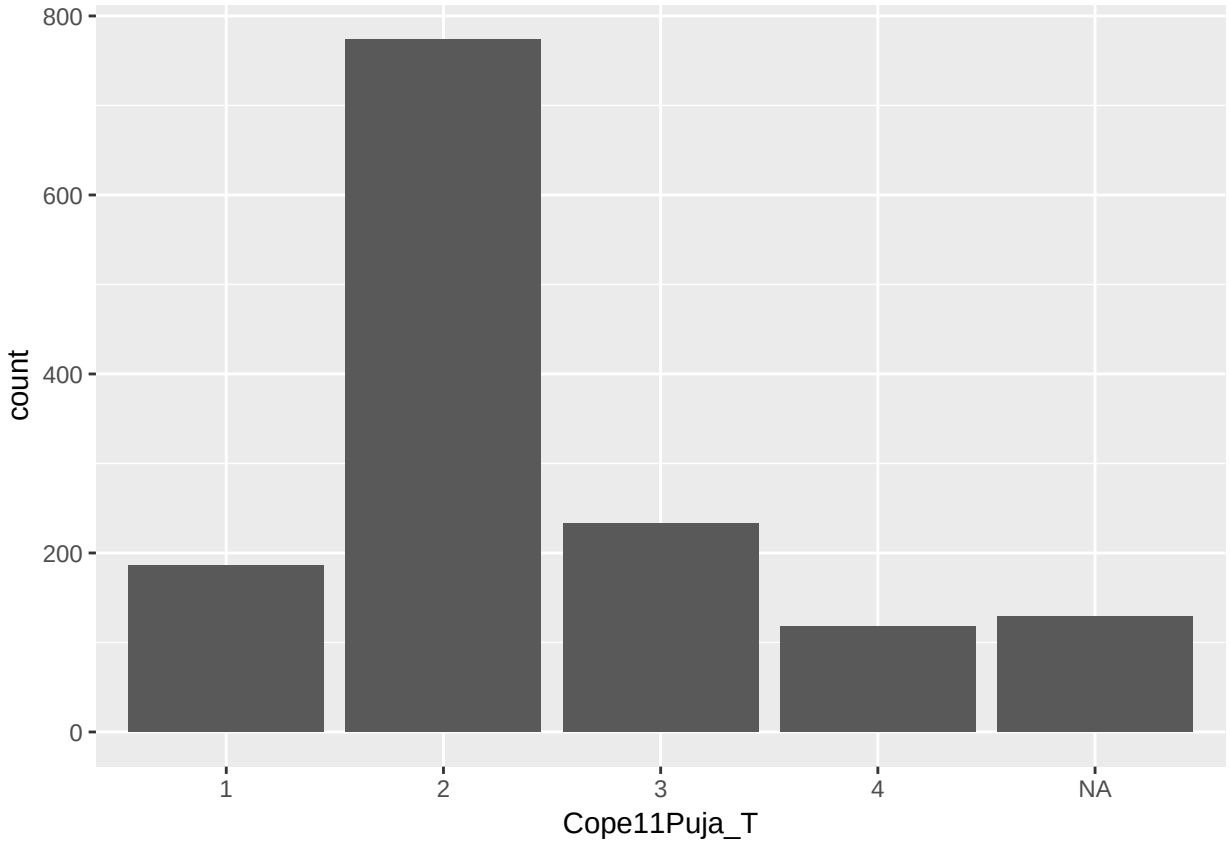

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```



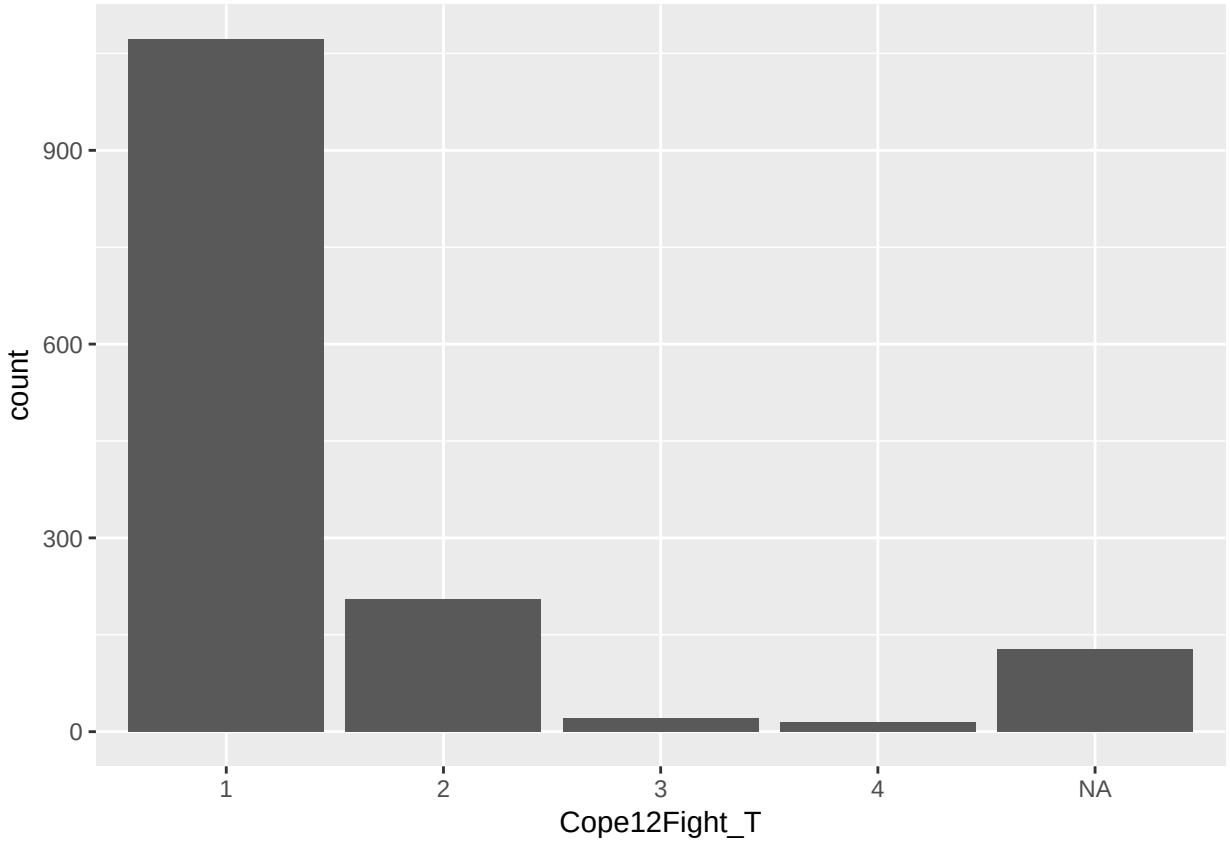

```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```

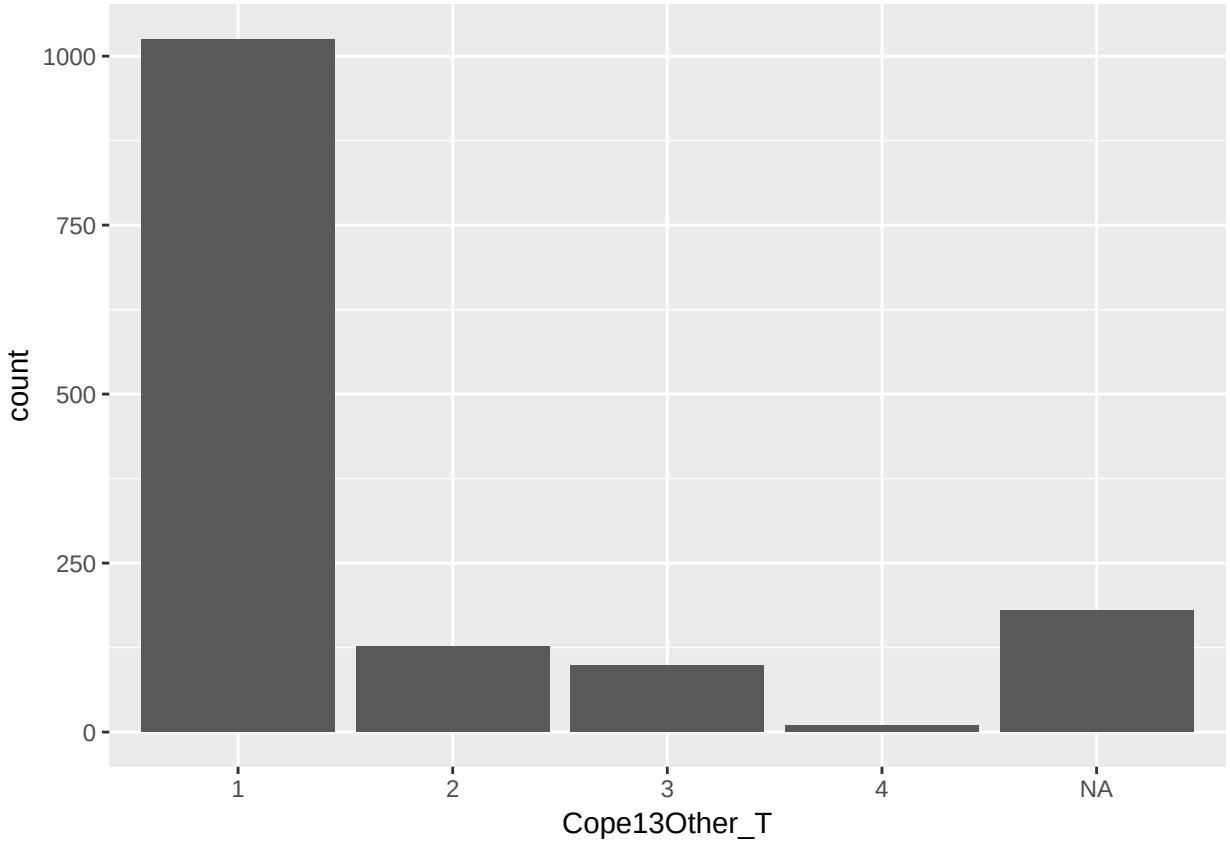



```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```




```
## Warning: Ignoring unknown parameters: binwidth, bins, pad
```


900
600
300
0
count
1
2
3
4
NA
Cope12Fight_T



Having done that, we can ask whether disaster preparedness is correlated with our mental health measures (a primary assumption of the intervention). We'll run it on the overall disaster preparedness measure and our cut-down version with only items with 95% or less 'yes' respondents.

```
cor.test( ~ DP_cleaned_T  + BDImean16_T, data = data, subset = timePoint_factor == "1" )
```

```
##
##  Pearson's product-moment correlation
##
## data:  DP_cleaned_T and BDImean16_T
## t = 1.2469, df = 438, p-value = 0.2131
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  -0.03420015  0.15211233
## sample estimates:
##       cor
## 0.05947402
```

```
cor.test( ~ DP_cleaned_T  + PTSDmean13_T, data = data, subset = timePoint_factor == "1" )
```

```
##
##  Pearson's product-moment correlation
##
## data:  DP_cleaned_T and PTSDmean13_T
## t = 4.2324, df = 438, p-value = 2.818e-05
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.1067121 0.2863957
```

```
## sample estimates:
##       cor
## 0.1982187
```

```
cor.test( ~ DP_95_T  + BDImean16_T, data = data, subset = timePoint_factor == "1" )
```

```
##
##  Pearson's product-moment correlation
##
## data:  DP_95_T and BDImean16_T
## t = 1.1105, df = 449, p-value = 0.2674
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  -0.04019414  0.14397600
## sample estimates:
##        cor
## 0.05233593
```

```
cor.test( ~ DP_95_T  + PTSDmean13_T, data = data, subset = timePoint_factor == "1" )
```

```
##
##  Pearson's product-moment correlation
##
## data:  DP_95_T and PTSDmean13_T
## t = 4.4586, df = 449, p-value = 1.044e-05
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.1157702 0.2926763
## sample estimates:
##      cor
## 0.205905
```

Now we'll create a figure of disaster preparedness means + standard errors across intervention groups and time points.

```
plot_line_bar <- function(dv, limits, theme_style = theme_grey(), title = "", position=c(.8825, .25), by


  if(is.factor(filtered[[dv]])) {
    filtered[[paste0(dv, '_numeric')]] <- as.numeric(filtered[[dv]])
    dv <- paste0(dv, '_numeric')
  }

  breaks <- seq(limits[1], limits[2], by=by)
  wrap_113 <- wrap_format(113)

  line <- ggplot(filtered, aes_string(x="timePoint_factor", y=dv, group="interventiongroup", shape="inte
        stat_summary(geom="errorbar", fun.data=mean_se, fun.args=list(mult=1), width=.09, size=1, alpha=
        stat_summary(aes(color=interventionLinePlotting), geom="line", fun.y="mean", size=1, alpha=.8,
        stat_summary(geom="point", fun.y="mean", size=4, aes(color=interventPlotting))  +
        coord_cartesian(ylim=limits) +
        scale_shape_discrete("") +
        scale_color_discrete("",labels=c('Control', 'Intervention')) +
        labs(color="Condition", shape="Condition", x="Time point", y=title, caption = wrap_113(sprintf(
        theme_style +
        theme(
```

```
            legend.position=position,
            plot.caption=element_text(hjust=0),
            legend.box.just="left",
            legend.background = element_rect(color = "transparent", fill = "transparent"),
            legend.key = element_rect(color = "transparent", fill = "transparent"),
            legend.title = element_blank()
        )   + guides(shape = guide_legend(override.aes = list(shape=c(19,17))),
              colour = guide_legend(override.aes = list(linetype = c(1,1), shape=NA)))
  line
  if(save) {
    ggsave(paste0(title, '.pdf'), device=cairo_pdf, width = 7.5, height = 5)
  }
  print(line)
}
```

```
limits <- c(20, 23)
theme <- theme_minimal()
rnge <- round(range(filtered$DP_cleaned_T, na.rm = TRUE),0)
caption = "24-item yes/no scale (range %d - %d), with greater values indicating greater engagement in di
plot_line_bar("DP_cleaned_T", limits, theme, "Disaster Preparation Behaviors", logit=FALSE, rnge = rnge
```

```
## Warning: Removed 182 rows containing non-finite values (stat_summary).

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```
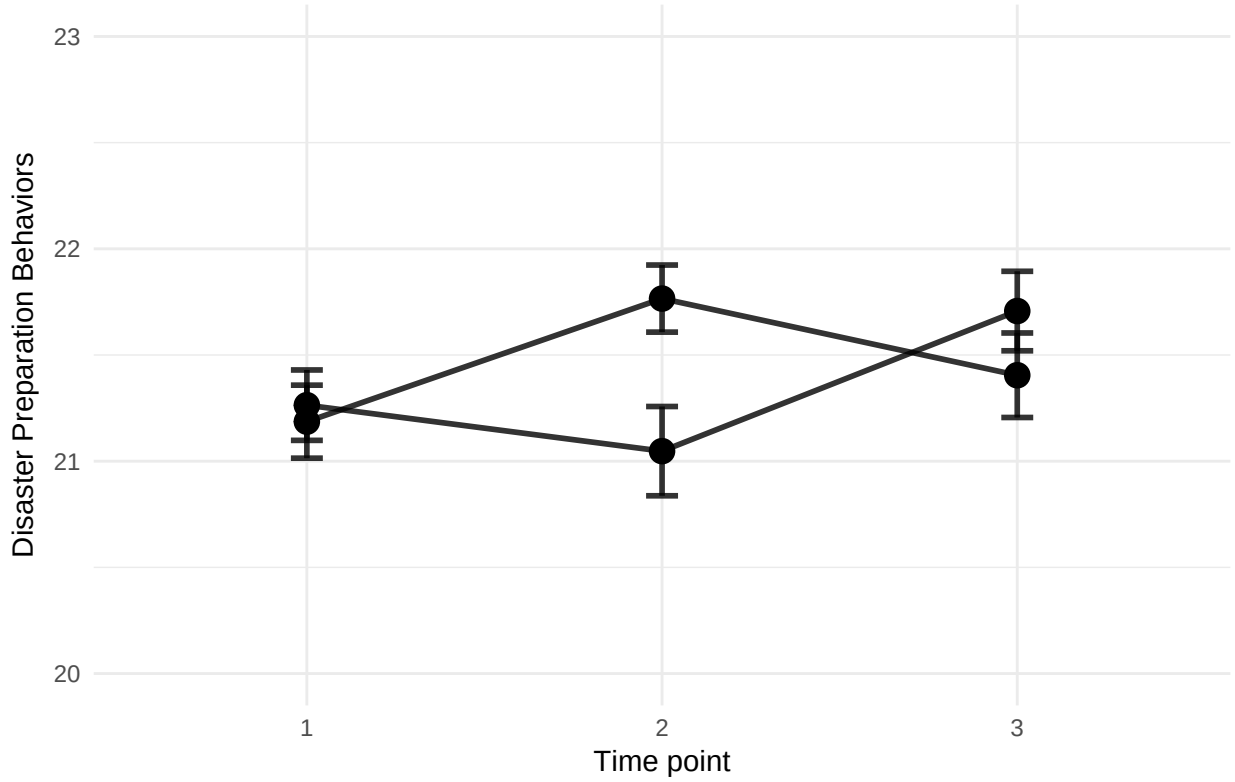



24−item yes/no scale (range 10 − 24), with greater values indicating greater engagement in disast behaviors

```
DP_model <- lmer(DP_cleaned_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), data =
summary(DP_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## DP_cleaned_T ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 5932.2
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.8404 -0.3888  0.2323  0.6142  1.7648
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.97505  1.4054
##  loc_factor           (Intercept) 0.06732  0.2595
##  Residual                         5.04314  2.2457
## Number of obs: 1255, groups:  ID_factor:loc_factor, 475; loc_factor, 3
##
## Fixed effects:
##                                              Estimate Std. Error
## (Intercept)                                  21.25606    0.22986
## interventiongroupIntervention                -0.07864    0.25170
```

```
## timePoint_factor2                                    -0.19911    0.21803
## timePoint_factor3                                     0.41237    0.21425
## interventiongroupIntervention:timePoint_factor2       0.72255    0.31611
## interventiongroupIntervention:timePoint_factor3      -0.22892    0.31122
##                                                           df t value
## (Intercept)                                            5.90000  92.472
## interventiongroupIntervention                       1121.20000  -0.312
## timePoint_factor2                                    833.70000  -0.913
## timePoint_factor3                                    818.00000   1.925
## interventiongroupIntervention:timePoint_factor2      840.40000   2.286
## interventiongroupIntervention:timePoint_factor3      826.70000  -0.736
##                                                     Pr(>|t|)
## (Intercept)                                         1.36e-10 ***
## interventiongroupIntervention                         0.7548
## timePoint_factor2                                     0.3614
## timePoint_factor3                                     0.0546 .
## interventiongroupIntervention:timePoint_factor2       0.0225 *
## interventiongroupIntervention:timePoint_factor3       0.4622
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.525
## tmPnt_fctr2 -0.448  0.409
## tmPnt_fctr3 -0.454  0.415  0.487
## intrvnI:P_2  0.309 -0.589 -0.690 -0.336
## intrvnI:P_3  0.313 -0.597 -0.335 -0.688  0.485
```

```
Anova(DP_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: DP_cleaned_T
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       8551.0764  1  < 2.2e-16 ***
## interventiongroup                    0.0976  1   0.754711
## timePoint_factor                     8.1870  2   0.016681 *
## interventiongroup:timePoint_factor   9.6704  2   0.007945 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
#summary(rbind(pairs(lsmeans::lsmeans(DP_model, ~ interventiongroup * timePoint_factor), by = "timePoin
DP_MM <- lsmeans::lsmeans(DP_model, ~ timePoint_factor * interventiongroup)
summary(rbind(pairs(DP_MM, by="interventiongroup")[c(1,3,4,6)], pairs(DP_MM, by="timePoint_factor")))
```

```
##  timePoint_factor contrast              interventiongroup    estimate
##  .                1 - 2                 Control             0.19911481
##  .                2 - 3                 Control            -0.61148885
##  .                1 - 2                 Intervention       -0.52343261
##  .                2 - 3                 Intervention        0.33997386
##  1                Control - Intervention .                  0.07863847
##  2                Control - Intervention .                 -0.64390894
##  3                Control - Intervention .                  0.30755377
##         SE      df t.ratio p.value
```

```
##  0.2180276  833.73   0.913  1.0000
##  0.2190543  811.32  -2.791  0.0376
##  0.2288935  846.33  -2.287  0.1572
##  0.2310525  813.80   1.471  0.9910
##  0.2516970 1121.17   0.312  1.0000
##  0.2636326 1153.06  -2.442  0.1032
##  0.2582720 1135.36   1.191  1.0000
##
## P value adjustment: bonferroni method for 7 tests
```

```
DP_95_model <- lmer(DP_95_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), data = fi
summary(DP_95_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## DP_95_T ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 5382
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.4736 -0.4877  0.2397  0.6162  1.8570
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.35758  1.1652
##  loc_factor           (Intercept) 0.02095  0.1447
##  Residual                         2.96741  1.7226
## Number of obs: 1273, groups:  ID_factor:loc_factor, 477; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     11.51682    0.15917
## interventiongroupIntervention                   -0.05809    0.19522
## timePoint_factor2                                0.28189    0.16556
## timePoint_factor3                                0.96262    0.16303
## interventiongroupIntervention:timePoint_factor2  0.51315    0.24061
## interventiongroupIntervention:timePoint_factor3 -0.17529    0.23666
##                                                       df t value
## (Intercept)                                      8.60000  72.354
## interventiongroupIntervention                 1095.90000  -0.298
## timePoint_factor2                              835.20000   1.703
## timePoint_factor3                              823.70000   5.905
## interventiongroupIntervention:timePoint_factor2  845.20000   2.133
## interventiongroupIntervention:timePoint_factor3  833.00000  -0.741
##                                                 Pr(>|t|)
## (Intercept)                                     2.76e-13 ***
## interventiongroupIntervention                     0.7661
## timePoint_factor2                                 0.0890 .
## timePoint_factor3                               5.16e-09 ***
## interventiongroupIntervention:timePoint_factor2   0.0332 *
## interventiongroupIntervention:timePoint_factor3   0.4591
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.591
## tmPnt_fctr2 -0.488  0.398
## tmPnt_fctr3 -0.495  0.403  0.484
## intrvnI:P_2  0.336 -0.571 -0.688 -0.333
## intrvnI:P_3  0.341 -0.579 -0.333 -0.689  0.481
```

```
Anova(DP_95_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: DP_95_T
##                                       Chisq Df Pr(>Chisq)
## (Intercept)                        5235.0578  1  < 2.2e-16 ***
## interventiongroup                     0.0885  1    0.76604
## timePoint_factor                     36.6077  2  1.124e-08 ***
## interventiongroup:timePoint_factor    8.6071  2    0.01352 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
#summary(rbind(pairs(lsmeans::lsmeans(DP_model, ~ interventiongroup * timePoint_factor), by = "timePoin
DP_95_MM <- lsmeans::lsmeans(DP_95_model, ~ timePoint_factor * interventiongroup)
summary(rbind(pairs(DP_95_MM, by="interventiongroup")[c(1,3,4,6)], pairs(DP_95_MM, by="timePoint_factor
```

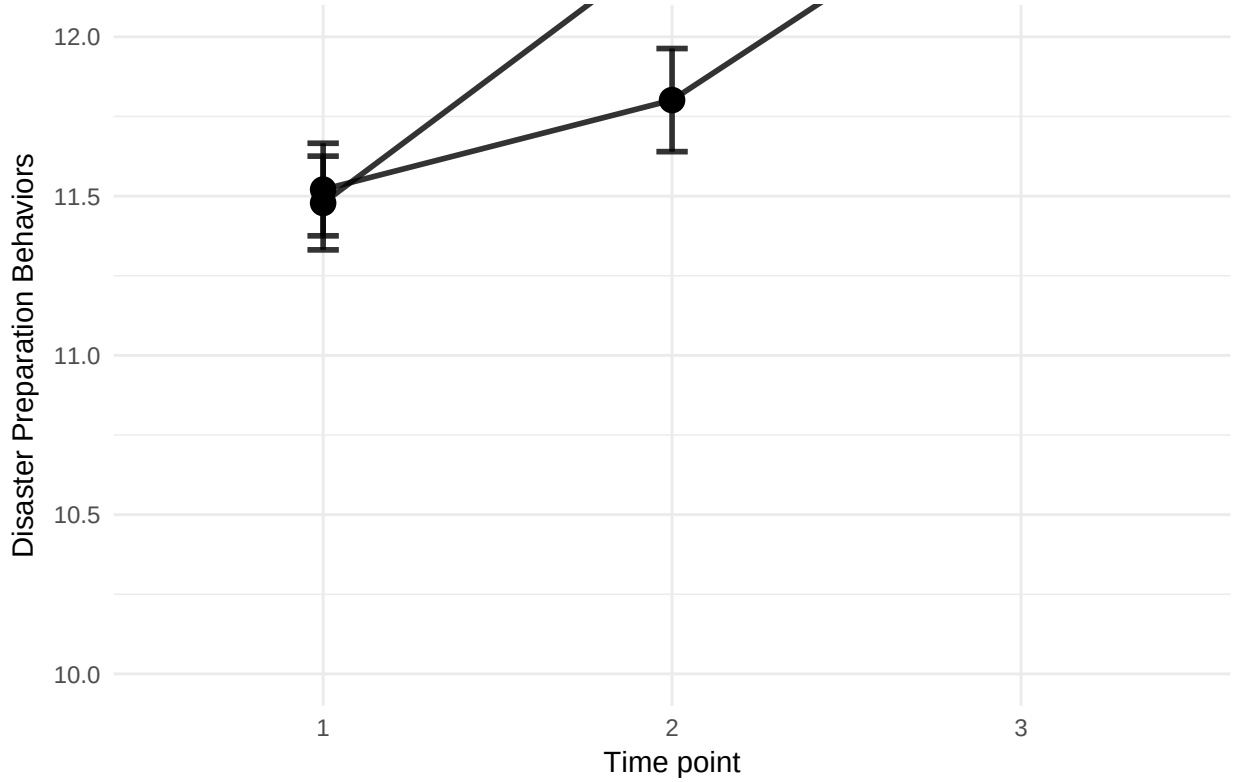
```
##  timePoint_factor contrast              interventiongroup    estimate
##  .                1 - 2                 Control           -0.28188564
##  .                2 - 3                 Control           -0.68073002
##  .                1 - 2                 Intervention      -0.79503993
##  .                2 - 3                 Intervention       0.00771349
##  1                Control - Intervention .                  0.05809126
##  2                Control - Intervention .                 -0.45506303
##  3                Control - Intervention .                  0.23338048
##         SE      df t.ratio p.value
##  0.1655631  835.17  -1.703  0.6231
##  0.1669174  816.21  -4.078  0.0003
##  0.1745900  854.26  -4.554  <.0001
##  0.1768405  821.80   0.044  1.0000
##  0.1952239 1095.88   0.298  1.0000
##  0.2058903 1142.37  -2.210  0.1910
##  0.2015750 1120.34   1.158  1.0000
##
## P value adjustment: bonferroni method for 7 tests
```

```
limits <- c(10, 12)
theme <- theme_minimal()
rnge <- round(range(filtered$DP_95_T, na.rm = TRUE),0)
caption = "13-item yes/no scale (range %d - %d), with greater values indicating greater engagement in di
plot_line_bar("DP_95_T", limits, theme, "Disaster Preparation Behaviors", logit=FALSE, rnge = rnge, by =
```

```
## Warning: Removed 164 rows containing non-finite values (stat_summary).
```

```
## Warning: Removed 164 rows containing non-finite values (stat_summary).
```

```
## Warning: Removed 164 rows containing non-finite values (stat_summary).

## Warning: Removed 164 rows containing non-finite values (stat_summary).

## Warning: Removed 164 rows containing non-finite values (stat_summary).

## Warning: Removed 164 rows containing non-finite values (stat_summary).
```



13−item yes/no scale (range 4 − 14), with greater values indicating greater engagement in disas behaviors

```
BDI_model <- lmer(BDImean16_T ~ interventiongroup * timePoint_factor + (1|ID_factor), data = filtered)
summary(BDI_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## BDImean16_T ~ interventiongroup * timePoint_factor + (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 1067
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.4371 -0.5304 -0.1032  0.4806  5.6524
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.10784  0.3284
##  Residual              0.07161  0.2676
```

```
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     1.608546   0.027009
## interventiongroupIntervention                  -0.023243   0.038706
## timePoint_factor2                              -0.060812   0.025370
## timePoint_factor3                              -0.190192   0.025043
## interventiongroupIntervention:timePoint_factor2 -0.001086   0.036866
## interventiongroupIntervention:timePoint_factor3  0.042190   0.036125
##                                                       df t value
## (Intercept)                                     796.700000  59.556
## interventiongroupIntervention                   798.000000  -0.600
## timePoint_factor2                               857.500000  -2.397
## timePoint_factor3                               854.300000  -7.594
## interventiongroupIntervention:timePoint_factor2 863.600000  -0.029
## interventiongroupIntervention:timePoint_factor3 858.600000   1.168
##                                                 Pr(>|t|)
## (Intercept)                                      < 2e-16 ***
## interventiongroupIntervention                     0.5483
## timePoint_factor2                                 0.0167 *
## timePoint_factor3                                8.1e-14 ***
## interventiongroupIntervention:timePoint_factor2   0.9765
## interventiongroupIntervention:timePoint_factor3   0.2432
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.698
## tmPnt_fctr2 -0.425  0.296
## tmPnt_fctr3 -0.430  0.300  0.473
## intrvnI:P_2  0.292 -0.420 -0.688 -0.325
## intrvnI:P_3  0.298 -0.428 -0.328 -0.693  0.469
```

```
Anova(BDI_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: BDImean16_T
##                                       Chisq Df Pr(>Chisq)
## (Intercept)                        3546.9139  1  < 2.2e-16 ***
## interventiongroup                     0.3606  1     0.5482
## timePoint_factor                     59.5064  2  1.198e-13 ***
## interventiongroup:timePoint_factor    1.7915  2     0.4083
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(BDI_model, ~ interventiongroup * timePoint_factor), by = "timePoin
```

```
##  timePoint_factor contrast                estimate         SE    df
##  2                Control - Intervention 0.02432938 0.04073152 898.2
##  t.ratio p.value
##    0.597  0.5505
```

```r
self_eff_model <- lmer(selfeffmeanT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), d
summary(self_eff_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## selfeffmeanT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 2440.2
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.74952 -0.59140  0.01568  0.55413  2.94308
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.173779 0.41687
##  loc_factor           (Intercept) 0.001154 0.03397
##  Residual                         0.252569 0.50256
## Number of obs: 1311, groups:  ID_factor:loc_factor, 479; loc_factor, 3
##
## Fixed effects:
##                                                  Estimate Std. Error
## (Intercept)                                       3.15507    0.04608
## interventiongroupIntervention                    -0.07887    0.05974
## timePoint_factor2                                -0.01747    0.04751
## timePoint_factor3                                 0.25982    0.04693
## interventiongroupIntervention:timePoint_factor2   0.12492    0.06895
## interventiongroupIntervention:timePoint_factor3  -0.14477    0.06763
##                                                        df t value Pr(>|t|)
## (Intercept)                                       10.00000  68.471 9.77e-15
## interventiongroupIntervention                    996.90000  -1.320   0.1871
## timePoint_factor2                                860.00000  -0.368   0.7132
## timePoint_factor3                                854.50000   5.536 4.12e-08
## interventiongroupIntervention:timePoint_factor2 867.60000   1.812   0.0703
## interventiongroupIntervention:timePoint_factor3 859.20000  -2.141   0.0326
##
## (Intercept)                                      ***
## interventiongroupIntervention
## timePoint_factor2
## timePoint_factor3                                ***
## interventiongroupIntervention:timePoint_factor2  .
## interventiongroupIntervention:timePoint_factor3  *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.632
## tmPnt_fctr2 -0.472  0.364
## tmPnt_fctr3 -0.477  0.368  0.473
## intrvnI:P_2  0.325 -0.514 -0.689 -0.326
## intrvnI:P_3  0.331 -0.524 -0.328 -0.694  0.467
```

```r
Anova(self_eff_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: selfeffmeanT
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       4688.2736  1  < 2.2e-16 ***
## interventiongroup                    1.7428  1  0.1867840
## timePoint_factor                    42.1308  2  7.103e-10 ***
## interventiongroup:timePoint_factor  14.6942  2  0.0006445 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
summary(rbind(pairs(lsmeans::lsmeans(self_eff_model, ~ interventiongroup * timePoint_factor), by = "tim
```

```
##  timePoint_factor contrast                  estimate         SE      df
##  2                Control - Intervention -0.04605823 0.06394876 1091.76
##  t.ratio p.value
##    -0.72  0.4715
```

```r
SelfEff1timeT_model <- clmm(SelfEff1timeT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_fac
summary(SelfEff1timeT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## SelfEff1timeT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1278 -1650.31 3322.61 947(3666) 9.05e-04 2.1e+02
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.619e+00 1.272463
##  loc_factor           (Intercept) 9.245e-05 0.009615
## Number of groups:  ID_factor:loc_factor 477,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                   -0.4081     0.2191
## timePoint_factor2                               -0.2691     0.1856
## timePoint_factor3                                0.2408     0.1820
## interventiongroupIntervention:timePoint_factor2  0.2559     0.2680
## interventiongroupIntervention:timePoint_factor3 -0.2178     0.2613
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -1.863   0.0625 .
## timePoint_factor2                               -1.450   0.1470
## timePoint_factor3                                1.323   0.1859
## interventiongroupIntervention:timePoint_factor2  0.955   0.3396
## interventiongroupIntervention:timePoint_factor3 -0.834   0.4045
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
```

```
##     Estimate Std. Error z value
## 1|2  -5.7341     0.3560 -16.107
## 2|3  -2.0424     0.1732 -11.795
## 3|4   0.2435     0.1577   1.544
## 4|5   2.3849     0.1809  13.185
## (162 observations deleted due to missingness)
```

```
Anova(SelfEff1timeT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: SelfEff1timeT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.0000  1     0.9952
## timePoint_factor                    0.0000  2     1.0000
## interventiongroup:timePoint_factor  3.1814  2     0.2038
```

```
summary(rbind(pairs(lsmeans::lsmeans(SelfEff1timeT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.1521721 0.2268818 NA   0.671
##  p.value
##   0.5024
```

```
SelfEff2affordT_model <- clmm(SelfEff2affordT  ~ interventiongroup * timePoint_factor + (1|ID_factor), d
summary(SelfEff2affordT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: SelfEff2affordT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1313 -1495.34 3010.68 822(2469) 1.78e-03 7.1e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.198    1.094
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                 -0.123390   0.211908
## timePoint_factor2                             -0.009857   0.190354
## timePoint_factor3                              0.466862   0.187949
## interventiongroupIntervention:timePoint_factor2  0.249993   0.275342
## interventiongroupIntervention:timePoint_factor3 -0.383767   0.268374
##                                               z value Pr(>|z|)
## interventiongroupIntervention                  -0.582    0.560
## timePoint_factor2                              -0.052    0.959
## timePoint_factor3                               2.484    0.013 *
## interventiongroupIntervention:timePoint_factor2   0.908    0.364
## interventiongroupIntervention:timePoint_factor3  -1.430    0.153
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -4.4146     0.2600 -16.978
## 2|3  -1.4980     0.1606  -9.326
## 3|4   1.7941     0.1660  10.808
## 4|5   3.1411     0.1945  16.147
## (127 observations deleted due to missingness)
```

```
Anova(SelfEff2affordT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: SelfEff2affordT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.0000  1    1.00000
## timePoint_factor                   0.0000  2    1.00000
## interventiongroup:timePoint_factor   5.3545  2    0.06875 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(SelfEff2affordT_model, ~ interventiongroup * timePoint_factor), by
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention -0.1266031 0.2257569 NA  -0.561
##  p.value
##   0.5749
```

```
SelfEff3infoT_model <- clmm(SelfEff3infoT  ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_fa
summary(SelfEff3infoT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## SelfEff3infoT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1311 -1607.94 3237.87 970(3846) 1.22e-03 1.2e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.735651 1.31744
##  loc_factor           (Intercept) 0.007689 0.08769
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                  -0.168943   0.214515
## timePoint_factor2                              -0.005567   0.183091
## timePoint_factor3                               1.204707   0.183334
## interventiongroupIntervention:timePoint_factor2  0.547458   0.266878
## interventiongroupIntervention:timePoint_factor3 -0.338566   0.258318
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -0.788   0.4310
## timePoint_factor2                               -0.030   0.9757
```

```
## timePoint_factor3                                    6.571 4.99e-11 ***
## interventiongroupIntervention:timePoint_factor2   2.051   0.0402 *
## interventiongroupIntervention:timePoint_factor3  -1.311   0.1900
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -6.6819     0.6081 -10.989
## 2|3  -1.3418     0.1687  -7.952
## 3|4   1.1028     0.1656   6.661
## 4|5   3.3283     0.2036  16.345
## (129 observations deleted due to missingness)
```

```
Anova(SelfEff3infoT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: SelfEff3infoT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                     0.000  1   1.000000
## timePoint_factor                      0.000  2   1.000000
## interventiongroup:timePoint_factor   10.714  2   0.004715 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(SelfEff3infoT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention -0.378515 0.2334614 NA  -1.621
##  p.value
##   0.1049
```

```
DISMHmeanT_model <- lmer(DISMHmeanT ~ interventiongroup * timePoint_factor + (1|ID_factor), data = filte
summary(DISMHmeanT_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## DISMHmeanT ~ interventiongroup * timePoint_factor + (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 2531.6
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.4372 -0.5800  0.0050  0.6163  2.6200
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.09978  0.3159
##  Residual              0.31575  0.5619
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                 Estimate Std. Error
```

```
## (Intercept)                                          3.194e+00  4.118e-02
## interventiongroupIntervention                       -7.171e-02  5.892e-02
## timePoint_factor2                                   -3.859e-01  5.290e-02
## timePoint_factor3                                   -5.791e-01  5.230e-02
## interventiongroupIntervention:timePoint_factor2      8.136e-03  7.658e-02
## interventiongroupIntervention:timePoint_factor3     -2.543e-04  7.522e-02
##                                                             df t value
## (Intercept)                                          1.182e+03  77.559
## interventiongroupIntervention                        1.181e+03  -1.217
## timePoint_factor2                                    8.722e+02  -7.295
## timePoint_factor3                                    8.645e+02 -11.073
## interventiongroupIntervention:timePoint_factor2      8.810e+02   0.106
## interventiongroupIntervention:timePoint_factor3      8.692e+02  -0.003
##                                                     Pr(>|t|)
## (Intercept)                                          < 2e-16 ***
## interventiongroupIntervention                          0.224
## timePoint_factor2                                   6.72e-13 ***
## timePoint_factor3                                    < 2e-16 ***
## interventiongroupIntervention:timePoint_factor2        0.915
## interventiongroupIntervention:timePoint_factor3        0.997
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.699
## tmPnt_fctr2 -0.592  0.414
## tmPnt_fctr3 -0.599  0.419  0.472
## intrvnI:P_2  0.409 -0.585 -0.691 -0.326
## intrvnI:P_3  0.416 -0.596 -0.328 -0.695  0.466
```

```
Anova(DISMHmeanT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: DISMHmeanT
##                                       Chisq Df Pr(>Chisq)
## (Intercept)                        6015.4187  1     <2e-16 ***
## interventiongroup                     1.4813  1     0.2236
## timePoint_factor                    128.1104  2     <2e-16 ***
## interventiongroup:timePoint_factor    0.0149  2     0.9926
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(DISMHmeanT_model, ~ interventiongroup * timePoint_factor), by = "t
```

```
##  timePoint_factor contrast               estimate         SE     df
##  2                Control - Intervention 0.0635698 0.06369961 1231.6
##  t.ratio p.value
##    0.998  0.3185
```

```
DisMH1anxiousT_model <- clmm(DisMH1anxiousT ~ interventiongroup * timePoint_factor + (1|ID_factor), data
summary(DisMH1anxiousT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
```

```
## formula: DisMH1anxiousT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1314 -1618.57 3257.14 863(2591) 1.40e-03 9.2e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.782    0.8843
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                  -0.11522    0.19987
## timePoint_factor2                              -1.56640    0.18991
## timePoint_factor3                              -2.04662    0.19029
## interventiongroupIntervention:timePoint_factor2 -0.13611    0.26464
## interventiongroupIntervention:timePoint_factor3 -0.05514    0.25686
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -0.576    0.564
## timePoint_factor2                               -8.248   <2e-16 ***
## timePoint_factor3                              -10.755   <2e-16 ***
## interventiongroupIntervention:timePoint_factor2  -0.514    0.607
## interventiongroupIntervention:timePoint_factor3  -0.215    0.830
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -5.9558     0.2826 -21.073
## 2|3  -2.7577     0.1712 -16.108
## 3|4  -1.3414     0.1504  -8.917
## 4|5   1.7062     0.1573  10.845
## (126 observations deleted due to missingness)
```

```
Anova(DisMH1anxiousT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisMH1anxiousT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.00000  1     1.0000
## timePoint_factor                   0.00000  2     1.0000
## interventiongroup:timePoint_factor  0.26675  2     0.8751
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisMH1anxiousT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate       SE df z.ratio
##  2                Control - Intervention 0.2513249 0.208219 NA   1.207
##  p.value
##   0.2274
```

```
DisMH2depressedT_model  <- clmm(DisMH2depressedT ~ interventiongroup * timePoint_factor + (1|ID_factor)
summary(DisMH2depressedT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: DisMH2depressedT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1311 -1677.18 3374.36 818(2457) 2.00e-03 8.3e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.51     1.229
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                                 Estimate Std. Error
## interventiongroupIntervention                   -0.23303    0.21154
## timePoint_factor2                               -1.09880    0.18475
## timePoint_factor3                               -1.70180    0.18801
## interventiongroupIntervention:timePoint_factor2 -0.06037    0.26285
## interventiongroupIntervention:timePoint_factor3 -0.25720    0.26021
##                                                 z value Pr(>|z|)
## interventiongroupIntervention                    -1.102    0.271
## timePoint_factor2                                -5.947 2.72e-09 ***
## timePoint_factor3                                -9.052  < 2e-16 ***
## interventiongroupIntervention:timePoint_factor2  -0.230    0.818
## interventiongroupIntervention:timePoint_factor3  -0.988    0.323
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -5.0887     0.2431 -20.929
## 2|3  -1.8812     0.1656 -11.359
## 3|4  -0.2013     0.1527  -1.318
## 4|5   2.7089     0.1921  14.102
## (129 observations deleted due to missingness)
```

```
Anova(DisMH2depressedT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisMH2depressedT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.0000  1     1.0000
## timePoint_factor                   0.0000  2     1.0000
## interventiongroup:timePoint_factor   1.0534  2     0.5905
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisMH2depressedT_model, ~ interventiongroup * timePoint_factor), by
```

```
##  timePoint_factor contrast               estimate       SE df z.ratio
##  2                Control - Intervention 0.2933969 0.223535 NA   1.313
##  p.value
##   0.1893
```

```r
DisMH3avoidT_model  <- clmm(DisMH3avoidT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_facto
summary(DisMH3avoidT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## DisMH3avoidT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1311 -1504.90 3031.80 938(2817) 1.39e-03 7.4e+01
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.92238  0.9604
##  loc_factor           (Intercept) 0.01261  0.1123
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                   -0.1381     0.2046
## timePoint_factor2                               -0.1224     0.1865
## timePoint_factor3                               -0.3996     0.1860
## interventiongroupIntervention:timePoint_factor2  0.2747     0.2707
## interventiongroupIntervention:timePoint_factor3  0.2768     0.2664
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -0.675   0.4998
## timePoint_factor2                               -0.656   0.5115
## timePoint_factor3                               -2.149   0.0317 *
## interventiongroupIntervention:timePoint_factor2  1.015   0.3103
## interventiongroupIntervention:timePoint_factor3  1.039   0.2988
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -2.1483     0.1779 -12.074
## 2|3   1.0338     0.1640   6.305
## 3|4   2.4958     0.1854  13.460
## 4|5   5.0047     0.3348  14.949
## (129 observations deleted due to missingness)
```

```r
Anova(DisMH3avoidT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisMH3avoidT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.000  1     0.9999
## timePoint_factor                    0.000  2     1.0000
## interventiongroup:timePoint_factor  1.427  2     0.4899
```

```r
summary(rbind(pairs(lsmeans::lsmeans(DisMH3avoidT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
```

```
##  2                Control - Intervention -0.1365974 0.2166177 NA  -0.631
##  p.value
##   0.5283
```

```
Fatalismmean_T_model <- lmer(Fatalismmean_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_fa
summary(Fatalismmean_T_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula: Fatalismmean_T ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 3923.2
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -2.78385 -0.62025  0.01431  0.60548  2.94563
##
## Random effects:
##  Groups                Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.4730   0.6877
##  loc_factor           (Intercept) 0.0264   0.1625
##  Residual                         0.8168   0.9038
## Number of obs: 1311, groups:  ID_factor:loc_factor, 479; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                      2.84193    0.11859
## interventiongroupIntervention                    0.01605    0.10392
## timePoint_factor2                               -0.07359    0.08535
## timePoint_factor3                               -0.61686    0.08434
## interventiongroupIntervention:timePoint_factor2 -0.19648    0.12383
## interventiongroupIntervention:timePoint_factor3  0.03751    0.12150
##                                                       df t value
## (Intercept)                                        3.60000  23.965
## interventiongroupIntervention                   1039.80000   0.154
## timePoint_factor2                                858.50000  -0.862
## timePoint_factor3                                852.40000  -7.314
## interventiongroupIntervention:timePoint_factor2  866.50000  -1.587
## interventiongroupIntervention:timePoint_factor3  857.20000   0.309
##                                                 Pr(>|t|)
## (Intercept)                                     3.90e-05 ***
## interventiongroupIntervention                      0.877
## timePoint_factor2                                  0.389
## timePoint_factor3                               5.98e-13 ***
## interventiongroupIntervention:timePoint_factor2    0.113
## interventiongroupIntervention:timePoint_factor3    0.758
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.427
## tmPnt_fctr2 -0.330  0.376
```

```
## tmPnt_fctr3 -0.334  0.381  0.473
## intrvnI:P_2  0.227 -0.532 -0.689 -0.326
## intrvnI:P_3  0.232 -0.542 -0.328 -0.694  0.467
```

```
Anova(Fatalismmean_T_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: Fatalismmean_T
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                     574.3267  1  < 2.2e-16 ***
## interventiongroup                 0.0238  1     0.8773
## timePoint_factor                 62.1689  2  3.164e-14 ***
## interventiongroup:timePoint_factor   3.9249  2     0.1405
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(Fatalismmean_T_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE      df
##  2                Control - Intervention 0.1804311 0.1115569 1127.23
##  t.ratio p.value
##    1.617  0.1061
```

```
Fat1dontworryT_model  <- clmm(Fat1dontworryT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_
summary(Fat1dontworryT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: Fat1dontworryT ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter      max.grad cond.H
##  logit flexible  1311 -1936.09 3894.19 1013(3067) 1.57e-03 1.6e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.5274   1.2359
##  loc_factor           (Intercept) 0.1096   0.3311
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                -0.0001447  0.2090811
## timePoint_factor2                            -0.0498061  0.1769564
## timePoint_factor3                            -1.0195395  0.1777626
## interventiongroupIntervention:timePoint_factor2 -0.3324101  0.2570117
## interventiongroupIntervention:timePoint_factor3  0.1072714  0.2524507
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -0.001    0.999
## timePoint_factor2                               -0.281    0.778
## timePoint_factor3                               -5.735 9.73e-09 ***
## interventiongroupIntervention:timePoint_factor2  -1.293    0.196
## interventiongroupIntervention:timePoint_factor3   0.425    0.671
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -1.9830     0.2519  -7.873
## 2|3  -0.9934     0.2459  -4.040
## 3|4   0.6034     0.2443   2.470
## 4|5   2.6939     0.2635  10.223
## (129 observations deleted due to missingness)
```

```
Anova(Fat1dontworryT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: Fat1dontworryT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.0000  1     0.9998
## timePoint_factor                   0.0000  2     1.0000
## interventiongroup:timePoint_factor   3.1166  2     0.2105
```

```
summary(rbind(pairs(lsmeans::lsmeans(Fat1dontworryT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.3325548 0.2192372 NA   1.517
##  p.value
##   0.1293
```

```
Fat2injuredT_model  <- clmm(Fat2injuredT ~ interventiongroup * timePoint_factor + (1|ID_factor), data =
summary(Fat2injuredT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## Fat2injuredT ~ interventiongroup * timePoint_factor + (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1314 -1915.85 3851.70 855(2579) 9.39e-04 1.1e+02
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.585    1.259
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                              Estimate Std. Error
## interventiongroupIntervention                 0.06521    0.20930
## timePoint_factor2                            -0.21972    0.17677
## timePoint_factor3                            -1.16392    0.18137
## interventiongroupIntervention:timePoint_factor2 -0.38412    0.25761
## interventiongroupIntervention:timePoint_factor3  0.03124    0.25538
##                                              z value Pr(>|z|)
## interventiongroupIntervention                  0.312    0.755
## timePoint_factor2                             -1.243    0.214
## timePoint_factor3                             -6.417 1.39e-10 ***
## interventiongroupIntervention:timePoint_factor2  -1.491    0.136
```

```
## interventiongroupIntervention:timePoint_factor3   0.122    0.903
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -1.4812     0.1589  -9.319
## 2|3  -0.2205     0.1518  -1.452
## 3|4   1.1534     0.1564   7.376
## 4|5   2.8070     0.1867  15.039
## (126 observations deleted due to missingness)
```

```
Anova(Fat2injuredT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: Fat2injuredT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                    0.0000  1     1.0000
## timePoint_factor                     0.0000  2     1.0000
## interventiongroup:timePoint_factor   3.1051  2     0.2117
```

```
summary(rbind(pairs(lsmeans::lsmeans(Fat2injuredT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention  0.31891 0.2216933 NA   1.439
##  p.value
##   0.1503
```

```
DisAt1NaturalT_model  <- clmm(DisAt1NaturalT ~ interventiongroup * timePoint_factor + (1|ID_factor), da
summary(DisAt1NaturalT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: DisAt1NaturalT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1312 -1375.04 2768.08 687(1428) 2.39e-03 9.9e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.2498   0.4998
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                              Estimate Std. Error
## interventiongroupIntervention                -0.19103    0.19841
## timePoint_factor2                            -0.48382    0.19251
## timePoint_factor3                            -0.84041    0.18547
## interventiongroupIntervention:timePoint_factor2  0.25331    0.27587
## interventiongroupIntervention:timePoint_factor3  0.05213    0.26207
##                                              z value Pr(>|z|)
## interventiongroupIntervention                 -0.963    0.336
## timePoint_factor2                             -2.513    0.012 *
```

```
## timePoint_factor3                                  -4.531 5.87e-06 ***
## interventiongroupIntervention:timePoint_factor2   0.918    0.359
## interventiongroupIntervention:timePoint_factor3   0.199    0.842
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -4.2823     0.2304 -18.583
## 2|3  -2.2613     0.1618 -13.974
## 3|4  -0.6141     0.1415  -4.341
## (128 observations deleted due to missingness)
```

```
Anova(DisAt1NaturalT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt1NaturalT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.00000  1     0.9999
## timePoint_factor                    0.00000  2     1.0000
## interventiongroup:timePoint_factor  0.94795  2     0.6225
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt1NaturalT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                  estimate       SE df z.ratio
##  2                Control - Intervention -0.06227529 0.202328 NA  -0.308
##  p.value
##   0.7582
```

```
DisAt2GodswillT_model  <- clmm(DisAt2GodswillT ~ interventiongroup * timePoint_factor + (1|loc_factor/I
summary(DisAt2GodswillT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: DisAt2GodswillT ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1310 -1591.04 3202.08 785(3702) 6.41e-04 1.4e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 2.9965   1.7311
##  loc_factor           (Intercept) 0.2529   0.5029
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                    0.2590     0.2480
## timePoint_factor2                                0.1195     0.1951
## timePoint_factor3                               -0.8899     0.1971
## interventiongroupIntervention:timePoint_factor2 -0.3591     0.2818
## interventiongroupIntervention:timePoint_factor3 -0.0761     0.2791
##                                                z value Pr(>|z|)
```

```
## interventiongroupIntervention                      1.045    0.296
## timePoint_factor2                                  0.613    0.540
## timePoint_factor3                                 -4.516 6.31e-06 ***
## interventiongroupIntervention:timePoint_factor2  -1.275    0.202
## interventiongroupIntervention:timePoint_factor3  -0.273    0.785
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -0.7014     0.3419  -2.052
## 2|3   0.7758     0.3429   2.263
## 3|4   2.4869     0.3532   7.041
## (130 observations deleted due to missingness)
```

```
Anova(DisAt2GodswillT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt2GodswillT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.0000  1     0.9997
## timePoint_factor                    0.0000  2     1.0000
## interventiongroup:timePoint_factor  1.7578  2     0.4152
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt2GodswillT_model, ~ interventiongroup * timePoint_factor), by
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.1001263 0.2635006 NA    0.38
##  p.value
##   0.7040
```

```
DisAt3OthersupernaT_model  <- clmm(DisAt3OthersupernaT ~ interventiongroup * timePoint_factor + (1|loc_
summary(DisAt3OthersupernaT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: DisAt3OthersupernaT ~ interventiongroup * timePoint_factor +
##     (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik  AIC     niter     max.grad cond.H
##  logit flexible  1311 -928.22 1876.44 738(2956) 1.61e-03 7.9e+01
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 2.098e+00 1.448e+00
##  loc_factor           (Intercept) 9.365e-11 9.677e-06
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                 Estimate Std. Error
## interventiongroupIntervention                    0.19276    0.27098
## timePoint_factor2                                0.04086    0.24212
## timePoint_factor3                               -0.49598    0.24745
## interventiongroupIntervention:timePoint_factor2 -0.51013    0.35576
```

```
## interventiongroupIntervention:timePoint_factor3  0.02295    0.35191
##                                                 z value Pr(>|z|)
## interventiongroupIntervention                     0.711    0.477
## timePoint_factor2                                 0.169    0.866
## timePoint_factor3                                -2.004    0.045 *
## interventiongroupIntervention:timePoint_factor2  -1.434    0.152
## interventiongroupIntervention:timePoint_factor3   0.065    0.948
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2   1.6097     0.2120   7.591
## 2|3   3.1485     0.2479  12.702
## 3|4   4.5175     0.3013  14.995
## (129 observations deleted due to missingness)
```

```
Anova(DisAt3OthersupernaT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt3OthersupernaT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.0000  1     1.0000
## timePoint_factor                   0.0000  2     1.0000
## interventiongroup:timePoint_factor   2.6321  2     0.2682
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt3OthersupernaT_model, ~ interventiongroup * timePoint_factor)
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.317364 0.3081305 NA    1.03
##  p.value
##   0.3030
```

```
DisAt4KarmaT_model  <- clmm(DisAt4KarmaT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_facto
summary(DisAt4KarmaT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## DisAt4KarmaT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1311 -1286.51 2593.01 707(2832) 1.95e-03 8.9e+01
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.55599  1.2474
##  loc_factor           (Intercept) 0.06442  0.2538
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                               Estimate Std. Error
## interventiongroupIntervention                   0.1251     0.2273
## timePoint_factor2                              -0.4697     0.2087
```

```
## timePoint_factor3                                  -0.6018     0.2054
## interventiongroupIntervention:timePoint_factor2  -0.4253     0.3047
## interventiongroupIntervention:timePoint_factor3  -0.1073     0.2928
##                                                  z value Pr(>|z|)
## interventiongroupIntervention                      0.551  0.58194
## timePoint_factor2                                 -2.251  0.02441 *
## timePoint_factor3                                 -2.930  0.00339 **
## interventiongroupIntervention:timePoint_factor2  -1.396  0.16278
## interventiongroupIntervention:timePoint_factor3  -0.367  0.71397
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2   0.3508     0.2193   1.600
## 2|3   1.7816     0.2313   7.702
## 3|4   3.3267     0.2626  12.670
## (129 observations deleted due to missingness)
```

```
Anova(DisAt4KarmaT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt4KarmaT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                    0.0000  1     1.0000
## timePoint_factor                     0.0000  2     1.0000
## interventiongroup:timePoint_factor   2.0241  2     0.3635
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt4KarmaT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.3001229 0.2633713 NA    1.14
##  p.value
##   0.2545
```

```
DisAt5NeppeopT_model  <- clmm(DisAt5NeppeopT ~ interventiongroup * timePoint_factor + (1|ID_factor), da
summary(DisAt5NeppeopT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: DisAt5NeppeopT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1314 -1630.42 3278.83 668(2634) 1.78e-03 9.3e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.711    1.308
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                             Estimate Std. Error
## interventiongroupIntervention                -0.2206     0.2141
```

```
## timePoint_factor2                                -0.6924     0.1909
## timePoint_factor3                                -0.9063     0.1886
## interventiongroupIntervention:timePoint_factor2   0.4433     0.2716
## interventiongroupIntervention:timePoint_factor3   0.7858     0.2636
##                                                 z value Pr(>|z|)
## interventiongroupIntervention                    -1.030 0.302896
## timePoint_factor2                                -3.627 0.000287 ***
## timePoint_factor3                                -4.806 1.54e-06 ***
## interventiongroupIntervention:timePoint_factor2   1.632 0.102623
## interventiongroupIntervention:timePoint_factor3   2.981 0.002873 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -0.8774     0.1570  -5.588
## 2|3   0.4842     0.1552   3.120
## 3|4   2.3130     0.1787  12.945
## (126 observations deleted due to missingness)
```

```
Anova(DisAt5NeppeopT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt5NeppeopT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.0000  1     0.9998
## timePoint_factor                    0.0000  2     1.0000
## interventiongroup:timePoint_factor  9.0374  2     0.0109 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt5NeppeopT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention -0.2226392 0.2386841 NA  -0.933
##  p.value
##   0.3509
```

```
DisAt6GovtsT_model  <- clmm(DisAt6GovtsT ~ interventiongroup * timePoint_factor + (1|ID_factor), data =
summary(DisAt6GovtsT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## DisAt6GovtsT ~ interventiongroup * timePoint_factor + (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1313 -1601.01 3220.01 699(2758) 2.02e-03 1.0e+02
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.762    1.327
## Number of groups:  ID_factor 479
##
```

```
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                   0.03502    0.22006
## timePoint_factor2                              -0.07928    0.19170
## timePoint_factor3                               0.38348    0.18673
## interventiongroupIntervention:timePoint_factor2  0.37992    0.27593
## interventiongroupIntervention:timePoint_factor3  0.11070    0.26694
##                                                z value Pr(>|z|)
## interventiongroupIntervention                    0.159    0.874
## timePoint_factor2                               -0.414    0.679
## timePoint_factor3                                2.054    0.040 *
## interventiongroupIntervention:timePoint_factor2   1.377    0.169
## interventiongroupIntervention:timePoint_factor3   0.415    0.678
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2 -0.05417    0.15627  -0.347
## 2|3  1.18244    0.16251   7.276
## 3|4  2.88690    0.19207  15.031
## (127 observations deleted due to missingness)
```

```
Anova(DisAt6GovtsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: DisAt6GovtsT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                    0.0000  1     0.9997
## timePoint_factor                     0.0000  2     1.0000
## interventiongroup:timePoint_factor   1.9609  2     0.3751
```

```
summary(rbind(pairs(lsmeans::lsmeans(DisAt6GovtsT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention -0.4149459 0.2410141 NA  -1.722
##  p.value
##   0.0851
```

```
Relig1PrivateactivT_model  <- clmm(Relig1PrivateactivT ~ interventiongroup * timePoint_factor + (1|loc_
summary(Relig1PrivateactivT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: Relig1PrivateactivT ~ interventiongroup * timePoint_factor +
##     (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter      max.grad cond.H
##  logit flexible  1286 -1823.47 3670.94 1047(5576) 1.39e-03 1.7e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 4.2502   2.0616
##  loc_factor           (Intercept) 0.1398   0.3738
```

```
## Number of groups:  ID_factor:loc_factor 477,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                  -0.07098    0.26928
## timePoint_factor2                               0.45346    0.19169
## timePoint_factor3                               0.50918    0.18832
## interventiongroupIntervention:timePoint_factor2  0.09415    0.27891
## interventiongroupIntervention:timePoint_factor3 -0.19580    0.27195
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -0.264  0.79210
## timePoint_factor2                                2.366  0.01800 *
## timePoint_factor3                                2.704  0.00686 **
## interventiongroupIntervention:timePoint_factor2   0.338  0.73568
## interventiongroupIntervention:timePoint_factor3  -0.720  0.47154
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -4.5914     0.3460 -13.271
## 2|3  -0.3853     0.2902  -1.328
## 3|4   1.3797     0.2936   4.700
## 4|5   2.9553     0.3094   9.552
## 5|6   3.6674     0.3210  11.426
## (154 observations deleted due to missingness)
```

```
Anova(Relig1PrivateactivT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: Relig1PrivateactivT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                    0.0000  1     0.9998
## timePoint_factor                     0.0000  2     1.0000
## interventiongroup:timePoint_factor   1.1635  2     0.5589
```

```
summary(rbind(pairs(lsmeans::lsmeans(Relig1PrivateactivT_model, ~ interventiongroup * timePoint_factor)
```

```
##  timePoint_factor contrast                  estimate        SE df z.ratio
##  2                Control - Intervention -0.02317771 0.2782038 NA  -0.083
##  p.value
##   0.9336
```

```
Relig2PublicactivT_model  <- clmm(Relig2PublicactivT ~ interventiongroup * timePoint_factor + (1|loc_fa
summary(Relig2PublicactivT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula: Relig2PublicactivT ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter      max.grad cond.H
##  logit flexible  1311 -1544.50 3113.00 1076(8703) 1.67e-03 1.5e+02
##
```

```
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 3.6174   1.9020
##  loc_factor           (Intercept) 0.2805   0.5296
## Number of groups:  ID_factor:loc_factor 479,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                  -0.54647    0.25735
## timePoint_factor2                              -0.61263    0.19300
## timePoint_factor3                              -0.65827    0.19025
## interventiongroupIntervention:timePoint_factor2  0.43007    0.28083
## interventiongroupIntervention:timePoint_factor3  0.03142    0.27475
##                                                z value Pr(>|z|)
## interventiongroupIntervention                   -2.123  0.03371 *
## timePoint_factor2                               -3.174  0.00150 **
## timePoint_factor3                               -3.460  0.00054 ***
## interventiongroupIntervention:timePoint_factor2   1.531  0.12566
## interventiongroupIntervention:timePoint_factor3   0.114  0.90896
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -2.9243     0.3708  -7.887
## 2|3   0.6694     0.3577   1.871
## 3|4   2.6105     0.3722   7.013
## 4|5   5.2903     0.4495  11.770
## 5|6   6.6076     0.5436  12.155
## (129 observations deleted due to missingness)
```

```
Anova(Relig2PublicactivT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: Relig2PublicactivT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.0000  1     0.9998
## timePoint_factor                    0.0000  2     1.0000
## interventiongroup:timePoint_factor  2.8227  2     0.2438
```

```
summary(rbind(pairs(lsmeans::lsmeans(Relig2PublicactivT_model, ~ interventiongroup * timePoint_factor),
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention 0.1164043 0.2723449 NA   0.427
##  p.value
##   0.6691
```

```
func_m_model <- lmer(FuncMmean6_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), da
summary(func_m_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## FuncMmean6_T ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
```

```
##  Subset: gender_factor == "Male"
##
## REML criterion at convergence: 168.6
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.1524 -0.4880 -0.2140  0.3988  4.6871
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.059948 0.24484
##  loc_factor           (Intercept) 0.001561 0.03951
##  Residual                         0.053980 0.23234
## Number of obs: 340, groups:  ID_factor:loc_factor, 128; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     1.249942   0.048702
## interventiongroupIntervention                  -0.007832   0.059861
## timePoint_factor2                               0.048535   0.044171
## timePoint_factor3                              -0.068719   0.043607
## interventiongroupIntervention:timePoint_factor2 -0.007694   0.063878
## interventiongroupIntervention:timePoint_factor3  0.032084   0.060859
##                                                       df t value
## (Intercept)                                     7.880000  25.665
## interventiongroupIntervention                 227.040000  -0.131
## timePoint_factor2                             219.000000   1.099
## timePoint_factor3                             217.970000  -1.576
## interventiongroupIntervention:timePoint_factor2 222.270000  -0.120
## interventiongroupIntervention:timePoint_factor3 218.670000   0.527
##                                                Pr(>|t|)
## (Intercept)                                    7.07e-09 ***
## interventiongroupIntervention                     0.896
## timePoint_factor2                                 0.273
## timePoint_factor3                                 0.117
## interventiongroupIntervention:timePoint_factor2   0.904
## interventiongroupIntervention:timePoint_factor3   0.599
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.636
## tmPnt_fctr2 -0.405  0.329
## tmPnt_fctr3 -0.411  0.334  0.467
## intrvnI:P_2  0.280 -0.442 -0.691 -0.323
## intrvnI:P_3  0.294 -0.464 -0.335 -0.716  0.452
```

```
Anova(func_m_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: FuncMmean6_T
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                     658.6992  1    < 2e-16 ***
```

```
## interventiongroup                    0.0171  1    0.89591
## timePoint_factor                     6.7917  2    0.03351 *
## interventiongroup:timePoint_factor   0.4396  2    0.80269
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(func_m_model, ~ interventiongroup * timePoint_factor), by = "timeP
```

```
## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent
```

```
##  timePoint_factor contrast                estimate         SE     df
##  2                Control - Intervention 0.01552638 0.06547613 267.84
##  t.ratio p.value
##    0.237  0.8127
```

```
func_f_model <- lmer(FuncFmean6_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), da
summary(func_f_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## FuncFmean6_T ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##  Subset: gender_factor == "Female"
##
## REML criterion at convergence: 933
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.5487 -0.4586 -0.1932  0.3144  5.6100
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.0755880 0.27493
##  loc_factor           (Intercept) 0.0009698 0.03114
##  Residual                         0.1007233 0.31737
## Number of obs: 960, groups:  ID_factor:loc_factor, 348; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     1.341e+00  3.608e-02
## interventiongroupIntervention                   1.960e-02  4.516e-02
## timePoint_factor2                              -6.351e-03  3.495e-02
## timePoint_factor3                              -9.701e-02  3.459e-02
## interventiongroupIntervention:timePoint_factor2 -1.585e-02  5.065e-02
## interventiongroupIntervention:timePoint_factor3 -4.169e-05  5.022e-02
##                                                       df t value
## (Intercept)                                     7.900e+00  37.169
## interventiongroupIntervention                   7.164e+02   0.434
## timePoint_factor2                               6.380e+02  -0.182
## timePoint_factor3                               6.348e+02  -2.804
## interventiongroupIntervention:timePoint_factor2  6.408e+02  -0.313
## interventiongroupIntervention:timePoint_factor3  6.382e+02  -0.001
##                                                 Pr(>|t|)
## (Intercept)                                     3.39e-10 ***
```

```
## interventiongroupIntervention                     0.6644
## timePoint_factor2                                 0.8559
## timePoint_factor3                                 0.0052 **
## interventiongroupIntervention:timePoint_factor2   0.7544
## interventiongroupIntervention:timePoint_factor3   0.9993
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.601
## tmPnt_fctr2 -0.445  0.355
## tmPnt_fctr3 -0.449  0.359  0.475
## intrvnI:P_2  0.307 -0.511 -0.690 -0.328
## intrvnI:P_3  0.309 -0.515 -0.327 -0.689  0.474
```

```
Anova(func_f_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: FuncFmean6_T
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       1381.5447  1  < 2.2e-16 ***
## interventiongroup                    0.1884  1   0.664288
## timePoint_factor                     9.5713  2   0.008349 **
## interventiongroup:timePoint_factor   0.1260  2   0.938936
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(func_f_model, ~ interventiongroup * timePoint_factor), by = "timeP
```

```
## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent
```

```
##  timePoint_factor contrast                  estimate         SE    df
##  2                Control - Intervention -0.003744477 0.04761483 771.8
##  t.ratio p.value
##   -0.079  0.9373
```

```
func_model <- lmer(functioning ~ interventiongroup * timePoint_factor + gender_factor + (1|ID_factor), d
summary(func_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## functioning ~ interventiongroup * timePoint_factor + gender_factor +
##     (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 1118.2
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.7084 -0.4464 -0.1947  0.3121  5.9839
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
```

```
##  ID_factor (Intercept) 0.07181  0.2680
##  Residual              0.08825  0.2971
## Number of obs: 1304, groups:  ID_factor, 477
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                     1.336462   0.027102
## interventiongroupIntervention                   0.011820   0.036713
## timePoint_factor2                               0.007326   0.028301
## timePoint_factor3                              -0.089747   0.027947
## gender_factorMale                              -0.076542   0.033641
## interventiongroupIntervention:timePoint_factor2 -0.013102   0.040915
## interventiongroupIntervention:timePoint_factor3  0.009892   0.040121
##                                                       df t value
## (Intercept)                                   899.200000  49.312
## interventiongroupIntervention                 957.400000   0.322
## timePoint_factor2                             864.100000   0.259
## timePoint_factor3                             859.200000  -3.211
## gender_factorMale                             483.200000  -2.275
## interventiongroupIntervention:timePoint_factor2 871.200000  -0.320
## interventiongroupIntervention:timePoint_factor3 863.900000   0.247
##                                                Pr(>|t|)
## (Intercept)                                     < 2e-16 ***
## interventiongroupIntervention                   0.74756
## timePoint_factor2                               0.79579
## timePoint_factor3                               0.00137 **
## gender_factorMale                               0.02333 *
## interventiongroupIntervention:timePoint_factor2  0.74887
## interventiongroupIntervention:timePoint_factor3  0.80531
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 gndr_M iI:P_2
## intrvntngrI -0.655
## tmPnt_fctr2 -0.477  0.351
## tmPnt_fctr3 -0.483  0.356  0.473
## gndr_fctrMl -0.317 -0.029  0.003  0.003
## intrvnI:P_2  0.326 -0.496 -0.692 -0.327  0.011
## intrvnI:P_3  0.336 -0.505 -0.329 -0.697 -0.002  0.468
```

```
Anova(func_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: functioning
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       2431.6481  1  < 2.2e-16 ***
## interventiongroup                    0.1037  1  0.7474881
## timePoint_factor                    14.3795  2  0.0007543 ***
## gender_factor                        5.1768  1  0.0228898 *
## interventiongroup:timePoint_factor   0.3039  2  0.8590521
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```r
summary(rbind(pairs(lsmeans::lsmeans(func_model, ~ interventiongroup * timePoint_factor), by = "timePoi
```

```
##  timePoint_factor contrast                  estimate         SE      df
##  2                Control - Intervention 0.001282116 0.03913549 1054.16
##  t.ratio p.value
##    0.033  0.9739
##
## Results are averaged over some or all of the levels of: gender_factor
```

```r
cope_model <- lmer(Copemean9_T ~ interventiongroup * timePoint_factor + (1|ID_factor), data = filtered)
summary(cope_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## Copemean9_T ~ interventiongroup * timePoint_factor + (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 537.2
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.3151 -0.5966 -0.0548  0.5305  3.9021
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.03109  0.1763
##  Residual              0.06330  0.2516
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                   2.132e+00  1.959e-02
## interventiongroupIntervention                -3.460e-02  2.808e-02
## timePoint_factor2                            -1.478e-02  2.371e-02
## timePoint_factor3                            -5.371e-02  2.343e-02
## interventiongroupIntervention:timePoint_factor2  1.991e-02  3.439e-02
## interventiongroupIntervention:timePoint_factor3  1.748e-03  3.376e-02
##                                                      df t value
## (Intercept)                                   1.090e+03 108.834
## interventiongroupIntervention                 1.092e+03  -1.232
## timePoint_factor2                             8.689e+02  -0.624
## timePoint_factor3                             8.625e+02  -2.293
## interventiongroupIntervention:timePoint_factor2  8.782e+02   0.579
## interventiongroupIntervention:timePoint_factor3  8.682e+02   0.052
##                                                Pr(>|t|)
## (Intercept)                                     <2e-16 ***
## interventiongroupIntervention                   0.2181
## timePoint_factor2                               0.5331
## timePoint_factor3                               0.0221 *
## interventiongroupIntervention:timePoint_factor2   0.5627
## interventiongroupIntervention:timePoint_factor3   0.9587
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.698
## tmPnt_fctr2 -0.554  0.386
## tmPnt_fctr3 -0.561  0.391  0.471
## intrvnI:P_2  0.382 -0.548 -0.689 -0.325
## intrvnI:P_3  0.389 -0.558 -0.327 -0.694  0.467
```

```
Anova(cope_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: Copemean9_T
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                      11844.7831  1    < 2e-16 ***
## interventiongroup                    1.5187  1    0.21781
## timePoint_factor                     5.5240  2    0.06316 .
## interventiongroup:timePoint_factor   0.3963  2    0.82026
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(cope_model, ~ interventiongroup * timePoint_factor), by = "timePoi
```

```
##  timePoint_factor contrast                estimate         SE      df
##  2                Control - Intervention 0.01469172 0.03020919 1167.94
##  t.ratio p.value
##    0.486  0.6268
```

```
cope_items_models <- lapply(cope_var_names, function(x) clmm(as.formula(paste0(x, ' ~ interventiongroup
cope_items_models[[2]] <- update(cope_items_models[[2]], . ~ interventiongroup * timePoint_factor + (1|
cope_items_models[[9]] <- update(cope_items_models[[9]], . ~ interventiongroup * timePoint_factor + (1|
cope_items_models[[11]] <- update(cope_items_models[[11]], . ~ interventiongroup * timePoint_factor + (
```

```
soc_coh_model <- lmer(SocCohmean7_T ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor), d
summary(soc_coh_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## SocCohmean7_T ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 2207
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.9139 -0.4999  0.0426  0.5809  2.7328
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.12010  0.34655
##  loc_factor           (Intercept) 0.00169  0.04111
##  Residual                         0.22313  0.47236
## Number of obs: 1311, groups:  ID_factor:loc_factor, 479; loc_factor, 3
##
```

```
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                      3.71536    0.04426
## interventiongroupIntervention                   -0.11872    0.05361
## timePoint_factor2                               -0.03982    0.04454
## timePoint_factor3                                0.04372    0.04401
## interventiongroupIntervention:timePoint_factor2  0.16261    0.06470
## interventiongroupIntervention:timePoint_factor3  0.09889    0.06348
##                                                       df t value
## (Intercept)                                     7.80000  83.946
## interventiongroupIntervention                1056.20000  -2.215
## timePoint_factor2                             853.70000  -0.894
## timePoint_factor3                             847.50000   0.994
## interventiongroupIntervention:timePoint_factor2  863.00000   2.513
## interventiongroupIntervention:timePoint_factor3  853.40000   1.558
##                                                 Pr(>|t|)
## (Intercept)                                     7.81e-13 ***
## interventiongroupIntervention                     0.0270 *
## timePoint_factor2                                 0.3715
## timePoint_factor3                                 0.3207
## interventiongroupIntervention:timePoint_factor2   0.0121 *
## interventiongroupIntervention:timePoint_factor3   0.1197
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.588
## tmPnt_fctr2 -0.460  0.380
## tmPnt_fctr3 -0.466  0.385  0.471
## intrvnI:P_2  0.317 -0.539 -0.688 -0.324
## intrvnI:P_3  0.323 -0.550 -0.327 -0.693  0.467
```

```
Anova(soc_coh_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: SocCohmean7_T
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       7047.0036  1    < 2e-16 ***
## interventiongroup                    4.9040  1    0.02679 *
## timePoint_factor                     3.3734  2    0.18513
## interventiongroup:timePoint_factor   6.5066  2    0.03865 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(soc_coh_model, ~ interventiongroup * timePoint_factor), by = "timel
```

```
##  timePoint_factor contrast                  estimate         SE      df
##  2                Control - Intervention -0.04389072 0.05761142 1140.16
##  t.ratio p.value
##   -0.762  0.4463
```

```
ptsd_model <- lmer(PTSDmean13_T ~ interventiongroup * timePoint_factor + (1|ID_factor), data = filtered
summary(ptsd_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## PTSDmean13_T ~ interventiongroup * timePoint_factor + (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 2447.7
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.2040 -0.5461 -0.1525  0.3982  4.5004
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.2271   0.4765
##  Residual              0.2319   0.4815
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     1.864094   0.043192
## interventiongroupIntervention                  -0.032345   0.061906
## timePoint_factor2                              -0.170766   0.045547
## timePoint_factor3                              -0.396880   0.044978
## interventiongroupIntervention:timePoint_factor2 -0.042882   0.066144
## interventiongroupIntervention:timePoint_factor3  0.007134   0.064849
##                                                       df t value
## (Intercept)                                     902.600000  43.159
## interventiongroupIntervention                   904.100000  -0.522
## timePoint_factor2                               856.800000  -3.749
## timePoint_factor3                               852.400000  -8.824
## interventiongroupIntervention:timePoint_factor2 864.200000  -0.648
## interventiongroupIntervention:timePoint_factor3 857.500000   0.110
##                                                 Pr(>|t|)
## (Intercept)                                      < 2e-16 ***
## interventiongroupIntervention                   0.601465
## timePoint_factor2                               0.000189 ***
## timePoint_factor3                                < 2e-16 ***
## interventiongroupIntervention:timePoint_factor2 0.516949
## interventiongroupIntervention:timePoint_factor3 0.912433
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.698
## tmPnt_fctr2 -0.479  0.334
## tmPnt_fctr3 -0.485  0.338  0.472
## intrvnI:P_2  0.330 -0.474 -0.689 -0.325
## intrvnI:P_3  0.336 -0.483 -0.327 -0.694  0.468
```

```
Anova(ptsd_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
```

```
## Response: PTSDmean13_T
##                                       Chisq Df Pr(>Chisq)
## (Intercept)                        1862.6720  1     <2e-16 ***
## interventiongroup                     0.2730  1     0.6013
## timePoint_factor                     78.0841  2     <2e-16 ***
## interventiongroup:timePoint_factor    0.6392  2     0.7264
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(ptsd_model, ~ interventiongroup * timePoint_factor), by = "timePoi
```

```
##  timePoint_factor contrast                estimate         SE      df
##  2                Control - Intervention 0.07522703 0.06579083 1008.51
##  t.ratio p.value
##    1.143  0.2531
```

```
pmhp_model <- lmer(PMHPmean13_T ~ interventiongroup * timePoint_factor + (1|ID_factor), data = filtered
summary(pmhp_model)
```

```
## Linear mixed model fit by REML t-tests use Satterthwaite approximations
##   to degrees of freedom [lmerMod]
## Formula:
## PMHPmean13_T ~ interventiongroup * timePoint_factor + (1 | ID_factor)
##    Data: filtered
##
## REML criterion at convergence: 752.4
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.0085 -0.4953 -0.1586  0.4021  6.1574
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.07942  0.2818
##  Residual              0.05781  0.2404
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                  Estimate Std. Error
## (Intercept)                                      1.421150   0.023619
## interventiongroupIntervention                    0.001252   0.033849
## timePoint_factor2                               -0.036286   0.022784
## timePoint_factor3                               -0.106571   0.022493
## interventiongroupIntervention:timePoint_factor2  0.024473   0.033105
## interventiongroupIntervention:timePoint_factor3  0.027738   0.032442
##                                                        df t value
## (Intercept)                                      810.300000  60.170
## interventiongroupIntervention                    811.600000   0.037
## timePoint_factor2                                850.000000  -1.593
## timePoint_factor3                                846.500000  -4.738
## interventiongroupIntervention:timePoint_factor2 856.400000   0.739
## interventiongroupIntervention:timePoint_factor3 851.100000   0.855
##                                                 Pr(>|t|)
## (Intercept)                                      < 2e-16 ***
## interventiongroupIntervention                      0.971
```

```
## timePoint_factor2                                   0.112
## timePoint_factor3                                2.53e-06 ***
## interventiongroupIntervention:timePoint_factor2    0.460
## interventiongroupIntervention:timePoint_factor3    0.393
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.698
## tmPnt_fctr2 -0.437  0.305
## tmPnt_fctr3 -0.442  0.309  0.472
## intrvnI:P_2  0.301 -0.432 -0.688 -0.325
## intrvnI:P_3  0.307 -0.440 -0.328 -0.693  0.469
```

```
Anova(pmhp_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: PMHPmean13_T
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       3620.4321  1  < 2.2e-16 ***
## interventiongroup                    0.0014  1     0.9705
## timePoint_factor                    22.9857  2   1.02e-05 ***
## interventiongroup:timePoint_factor   0.8777  2     0.6448
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(pmhp_model, ~ interventiongroup * timePoint_factor), by = "timePoi
```

```
##  timePoint_factor contrast                estimate         SE     df
##  2                Control - Intervention -0.0257253 0.03569828 914.83
##  t.ratio p.value
##   -0.721  0.4713
```

```
HSMH2aComfortseekhelpfutureT_model  <- clmm(HSMH2aComfortseekhelpfutureT  ~ interventiongroup * timePoi
summary(HSMH2aComfortseekhelpfutureT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HSMH2aComfortseekhelpfutureT ~ interventiongroup * timePoint_factor +
##     (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1313 -1407.47 2832.93 749(2957) 5.33e-04 6.6e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.833    1.354
## Number of groups:  ID_factor 480
##
## Coefficients:
##                                          Estimate Std. Error
## interventiongroupIntervention            -0.07111    0.22491
```

```
## timePoint_factor2                                 0.22966    0.19265
## timePoint_factor3                                 0.20516    0.18903
## interventiongroupIntervention:timePoint_factor2 -0.19450    0.27914
## interventiongroupIntervention:timePoint_factor3 -0.14643    0.27207
##                                                 z value Pr(>|z|)
## interventiongroupIntervention                    -0.316    0.752
## timePoint_factor2                                 1.192    0.233
## timePoint_factor3                                 1.085    0.278
## interventiongroupIntervention:timePoint_factor2  -0.697    0.486
## interventiongroupIntervention:timePoint_factor3  -0.538    0.590
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -3.6370     0.2188 -16.621
## 2|3   0.3155     0.1618   1.949
## 3|4   2.7464     0.1919  14.310
## (127 observations deleted due to missingness)
```

```
Anova(HSMH2aComfortseekhelpfutureT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HSMH2aComfortseekhelpfutureT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.00000  1     1.0000
## timePoint_factor                   0.00000  2     1.0000
## interventiongroup:timePoint_factor  0.54225  2     0.7625
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2aComfortseekhelpfutureT_model, ~ interventiongroup * timePoin
```

```
##  timePoint_factor contrast               estimate       SE df z.ratio
##  2                Control - Intervention 0.265606 0.241412 NA     1.1
##  p.value
##   0.2712
```

```
HSDis2ComfortseekinghelpT_model  <- clmm(HSDis2ComfortseekinghelpT ~ interventiongroup * timePoint_facto
summary(HSDis2ComfortseekinghelpT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HSDis2ComfortseekinghelpT ~ interventiongroup * timePoint_factor +
##     (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik   AIC     niter     max.grad cond.H
##  logit flexible  1313 -1377.91 2773.83 761(2995) 1.71e-03 7.0e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.936    1.392
## Number of groups:  ID_factor 479
##
## Coefficients:
##                                             Estimate Std. Error
## interventiongroupIntervention               -0.30844    0.22862
```

```
## timePoint_factor2                                -0.18794    0.19356
## timePoint_factor3                                -0.09693    0.19067
## interventiongroupIntervention:timePoint_factor2  0.21253    0.28115
## interventiongroupIntervention:timePoint_factor3 -0.02051    0.27563
##                                                  z value Pr(>|z|)
## interventiongroupIntervention                     -1.349    0.177
## timePoint_factor2                                 -0.971    0.332
## timePoint_factor3                                 -0.508    0.611
## interventiongroupIntervention:timePoint_factor2    0.756    0.450
## interventiongroupIntervention:timePoint_factor3   -0.074    0.941
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2  -4.3147     0.2428 -17.772
## 2|3  -0.1131     0.1638  -0.691
## 3|4   2.4448     0.1878  13.019
## (127 observations deleted due to missingness)
```

```
Anova(HSDis2ComfortseekinghelpT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HSDis2ComfortseekinghelpT
##                                   LR Chisq Df Pr(>Chisq)
## interventiongroup                  0.00000  1     0.9999
## timePoint_factor                   0.00000  2     1.0000
## interventiongroup:timePoint_factor  0.81097  2     0.6667
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSDis2ComfortseekinghelpT_model, ~ interventiongroup * timePoint_fa
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention 0.09590667 0.2434839 NA   0.394
##  p.value
##   0.6937
```

```
HGMH3KnowhowhelpT_model  <- glmer(HGMH3KnowhowhelpT ~ interventiongroup * timePoint_factor + (1|ID_facto
summary(HGMH3KnowhowhelpT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula: HGMH3KnowhowhelpT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1373.7   1409.9   -679.8   1359.7     1301
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.7402  0.2214  0.3649  0.4504  1.1248
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.705    1.306
## Number of obs: 1308, groups:  ID_factor, 480
```

```
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                     1.34033    0.20002
## interventiongroupIntervention                  -0.27542    0.26471
## timePoint_factor2                              -0.32956    0.23819
## timePoint_factor3                               1.09057    0.27742
## interventiongroupIntervention:timePoint_factor2  0.81575    0.35037
## interventiongroupIntervention:timePoint_factor3  0.01768    0.38309
##                                                z value Pr(>|z|)
## (Intercept)                                      6.701 2.07e-11 ***
## interventiongroupIntervention                   -1.040   0.2981
## timePoint_factor2                               -1.384   0.1665
## timePoint_factor3                                3.931 8.46e-05 ***
## interventiongroupIntervention:timePoint_factor2   2.328   0.0199 *
## interventiongroupIntervention:timePoint_factor3   0.046   0.9632
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.681
## tmPnt_fctr2 -0.594  0.439
## tmPnt_fctr3 -0.428  0.361  0.410
## intrvnI:P_2  0.423 -0.589 -0.682 -0.269
## intrvnI:P_3  0.355 -0.531 -0.303 -0.702  0.411
```

```
Anova(HGMH3KnowhowhelpT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HGMH3KnowhowhelpT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      44.9019  1  2.072e-11 ***
## interventiongroup                 1.0825  1    0.29813
## timePoint_factor                 26.2413  2  2.003e-06 ***
## interventiongroup:timePoint_factor  6.4207  2    0.04034 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HGMH3KnowhowhelpT_model, ~ interventiongroup * timePoint_factor), 
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention -0.5403307 0.2889887 NA   -1.87
##  p.value
##   0.0615
##
## Results are given on the log odds ratio (not the response) scale.
```

```
{r, cache = TRUE} #HGDis2WillinghelpT_model  <- clmm(HGDis2WillinghelpT
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) #summary(HGDis2WillinghelpT_model) #Anova(HGDis2Willing
type = "III") #summary(rbind(pairs(lsmeans::lsmeans(HGDis2WillinghelpT_m
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#
```

```
HSMH2bGodsT_model  <- glmer(HSMH2bGodsT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_facto
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.0850544 (tol =
## 0.001, component 1)
```

```
summary(HSMH2bGodsT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## HSMH2bGodsT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##    843.8    885.2   -413.9    827.8     1302
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -0.9648 -0.4356 -0.2660 -0.0657  8.7760
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.0569167 1.028065
##  loc_factor           (Intercept) 0.0000193 0.004393
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     -5.28526    0.74650
## interventiongroupIntervention                    0.08307    1.01286
## timePoint_factor2                                3.94763    0.73894
## timePoint_factor3                                3.18462    0.74201
## interventiongroupIntervention:timePoint_factor2 -0.16477    1.03872
## interventiongroupIntervention:timePoint_factor3 -0.38842    1.05206
##                                                 z value Pr(>|z|)
## (Intercept)                                      -7.080 1.44e-12 ***
## interventiongroupIntervention                     0.082    0.935
## timePoint_factor2                                 5.342 9.18e-08 ***
## timePoint_factor3                                 4.292 1.77e-05 ***
## interventiongroupIntervention:timePoint_factor2  -0.159    0.874
## interventiongroupIntervention:timePoint_factor3  -0.369    0.712
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.682
## tmPnt_fctr2 -0.957  0.679
## tmPnt_fctr3 -0.940  0.675  0.936
## intrvnI:P_2  0.659 -0.965 -0.701 -0.659
## intrvnI:P_3  0.653 -0.952 -0.655 -0.702  0.929
## convergence code: 0
## Model failed to converge with max|grad| = 0.0850544 (tol = 0.001, component 1)
```

```
Anova(HSMH2bGodsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bGodsT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      50.1267  1  1.441e-12 ***
## interventiongroup                 0.0067  1     0.9346
## timePoint_factor                 32.5347  2  8.614e-08 ***
## interventiongroup:timePoint_factor  0.3842  2     0.8252
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bGodsT_model, ~ interventiongroup * timePoint_factor), by = "
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention 0.08169186 0.2727207 NA     0.3
##  p.value
##   0.7645
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bPriestT_model  <- glmer(HSMH2bPriestT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_fa
summary(HSMH2bPriestT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## HSMH2bPriestT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1095.9   1137.3   -539.9   1079.9     1302
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -0.9060 -0.4329 -0.2018 -0.1350  7.4062
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.552e-09 3.94e-05
##  loc_factor           (Intercept) 2.312e-04 1.52e-02
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
```

```
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                    -0.42930    0.13082
## interventiongroupIntervention                   0.22951    0.18583
## timePoint_factor2                              -1.55443    0.24653
## timePoint_factor3                              -3.57355    0.52118
## interventiongroupIntervention:timePoint_factor2  0.08019    0.34331
## interventiongroupIntervention:timePoint_factor3  0.56952    0.64747
##                                                z value Pr(>|z|)
## (Intercept)                                     -3.281  0.00103 **
## interventiongroupIntervention                    1.235  0.21682
## timePoint_factor2                               -6.305 2.88e-10 ***
## timePoint_factor3                               -6.857 7.05e-12 ***
## interventiongroupIntervention:timePoint_factor2   0.234  0.81530
## interventiongroupIntervention:timePoint_factor3   0.880  0.37907
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.701
## tmPnt_fctr2 -0.528  0.371
## tmPnt_fctr3 -0.250  0.176  0.133
## intrvnI:P_2  0.379 -0.541 -0.718 -0.095
## intrvnI:P_3  0.201 -0.287 -0.107 -0.805  0.155
```

```
Anova(HSMH2bPriestT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bPriestT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      10.7681  1   0.001033 **
## interventiongroup                 1.5253  1   0.216819
## timePoint_factor                 76.6577  2  < 2.2e-16 ***
## interventiongroup:timePoint_factor  0.7834  2   0.675922
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bPriestT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention -0.309701 0.2886866 NA  -1.073
##  p.value
##   0.2834
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bNeighborsT_model  <- glmer(HSMH2bNeighborsT ~ interventiongroup * timePoint_factor + (1|loc_facto
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.00847964 (tol =
## 0.001, component 1)
```

```
summary(HSMH2bNeighborsT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
```

```
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula: HSMH2bNeighborsT ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1256.7   1298.1   -620.4   1240.7     1302
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -3.0457 -0.7074  0.3284  0.4057  1.5358
##
## Random effects:
##  Groups               Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 2.005e-01 0.44782
##  loc_factor           (Intercept) 4.187e-05 0.00647
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                     -0.61469    0.14306
## interventiongroupIntervention                   -0.03309    0.20032
## timePoint_factor2                                2.25185    0.25178
## timePoint_factor3                                2.85879    0.28748
## interventiongroupIntervention:timePoint_factor2  0.55454    0.35627
## interventiongroupIntervention:timePoint_factor3 -0.06988    0.37133
##                                                 z value Pr(>|z|)
## (Intercept)                                      -4.297 1.73e-05 ***
## interventiongroupIntervention                    -0.165    0.869
## timePoint_factor2                                 8.944  < 2e-16 ***
## timePoint_factor3                                 9.944  < 2e-16 ***
## interventiongroupIntervention:timePoint_factor2   1.557    0.120
## interventiongroupIntervention:timePoint_factor3  -0.188    0.851
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.672
## tmPnt_fctr2 -0.613  0.363
## tmPnt_fctr3 -0.549  0.317  0.435
## intrvnI:P_2  0.357 -0.539 -0.570 -0.170
## intrvnI:P_3  0.353 -0.517 -0.207 -0.643  0.292
## convergence code: 0
## Model failed to converge with max|grad| = 0.00847964 (tol = 0.001, component 1)
```

```
Anova(HSMH2bNeighborsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bNeighborsT
##                                  Chisq Df Pr(>Chisq)
## (Intercept)                    18.4614  1  1.734e-05 ***
## interventiongroup               0.0273  1     0.8688
```

```
## timePoint_factor                   125.1913  2  < 2.2e-16 ***
## interventiongroup:timePoint_factor   2.8749  2     0.2375
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bNeighborsT_model, ~ interventiongroup * timePoint_factor), by
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention -0.5214478 0.3000886 NA  -1.738
##  p.value
##   0.0823
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bFamilyT_model  <- glmer(HSMH2bFamilyT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_fa
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.0717647 (tol =
## 0.001, component 1)
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control$checkConv, : Model is nearly unider
##  - Rescale variables?
```

```
summary(HSMH2bFamilyT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## HSMH2bFamilyT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##    865.9    907.3   -425.0    849.9     1303
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -41.392  -0.042   0.024   0.049  26.018
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 44.08801 6.6399
##  loc_factor           (Intercept)  0.04938 0.2222
## Number of obs: 1311, groups:  ID_factor:loc_factor, 479; loc_factor, 3
##
## Fixed effects:
##                                                 Estimate Std. Error
## (Intercept)                                    -6.3951978  0.0009856
## interventiongroupIntervention                   0.5930689  0.0009855
## timePoint_factor2                              12.3696681  0.0009857
## timePoint_factor3                              13.8022820  0.0009857
## interventiongroupIntervention:timePoint_factor2 -0.6711345  0.0009855
## interventiongroupIntervention:timePoint_factor3 -1.3186330  0.0009855
##                                                z value Pr(>|z|)
## (Intercept)                                      -6489   <2e-16 ***
## interventiongroupIntervention                      602   <2e-16 ***
## timePoint_factor2                                12549   <2e-16 ***
```

```
## timePoint_factor3                                  14003   <2e-16 ***
## interventiongroupIntervention:timePoint_factor2    -681   <2e-16 ***
## interventiongroupIntervention:timePoint_factor3   -1338   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI 0.000
## tmPnt_fctr2 0.000  0.000
## tmPnt_fctr3 0.000  0.000  0.000
## intrvnI:P_2 0.000  0.000  0.000  0.000
## intrvnI:P_3 0.000  0.000  0.000  0.000  0.000
## convergence code: 0
## Model failed to converge with max|grad| = 0.0717647 (tol = 0.001, component 1)
## Model is nearly unidentifiable: very large eigenvalue
##  - Rescale variables?
```

```
Anova(HSMH2bFamilyT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bFamilyT
##                                      Chisq Df Pr(>Chisq)
## (Intercept)                       42105867  1  < 2.2e-16 ***
## interventiongroup                   362144  1  < 2.2e-16 ***
## timePoint_factor                 353506610  2  < 2.2e-16 ***
## interventiongroup:timePoint_factor   2254009  2  < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bFamilyT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                estimate          SE df z.ratio
##  2                Control - Intervention 0.07806559 0.001393732 NA  56.012
##  p.value
##   <.0001
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bFriendsT_model  <- glmer(HSMH2bFriendsT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_
summary(HSMH2bFriendsT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula: HSMH2bFriendsT ~ interventiongroup * timePoint_factor + (1 |
##     loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1143.7   1185.2   -563.9   1127.7     1302
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.0927 -0.2426 -0.1656  0.5920  6.0045
```

```
##
## Random effects:
##  Groups                Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.15997  0.4000
##  loc_factor           (Intercept) 0.09376  0.3062
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                    -3.08149    0.36316
## interventiongroupIntervention                  -0.13463    0.44676
## timePoint_factor2                               4.11737    0.37048
## timePoint_factor3                               4.30953    0.37470
## interventiongroupIntervention:timePoint_factor2  0.07171    0.49998
## interventiongroupIntervention:timePoint_factor3 -0.02212    0.50048
##                                                z value Pr(>|z|)
## (Intercept)                                     -8.485   <2e-16 ***
## interventiongroupIntervention                   -0.301    0.763
## timePoint_factor2                               11.114   <2e-16 ***
## timePoint_factor3                               11.501   <2e-16 ***
## interventiongroupIntervention:timePoint_factor2   0.143    0.886
## interventiongroupIntervention:timePoint_factor3  -0.044    0.965
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.562
## tmPnt_fctr2 -0.781  0.548
## tmPnt_fctr3 -0.777  0.542  0.820
## intrvnI:P_2  0.503 -0.888 -0.627 -0.490
## intrvnI:P_3  0.505 -0.887 -0.499 -0.631  0.794
```

```
Anova(HSMH2bFriendsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bFriendsT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      71.9980  1     <2e-16 ***
## interventiongroup                 0.0908  1     0.7631
## timePoint_factor                140.9304  2     <2e-16 ***
## interventiongroup:timePoint_factor  0.0882  2     0.9569
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bFriendsT_model, ~ interventiongroup * timePoint_factor), by =
```

```
##  timePoint_factor contrast                estimate        SE df z.ratio
##  2                Control - Intervention 0.06292598 0.2299623 NA   0.274
##  p.value
##   0.7844
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bHospT_model  <- glmer(HSMH2bHospT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : unable to evaluate scaled gradient
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge: degenerate Hessian with 2 negative
## eigenvalues
```

```
summary(HSMH2bHospT_model)
```

```
## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## HSMH2bHospT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1093.2   1134.6   -538.6   1077.2     1302
##
## Scaled residuals:
##      Min       1Q   Median       3Q      Max
## -0.93093 -0.70653 -0.00004 -0.00003  1.54759
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.06213  0.2493
##  loc_factor           (Intercept) 0.02012  0.1419
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                   -20.45684 1755.47469
## interventiongroupIntervention                  -0.04440 2551.25844
## timePoint_factor2                              19.96194 1755.47469
## timePoint_factor3                              19.65848 1755.47469
## interventiongroupIntervention:timePoint_factor2   0.23527 2551.25845
## interventiongroupIntervention:timePoint_factor3   0.06033 2551.25845
##                                               z value Pr(>|z|)
## (Intercept)                                    -0.012    0.991
## interventiongroupIntervention                   0.000    1.000
## timePoint_factor2                               0.011    0.991
## timePoint_factor3                               0.011    0.991
## interventiongroupIntervention:timePoint_factor2   0.000    1.000
## interventiongroupIntervention:timePoint_factor3   0.000    1.000
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.688
```

```
## tmPnt_fctr2 -1.000  0.688
## tmPnt_fctr3 -1.000  0.688  1.000
## intrvnI:P_2  0.688 -1.000 -0.688 -0.688
## intrvnI:P_3  0.688 -1.000 -0.688 -0.688  1.000
## convergence code: 0
## unable to evaluate scaled gradient
## Model failed to converge: degenerate  Hessian with 2 negative eigenvalues
```

```
Anova(HSMH2bHospT_model, type = "III")
```

```
## Warning in vcov.merMod(mod, complete = FALSE): variance-covariance matrix computed from finite-diffe
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
## Warning in vcov.merMod(mod, complete = FALSE): variance-covariance matrix computed from finite-diffe
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bHospT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                       0.0001  1     0.9907
## interventiongroup                 0.0000  1     1.0000
## timePoint_factor                  2.2587  2     0.3232
## interventiongroup:timePoint_factor 0.3598  2     0.8353
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bHospT_model, ~ interventiongroup * timePoint_factor), by = "
```

```
## Warning in vcov.merMod(object, correlation = FALSE): variance-covariance matrix computed from finite
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  2                Control - Intervention -0.1908741 0.2049316 NA  -0.931
##  p.value
##   0.3516
##
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH2bCBMHT_model  <- glmer(HSMH2bCBMHT ~ interventiongroup * timePoint_factor + (1|loc_factor/ID_facto
```

```
## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.423612 (tol =
## 0.001, component 1)
```

```
summary(HSMH2bCBMHT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula:
## HSMH2bCBMHT ~ interventiongroup * timePoint_factor + (1 | loc_factor/ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##    568.9    610.3   -276.4    552.9     1302
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -0.7319 -0.1591 -0.0804 -0.0614 13.0761
```

```
##
## Random effects:
##  Groups                Name        Variance  Std.Dev.
##  ID_factor:loc_factor (Intercept) 1.2500824 1.11807
##  loc_factor           (Intercept) 0.0006669 0.02582
## Number of obs: 1310, groups:  ID_factor:loc_factor, 478; loc_factor, 3
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                     -5.3755     0.8696
## interventiongroupIntervention                   -0.5771     1.2295
## timePoint_factor2                                3.8765     0.7677
## timePoint_factor3                                0.5341     0.9314
## interventiongroupIntervention:timePoint_factor2  0.6408     1.2509
## interventiongroupIntervention:timePoint_factor3  0.9549     1.4498
##                                                z value Pr(>|z|)
## (Intercept)                                     -6.182 6.33e-10 ***
## interventiongroupIntervention                   -0.469    0.639
## timePoint_factor2                                5.049 4.43e-07 ***
## timePoint_factor3                                0.573    0.566
## interventiongroupIntervention:timePoint_factor2  0.512    0.608
## interventiongroupIntervention:timePoint_factor3  0.659    0.510
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.491
## tmPnt_fctr2 -0.917  0.552
## tmPnt_fctr3 -0.645  0.456  0.731
## intrvnI:P_2  0.473 -0.974 -0.573 -0.448
## intrvnI:P_3  0.414 -0.840 -0.469 -0.642  0.826
## convergence code: 0
## Model failed to converge with max|grad| = 0.423612 (tol = 0.001, component 1)
```

```
Anova(HSMH2bCBMHT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH2bCBMHT
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      38.2163  1  6.332e-10 ***
## interventiongroup                 0.2203  1     0.6388
## timePoint_factor                 46.3766  2  8.500e-11 ***
## interventiongroup:timePoint_factor  0.4370  2     0.8037
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH2bCBMHT_model, ~ interventiongroup * timePoint_factor), by = "
```

```
##  timePoint_factor contrast                  estimate       SE df z.ratio
##  2                Control - Intervention -0.06368375 0.281289 NA  -0.226
##  p.value
##   0.8209
##
```

```
## Results are given on the log odds ratio (not the response) scale.
```

```
HSMH3FaultsadnessT_model  <- glmer(HSMH3FaultsadnessT  ~ interventiongroup * timePoint_factor + (1|ID_fa
summary(HSMH3FaultsadnessT_model)
```

```
## Generalized linear mixed model fit by maximum likelihood (Laplace
##   Approximation) [glmerMod]
##  Family: binomial  ( logit )
## Formula: HSMH3FaultsadnessT ~ interventiongroup * timePoint_factor + (1 |
##     ID_factor)
##    Data: filtered
##
##      AIC      BIC   logLik deviance df.resid
##   1440.0   1476.3   -713.0   1426.0     1307
##
## Scaled residuals:
##     Min      1Q  Median      3Q     Max
## -2.1787 -0.6094  0.3484  0.4286  1.0953
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 1.93     1.389
## Number of obs: 1314, groups:  ID_factor, 480
##
## Fixed effects:
##                                                Estimate Std. Error
## (Intercept)                                      1.6258     0.2126
## interventiongroupIntervention                    0.4130     0.2914
## timePoint_factor2                               -0.2058     0.2492
## timePoint_factor3                               -0.6151     0.2426
## interventiongroupIntervention:timePoint_factor2 -0.3220     0.3695
## interventiongroupIntervention:timePoint_factor3 -0.1585     0.3572
##                                                z value Pr(>|z|)
## (Intercept)                                      7.648 2.05e-14 ***
## interventiongroupIntervention                    1.417   0.1564
## timePoint_factor2                               -0.826   0.4090
## timePoint_factor3                               -2.535   0.0112 *
## interventiongroupIntervention:timePoint_factor2 -0.871   0.3835
## interventiongroupIntervention:timePoint_factor3 -0.444   0.6573
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Correlation of Fixed Effects:
##             (Intr) intrvI tmPn_2 tmPn_3 iI:P_2
## intrvntngrI -0.593
## tmPnt_fctr2 -0.573  0.404
## tmPnt_fctr3 -0.621  0.413  0.499
## intrvnI:P_2  0.365 -0.616 -0.672 -0.330
## intrvnI:P_3  0.383 -0.640 -0.335 -0.667  0.508
```

```
Anova(HSMH3FaultsadnessT_model, type = "III")
```

```
## Analysis of Deviance Table (Type III Wald chisquare tests)
##
## Response: HSMH3FaultsadnessT
```

```
##                                    Chisq Df Pr(>Chisq)
## (Intercept)                      58.4879  1  2.045e-14 ***
## interventiongroup                 2.0087  1    0.15639
## timePoint_factor                  6.6854  2    0.03534 *
## interventiongroup:timePoint_factor  0.7595  2    0.68404
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
summary(rbind(pairs(lsmeans::lsmeans(HSMH3FaultsadnessT_model, ~ interventiongroup * timePoint_factor),
```

```
##  timePoint_factor contrast                  estimate        SE df z.ratio
##  2                Control - Intervention -0.09099204 0.2981012 NA  -0.305
##  p.value
##   0.7602
##
## Results are given on the log odds ratio (not the response) scale.
```

```
{r, cache = TRUE} # HSMH4CausesadnessGodT_model  <- glmer(HSMH4Causesadn
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered, family = "binomial") # summary(HSMH4CausesadnessGodT_mo
# Anova(HSMH4CausesadnessGodT_model, type = "III") # summary(rbind(pairs
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH4CausesadnessThinkingT_model  <- glmer(HSMH4Caus
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered, family = "binomial") # summary(HSMH4CausesadnessThinkin
# Anova(HSMH4CausesadnessThinkingT_model, type = "III") # summary(rbind(
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH4CausesadnessCurseT_model  <- glmer(HSMH4Causesa
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered, family = "binomial") # summary(HSMH4CausesadnessCurseT_
# Anova(HSMH4CausesadnessCurseT_model, type = "III") # summary(rbind(pai
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH4CausesadnessTraumaStressT_model  <-
glmer(HSMH4CausesadnessTraumaStressT ~ interventiongroup *
timePoint_factor + (1|loc_factor/ID_factor), data = filtered,
family = "binomial") # summary(HSMH4CausesadnessTraumaStressT_model)
# Anova(HSMH4CausesadnessTraumaStressT_model, type = "III") #
summary(rbind(pairs(lsmeans::lsmeans(HSMH4CausesadnessTraumaStressT_mode
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH4CausesadnessBrainT_model  <- glmer(HSMH4Causesa
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered, family = "binomial") # summary(HSMH4CausesadnessBrainT_
# Anova(HSMH4CausesadnessBrainT_model, type = "III") # summary(rbind(pai
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH4CausesadnessDeservedT_model  <- glmer(HSMH4Caus
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered, family = "binomial") # summary(HSMH4CausesadnessDeserve
# Anova(HSMH4CausesadnessDeservedT_model, type = "III") # summary(rbind(
```

```r
HSMH1aSeekhelplast6monthsT_model  <- clmm(HSMH1aSeekhelplast6monthsT ~ interventiongroup * timePoint_fa
summary(HSMH1aSeekhelplast6monthsT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HSMH1aSeekhelplast6monthsT ~ interventiongroup * timePoint_factor +
##     (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik  AIC    niter     max.grad cond.H
##  logit flexible  835  -367.61 749.22 386(2349) 2.83e-05 8.7e+02
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 26.33    5.131
## Number of groups:  ID_factor 447
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                  0.517229   0.563417
## timePoint_factor3                              0.007868   0.411381
## interventiongroupIntervention:timePoint_factor3 -0.518596   0.580457
##                                                z value Pr(>|z|)
## interventiongroupIntervention                    0.918    0.359
## timePoint_factor3                                0.019    0.985
## interventiongroupIntervention:timePoint_factor3  -0.893    0.372
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 1|2   5.9376     0.7627   7.785
## 2|3   8.0434     0.8933   9.004
## 3|4  12.4660     1.4879   8.378
## (605 observations deleted due to missingness)
```

```r
Anova(HSMH1aSeekhelplast6monthsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HSMH1aSeekhelplast6monthsT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.01689  1     0.8966
## timePoint_factor                    0.02652  1     0.8706
## interventiongroup:timePoint_factor  0.80425  1     0.3698
```

```r
summary(rbind(pairs(lsmeans::lsmeans(HSMH1aSeekhelplast6monthsT_model, ~ interventiongroup * timePoint_
```

```
##  timePoint_factor contrast                  estimate        SE df z.ratio
##  3                Control - Intervention 0.001367062 0.5836993 NA   0.002
##  p.value
##   0.9981
```

```
{r, cache = TRUE} # HSMH1bGodsT_model  <- clmm(HSMH1bGodsT ~
interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) # summary(HSMH1bGodsT_model) # Anova(HSMH1bGodsT_model,
type = "III") # summary(rbind(pairs(lsmeans::lsmeans(HSMH1bGodsT_model,
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH1bPriestT_model  <- clmm(HSMH1bPriestT
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) # summary(HSMH1bPriestT_model) # Anova(HSMH1bPriestT_mo
type = "III") # summary(rbind(pairs(lsmeans::lsmeans(HSMH1bPriestT_model
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#



{r, cache = TRUE} # HSMH1bNeighborsT_model  <- clmm(HSMH1bNeighborsT
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) # summary(HSMH1bNeighborsT_model) # Anova(HSMH1bNeighbo
type = "III") # summary(rbind(pairs(lsmeans::lsmeans(HSMH1bNeighborsT_mo
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#

{r, cache = TRUE} # HSMH1bFamilyT_model  <- clmm(HSMH1bFamilyT
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) # summary(HSMH1bFamilyT_model) # Anova(HSMH1bFamilyT_mo
type = "III") # summary(rbind(pairs(lsmeans::lsmeans(HSMH1bFamilyT_model
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#



{r, cache = TRUE} # HSMH1bFriendsT_model  <- clmm(HSMH1bFriendsT
~ interventiongroup * timePoint_factor + (1|loc_factor/ID_factor),
data = filtered) # summary(HSMH1bFriendsT_model) # Anova(HSMH1bFriendsT_
type = "III") # summary(rbind(pairs(lsmeans::lsmeans(HSMH1bFriendsT_mode
~ interventiongroup * timePoint_factor), by = "timePoint_factor"))[2])
#
```

```r
HSDis1Seekhelplast6monthsT_model  <- clmm(HSDis1Seekhelplast6monthsT ~ interventiongroup * timePoint_fa
summary(HSDis1Seekhelplast6monthsT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HSDis1Seekhelplast6monthsT ~ interventiongroup * timePoint_factor +
##     (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik  AIC     niter    max.grad cond.H
##  logit flexible  833  -593.89 1201.79 360(481) 3.80e-03 1.5e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 5.88e-09 7.668e-05
##  loc_factor           (Intercept) 2.54e-10 1.594e-05
## Number of groups:  ID_factor:loc_factor 446,  loc_factor 3
##
## Coefficients:
##                                              Estimate Std. Error
## interventiongroupIntervention                -0.14718    0.19464
## timePoint_factor3                             1.62135    0.23145
## interventiongroupIntervention:timePoint_factor3 -0.02818    0.32757
##                                              z value Pr(>|z|)
## interventiongroupIntervention                 -0.756    0.450
## timePoint_factor3                              7.005 2.47e-12 ***
## interventiongroupIntervention:timePoint_factor3  -0.086    0.931
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 0|1  -0.5086     0.1374  -3.703
## 1|2  -0.1507     0.1359  -1.109
## (607 observations deleted due to missingness)
```

```r
Anova(HSDis1Seekhelplast6monthsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HSDis1Seekhelplast6monthsT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                 0.0000000  1     1.0000
## timePoint_factor                  0.0000000  1     1.0000
## interventiongroup:timePoint_factor 0.0074032  1     0.9314
```

```r
summary(rbind(pairs(lsmeans::lsmeans(HSDis1Seekhelplast6monthsT_model, ~ interventiongroup * timePoint_
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  3                Control - Intervention 0.1753626 0.2634722 NA   0.666
##  p.value
##   0.5057
```

```r
HGMH1Helpedsomeonelast6monthsT_model  <- clmm(HGMH1Helpedsomeonelast6monthsT ~ interventiongroup * timel
summary(HGMH1Helpedsomeonelast6monthsT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HGMH1Helpedsomeonelast6monthsT ~ interventiongroup * timePoint_factor +
##     (1 | ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik  AIC     niter    max.grad cond.H
##  logit flexible  834  -674.68 1361.36 273(556) 3.84e-05 9.5e+01
##
## Random effects:
##  Groups    Name        Variance Std.Dev.
##  ID_factor (Intercept) 0.3444   0.5869
## Number of groups:  ID_factor 447
##
## Coefficients:
##                                              Estimate Std. Error
## interventiongroupIntervention                 0.03290    0.20850
## timePoint_factor3                             1.48717    0.22652
## interventiongroupIntervention:timePoint_factor3 -0.04553    0.31047
##                                              z value Pr(>|z|)
## interventiongroupIntervention                  0.158    0.875
## timePoint_factor3                              6.565 5.19e-11 ***
## interventiongroupIntervention:timePoint_factor3  -0.147    0.883
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 0|1 -0.52439    0.14950  -3.508
## 1|2  0.06452    0.14626   0.441
## (606 observations deleted due to missingness)
```

```r
Anova(HGMH1Helpedsomeonelast6monthsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HGMH1Helpedsomeonelast6monthsT
##                                  LR Chisq Df Pr(>Chisq)
## interventiongroup                0.000000  1     1.0000
## timePoint_factor                 0.000000  1     1.0000
## interventiongroup:timePoint_factor 0.021504  1     0.8834
```

```r
summary(rbind(pairs(lsmeans::lsmeans(HGMH1Helpedsomeonelast6monthsT_model, ~ interventiongroup * timePo
```

```
##  timePoint_factor contrast                estimate       SE df z.ratio
##  3                Control - Intervention 0.01262922 0.243431 NA   0.052
##  p.value
##   0.9586
```

```r
HGDis1Helpedlast6monthsT_model  <- clmm(HGDis1Helpedlast6monthsT ~ interventiongroup * timePoint_factor
summary(HGDis1Helpedlast6monthsT_model)
```

```
## Cumulative Link Mixed Model fitted with the Laplace approximation
##
## formula:
## HGDis1Helpedlast6monthsT ~ interventiongroup * timePoint_factor +
##     (1 | loc_factor/ID_factor)
## data:    filtered
##
##  link  threshold nobs logLik  AIC     niter     max.grad cond.H
##  logit flexible  833  -556.31 1126.62 348(1045) 2.29e-05 3.1e+02
##
## Random effects:
##  Groups               Name        Variance Std.Dev.
##  ID_factor:loc_factor (Intercept) 0.02426  0.1557
##  loc_factor           (Intercept) 0.09424  0.3070
## Number of groups:  ID_factor:loc_factor 446,  loc_factor 3
##
## Coefficients:
##                                                Estimate Std. Error
## interventiongroupIntervention                   0.05711    0.20262
## timePoint_factor3                               1.87983    0.25748
## interventiongroupIntervention:timePoint_factor3 -0.18922    0.34921
##                                                z value Pr(>|z|)
## interventiongroupIntervention                    0.282    0.778
## timePoint_factor3                                7.301 2.86e-13 ***
## interventiongroupIntervention:timePoint_factor3  -0.542    0.588
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Threshold coefficients:
##     Estimate Std. Error z value
## 0|1  -0.5738     0.2287  -2.510
## 1|2  -0.1584     0.2260  -0.701
## (607 observations deleted due to missingness)
```

```
Anova(HGDis1Helpedlast6monthsT_model, type = "III")
```

```
## Analysis of Deviance Table (Type II tests)
##
## Response: HGDis1Helpedlast6monthsT
##                                    LR Chisq Df Pr(>Chisq)
## interventiongroup                   0.00000  1     1.0000
## timePoint_factor                    0.00000  1     1.0000
## interventiongroup:timePoint_factor  0.29376  1     0.5878
```

```
summary(rbind(pairs(lsmeans::lsmeans(HGDis1Helpedlast6monthsT_model, ~ interventiongroup * timePoint_fac
```

```
##  timePoint_factor contrast               estimate        SE df z.ratio
##  3                Control - Intervention 0.132117 0.2851515 NA   0.463
##  p.value
##   0.6431
```

```
models <- list(BDI_model, DP_model, DP_95_model, self_eff_model, SelfEff1timeT_model, SelfEff2affordT_m

models_t2t3_only <- list(HSMH1aSeekhelplast6monthsT_model,  HSDis1Seekhelplast6monthsT_model, HGMH1Help

dv_titles <- c('BDI','Disaster preparation','Dis prep 95', 'Self efficacy','Self eff 1 - time', 'Self e
```

```r
dv_titles_t2t3_only <- c('*HSMH1a - Seek help last 6 months', '*HSDis1 - Seek help last 6mo', '*HGMH1 -
```

```r
coef_df <- data.frame(row.names = dv_titles,
                      Coefficient = sapply(models, function(x) coef(summary(x))['interventiongroupInter
                      'Std error' = sapply(models, function(x) coef(summary(x))['interventiongroupInter
                      'P value' = sapply(models, function(x) coef(summary(x))['interventiongroupInterve
```

```
## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```r
coef_df_t2t3 <- data.frame(row.names = dv_titles_t2t3_only,
                           Coefficient = sapply(models_t2t3_only, function(x) coef(summary(x))['interve
                           'Std error' = sapply(models_t2t3_only, function(x) coef(summary(x))['interve
                           'P value' = sapply(models_t2t3_only, function(x) coef(summary(x))['intervent

d <- vector(mode="numeric", length=nrow(coef_df))
for(i in 1:nrow(coef_df)){
  if(class(models[[i]]) == "merModLmerTest") {
    y <- getME(models[[i]], name = 'y')
    X <- getME(models[[i]], name = 'X')
    d[i] <- coef_df$Coefficient[i] / sd(y[X[,'timePoint_factor2'] == 0 & X[,'timePoint_factor3'] == 0])
  }
  else {
    d[i] <- NA
  }
}

d_t2t3 <- vector(mode = "numeric", length = nrow(coef_df_t2t3))

for(i in 1:nrow(coef_df_t2t3)){
  if(class(models_t2t3_only[[i]]) == "merModLmerTest") {
    y <- getME(models_t2t3_only[[i]], name = 'y')
    X <- getME(models_t2t3_only[[i]], name = 'X')
    d_t2t3[i] <- coef_df_t2t3$Coefficient[i] / sd(y[X[,'timePoint_factor3'] == 0])
  }
```

```
  else {
    d_t2t3[i] <- NA
  }
}
coef_df[,'Cohens d'] <- d
coef_df_t2t3[,'Cohens d'] <- d_t2t3
coef_df <- rbind(coef_df, coef_df_t2t3)
all_models <- c(models, models_t2t3_only)
all_titles <- c(dv_titles, dv_titles_t2t3_only)

coefs_3 <- sapply(all_models, function(x) coef(summary(x))['interventiongroupIntervention:timePoint_fac
```

```
## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
se_3 <- sapply(all_models, function(x) coef(summary(x))['interventiongroupIntervention:timePoint_factor3
```

```
## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
p_3 <- sapply(all_models, function(x) coef(summary(x))['interventiongroupIntervention:timePoint_factor3
```

```
## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, use.hessian = use.hessian): variance-covariance matrix computed from
## not positive definite or contains NA values: falling back to var-cov estimated from RX

## Warning in vcov.merMod(object, correlation = correlation, sigm = sig): variance-covariance matrix co
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
models_df <- data.frame(row.names = all_titles, 'Time 1vs2' = coef_df$Coefficient, 'SE 1vs2' = coef_df$
models_df[dv_titles_t2t3_only, 1:3] <- NA

coping_models_df <- data.frame(row.names = cope_var_names,
                               'Time 1vs2' = sapply(cope_items_models, function(x) coef(summary(x))['interve
                               'SE 1vs2' = sapply(cope_items_models, function(x) coef(summary(x))['interven
                               'p 1vs2' = sapply(cope_items_models, function(x) coef(summary(x))['interventi
                               'Time 1vs3' = sapply(cope_items_models, function(x) coef(summary(x))['interve
                               'SE 1vs3' = sapply(cope_items_models, function(x) coef(summary(x))['interven
                               'p 1vs3' = sapply(cope_items_models, function(x) coef(summary(x))['interventi
```

```
print(xtable(models_df, auto = TRUE, caption = "Asterixes indicate data collected at times 2 and 3 only
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 16:14:14 2018

```
print(xtable(coping_models_df, auto = TRUE, caption = "Coping items - asterixes indicate data collected
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 16:14:14 2018

```
contrasts <- data.frame()
for(mod in models) {
  MM <- lsmeans::lsmeans(mod, ~ timePoint_factor * interventiongroup)
  contrast_result <- summary(rbind(pairs(MM, by="interventiongroup")[5]), type = "response")
  if(dim(contrasts)[1] == 0) {
    contrasts <- contrast_result
  }
  else {
    contrasts <- rbind(contrasts, setNames(contrast_result, names(contrasts)))
  }
}
```

```
## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent

## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent

## Warning in vcov.merMod(object, correlation = FALSE): variance-covariance matrix computed from finite
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
row.names(contrasts) <- dv_titles
```

```
print(xtable(cbind(dv_titles, contrasts)[,2:ncol(contrasts)+1], auto = TRUE, caption = "Within subject
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 16:14:17 2018

```
contrasts <- data.frame()
for(mod in models) {
  MM <- lsmeans::lsmeans(mod, ~ timePoint_factor * interventiongroup)
  contrast_result <- summary(rbind(pairs(MM, by="interventiongroup")[3]), type = "response")
  if(dim(contrasts)[1] == 0) {
    contrasts <- contrast_result
  }
  else {
    contrasts <- rbind(contrasts, setNames(contrast_result, names(contrasts)))
  }
}
```

```
## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent

## Warning: Function call in data or subset: ref.grid/lsmeans results may be
## inconsistent

## Warning in vcov.merMod(object, correlation = FALSE): variance-covariance matrix computed from finite
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

```
row.names(contrasts) <- dv_titles
```

```
print(xtable(cbind(dv_titles, contrasts)[,2:ncol(contrasts)+1], auto = TRUE, caption = "Within subject
```

% latex table generated in R 3.4.3 by xtable 1.8-2 package % Mon Mar 05 16:14:19 2018

```
texreg(all_models, type = "html",  digits = 3, bold = .05, booktabs = TRUE, sideways = TRUE, use.packag
```

```
## Warning in vcov.merMod(model, useScale = FALSE, ...): variance-covariance matrix computed from finite
## not positive definite or contains NA values: falling back to var-cov estimated from RX
```

Let's generate descriptive stats for the mental health variables.

```
{r, results = "asis"} # vars <- filtered %>% select(BDImean16_T,
PTSDmean13_T, functioning, DisMH1anxiousT, DisMH2depressedT,
DisMH3avoidT, timePoint) # vars %<>% rename(Time = timePoint)
# tableContinuous(vars = list(vars$BDImean16_T, vars$PTSDmean13_T,
vars$functioning, as.numeric(vars$DisMH1anxiousT), as.numeric(vars$DisMH
as.numeric(vars$DisMH3avoidT)), group = vars$Time, stats =
c('n', 'min', 'q1', 'median', 'mean', 'q3', 'max'), cap = "Descriptive
statistics" , nams = c('BDI', 'PTSD', 'Functioning', 'Dis MH -
anxious', 'Dis MH - depressed', 'Dis MH - avoid'), prec = 2) #
```

% latex table generated in R 3.4.2 by xtable 1.8-2 package % Mon Oct 23 13:54:49 2017

Variable	**Time point**	**n**	**Min**	$\mathbf{q_1}$	$\widetilde{\mathbf{x}}$	$\bar{\mathbf{x}}$	$\mathbf{q_3}$	**Max**
BDI	1	370	1	1.29	1.52	1.61	1.89	3.10
	2	341	1	1.19	1.48	1.56	1.86	3.52
	3	371	1	1.10	1.33	1.43	1.67	3.14
	all		1	1.19	1.48	1.53	1.81	3.52
PTSD	1	370	1	1.24	1.76	1.88	2.40	4.35
	2	341	1	1.12	1.47	1.71	2.06	4.53
	3	371	1	1.06	1.29	1.47	1.71	4.18
	all		1	1.12	1.47	1.69	2.06	4.53
Functioning	1	366	1	1.00	1.11	1.33	1.56	3.67
	2	341	1	1.00	1.11	1.34	1.56	3.00
	3	371	1	1.00	1.11	1.24	1.33	2.67
	all		1	1.00	1.11	1.30	1.44	3.67
Dis MH - anxious	1	370	1	4.00	4.00	3.83	4.00	5.00
	2	341	1	2.00	3.00	3.18	4.00	5.00
	3	371	1	2.00	3.00	2.95	4.00	5.00
	all		1	2.00	4.00	3.33	4.00	5.00
Dis MH - depressed	1	369	1	3.00	4.00	3.39	4.00	5.00
	2	341	1	2.00	3.00	2.96	4.00	5.00
	3	370	1	2.00	2.00	2.62	3.00	5.00
	all		1	2.00	3.00	2.99	4.00	5.00
Dis MH - avoid	1	370	1	2.00	2.00	2.24	3.00	5.00
	2	341	1	2.00	2.00	2.25	3.00	5.00
	3	371	1	2.00	2.00	2.14	2.00	5.00
	all		1	2.00	2.00	2.21	3.00	5.00

Table 10: Descriptive statistics

Next the data by location across all time points.

```
{r, results = "asis"} # vars <- filtered %>% select(BDImean16_T,
PTSDmean13_T, functioning, DisMH1anxiousT, DisMH2depressedT,
DisMH3avoidT, T1loccode) # vars %<>% rename(Location = T1loccode)
# tableContinuous(vars = list(vars$BDImean16_T, vars$PTSDmean13_T,
vars$functioning, as.numeric(vars$DisMH1anxiousT), as.numeric(vars$DisMH
as.numeric(vars$DisMH3avoidT)), group = vars$Location, stats
= c('n', 'min', 'q1', 'median', 'mean', 'q3', 'max'), cap =
"Descriptive statistics by location" , nams = c('BDI', 'PTSD',
'Functioning', 'Dis MH - anxious', 'Dis MH - depressed', 'Dis
MH - avoid'), prec = 2) #
```

% latex table generated in R 3.4.2 by xtable 1.8-2 package % Mon Oct 23 14:10:22 2017

Variable	Location	n	Min	q_1	$\widetilde{x}$	$\bar{x}$	q_3	Max
BDI	1	347	1	1.19	1.43	1.51	1.71	3.52
	2	374	1	1.19	1.43	1.52	1.81	2.95
	3	361	1	1.14	1.48	1.57	1.86	3.19
	all		1	1.19	1.48	1.53	1.81	3.52
PTSD	1	347	1	1.12	1.53	1.70	2.06	4.47
	2	374	1	1.12	1.41	1.68	2.10	4.53
	3	361	1	1.12	1.47	1.69	2.00	4.06
	all		1	1.12	1.47	1.69	2.06	4.53
Functioning	1	346	1	1.00	1.11	1.30	1.44	3.67
	2	373	1	1.00	1.11	1.26	1.33	3.22
	3	359	1	1.00	1.11	1.34	1.56	3.11
	all		1	1.00	1.11	1.30	1.44	3.67
Dis MH - anxious	1	347	1	2.00	3.00	3.33	4.00	5.00
	2	374	1	3.00	4.00	3.32	4.00	5.00
	3	361	1	2.00	4.00	3.34	4.00	5.00
	all		1	2.00	4.00	3.33	4.00	5.00
Dis MH - depressed	1	346	1	2.00	3.00	2.97	4.00	5.00
	2	374	1	2.00	3.00	3.00	4.00	5.00
	3	360	1	2.00	3.00	3.01	4.00	5.00
	all		1	2.00	3.00	2.99	4.00	5.00
Dis MH - avoid	1	347	1	2.00	2.00	2.27	3.00	5.00
	2	374	1	2.00	2.00	2.26	3.00	5.00
	3	361	1	2.00	2.00	2.10	2.00	5.00
	all		1	2.00	2.00	2.21	3.00	5.00

Table 11: Descriptive statistics by location

Next tables for each of the time points, broken down by location (city)

```
{r, results = "asis"} # vars <- filtered %>% filter(timePoint_factor
== '1') %>% select(BDImean16_T, PTSDmean13_T, functioning,
DisMH1anxiousT, DisMH2depressedT, DisMH3avoidT, T1loccode) #
vars %<>% rename(Location = T1loccode) # tableContinuous(vars
= list(vars$BDImean16_T, vars$PTSDmean13_T, vars$functioning,
as.numeric(vars$DisMH1anxiousT), as.numeric(vars$DisMH2depressedT),
as.numeric(vars$DisMH3avoidT)), group = vars$Location, stats
= c('n', 'min', 'q1', 'median', 'mean', 'q3', 'max'), cap =
"Descriptive statistics for time point 1 by location" , nams =
c('BDI', 'PTSD', 'Functioning', 'Dis MH - anxious', 'Dis MH -
depressed', 'Dis MH - avoid'), prec = 2) #
```

% latex table generated in R 3.4.2 by xtable 1.8-2 package % Mon Oct 23 14:06:08 2017

Variable	Location	n	Min	q_1	$\widetilde{x}$	$\bar{x}$	q_3	Max
BDI	1	117	1	1.29	1.52	1.61	1.90	2.90
	2	129	1	1.29	1.52	1.59	1.86	2.95
	3	124	1	1.24	1.57	1.63	1.95	3.10
	all		1	1.29	1.52	1.61	1.89	3.10
PTSD	1	117	1	1.24	1.82	1.97	2.47	3.88
	2	129	1	1.18	1.62	1.82	2.29	4.35
	3	124	1	1.29	1.74	1.87	2.24	4.00
	all		1	1.24	1.76	1.88	2.40	4.35
Functioning	1	116	1	1.00	1.22	1.37	1.67	3.67
	2	128	1	1.00	1.11	1.26	1.44	3.22
	3	122	1	1.00	1.11	1.36	1.56	3.11
	all		1	1.00	1.11	1.33	1.56	3.67
Dis MH - anxious	1	117	2	3.00	4.00	3.82	4.00	5.00
	2	129	1	4.00	4.00	3.85	4.00	5.00
	3	124	1	4.00	4.00	3.81	4.00	5.00
	all		1	4.00	4.00	3.83	4.00	5.00
Dis MH - depressed	1	116	1	3.00	3.00	3.34	4.00	5.00
	2	129	1	3.00	4.00	3.40	4.00	5.00
	3	124	1	3.00	4.00	3.44	4.00	5.00
	all		1	3.00	4.00	3.39	4.00	5.00
Dis MH - avoid	1	117	1	2.00	2.00	2.45	3.00	5.00
	2	129	1	2.00	2.00	2.16	3.00	5.00
	3	124	1	2.00	2.00	2.13	2.00	5.00
	all		1	2.00	2.00	2.24	3.00	5.00

Table 12: Descriptive statistics for time point 1 by location

```
{r, results = "asis"} # vars <- filtered %>% filter(timePoint_factor
== '2') %>% select(BDImean16_T, PTSDmean13_T, functioning,
DisMH1anxiousT, DisMH2depressedT, DisMH3avoidT, T1loccode) #
vars %<>% rename(Location = T1loccode) # tableContinuous(vars
= list(vars$BDImean16_T, vars$PTSDmean13_T, vars$functioning,
as.numeric(vars$DisMH1anxiousT), as.numeric(vars$DisMH2depressedT),
as.numeric(vars$DisMH3avoidT)), group = vars$Location, stats
= c('n', 'min', 'q1', 'median', 'mean', 'q3', 'max'), cap =
"Descriptive statistics for time point 2 by location" , nams =
c('BDI', 'PTSD', 'Functioning', 'Dis MH - anxious', 'Dis MH -
depressed', 'Dis MH - avoid'), prec = 2) #
```

% latex table generated in R 3.4.2 by xtable 1.8-2 package % Mon Oct 23 14:04:55 2017

Variable	Location	n	Min	q_1	$\widetilde{x}$	$\bar{x}$	q_3	Max
BDI	1	112	1	1.14	1.43	1.52	1.71	3.52
	2	116	1	1.24	1.52	1.58	1.86	2.71
	3	113	1	1.19	1.48	1.59	1.90	3.19
	all		1	1.19	1.48	1.56	1.86	3.52
PTSD	1	112	1	1.12	1.47	1.64	1.94	4.47
	2	116	1	1.18	1.56	1.77	2.18	4.53
	3	113	1	1.12	1.47	1.70	2.12	3.65
	all		1	1.12	1.47	1.71	2.06	4.53
Functioning	1	112	1	1.00	1.22	1.32	1.44	2.89
	2	116	1	1.00	1.11	1.31	1.44	3.00
	3	113	1	1.00	1.22	1.38	1.67	2.89
	all		1	1.00	1.11	1.34	1.56	3.00
Dis MH - anxious	1	112	2	2.00	3.00	3.22	4.00	5.00
	2	116	1	2.00	3.00	3.11	4.00	5.00
	3	113	1	2.00	3.00	3.22	4.00	5.00
	all		1	2.00	3.00	3.18	4.00	5.00
Dis MH - depressed	1	112	1	2.00	3.00	2.97	4.00	5.00
	2	116	1	2.00	3.00	3.00	4.00	5.00
	3	113	1	2.00	3.00	2.89	4.00	5.00
	all		1	2.00	3.00	2.96	4.00	5.00
Dis MH - avoid	1	112	1	2.00	2.00	2.22	3.00	5.00
	2	116	1	2.00	2.00	2.39	3.00	5.00
	3	113	1	2.00	2.00	2.14	2.00	5.00
	all		1	2.00	2.00	2.25	3.00	5.00

Table 13: Descriptive statistics for time point 2 by location

```
{r, results = "asis"} # vars <- filtered %>% filter(timePoint_factor
== '3') %>% select(BDImean16_T, PTSDmean13_T, functioning,
DisMH1anxiousT, DisMH2depressedT, DisMH3avoidT, T1loccode) #
vars %<>% rename(Location = T1loccode) # tableContinuous(vars
= list(vars$BDImean16_T, vars$PTSDmean13_T, vars$functioning,
as.numeric(vars$DisMH1anxiousT), as.numeric(vars$DisMH2depressedT),
as.numeric(vars$DisMH3avoidT)), group = vars$Location, stats
= c('n', 'min', 'q1', 'median', 'mean', 'q3', 'max'), cap =
"Descriptive statistics for time point 3 by location" , nams =
c('BDI', 'PTSD', 'Functioning', 'Dis MH - anxious', 'Dis MH -
depressed', 'Dis MH - avoid'), prec = 2) #
```

% latex table generated in R 3.4.2 by xtable 1.8-2 package % Mon Oct 23 14:05:02 2017

Variable	Location	n	Min	q_1	$\widetilde{x}$	$\bar{x}$	q_3	Max
BDI	1	118	1	1.14	1.36	1.41	1.62	2.81
	2	129	1	1.10	1.29	1.40	1.62	2.71
	3	124	1	1.10	1.38	1.48	1.76	3.14
	all		1	1.10	1.33	1.43	1.67	3.14
PTSD	1	118	1	1.06	1.35	1.48	1.69	3.29
	2	129	1	1.06	1.24	1.45	1.65	4.18
	3	124	1	1.06	1.29	1.49	1.72	4.06
	all		1	1.06	1.29	1.47	1.71	4.18
Functioning	1	118	1	1.00	1.11	1.22	1.33	2.56
	2	129	1	1.00	1.11	1.21	1.22	2.67
	3	124	1	1.00	1.11	1.28	1.44	2.67
	all		1	1.00	1.11	1.24	1.33	2.67
Dis MH - anxious	1	118	1	2.00	3.00	2.93	4.00	5.00
	2	129	1	2.00	3.00	2.97	4.00	5.00
	3	124	1	2.00	3.00	2.96	4.00	5.00
	all		1	2.00	3.00	2.95	4.00	5.00
Dis MH - depressed	1	118	1	2.00	2.00	2.59	3.00	5.00
	2	129	1	2.00	2.00	2.60	3.00	5.00
	3	123	1	2.00	2.00	2.67	3.50	5.00
	all		1	2.00	2.00	2.62	3.00	5.00
Dis MH - avoid	1	118	1	2.00	2.00	2.13	2.00	5.00
	2	129	1	2.00	2.00	2.26	2.00	4.00
	3	124	1	2.00	2.00	2.03	2.00	4.00
	all		1	2.00	2.00	2.14	2.00	5.00

Table 14: Descriptive statistics for time point 3 by location

	Time.1vs2	SE.1vs2	p.1vs2	CohD.1vs2	Time.1vs3	SE.1vs3	p.1vs3
BDI	-0.00	0.04	0.9765	-0.00	0.04	0.04	0.2432
Disaster preparation	0.72	0.32	0.0225	0.29	-0.23	0.31	0.4622
Dis prep 95	0.51	0.24	0.0332	0.23	-0.18	0.24	0.4591
Self efficacy	0.12	0.07	0.0703	0.18	-0.14	0.07	0.0326
Self eff 1 - time	0.26	0.27	0.3396		-0.22	0.26	0.4045
Self eff 2 - Afford	0.25	0.28	0.3639		-0.38	0.27	0.1527
Self eff 3 - info	0.55	0.27	0.0402		-0.34	0.26	0.1900
Disaster MH	0.01	0.08	0.9154	0.01	-0.00	0.08	0.9973
Dis MH 1 - anxious	-0.14	0.26	0.6070		-0.06	0.26	0.8300
Dis MH 2 - depression	-0.06	0.26	0.8184		-0.26	0.26	0.3229
Dis MH 3 - avoid	0.27	0.27	0.3103		0.28	0.27	0.2988
Fatalism	-0.20	0.12	0.1130	-0.16	0.04	0.12	0.7576
Fat 1 - don't worry	-0.33	0.26	0.1959		0.11	0.25	0.6709
Fat 2 - injured	-0.38	0.26	0.1359		0.03	0.26	0.9026
Dis attr - natural	0.25	0.28	0.3585		0.05	0.26	0.8423
Dis attr - God's will	-0.36	0.28	0.2024		-0.08	0.28	0.7851
Dis attr - other supernat	-0.51	0.36	0.1516		0.02	0.35	0.9480
Dis attr - karma	-0.43	0.30	0.1628		-0.11	0.29	0.7140
Dis attr - Neppeop	0.44	0.27	0.1026		0.79	0.26	0.0029
Dis attr - govts	0.38	0.28	0.1686		0.11	0.27	0.6784
Relig 1 - private activ	0.09	0.28	0.7357		-0.20	0.27	0.4715
Relig 2 - public activ	0.43	0.28	0.1257		0.03	0.27	0.9090
Functioning - males	-0.01	0.06	0.9042	-0.02	0.03	0.06	0.5986
Functioning - females	-0.02	0.05	0.7544	-0.03	-0.00	0.05	0.9993
Functioning - all	-0.01	0.04	0.7489	-0.03	0.01	0.04	0.8053
Coping	0.02	0.03	0.5627	0.06	0.00	0.03	0.9587
Social cohesion	0.16	0.06	0.0121	0.26	0.10	0.06	0.1197
PTSD	-0.04	0.07	0.5169	-0.06	0.01	0.06	0.9124
PMHP	0.02	0.03	0.4600	0.07	0.03	0.03	0.3928
HSMH2a - Comfort seek help future	-0.19	0.28	0.4859		-0.15	0.27	0.5904
HSDis2 - Comfort seeking help	0.21	0.28	0.4497		-0.02	0.28	0.9407
HSMH2b - Gods	-0.16	1.04	0.8740		-0.39	1.05	0.7120
HSMH2b - Priest	0.08	0.34	0.8153		0.57	0.65	0.3791
HSMH2b - Neighbors	0.55	0.36	0.1196		-0.07	0.37	0.8507
HSMH2b - Family	-0.67	0.00	0.0000		-1.32	0.00	0.0000
HSMH2b - Friends	0.07	0.50	0.8860		-0.02	0.50	0.9647
HSMH2b - Hospital	0.24	2551.26	0.9999		0.06	2551.26	1.0000
HSMH2b - CBMHT	0.64	1.25	0.6085		0.95	1.45	0.5101
HGMH3 - Know how help	0.82	0.35	0.0199		0.02	0.38	0.9632
HSMH3 - Faultsadness	-0.32	0.37	0.3835		-0.16	0.36	0.6573
*HSMH1a - Seek help last 6 months					-0.52	0.58	0.3716
*HSDis1 - Seek help last 6mo					-0.03	0.33	0.9314
*HGMH1 - Helped someone last 6mo					-0.05	0.31	0.8834
*HGDis1 - Helped last 6mo					-0.19	0.35	0.5879

Table 5: Asterixes indicate data collected at times 2 and 3 only (coefficient is time 2 vs 3 x group interaction)

	Time.1vs2	SE.1vs2	p.1vs2	Time.1vs3	SE.1vs3	p.1vs3
Cope1Active_T	0.74	0.27	0.0067	-0.03	0.26	0.9244
Cope2Posreframe_T	-0.16	0.27	0.5491	0.04	0.26	0.8779
Cope3Acceptance_T	-0.19	0.27	0.4724	-0.31	0.27	0.2481
Cope4Emotsupport_T	0.18	0.27	0.5124	-0.19	0.26	0.4775
Cope5Instrumsupport_T	0.13	0.27	0.6404	-0.00	0.26	0.9882
Cope6Selfdistract_T	-0.13	0.27	0.6393	-0.34	0.26	0.1855
Cope7Subuse_T	0.04	0.44	0.9253	0.26	0.44	0.5617
Cope8Behavdisengage_T	-0.06	0.29	0.8312	0.43	0.30	0.1537
Cope9Selfblame_T	0.01	0.30	0.9648	0.00	0.30	0.9909
Cope10Denial_T	0.13	0.31	0.6789	0.11	0.33	0.7258
Cope11Puja_T	0.08	0.29	0.7814	0.24	0.28	0.3904
Cope12Fight_T	-0.05	0.41	0.9100	0.09	0.42	0.8270
Cope13Other_T	-0.09	0.52	0.8611	-0.08	0.52	0.8727

Table 6: Coping items - asterixes indicate data collected at times 2 and 3 only (coefficient is time 2 vs 3 x group interaction)

	interventiongroup	estimate	SE	df	t.ratio	p.value
BDI	Intervention	0.15	0.03	862.69	5.68	0.000
Disaster preparation	Intervention	-0.18	0.23	834.64	-0.81	0.417
Dis prep 95	Intervention	-0.79	0.17	841.38	-4.59	0.000
Self efficacy	Intervention	-0.12	0.05	863.52	-2.36	0.018
Self eff 1 - time	Intervention	-0.02	0.19		-0.12	0.903
Self eff 2 - Afford	Intervention	-0.08	0.19		-0.43	0.665
Self eff 3 - info	Intervention	-0.87	0.19		-4.61	0.000
Disaster MH	Intervention	0.58	0.05	873.59	10.71	0.000
Dis MH 1 - anxious	Intervention	2.10	0.20		10.57	0.000
Dis MH 2 - depression	Intervention	1.96	0.20		9.90	0.000
Dis MH 3 - avoid	Intervention	0.12	0.19		0.64	0.521
Fatalism	Intervention	0.58	0.09	861.63	6.62	0.000
Fat 1 - don't worry	Intervention	0.91	0.19		4.92	0.000
Fat 2 - injured	Intervention	1.13	0.19		5.99	0.000
Dis attr - natural	Intervention	0.79	0.19		4.20	0.000
Dis attr - God's will	Intervention	0.97	0.20		4.74	0.000
Dis attr - other supernat	Intervention	0.47	0.25		1.88	0.061
Dis attr - karma	Intervention	0.71	0.21		3.34	0.001
Dis attr - Neppeop	Intervention	0.12	0.19		0.65	0.515
Dis attr - govts	Intervention	-0.49	0.19		-2.57	0.010
Relig 1 - private activ	Intervention	-0.31	0.20		-1.59	0.112
Relig 2 - public activ	Intervention	0.63	0.20		3.12	0.002
Functioning - males	Intervention	0.04	0.04	219.36	0.86	0.389
Functioning - females	Intervention	0.10	0.04	641.33	2.67	0.008
Functioning - all	Intervention	0.08	0.03	868.27	2.77	0.006
Coping	Intervention	0.05	0.02	873.58	2.14	0.033
Social cohesion	Intervention	-0.14	0.05	858.80	-3.12	0.002
PTSD	Intervention	0.39	0.05	862.23	8.34	0.000
PMHP	Intervention	0.08	0.02	855.36	3.37	0.001
HSMH2a - Comfort seek help future	Intervention	-0.06	0.20		-0.30	0.764
HSDis2 - Comfort seeking help	Intervention	0.12	0.20		0.59	0.555
HSMH2b - Gods	Intervention	0.06	0.05		-3.73	0.000
HSMH2b - Priest	Intervention	20.17	7.75		7.82	0.000
HSMH2b - Neighbors	Intervention	0.06	0.02		-9.67	0.000
HSMH2b - Family	Intervention	0.00	0.00		-8956.38	0.000
HSMH2b - Friends	Intervention	0.01	0.01		-10.92	0.000
HSMH2b - Hospital	Intervention	0.00	0.00		-0.01	0.992
HSMH2b - CBMHT	Intervention	0.23	0.25		-1.34	0.180
HGMH3 - Know how help	Intervention	0.33	0.09		-4.06	0.000
HSMH3 - Faultsadness	Intervention	2.17	0.58		2.91	0.004

Table 7: Within subject contrasts for time 1 to 3 for intervention group

	interventiongroup	estimate	SE	df	t.ratio	p.value
BDI	Control	0.13	0.03	849.71	5.00	0.000
Disaster preparation	Control	-0.61	0.22	811.32	-2.79	0.005
Dis prep 95	Control	-0.68	0.17	816.21	-4.08	0.000
Self efficacy	Control	-0.28	0.05	850.84	-5.72	0.000
Self eff 1 - time	Control	-0.51	0.18		-2.78	0.005
Self eff 2 - Afford	Control	-0.48	0.19		-2.49	0.013
Self eff 3 - info	Control	-1.21	0.19		-6.32	0.000
Disaster MH	Control	0.19	0.05	864.23	3.58	0.000
Dis MH 1 - anxious	Control	0.48	0.18		2.65	0.008
Dis MH 2 - depression	Control	0.60	0.18		3.27	0.001
Dis MH 3 - avoid	Control	0.28	0.19		1.46	0.143
Fatalism	Control	0.54	0.09	849.37	6.23	0.000
Fat 1 - don't worry	Control	0.97	0.18		5.35	0.000
Fat 2 - injured	Control	0.94	0.18		5.16	0.000
Dis attr - natural	Control	0.36	0.18		1.95	0.051
Dis attr - God's will	Control	1.01	0.20		4.97	0.000
Dis attr - other supernat	Control	0.54	0.26		2.08	0.038
Dis attr - karma	Control	0.13	0.22		0.61	0.542
Dis attr - Neppeop	Control	0.21	0.20		1.08	0.281
Dis attr - govts	Control	-0.46	0.20		-2.35	0.019
Relig 1 - private activ	Control	-0.06	0.19		-0.29	0.769
Relig 2 - public activ	Control	0.05	0.20		0.23	0.815
Functioning - males	Control	0.12	0.05	216.46	2.59	0.010
Functioning - females	Control	0.09	0.04	630.20	2.54	0.011
Functioning - all	Control	0.10	0.03	855.04	3.36	0.001
Coping	Control	0.04	0.02	861.09	1.61	0.109
Social cohesion	Control	-0.08	0.05	845.66	-1.84	0.067
PTSD	Control	0.23	0.05	848.40	4.86	0.000
PMHP	Control	0.07	0.02	842.00	3.02	0.003
HSMH2a - Comfort seek help future	Control	0.02	0.19		0.13	0.899
HSDis2 - Comfort seeking help	Control	-0.09	0.19		-0.47	0.640
HSMH2b - Gods	Control	2.14	0.57		2.87	0.004
HSMH2b - Priest	Control	7.53	4.11		3.70	0.000
HSMH2b - Neighbors	Control	0.55	0.16		-2.11	0.035
HSMH2b - Family	Control	0.24	0.00		-1027.78	0.000
HSMH2b - Friends	Control	0.83	0.18		-0.86	0.390
HSMH2b - Hospital	Control	1.35	0.27		1.50	0.133
HSMH2b - CBMHT	Control	28.29	18.14		5.21	0.000
HGMH3 - Know how help	Control	0.24	0.07		-5.04	0.000
HSMH3 - Faultsadness	Control	1.51	0.37		1.66	0.096

Table 8: Within subject contrasts for time 2 to 3 for control group

	BDI	Disaster preparation	Dis prep 95	Self efficacy	Self eff 1 - time	Self eff 2 - Afford	Self eff 3 - info	Disaster MH	I
Time point = 2	**−0.061***	−0.199	0.282	−0.017	−0.269	−0.010	−0.006	**−0.386*****	
	(0.025)	(0.218)	(0.166)	(0.048)	(0.186)	(0.190)	(0.183)	(0.053)	
Time point = 3	**−0.190*****	0.412	**0.963*****	**0.260*****	0.241	**0.467***	**1.205*****	**−0.579*****	
	(0.025)	(0.214)	(0.163)	(0.047)	(0.182)	(0.188)	(0.183)	(0.052)	
Intervention	−0.023	−0.079	−0.058	−0.079	−0.408	−0.123	−0.169	−0.072	
	(0.039)	(0.252)	(0.195)	(0.060)	(0.219)	(0.212)	(0.215)	(0.059)	
Intervention x Time = 2	−0.001	**0.723***	**0.513***	0.125	0.256	0.250	**0.547***	0.008	
	(0.037)	(0.316)	(0.241)	(0.069)	(0.268)	(0.275)	(0.267)	(0.077)	
Intervention x Time = 3	0.042	−0.229	−0.175	**−0.145***	−0.218	−0.384	−0.339	−0.000	
	(0.036)	(0.311)	(0.237)	(0.068)	(0.261)	(0.268)	(0.258)	(0.075)	
BIC	1124.401	5996.378	5446.317	2504.798	3379.298	3062.477	3294.835	2588.999	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Coefficients with $p < 0.05$ in **bold**. Results are presented as coefficient (standard error).

Table 9: Statistical models