

**Variables and definitions:**

**Self-efficacy**

1. **Please tell us how confident you feel practicing the following behaviors in order to get better sleep: I can maintain healthy sleep habits.**

Not at all confident, somewhat confident, extremely confident

1. **Please tell us how confident you feel practicing the following behaviors in order to get better sleep: I can cut out screen use 1 hour before bed.**

Not at all confident, somewhat confident, extremely confident

1. **Please tell us how confident you feel practicing the following behaviors in order to get better sleep: I can exercise for 30 minutes total each day.**

Not at all confident, somewhat confident, extremely confident

1. **Please tell us how confident you feel practicing the following behaviors in order to get better sleep: I can participate in a breathing exercise during the day or before bed.**

Not at all confident, somewhat confident, extremely confident

*Coding for self-efficacy*

sleephygiene <- sleephygiene %>% mutate(

SELF\_EFFICACY = case\_when(

Q59\_canmaintainhealthysleephabits == "Extremely confident" ~ 1,

Q59\_canparticipateinbreathing == "Extremely confident" ~ 1,

Q59\_cancutoutscreen == "Extremely confident" ~ 1,

Q59\_canexercise == "Extremeley confident" ~ 1,

is.na(Q59\_canmaintainhealthysleephabits) ~ NA\_real\_,

is.na(Q59\_canparticipateinbreathing) ~ NA\_real\_,

is.na(Q59\_cancutoutscreen) ~ NA\_real\_,

is.na(Q59\_canexercise) ~ NA\_real\_,

TRUE ~ 0

)

)

**Attitude**

1. **Please rate your agreement with the following statements: Getting a good night’s sleep is important to me.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

1. **Please rate your agreement with the following statements: Having a regular sleep routine improves mental clarity/sharpness.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

Coding for attitude

sleephygiene <- sleephygiene %>% mutate(

ATTITUDE = case\_when(

Q44\_goodnightsleepisimportant == "Strongly agree" ~ 1,

is.na(Q44\_goodnightsleepisimportant) ~ NA\_real\_,

Q44\_mentalclarity == "Strongly agree" ~ 1,

is.na(Q44\_mentalclarity) ~ NA\_real\_,

TRUE ~ 0

)

)

**Emotions**

1. **Please rate your agreement with the following statements: I feel positive about the quality of my sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

*Coding for emotions*

sleephygiene <- sleephygiene %>% mutate(

EMOTIONS = case\_when(

Q44\_feelpositive == "Strongly agree" ~ 1,

is.na(Q44\_feelpositive) ~ NA\_real\_,

TRUE ~ 0

)

)

**Cue to action – no good question to evaluate**

**Motivation**

1. **Please rate your agreement with the following statements: I think cutting out screen use 1 hour before bed leads to better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

1. **Please rate your agreement with the following statements: I think exercising regularly leads to better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

1. **Please rate your agreement with the following statements: I think participating in breathing exercises during the day or before bed leads to better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

*Coding for motivation*

mutate(MOTIVATION = case\_when(

Q44\_cuttingoutscreenleadstobettersleep == "Strongly agree" ~ 1,

Q44\_exercisingleadstobettersleep == "Strongly agree" ~ 1,

Q44\_breathingexercisesleadstobettersleep == "Strongly agree" ~ 1,

is.na(Q44\_cuttingoutscreenleadstobettersleep) ~ NA\_real\_,

is.na(Q44\_exercisingleadstobettersleep) ~ NA\_real\_,

is.na(Q44\_breathingexercisesleadstobettersleep) ~ NA\_real\_,

TRUE ~ 0

))

**Intention to perform**

1. **Please rate your agreement with the following statements: In the next two weeks, I will stop using screens 1 hour before bed for better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

1. **Please rate your agreement with the following statements: In the next two weeks, I will exercise for at least 30 minutes total each day for better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

1. **Please rate your agreement with the following statements: In the next two weeks, I will do a daily breathing exercise for better sleep.**

Strongly disagree, somewhat disagree, neither agree nor disagree somewhat agree, strongly agree

*Coding for intention*

sleephygiene <- sleephygiene %>% mutate(

INTENTION = case\_when(

Q44\_iwillstopscreens == "Strongly agree" ~ 1,

is.na(Q44\_iwillstopscreens) ~ NA\_real\_,

Q44\_iwillbreathe == "Strongly agree" ~ 1,

is.na(Q44\_iwillbreathe) ~ NA\_real\_,

Q44\_iwillexercise == "Strongly agree" ~ 1,

is.na(Q44\_iwillexercise) ~ NA\_real\_,

TRUE ~ 0

)

)

**Behaviors**

1. **Please rate your agreement with the following statements: In the next two weeks, I will do a daily breathing exercise for better sleep.**

Does response (days of doing activites)

*UPPER 75%ile exposure*

sleephygiene <- sleephygiene %>% mutate(

UPPERPERCENTILEexposure = case\_when(

pointscombinedperdays >= 15 ~ 1,

is.na(pointscombinedperdays) ~ NA\_real\_,

TRUE ~ 0

)

)

*Two categories (low to mid exposure vs. high exposure) – to evaluate dose response*

mutate(

UPPERPERCENTILEexposure\_categories = case\_when(

pointscombinedperdays >= 15 ~ 2,

pointscombinedperdays < 15 ~ 1,

is.na(pointscombinedperdays) ~ NA\_real\_,

TRUE ~ 0

)

)

**Overall health outcomes: improved sleep**

1. **Are you happy with your sleep quality overall currently?**

Yes or no

1. **Please rate your sleep quality from the following options: In the last two weeks? (on average)**

Poor, fair, good, excellent

*Coding for outcome*

mutate(happywithsleepqualitycombined = case\_when(

Q90\_areyouhappywithyoursleepquality\_awareofcampaign == "Yes" ~ 1,

Q90\_areyouhappywithyoursleepquality\_awareofcampaign == "No" ~ 0,

Q91\_areyouhappywithyoursleepquality\_notawareofcampaign == "Yes" ~ 1,

Q91\_areyouhappywithyoursleepquality\_notawareofcampaign == "No" ~ 0,

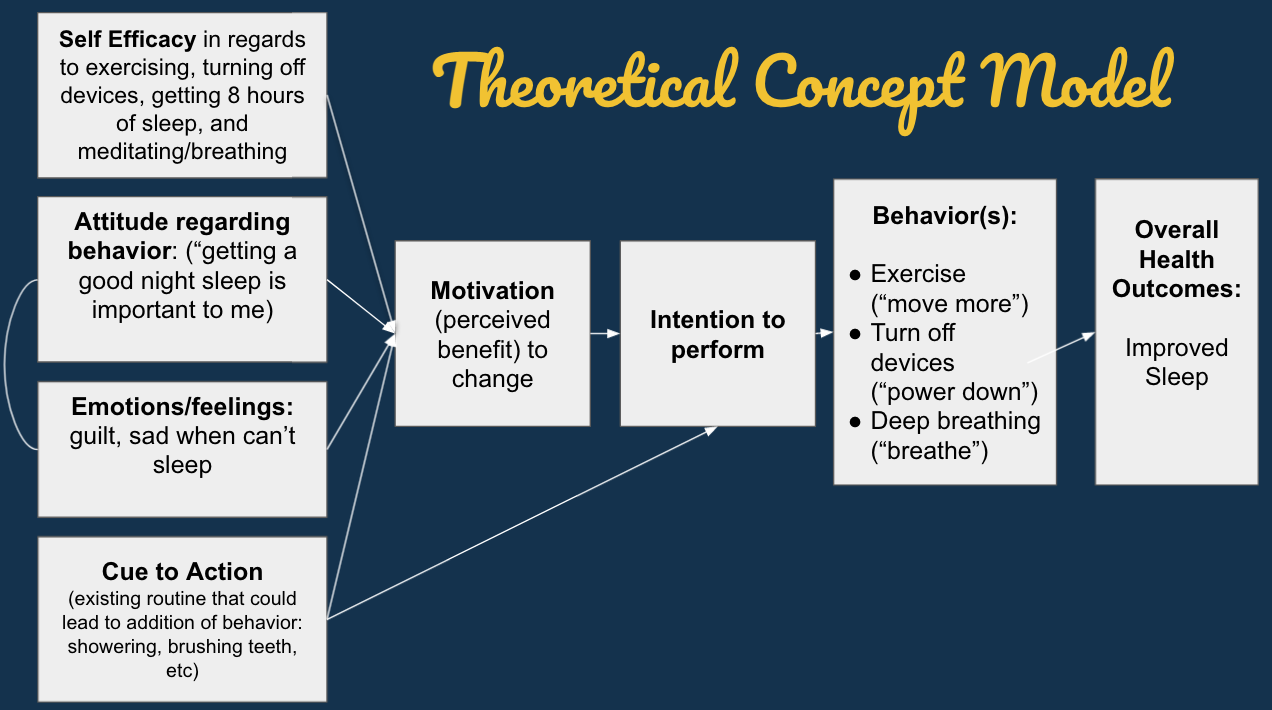
Q89\_ratesleepquality\_notawareofcampaign == "Good" ~ 1,

Q89\_ratesleepquality\_notawareofcampaign == "Excellent" ~ 1,

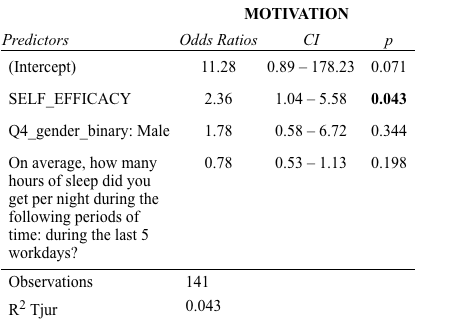
Q89\_ratesleepquality\_notawareofcampaign == "Poor" ~ 0,

Q89\_ratesleepquality\_notawareofcampaign == "Fair" ~ 0,

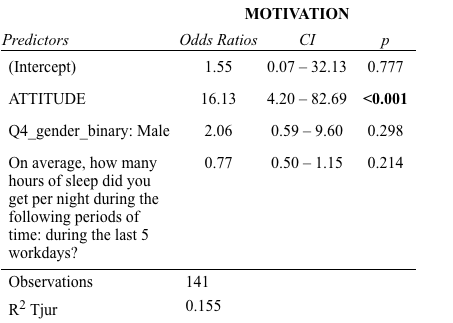
))



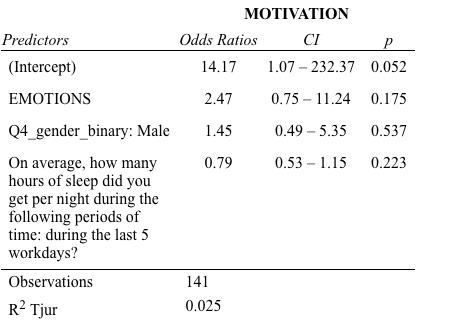
**Self-efficacy related to motivation**



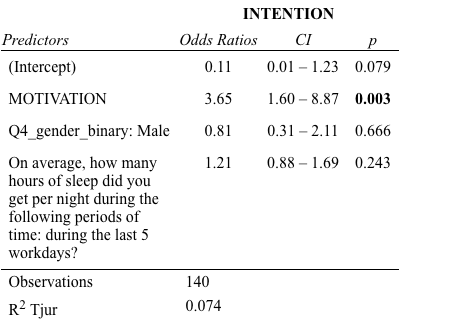
**Attitude related to motivation**

****

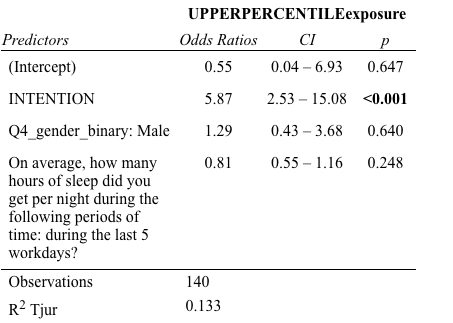
**Emotions/feelings related to motivation**

****

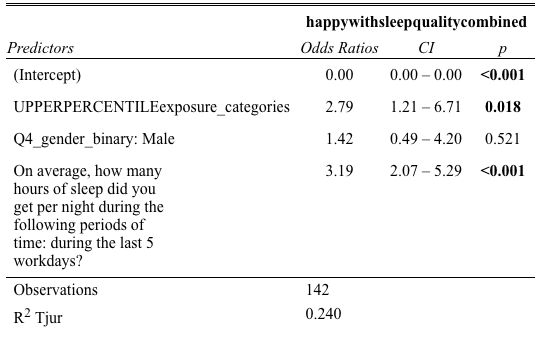
**Motivation related to intention**

****

**Intention related to high exposure (defined as >75%ile of days performing activities [15 days cumulative])**

****

**High exposure (defined as >75%ile of days performing activities [15 days cumulative]) vs. mid to low exposure < 15 days related to being happy with sleep**

****