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National Sleep and Mental Health Survey

October 2021

Prepared for:



Mood Disorders Society of Canada
Société pour **les troubles de l'humeur** du Canada



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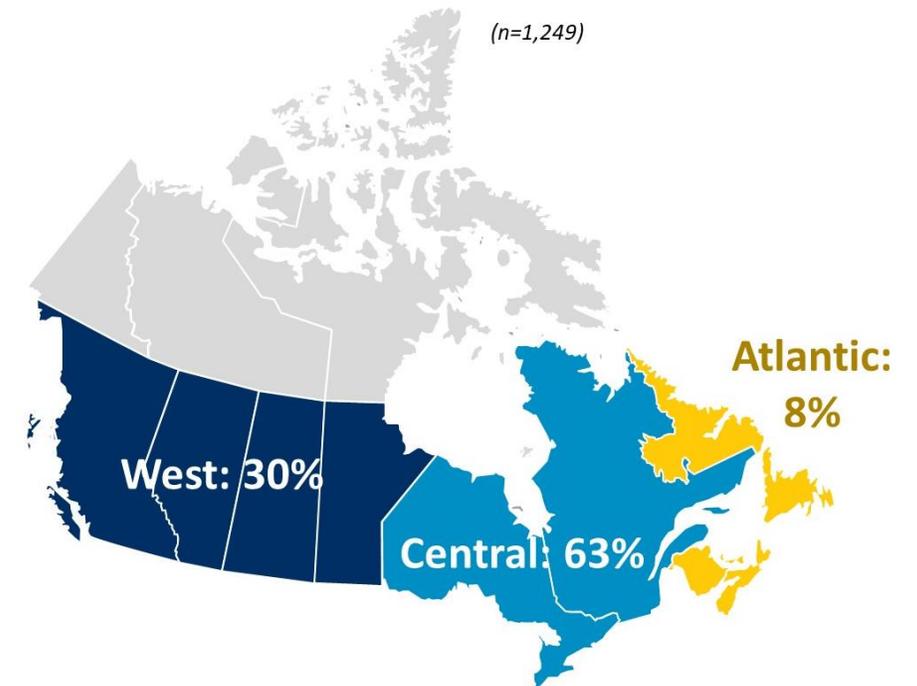
The Mood Disorders Society of Canada (MDSC) was interested in conducting a national survey to understand sleep behaviours and perceptions about sleep, and the extent to which it is linked to mental health. Ultimately, MDSC wanted to provide Canadians with information on the importance of sleep to their wellness.

More specific research objectives included:

- Delineating the different profiles of sleep disturbances in people with/without symptoms of mental disorders.
- Understanding the perceived impacts of sleep problems on mental health and daily functioning.
- Characterizing levels of knowledge about sleep and what topics are of greatest interest.
- Identifying the use and perceived effectiveness of various types of sleep treatments and therapies.

To achieve these objectives, an online survey of the general population was conducted with a random sample of 1,200 respondents across Canada. In addition, MDSC shared a survey link through its network (notably on social media), resulting in 49 additional surveys being completed. Quotas were applied to the general population survey based on age, gender and region, while the survey results were also weighted on those characteristics. In addition to the questions included on the general population survey, the network survey included a few more questions, resulting in an average completion time of 22 minutes. The average survey length for the general population survey was 18 minutes. Respondents could complete the survey in either English or French. Due to the nature of online research, a margin of error cannot be applied to the results. The survey was in field from September 21 to October 7, 2021. The image shown to the right outlines the percentage of completes by region.

This report presents a summary of study results, followed by a detailed analysis from each of selected questions. Appended to this report are the survey questionnaire and the tabular results.





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Summary of Findings

Mood Disorders Society of Canada

The Sleep Health of Canadians – Report Key Highlights

Sleep Issues

In the past two weeks...

- 81% felt tired or fatigued at least once
- 78% woken up too early and struggled to fall back to sleep at least once
- 6-7 hours per night Average amount of sleep time
- 55% experienced insomnia in the past year
- 64% Are worried or distressed about their current sleep problems
- Worry decreases with age:
 - 81% (16-29)
 - 73% (30-49)
 - 65% (50+)
- 1 in 4 Used prescription medication to help them sleep (27%)
- 66% of Canadians report they cannot shut off at night and not being able to sleep causes them worry and distress
- Think it had a positive impact on their...
 - 76% sleep
 - 57% mental health

Mental Health

On average, mental health conditions ...

- Started at age 23
- Experienced for 18 years
- 20% have been diagnosed with a sleep disorder and 20% have a current diagnosis of a mental health disorder by a health professional
- At least half of respondents have experienced anxious behaviours in the past two weeks, which interfered with their daily functioning to varying degrees
- 20% have used prescription medication for their mental health
- Think it had a positive impact on their...
 - 83% mental health
 - 54% sleep

At least half of respondents have experienced anxious behaviours in the past two weeks, which interfered with their daily functioning to varying degrees

Feeling nervous, anxious, or on edge | Not able to stop or control worrying | Worried too much | Feeling easily annoyed or irritated | Trouble relaxing | Being easily annoyed or irritated

Impacts of Sleep

- 86% are dissatisfied with their sleep pattern
- 77% think their sleep problem interfere with their daily functioning
- With the greatest impact on cognitive functions, household chores, and physical exercise
- 34% have missed time from work, school, or volunteering in past year due to sleep issues
- 8 days Missed on average
- Think sleep influences their...
 - Couple relationship 62%
 - Relationship with their child 49%

There is general recognition that insomnia and other sleep issues are considered serious medical conditions.

Physical exercise and sleep medication are seen as positively impacting sleep.

Sleep issues are seen as having important consequences on society, and there remains a need for increased public education.

74% are interested in learning more about sleep-related topics, notably sleep techniques, tools and therapies.



Results from the National Sleep and Mental Health Survey highlights several insights about the sleep experience and perceptions about sleep among the general public:

Sleep Experience:

- **Sleep issues are found in a notable minority of the general population.** While one-fifth of respondents has a formal sleep disorder diagnosis, more than half report experiencing insomnia over the past year. Further, one quarter snores loudly, while about one in seven have been told they stop breathing or choke/gasp during their sleep. Sleep related issues are also common in the recent past, notably feeling fatigued or tired, waking up too early and struggling to fall back asleep, teeth grinding or jaw clenching while sleeping, feeling uncomfortable sensations in their legs, being sleepy during the daytime, and sudden awakening then feeling startled and afraid.
- **Adult Canadians are not getting enough sleep and take on average 34 minutes to fall asleep.** While recommended amounts of sleep generally range from 7 to 9 hours per night, survey results mirror findings from other studies in that adult Canadians are not getting enough sleep. The survey shows that on average, respondents sleep between 6 and 7 hours per night, and while for the most part they take less than 30 minutes to fall asleep, the average time to fall asleep is 34 minutes. As might be expected, those with sleep or mental health issues reportedly sleep an hour less per night in comparison, and they take closer to one hour to fall asleep.
- **Usage of a computer or mobile device in bed is common and technology is not perceived by respondents as affecting sleep time or quality.** With the increased prevalence of technology in everyday activities, it is not all that surprising to learn that nearly half of respondents use a computer or mobile device while in bed with some frequency. The use of a device in bed is by far not seen by respondents as affecting the time it takes them to fall asleep and for the most part, this behaviour is not seen as affecting their sleep quality.

Impacts of Sleep Issues:

- **Most report some level of dissatisfaction with personal sleep patterns, with sleep issues felt to interfere with daily functioning.** Nearly nine in ten respondents report some level of dissatisfaction with their sleep pattern, including one-quarter who are clearly dissatisfied. Those who are not completely satisfied with their sleep generally believe that their sleep problem interferes with their day-to-day functions, notably affecting cognitive functions, household chores, and physical exercise. The lost productivity among the entire population who work, study or volunteer full-time averages three days of missed time in the past year due to sleep issues, with this average being much higher among those with a sleep disorder or mental health diagnosis. While most respondents consider sleep to impact couple relationships, its impact on how parents/guardians interact with their children is less pronounced.

- **Sleep issues negatively impact people's physical and emotional health.** Current sleep problems cause worry and distress for most respondents to varying degrees, most significantly for those with a formally diagnosed sleep or mental health disorder, and those reporting insomnia. Issues are mostly related to difficulties sleeping, such as having trouble falling asleep or staying asleep more so than sleeping too much, with resulting consequences of feeling tired or having little energy. There is a belief that sleep has a significant impact on most aspects related to someone's health, including vitality, mental health, intellectual functions, productivity, and body pains/aches. As such, it is not surprising that improving sleep is generally perceived as having a positive impact on one's mental health, though to varying degrees. Those who are experiencing insomnia or who have a mental health or sleep disorder diagnosis are much more likely to believe that sleep and mental health are related.

Sleep Treatment and Interventions

- **Physical exercise and sleep medication are seen as positively impacting sleep.** One half of respondents have used physical exercise to help them sleep while about three in ten have used either prescribed or over-the-counter sleep medication. All three are considered as having a positive impact on sleep. While prescribed sleep medication is also seen as having a positive influence on mental health, this is less so the case with over-the-counter sleep medication.
- **There is limited use of various devices or therapeutic approaches to monitoring sleep or addressing sleep issues, even among those who have been diagnosed with a sleep disorder.** In general, less than two in ten respondents, and at most four in ten of those with a sleep disorder, report having used one of four listed sleep devices or therapies. Among those who have a sleep disorder, a breathing machine for sleep apnea is most commonly used, followed by a wearable device to monitor sleep (such as a Fitbit, Apple watch or Oura ring). Bright light therapy and cognitive behavioural therapy for insomnia are less common in comparison.

Mental Health:

- **One in five respondents indicate having been diagnosed with a mental health disorder by a health professional.** It is interesting to note that this proportion more than doubles among those who have a sleep disorder diagnosis. Further, younger respondents 16 to 29 years old have an elevated level of mental health disorder diagnosis (31%). On average, respondents were first diagnosed at the age of 23, and have experienced mental health problems for 18 years, although there remains nearly three in ten respondents whose symptoms became apparent to them within the past ten years.

- **Experiencing anxious behaviours is common in the recent past which is seen as interfering with daily functioning to varying degree.** About half of respondents have experienced various emotional issues related to anxiety in the past two weeks, notably worrying too much, feeling nervous, anxious or on edge, unable to stop or control worrying, trouble relaxing and becoming easily annoyed or irritated. More serious impacts on mental health are less frequent, though still experienced by a large minority of respondents, including feeling like a failure, having little interest or pleasure in doing things, poor appetite or overeating, feeling down, depressed or hopeless, and trouble concentrating. Though less commonly experienced, it is concerning to see that between two and three in ten respondents have recently displayed other behaviours such as being fidgety or restless, moving or speaking noticeable more slowly, and having thoughts that they would be better off dead or of hurting themselves in some way. These thoughts and behaviours are more frequently experienced by those who have a sleep disorder or mental health diagnosis.
- **Various mental health issues experienced by respondents within the past two weeks are viewed as impacting daily functioning.** The various types of mental health problems experienced by respondents, as listed in the last bullet, are generally seen as impacting their mental health. Those who have been diagnosed with a mental or sleep disorder, as well as those who experienced insomnia are much more likely to believe this is the case. The impact of mental health issues on productivity is estimated at four missed days from work/school/volunteering in the past year across all those respondents, and more for those with a mental health diagnosis or a sleep disorder diagnosis.

Mental Health Treatment:

- **Physical exercise and medication are deemed to have a positive impact on mental health.** Nearly half of respondents and seven in ten of those with a mental health disorder have used physical exercise to improve their mental health and most believe that the resulting impact has been positive. Those with a mental health diagnosis are likely to have used prescription medication for their mental health, and to a lesser degree, over-the-counter medication. Usage is far less common among the general population overall. That said, both types of medication are considered to have a positive influence on mental health, and to a lesser degree, on sleep.

Perceptions About Sleep:

- **Sleep issues are seen as having important consequences on society, and there remains a need for increased public education.** There is elevated levels of interest in learning more about sleep-related topics, notably in terms of sleep techniques, tools and therapies. There is only moderate satisfaction with the choice of sleep medication and treatment currently offered, and while those with insomnia are open to new approaches to treat the condition, there is a concern about side effects of new medication. There is moderate concern with accessibility of sleep care. Opinions are mixed in terms of the government affording enough attention to the issue at this time.



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Detailed Findings



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Sleep Experience

Sleep issues are relatively common in the general population. While one fifth of respondents has a formal sleep disorder diagnosis, more than half have experienced insomnia over the past year.

Two in ten respondents mention having been **formerly diagnosed by a health professional with a sleep disorder**. Respondents in Atlantic Canada are more likely to have such diagnosis, as are respondents who are dissatisfied with their sleep pattern. (Table B3)

Regardless of having been diagnosed with a sleep disorder, insomnia is prevalent among respondents, with more than half who say that they **have experienced insomnia over the past year**, specifically difficulty falling asleep or staying asleep, or waking up too early and not being able to get back to sleep. Again, those reportedly suffering from insomnia are more likely to be dissatisfied or neutral about their sleep pattern. They are also most likely to include females, and those with household incomes of less than \$50k per year. (Table B4)

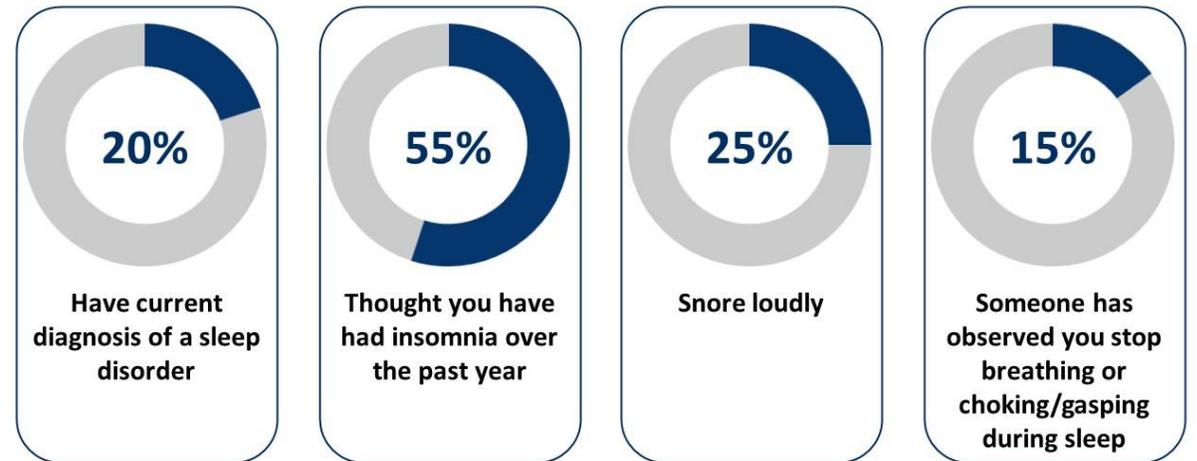
One quarter indicate that they **snore loudly, that is loud enough to be heard through closed doors or resulting in their bed-partner elbowing them** for snoring at night. This is most prevalent among those self-reporting insomnia, males, Atlantic Canadian respondents and non-white individuals. (Table B13)

One in seven report **that someone observed them stop breathing or choking/gasping during their sleep**. (Table B14)

Those who have a formal sleep disorder diagnosis are more likely to report having insomnia, snore loudly and have stopped breathing or choked/gasped during their sleep. In addition, a diagnosis of a sleep disorder, insomnia and snoring are more common among those who have been formerly diagnosed with mental illness.

Sleep Situation/Diagnosis of Issues

% 'Yes'



Q.B3: Do you currently have a diagnosis of a sleep disorder (given by a health professional)? | Q.B4: Over the past year, have you ever thought you had insomnia (difficulty falling asleep or staying asleep, or waking up too early and not being able to get back to sleep)? | Q.B13: Do you snore loudly (loud enough to be heard through closed doors or your bed-partner elbows you for snoring at night)? | Q.B14: Has anyone observed you stop breathing or choking/gasping during your sleep? (n=1,247-1,248)

Feeling fatigued or tired and waking up too early and struggling to fall back asleep are frequent issues among the adult population.

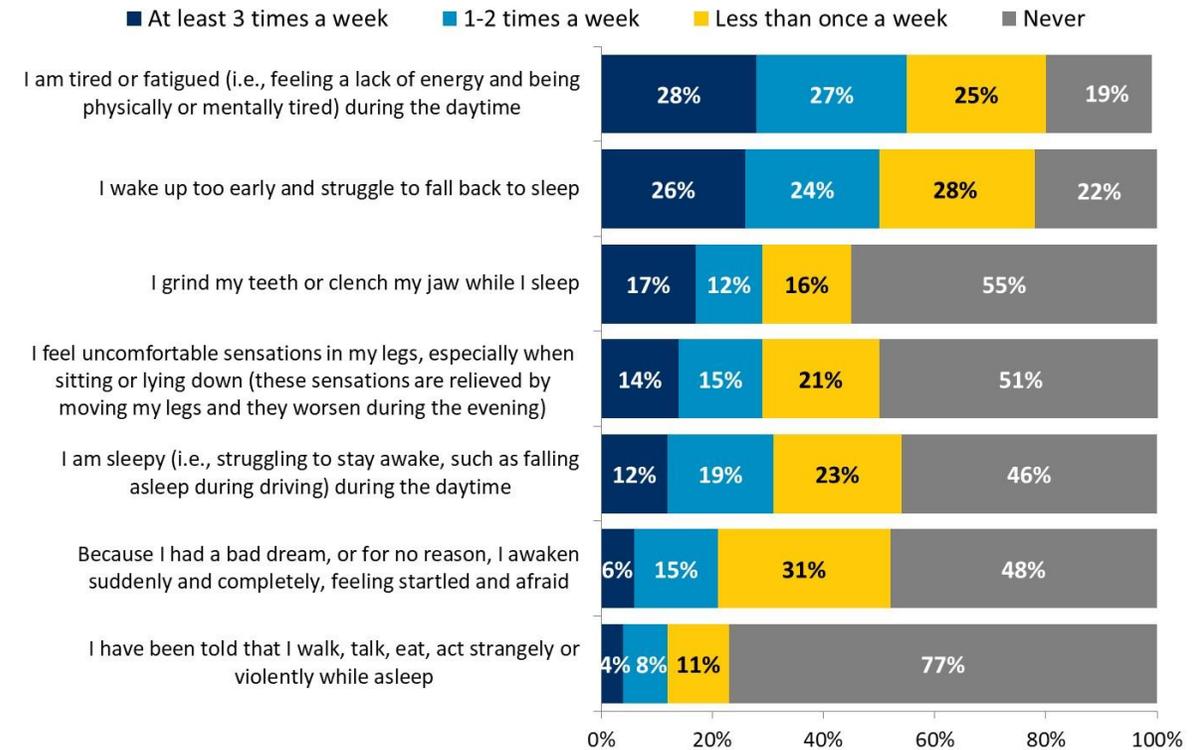
As shown in the graph, respondents have experienced a variety of sleep related issues or consequences during the past two weeks. Specifically, being **tired or fatigued during the daytime** evidenced by a lack of energy and being physically or mentally tired, and **waking up too early and struggling to fall back to sleep** are the most frequent occurrences. In fact, at least half of the population report recently experiencing either behaviours at least once or twice a week. These behaviours are much more frequent among respondents who have been diagnosed with a sleep disorder or mental illness, as well as for those self-identifying insomnia in the past year.

Incidence of other sleep issues is lower, with about three in ten each reporting having once or twice weekly in the past two weeks **ground their teeth or clenched their jaws** while asleep, **felt uncomfortable sensations in the legs**, especially when sitting or lying down, and **having been sleepy during the daytime**, in that they struggled to stay awake, such as falling asleep during driving.

Far fewer have experienced **sudden and complete awakening and feeling startled and afraid because of a bad dream or for no reason** during the past two weeks, and the vast majority have not been told that they **walk, talk, eat, act strangely or violently while asleep**. (Tables B11a to B11g)

When asked how often they feel mentally alert, active or can't shut off their thoughts at bedtime, the majority of respondents report that this happens to them either always (9%), usually (20%), or sometimes (37%). About one quarter report rare occurrences (26%), while one in ten have never experienced this situation (9%). Those with sleep or mental health issues are far more likely to experience these symptoms more frequently. (Table B10)

Typical Behaviours in the Past Two Weeks



Q.B11a-g: What has been typical for you in the past two weeks? (n=1,233-1,237)



On average, respondents sleep between 6 and 7 hours per night, and for the most part, they take less than 30 minutes to fall asleep. Those with sleep or mental health issues reportedly sleep an hour less per night and take longer to fall asleep.

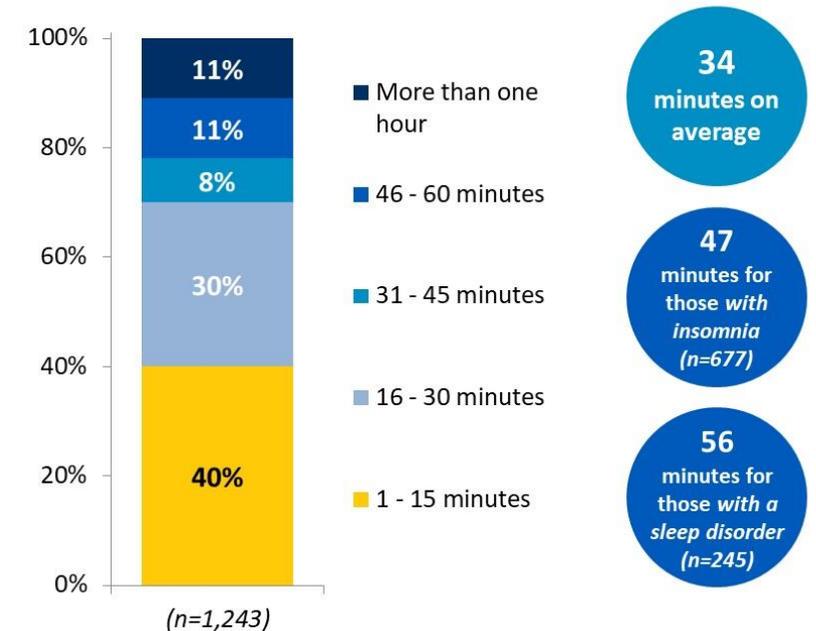
For the most part, respondents took at most 45 minutes to fall asleep each night within the past two weeks, with the number of minutes averaging 34. Not surprisingly, those experiencing sleep issues take longer to fall asleep, notably respondents who have been diagnosed with a sleep disorder (56 minutes on average to fall asleep), those who have experienced insomnia over the past year (47 minutes on average) and respondents who are dissatisfied with their sleep pattern (55 minutes on average).

Respondents who have a formal diagnosis of a mental health disorder also take longer to fall asleep (56 minutes on average) than other respondents (29 minutes on average). It is interesting to note that female-born respondents take longer than male respondents to fall asleep. Similarly, the time needed to fall asleep diminishes with age, with those aged 16-29 years taking 48 minutes on average, while those 30-49 years old took 39 minutes on average to fall asleep, and those 50+ reportedly fell asleep within 27 minutes on average from going to bed. (Table B6)

Respondents were asked how much actual sleep time they got on a daily basis over the past two weeks, not counting naps. Those who are unemployed, retired, on short or long-term disability, or who did not disclose their occupational status reportedly slept an average of 7 hours per night. Respondents who are employed, a student, or volunteer full-time reported sleeping an average of 6 hours before days when they work/have class/volunteer, while they slept an average of 7 hours on other nights. Those who have experienced insomnia over the past year, respondents with a formal sleep disorder diagnosis, and those with a mental health diagnosis, slept an average of one hour less per night compared to other respondents. (Tables B8a-B8c)

Sleep Time

How Long It Usually Takes to Fall Asleep Each Night in Past 2 Weeks



Q.B6: During the past two weeks, how long (in minutes) has it usually taken you to fall asleep each night? Please provide your best estimate; do not provide a range. Note: Responses of 365 or higher are excluded from the mean.



Usage of a computer or mobile device in bed is common and technology is not perceived as affecting sleep time or quality.

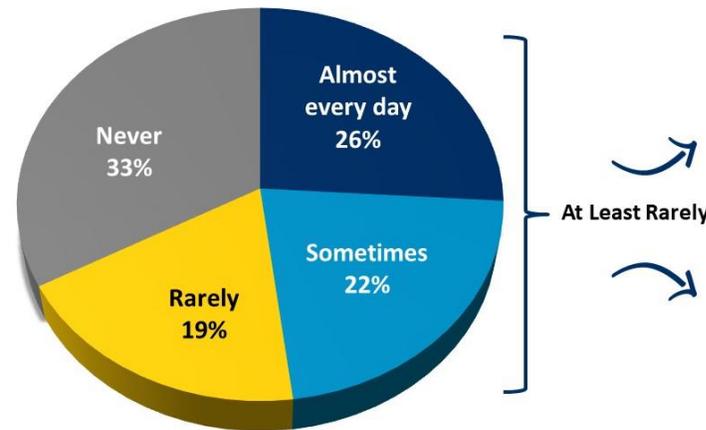
Usage of a computer or mobile device while in bed is frequent, with about one quarter of respondents making use of technology in bed **almost every day** and a further two in ten who report having this kind of behaviour **sometimes**. A similar proportion report rare usage of technology in bed, while one third never use a computer or mobile device in bed.

Female respondents, those 16-49 years old, and non-white respondents more frequently report using a technological device in bed. Interestingly, usage of a device at bedtime is most common among those experienced insomnia within the past year or respondents with a formal diagnosis of mental health. (Table D31)

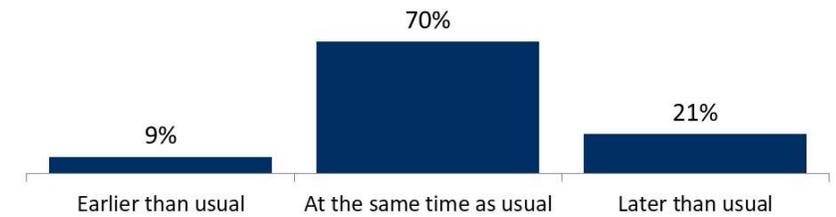
Among those who use a computer or mobile device in bed (n=826), a good majority believe that **it does not have any effect on the time at which they fall asleep**, while a small majority believe that **it does not affect the quality of their sleep**. (Tables D32 and D33)

Impact of Mobile Device on Sleep

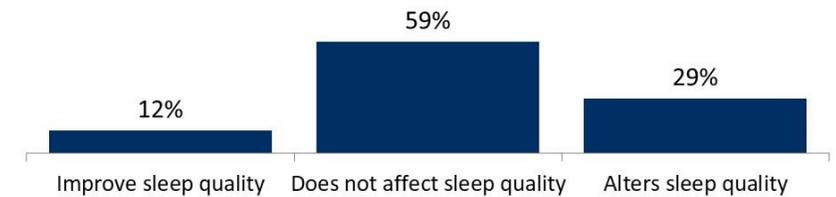
Frequency of Using a Computer or Mobile Device While in Bed



Fall Asleep...



Sleep Quality



Q.D31: How often do you use a computer or mobile device while in bed? (n=1,247) | Q.D32: [IF ALMOST EVERY DAY, SOMETIMES, OR RARELY IN Q.D31] When using a computer or mobile device in bed, do you fall asleep earlier than usual, at the same time as usual, or later than usual? (n=826) | Q.D33: [IF ALMOST EVERY DAY, SOMETIMES, OR RARELY IN Q.D31] Do you feel that using a computer or mobile device in bed improves your sleep quality, does not affect your sleep quality, or alters your sleep quality? (n=823)



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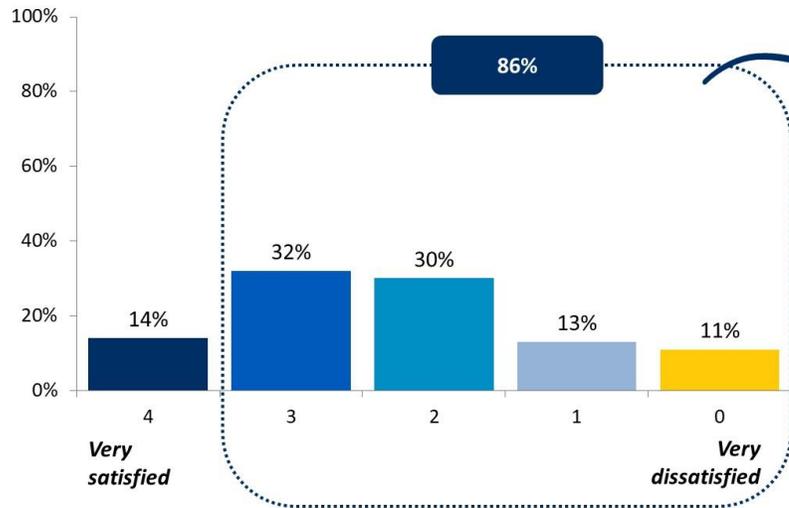
Impacts of Sleep Issues



There is generally some level of dissatisfaction with personal sleep patterns, with sleep issues felt to interfere with daily functioning, notably affecting cognitive functions, household chores and physical exercise.

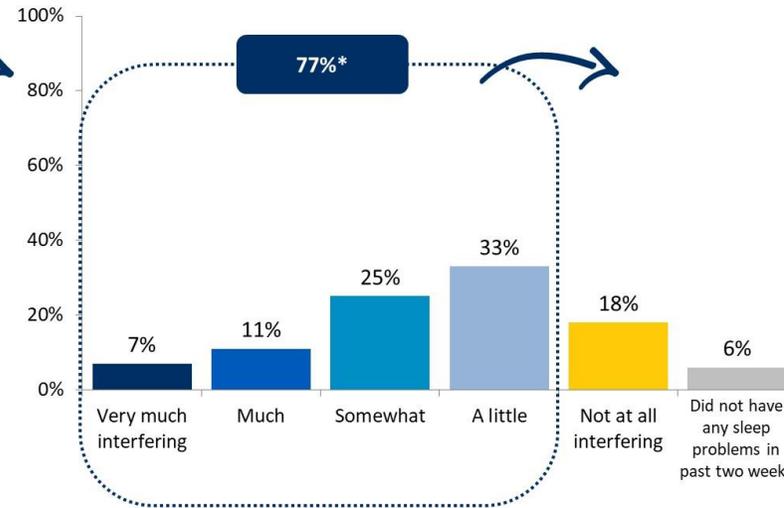
Less than two in ten respondents (14%) report being very satisfied with their sleep pattern over the past two weeks (top rating of 4 on a 0-4 point scale). This leaves the vast majority (86%) who report **some level of dissatisfaction**, including one-quarter who are clearly dissatisfied (bottom ratings of 0 and 1). The vast majority (77%) of those who are less than completely satisfied with their sleep pattern (ratings of 0-3 out of 4; n=1,065) consider **that their sleep problem interferes with their daily functioning** (e.g., daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc.) to varying degrees. Less than two in ten (18%) consider their sleep issues to have no impact on their daily functioning, while six percent do not have sleep issues, despite these respondents being less than completely satisfied with their sleep pattern. The impacts of sleep issues is most greatly felt on **cognitive functions, household chores and physical exercise**. (Tables B15, B16 and B16a)

Satisfaction with Sleep Pattern



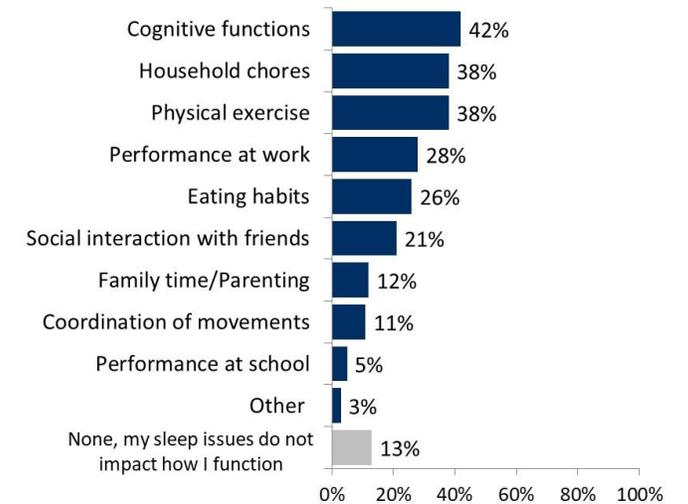
Extent Sleep Problem Interferes with Daily Functioning

Among Those Who Are Very Dissatisfied, Dissatisfied, Neutral, or Satisfied with Their Sleep Pattern



Functions Impacted

Among Those At Least A Little Impacted by Sleep Problems



Q.B15: In the past two weeks, how satisfied or dissatisfied are you with your sleep pattern? (n=1,247) | Q.B16: [IF CODES 0-3 IN Q.B15] To what extent do you consider your sleep problem to interfere with your daily functioning (e.g., daytime fatigue, ability to function at work/daily chores, concentration, memory, mood, etc.)? (n=1,065) | Q.B16a: [IF CODES 1-4 IN Q.B16] What daily functions are impacted by your sleep problems? (n=809) *Due to rounding.



Current sleep problems cause worry and distress for most respondents, notably for those with a formally diagnosed sleep or mental health disorder, and those reporting insomnia.

Nearly two-thirds of respondents express some level of worry or distress about their current sleep problem, while just over one quarter are not at all concerned, and less than one in ten respondents did not experience any sleep problems in the past two weeks. (Table B17)

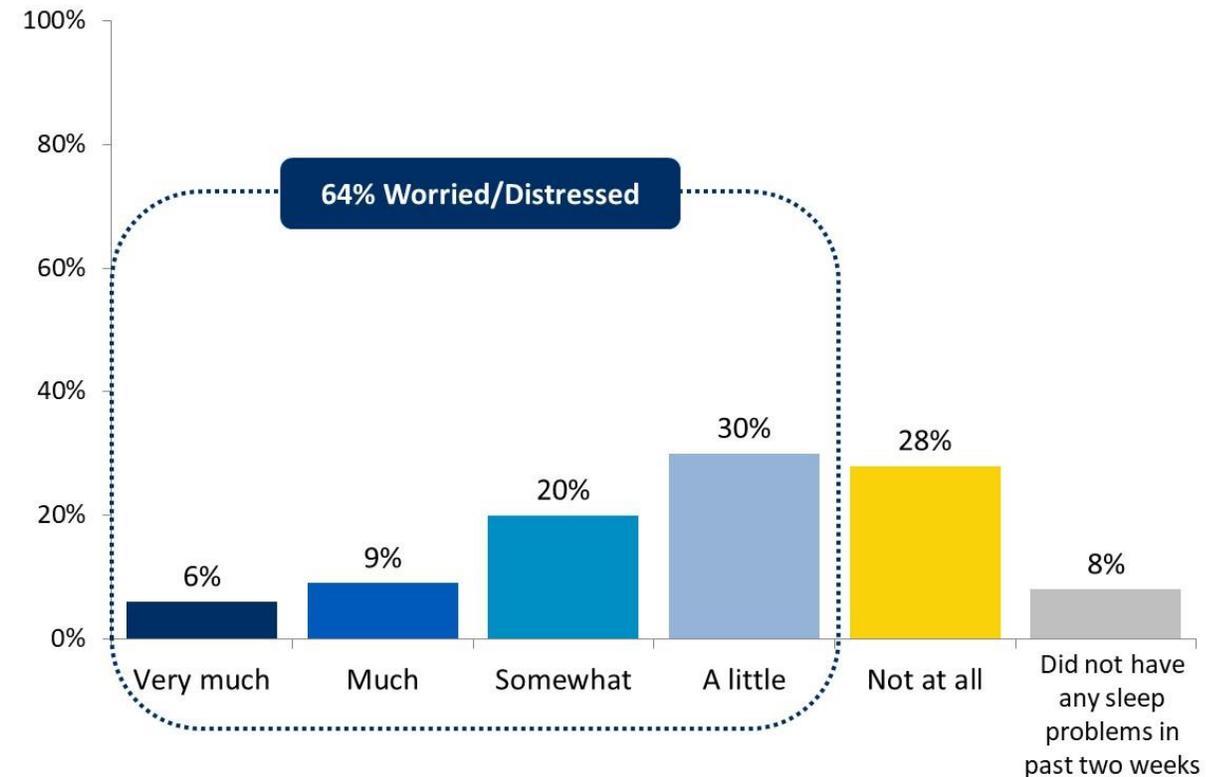
When looking at results across the population, it is interesting to note that as respondents get older, they are less likely to feel worried or distressed about their sleep pattern. Indeed, 81% of respondents aged 16-29 years report some level of worry or distress about their current sleep problems, while this proportion drops to 73% of respondents 30-49 years old and 65% of respondents who are 50 years or older.

% Worried/Distressed

| | Yes | No |
|--------------------------|-----|-----|
| Mental health diagnosis | 93% | 63% |
| Sleep disorder diagnosis | 96% | 62% |
| Insomnia | 89% | 42% |

Differences in perceptions are more acute based on someone's health status, although it should be noted that the level of worry and distress remains high across groups, as shown in the table on the left.

Worry/Distress About Current Sleep Problem



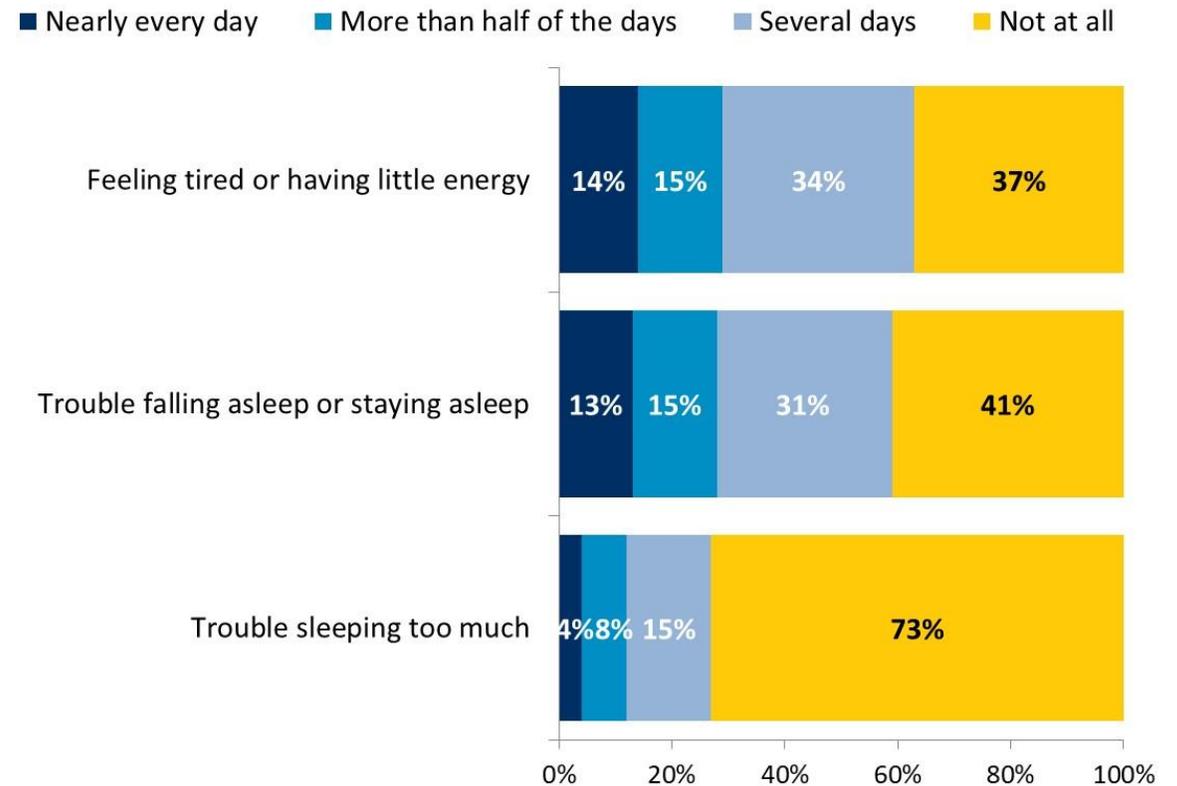
Q.B17: How **worried/distressed** are you about your current sleep problem? (n=1,249) *Due to rounding.

Feeling tired / a lack of energy and having trouble falling asleep or staying asleep are common problems recently experienced by respondents, while sleeping too much is less common.

Looking at problems related to sleep issues, a small majority of respondents mentioned that they felt tired or had little energy at some point during the past two weeks, while a similar proportion experienced trouble falling asleep or staying asleep. By contrast, just over one quarter said they had trouble sleeping too much, while nearly three quarters did not. (Tables C5c-e)

All three types of problems are more frequently experienced by respondents who have had a formal diagnosis of mental health or sleep disorder. Female respondents are more likely than male respondents to have had trouble falling asleep or staying asleep and to have felt tired or a lack of energy. The same can be said of respondents who are dissatisfied with their sleep pattern or are neutral about it.

Current Behaviours



Q.C5c-e: During the past two weeks, how often have you been bothered by the following problems? (n=1,240-1,245)

Sleep is considered to impact various aspects of physical and mental health, including losses in productivity resulting from missed days from work, school or volunteering full-time.

In terms of impacting someone’s health, sleep is seen as influencing all aspects listed, to varying degrees. Most notably, a person’s vitality (general physical and mental energy), mental health, and intellectual functions are deemed most impacted by their sleep. Similarly, sleep is seen as having an impact on productivity, body pains and aches, and other aspects of physical health. Those aged 16-49 years are more likely than older respondents to believe that sleep has an impact on most physical and mental functions. Similarly, the impact of sleep on someone’s health is seen as more important by those who have been formerly diagnosed with a sleep disorder or a mental illness. (Tables B18a-d and B18g-i)

Average Number of Days Missed from Work/School/Volunteering in the Past Year Due to Sleep Issues

Among All Those Employed, Students, and Volunteers



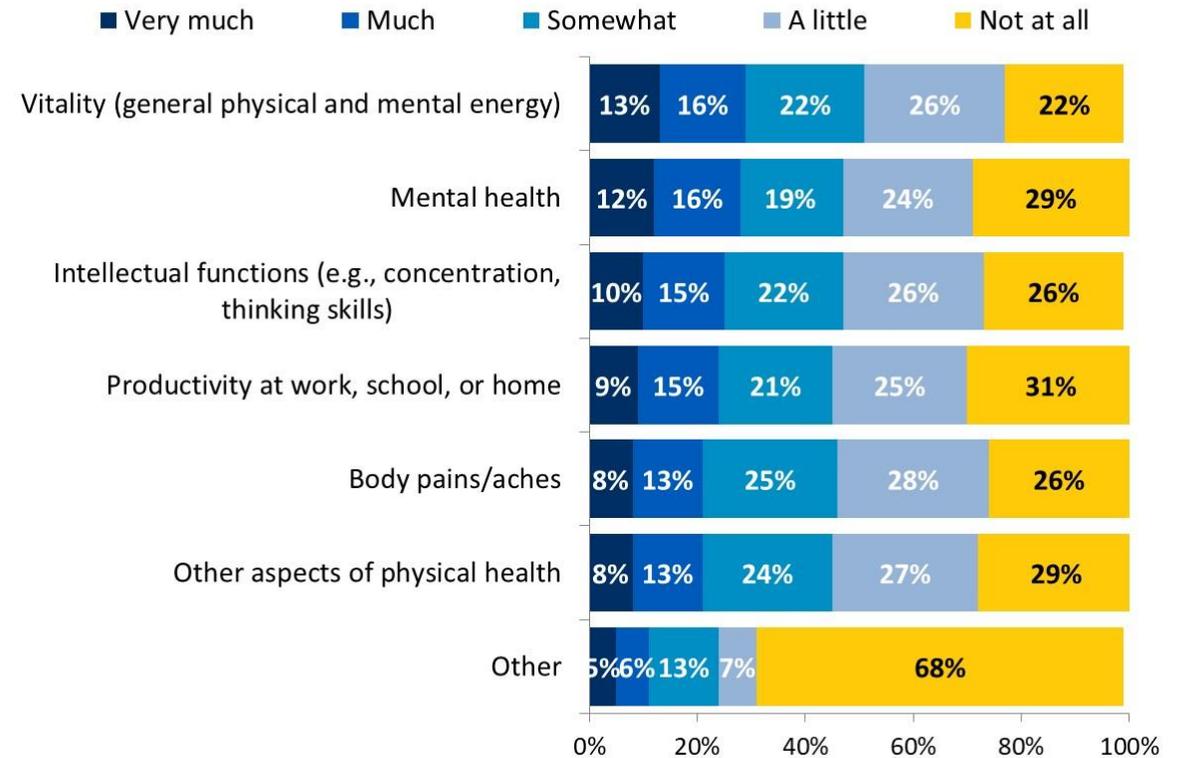
Among Those Employed, Students, and Volunteers Who Missed Time



Q.B2b: How many days have you missed from work/school/volunteering full time in the past year due to sleep issues? (n=713) Note: Responses of 365 or higher are excluded from the mean.

While two thirds (66%) of respondents who are working, studying or volunteering full time have not missed any time off work, school or volunteer activities due to sleep problems in the past year, the one-third who did report an average of eight missed days. This number is much higher among those who have a mental health diagnosis (11 days) or a sleep disorder diagnosis (10 days). Looking at the entire adult population who work, study or volunteer full-time, the average lost productivity due to sleep issues averages three days in the past year.(Table B2b)

Impact of Sleep on Health



Q.B18a-d, g-i: To what degree do you think that your sleep influences your... (n=647-1,241)



Impact of Sleep on Relationships

While sleep is considered to impact couple relationships, its impact on how parents/guardians interact with their children is less pronounced.

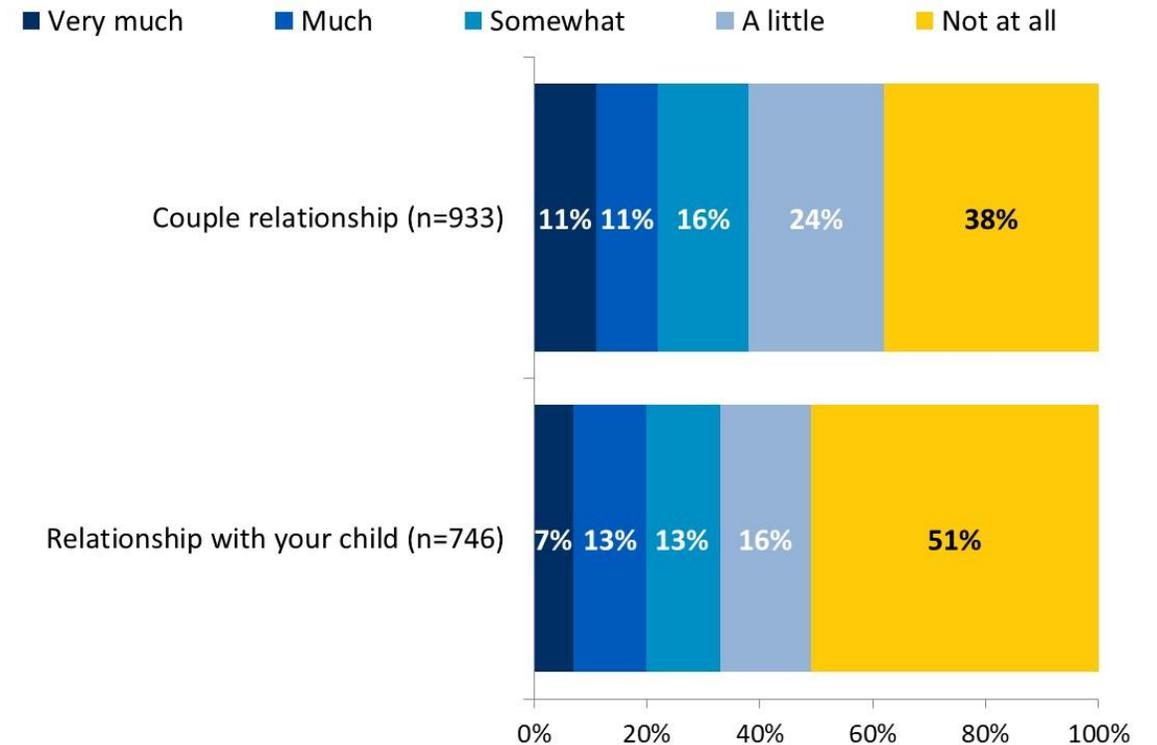
Although the impact of sleep on a person's physical and mental health is recognized, sleep is not seen as being as influential on relationships. A small majority (62%) of respondents who have a spouse or partner believe that sleep impacts their couple relationship, while nearly four in ten do not believe so. (Table B18e)

Respondents are divided in terms of the perceived impact of sleep on the relationship with their children, with about half of parents or guardians believing that sleep influences how they interact with their children, while half believe sleep has no influence at all. (Table B18f)

Those who have a formal sleep disorder or mental health diagnosis, and respondents who experienced insomnia in the past year, are much more likely to believe that sleep impacts how they interact with their spouse/partner or their children. Further, respondents 16-49 years old who are in a couple relationship are more likely to say that sleep impacts their couple relationships to some degree. The impact of sleep on someone's relationship with their children is also considered more important among parents and guardians 16-49 years old than among those who are older.

Impact of Sleep on Relationships

Among Those In Couple Relationship/With Children



Q.B18e-f: To what degree do you think that your sleep influences your...



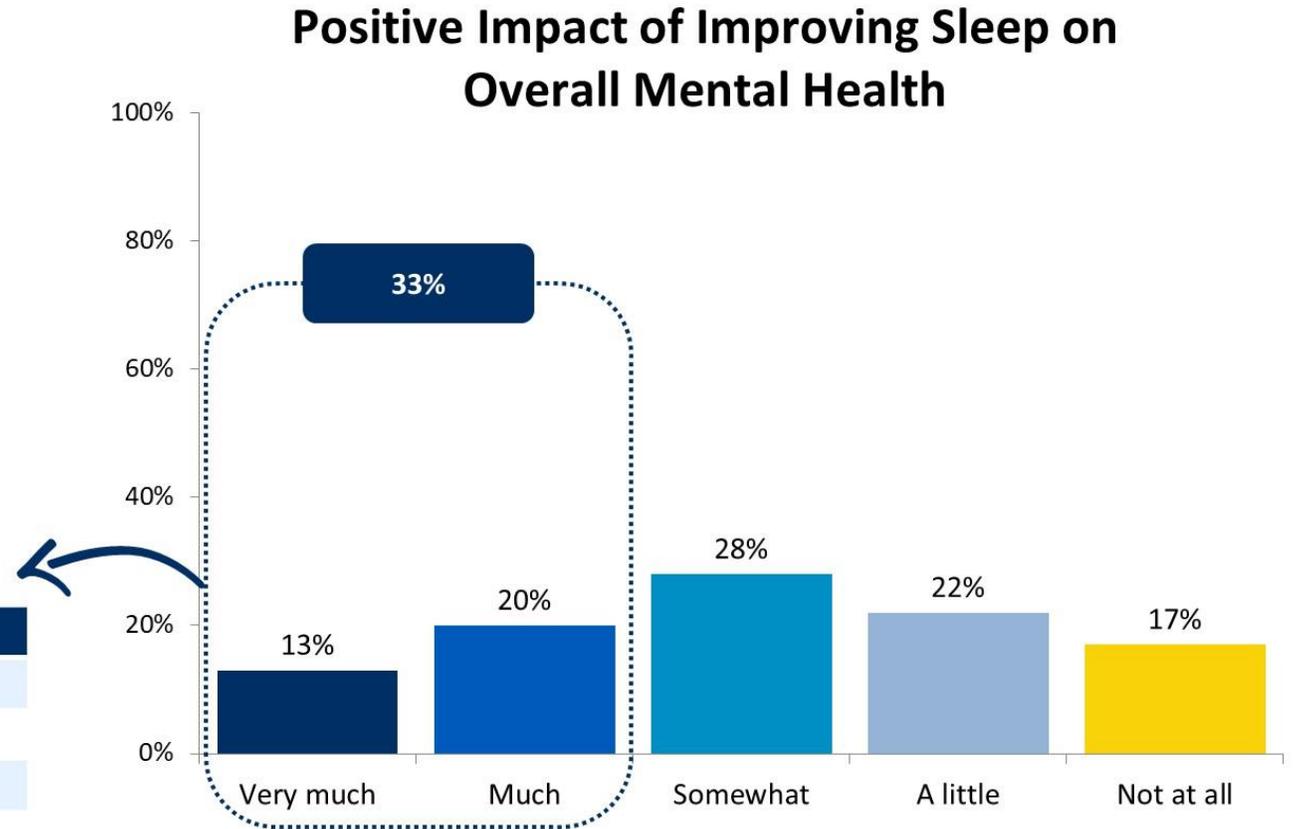
Relationship Between Sleep and Mental Health

Improving sleep is generally perceived as having a positive impact on one's mental health, though to varying degrees.

There is mixed opinion regarding the extent to which sleep influences overall mental health. While the vast majority of respondents (83%) believe that improving their sleep has a positive impact on their overall mental wellness, only one third consider that this relationship is strong (responses of much and very much on the scale). Nearly three in ten believe there is somewhat of a positive impact, while just over two in ten believe there is only a small impact. (Table C7)

Respondents who have been diagnosed with a sleep disorder or mental illness, or those who experienced insomnia in the past year, are more prone to believe that improving their sleep has much or very much of a positive impact on their mental health.

| | % Very much/Much | |
|--------------------------|------------------|-----|
| | Yes | No |
| Mental health diagnosis | 56% | 27% |
| Sleep disorder diagnosis | 56% | 27% |
| Insomnia | 45% | 18% |



Q.C7: To what extent would improving your sleep have a positive impact on your overall mental wellness? (n=1,245)



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Sleep Treatment and Interventions

There is limited use of various devices or therapeutic approaches to monitoring sleep or addressing sleep issues, even among those who have been diagnosed with a sleep disorder.

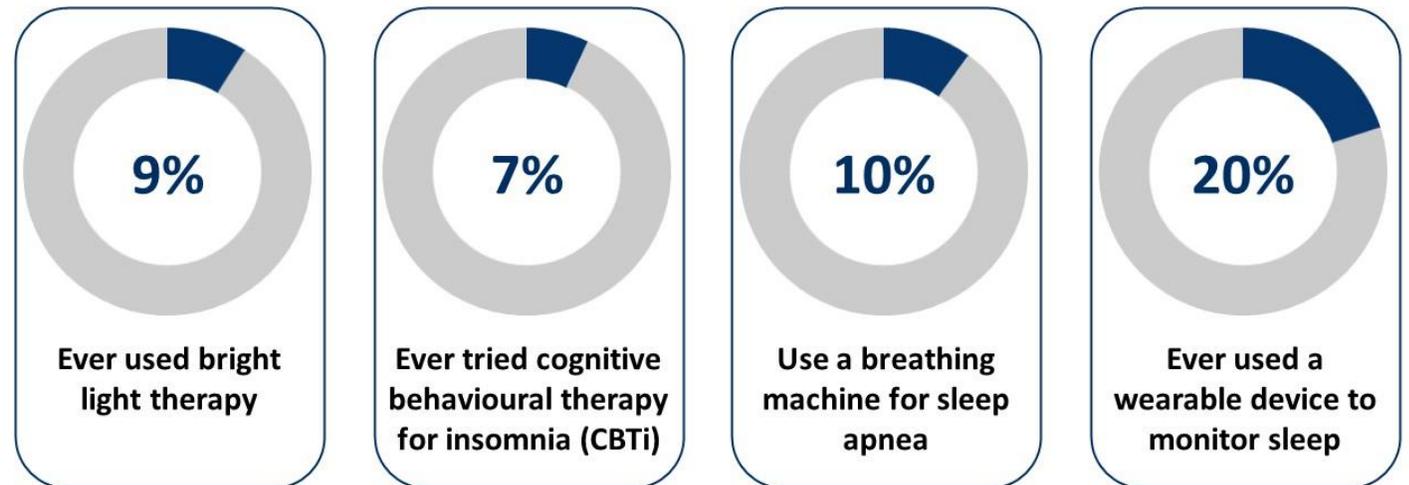
Respondents were asked if they have ever used various types of sleep therapies. While representing a minority of respondents, usage of a wearable device (such as a Fitbit, Apple watch or Oura ring) to monitor sleep is most frequent, while fewer in comparison have ever used a breathing machine for sleep apnea, bright light therapy, or tried cognitive behaviour therapy for insomnia. (Tables D19, D22, D24 and D27)

Usage of these devices and approaches is more common among respondents who have been formerly diagnosed with a sleep disorder than among others, namely:

- Breathing machine for sleep apnea (41% vs. 2%)
- Wearable device to monitor sleep (34% vs. 17%)
- Bright light therapy, also known as phototherapy (23% vs. 5%)
- Cognitive behavioural therapy for insomnia (23% vs. 3%)

Sleep Issue Treatment – Therapy/Treatment

% 'Yes'



Q.D19: Have you ever used **bright light therapy**? | Q.D22: Have you ever tried **cognitive behavioural therapy for insomnia (CBTi)**? | Q.D24: Do you use a **breathing machine for sleep apnea** (e.g., CPAP or positive airway pressure (PAP) machine)? | Q.D27: Have you ever used a **wearable device** to monitor your sleep (e.g., Fitbit, Apple watch, Oura ring)? (n=1,242-1,247)

Bright light therapy, also known as phototherapy, entails exposing yourself to bright or blue/green artificial light with a special device like a light box or light-emitting glasses or visor.

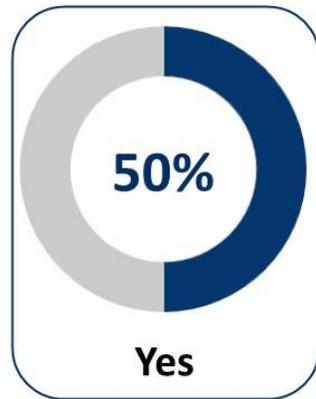
CBTi is a structured intervention typically delivered by a psychologist over a few weeks. It notably involves gradual adjustments of one's sleep schedule and strict rules about what to do when waking up during the night.

Physical exercise is deemed to have a positive impact on sleep, and half of respondents have used it to improve their sleep.

Physical exercise is used as a means to improve sleep, as reported by one half of respondents. This is notably the case of respondents who have been diagnosed with a sleep disorder (70%), a mental illness (66%) or who have experienced insomnia in the past year (63%). (Table D3)

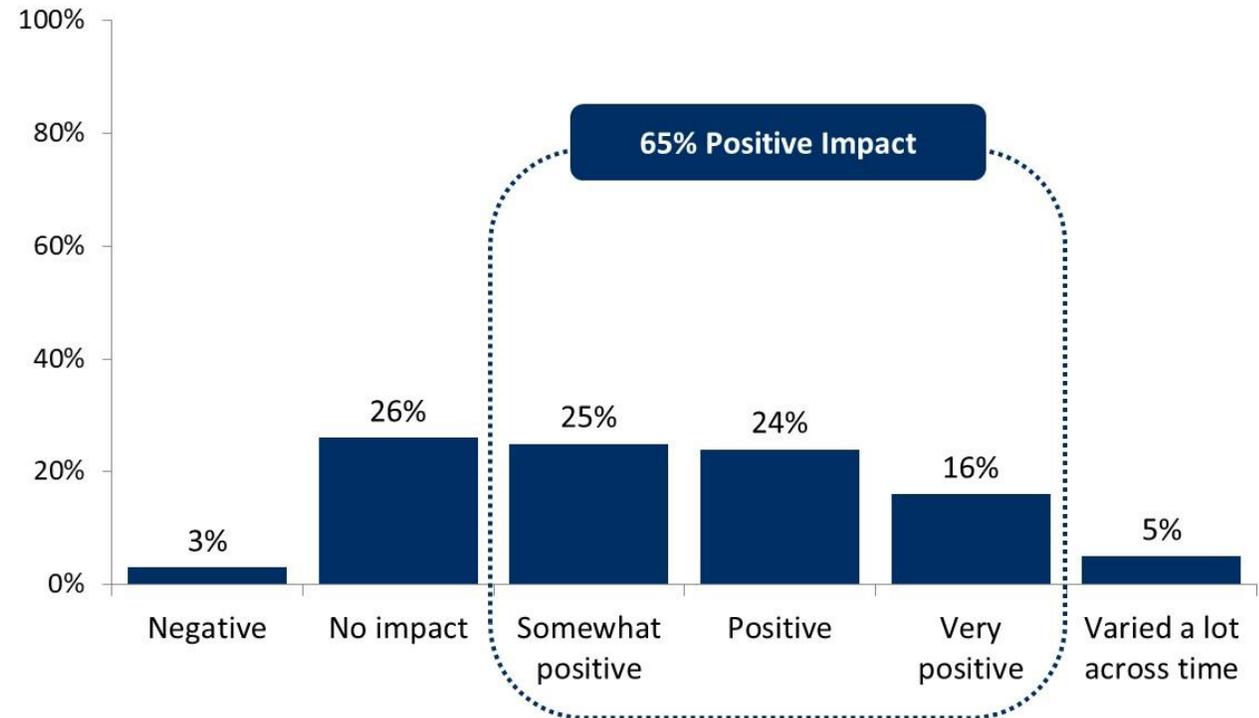
Regardless of whether or not respondents have used physical exercise to improve their sleep, it is generally considered as having a positive (65%) impact on sleep. Only three percent of respondents believe it has a negative impact, while one quarter see no impact, and five percent believe it varies a lot across time. (Table D4)

Have Used Physical Exercise to Improve Sleep



Q.D3a: Have you ever used physical exercise to improve your sleep? (n=1,247) | Q.D4a: What impact does physical exercise have on your sleep? (n=1,237)

Impact of Physical Exercise on Sleep



Prescription sleep medication is considered as having a positive impact on addressing sleep issues and a moderately positive impact on mental health.

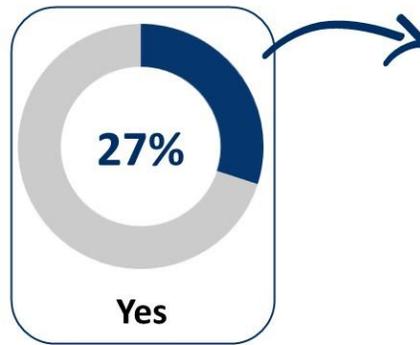
More than one quarter of respondents have used prescribed medication in the past to help with their sleep. Past usage of such medication is far more common among those who have been diagnosed with a sleep disorder (57%), people who have experienced insomnia (39%) and those with a mental health diagnosis (62%). (Table D10a)

Six in ten report having taken prescribed sleeping medication in the past two weeks, either at least three times a week (35%), once or twice a week (17%), or less than once a week (10%). Respondents who have received a sleep disorder diagnosis are more likely to have taken prescribed sleep medication in the past two weeks (81%). (Table D14a)

On average, the longest period of time that respondents have been using prescribed sleep medications at least three times a week was 59 months (nearly five years). (Table D17)

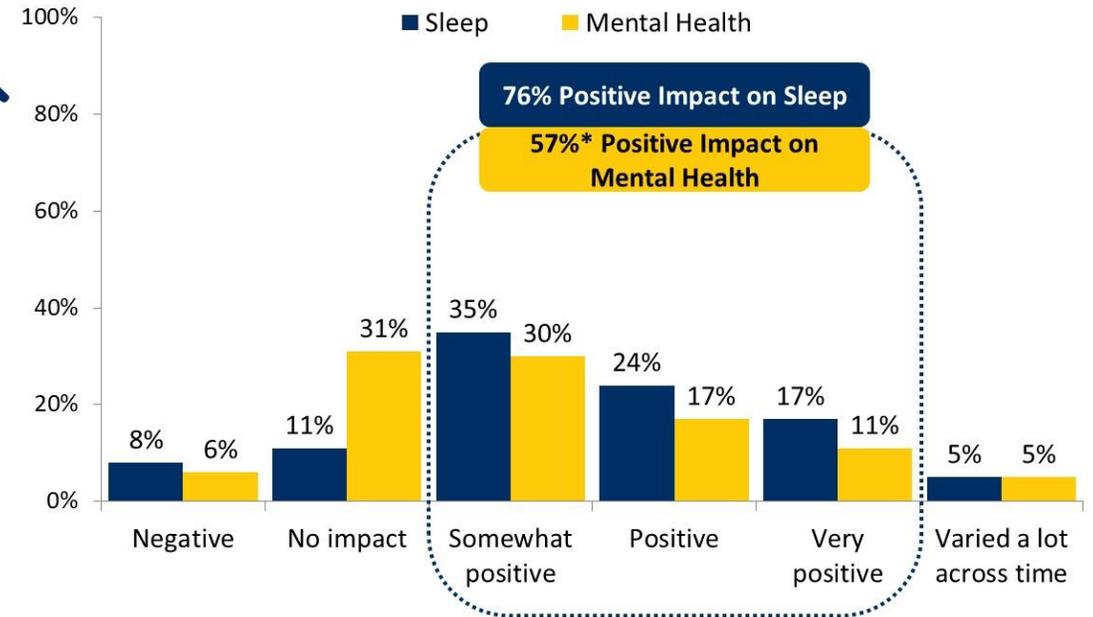
For the most part, respondents who have taken prescribed sleep medication saw a positive impact on their sleep from taking these medication, and to a lesser extent, on their mental health. (Tables D11a-b)

Ever Used Prescribed Medication to Help You Sleep



Q.D10a: Have you ever used prescribed medication to help you sleep? (n=1,240) | Q.D11a-b: [IF 'YES' IN Q.D10A] What impact did **prescribed** sleep medications have on your sleep/mental health? (n=324-335) *Due to rounding.

Impact of Prescribed Sleep Medication On... Among Those Who Have Used Prescribed Medication to Help Sleep



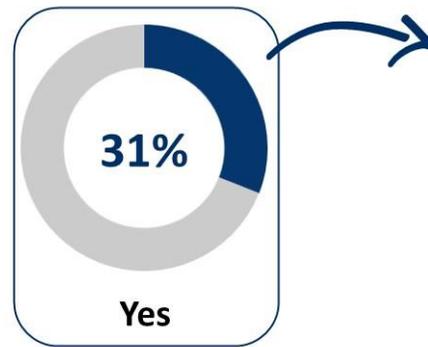
Over-the-counter sleep medication positively impacts sleep issues, but less so mental health.

Three in ten respondents have used over-the-counter medication in the past to help them sleep. This is most notably the case of those who have a formal sleep disorder diagnosis (50%), those who experienced insomnia in the past year (46%), and people with a mental health diagnosis (52%). (Table 10b)

Six in ten respondents who have used over-the-counter sleep medication have used it within the past two weeks, either at least three times a week (20%), once or twice a week (19%) or less than once a week (19%). (Table 14b)

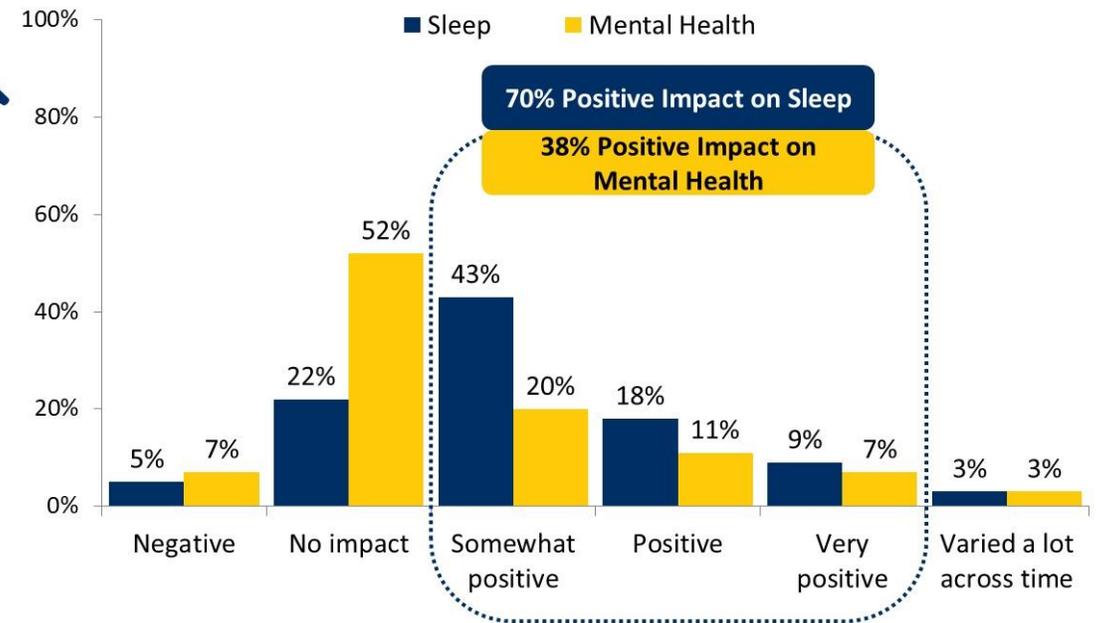
While over-the-counter sleep medications are deemed to have had a positive impact on the sleep of those who took them, the positive impact of these medications is not as evident on mental health, with half who believe there are none. (Tables D12a-b)

Ever Used "Over the Counter" Medication to Help You Sleep



Q.D10b: Have you ever used "over the counter" medication to help you sleep? (n=1,217) | Q.D12a-b: [IF 'YES' IN Q.D10B] What impact did "over the counter" sleep medications have on your sleep/mental health? (n=368-379)

Impact of "Over the Counter" Sleep Medication On... Among Those Who Have Used "Over the Counter" Medication to Help Sleep





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Mental Health

One in five respondents have been diagnosed with a mental health disorder by a health professional and, on average, mental health problems are first experienced at 23 years of age.

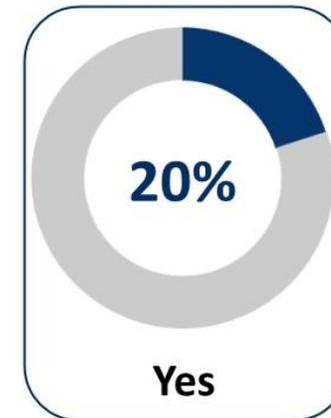
Two in ten respondents have been diagnosed with a mental health disorder by a health professional. This proportion is highest among Atlantic Canadian respondents (36%), those 16-29 years old (31%), and among people who have sleep issues, including respondents who have been diagnosed with a sleep disorder (49%), those who experienced insomnia (30%) and those who are dissatisfied with their sleep patterns (39%). (Table C1)

Among respondents with a mental health diagnosis (n=247), nearly half indicate that the condition started by age of 20, while two in ten reported that it started between 21 and 30 years old, and a similar proportion started experiencing mental health problems after 30 years old. The average age at which respondents started experiencing mental health problems is 23 years old. (Table C2)

Further analysis, as illustrated in the table on the right, shows that a small majority of respondents have been experiencing mental health problems for a period of at least 11 years or longer, for an average period of time of 18 years.

| For how many years have you been experiencing mental health problems? | |
|---|-----|
| 0-5 years | 19% |
| 6-10 years | 9% |
| 11-20 years | 23% |
| 21+ years | 33% |
| Unsure/Prefer not to say | 15% |

Have Current Diagnosis of Mental Health Disorder



Q.C1: Do you currently have a diagnosis of a mental disorder (given by a health professional)? (n=1,249)



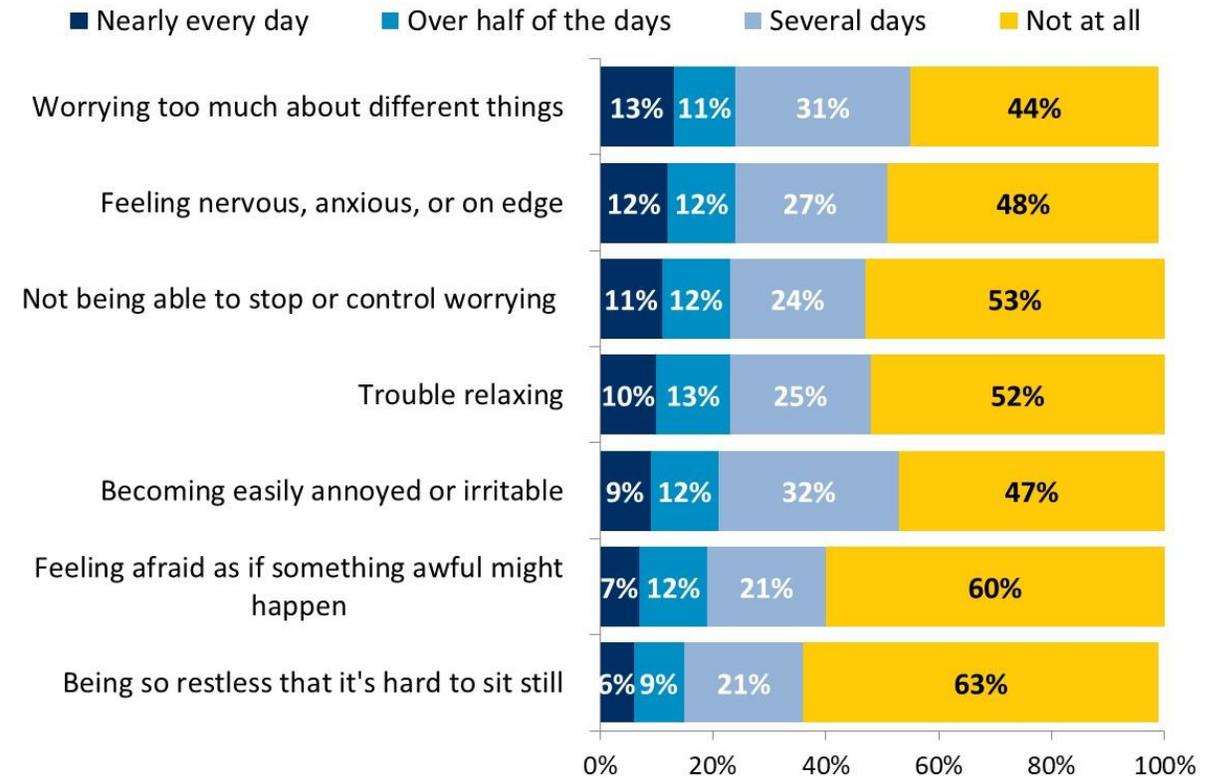
Current Behaviours – Mental Health Issues

At least half of respondents have experienced anxious behaviours in the past two weeks, which interfered with their daily functioning to varying degrees.

Regardless of mental health diagnosis, respondents were asked to indicate how often they have been bothered by a number of problems in the past two weeks. At least half of respondents have recently experienced *worrying too much* about different things, *feeling nervous, anxious or on edge, not being able to stop or control worrying*, having *trouble relaxing*, or becoming *easily annoyed or irritable*, to varying degrees. The incidence of *feeling afraid as if something awful might happen* and *being so restless that it's hard to sit still* is less common in comparison, though these problems are still experienced by a large minority of respondents. (Tables C3a to C3g)

Those who reported having experienced at least one of the listed problems in the last two weeks (n=856) regardless of frequency were asked to what extent they consider those problems to interfere with their daily functioning. A large majority (84%) indicate that the problems they experienced affected their daily functioning, including daytime fatigue, ability to function at work or perform their daily chores, concentration, and memory, among other things. Of note, being bothered by these behaviours is higher among those formerly diagnosed with mental illness (94%) than among other respondents (80%), though not by a large margin. (Table C4)

Current Behaviours



Q.C3a-g: During the past two weeks, how often have you been bothered by the following problems? (n=1,239-1,245)



Current Behaviours – Mental Health Issues (cont.)

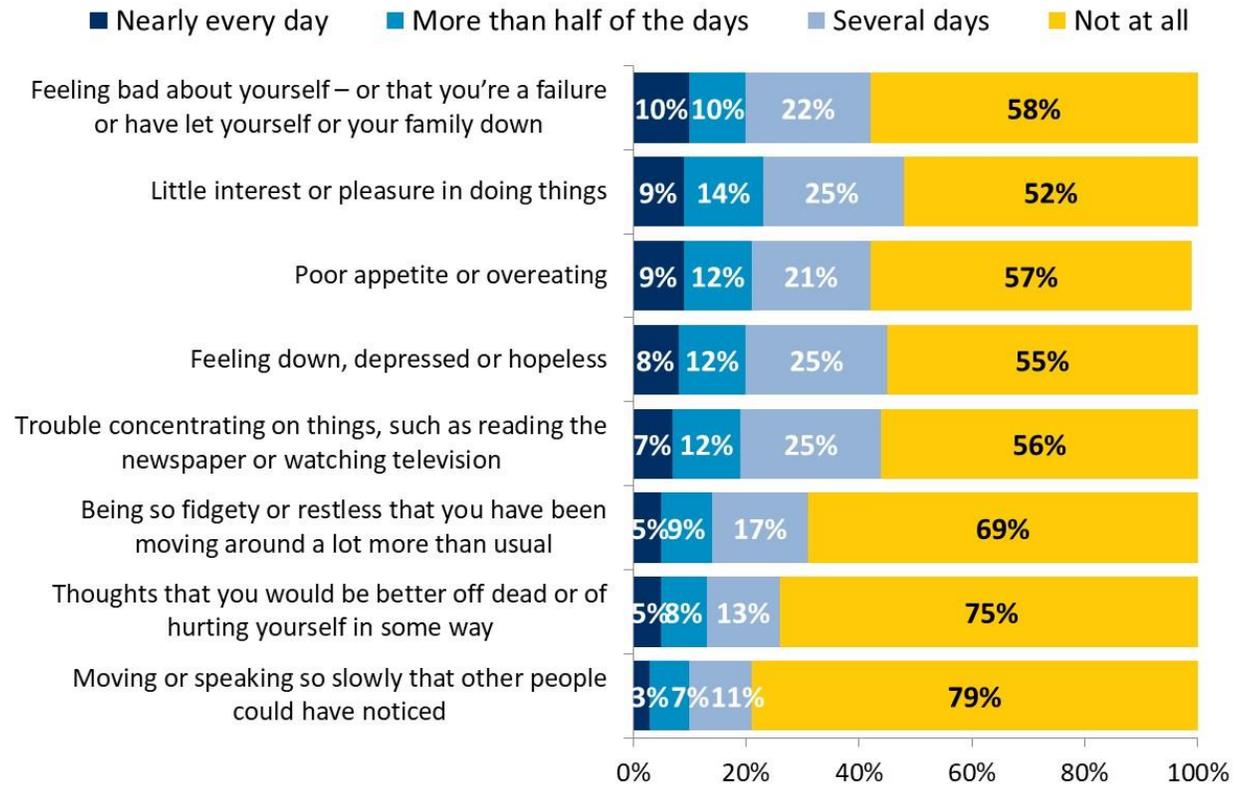
A notable minority of respondents have experienced other issues related to mental health in the past two weeks, with varying frequency.

Other problems associated with mental health are generally less common in comparison although they represent a notable minority of respondents in some instances. Specifically, just under one-half of respondents each mention **feeling bad about themselves** within the past two weeks, having **little interest or pleasure in doing things**, having **poor appetite or overeating**, **feeling down, depressed or hopeless** or having **trouble concentrating** on things. Fewer, namely three in ten, report **being so fidgety or restless that they have been moving around a lot more than usual**, while two in ten **have been moving or speaking so slowly that other people could have noticed**.

Of note, one-quarter of respondents report having had thoughts that they would be better off dead or thoughts of hurting themselves in some way over the past two weeks, although with varying frequency. These respondents were provided with contact information for Crisis Services Canada and Canadian Crisis Hotline when completing the survey. (Tables C5a-b to C5f-k)

Once again, these behaviours are much more commonly reported by respondents who have formerly received a diagnosis of a sleep disorder or mental illness.

Current Behaviours



Q.C5a-b, f-k: During the past two weeks, how often have you been bothered by the following problems? (n=1,240-1,246)



Various mental health issues experienced by respondents within the past two weeks are viewed as having an impact on daily functions, including missed days from work, school or volunteering.

Excluding the two statements on sleep issues (trouble sleeping too much and trouble falling asleep or staying asleep), respondents who have experienced any of the other nine issues related to mental health within the past two weeks were asked to what extent they believe those problems have interfered with their daily functioning. The vast majority (81%) report an impact, notably two in ten said that the issues much or very much interfered with their ability to function on a daily basis. This was more evident among respondents with a formal sleep disorder or mental health diagnosis.(Table C6)

Average Number of Days Missed from Work/School/Volunteering in the Past Year Due to Mental Health Problems

Among All Those Employed, Students, and Volunteers



Among Those Employed, Students, and Volunteers Who Missed Time

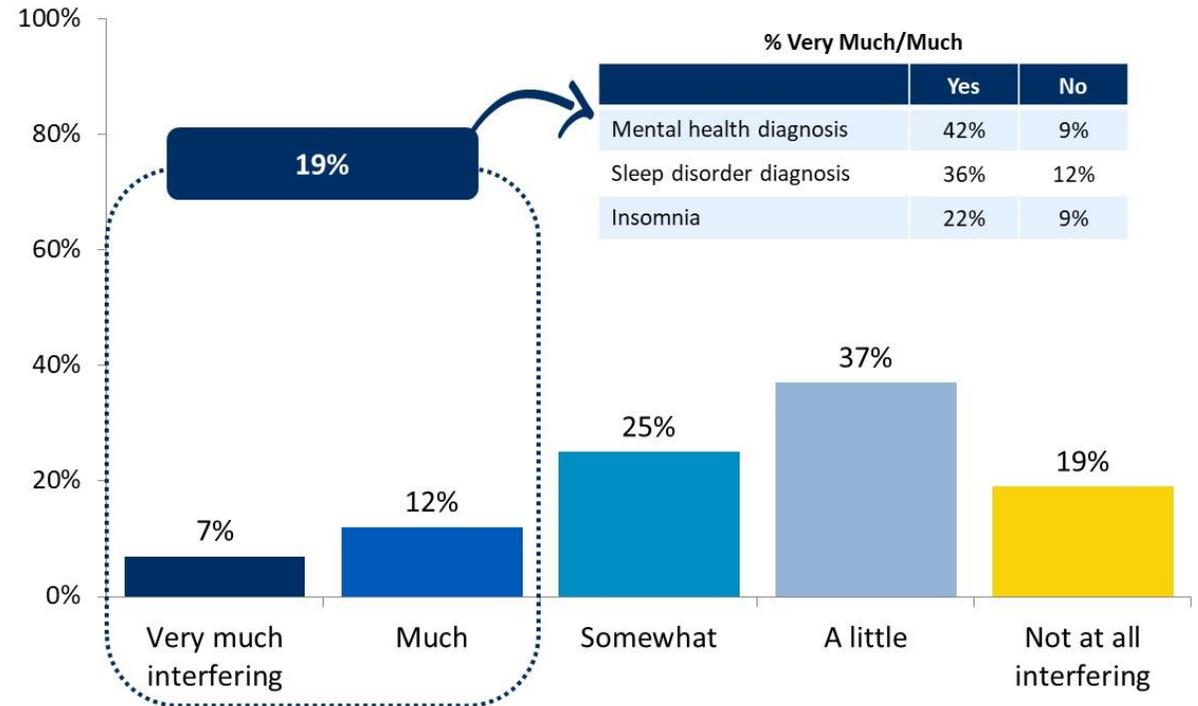


Q.B2a: How many days have you missed from work/ school/volunteering full time in the past year due to mental health problems? (n=721) Note: Responses of 365 or higher are excluded from the mean.

While seven in ten respondents (68%) who work, study or volunteer full time did not miss any days in the past year due to mental health problems, those who missed time, on average missed 13 days. This average is higher among respondents with a mental health diagnosis (19 days) and those who have been formerly diagnosed with a sleep disorder (15 days). Looking at the entire population who either work, study or volunteer full time, the loss in productivity averages four days in the past year.(Table B2a)

Impact of Mental Health Issues on Daily Functions

Among Those Bothered by Problems in the Past Two Weeks in Q.C5a-b, e-k



Q.C6: [IF SEVERAL DAYS, MORE THAN HALF OF THE DAYS, OR NEARLY EVERY DAY IN Q.C5A-B, E-K]: To what extent do you consider those problems (except for sleep problems) to interfere with your daily functioning (e.g., daytime fatigue, ability to function at work/daily chores, concentration, memory, etc.)? (n=848)



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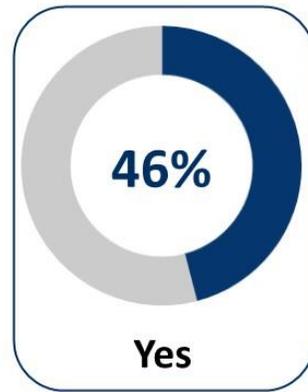
Mental Health Treatment and Interventions

Physical exercise is deemed to have a positive impact on mental health, and nearly half of respondents have used it to improve their mental health.

Nearly one half of respondents have used physical exercise in the past to improve their mental health. This is most notably the case of those who have a formal mental health diagnosis (70%), a formal sleep disorder diagnosis (62%), or among those who have experienced insomnia in the past year (58%). (Table D3b)

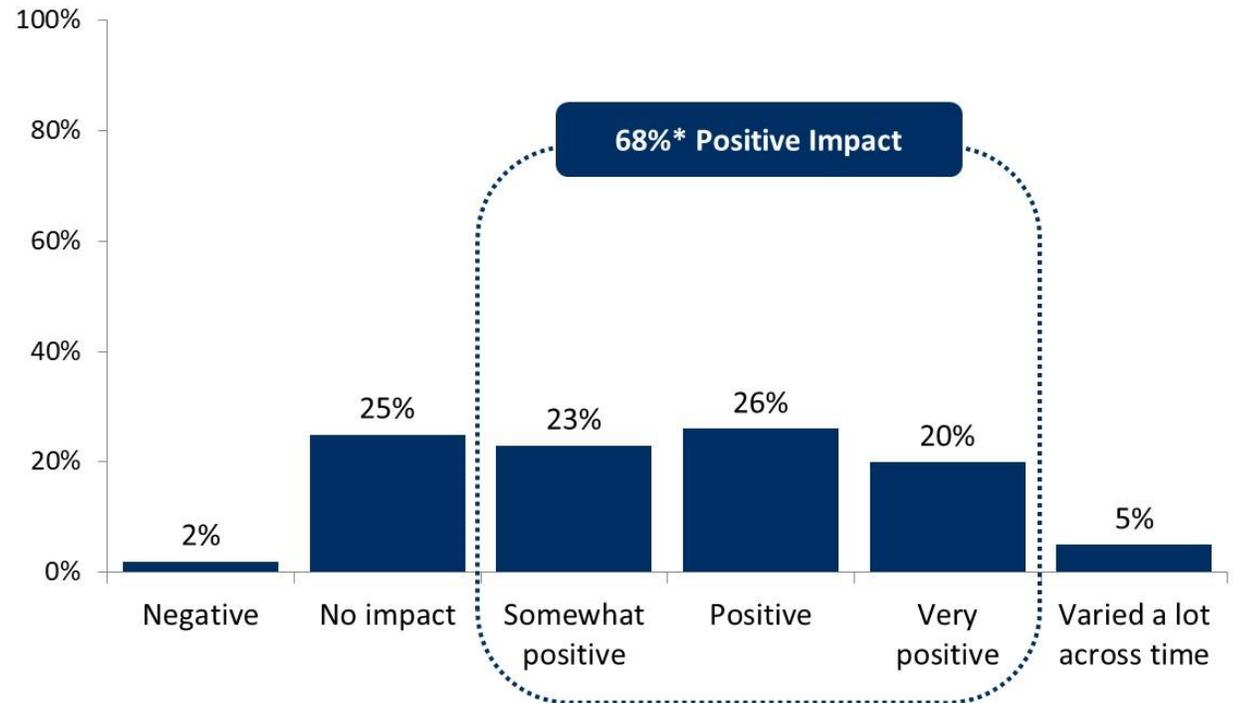
Regardless of having used physical exercise to improve mental health, seven in ten respondents (68%) believe that physical exercise has a positive impact on their mental health, while only two percent believe the impact to be negative. One quarter see no impact, while five percent consider that it varies a lot across time. (Table D4b)

Have Used Physical Exercise to Improve Mental Health



Q.D3b: Have you ever used physical exercise to improve your mental health? (n=1,243) | Q.D4b: What impact does physical exercise have on your mental health? (n=1,227) *Due to rounding.

Impact of Physical Exercise on Mental Health

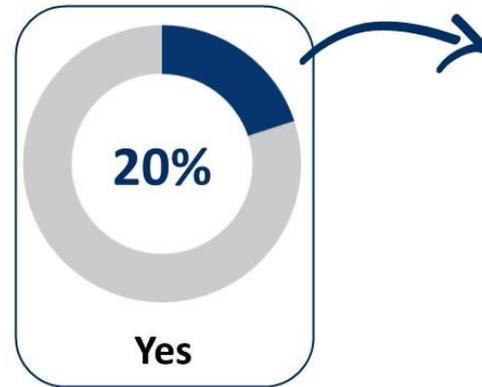


Prescription medications taken to address mental health issues are generally perceived as having a positive impact on mental health, and to a lesser extent, on sleep.

Two in ten respondents report currently taking prescription medication for their mental health. This is primarily the case for those who have a formal mental health diagnosis (79%) and to a lesser extent, those that have been diagnosed with a sleep disorder (51%). (Table D6)

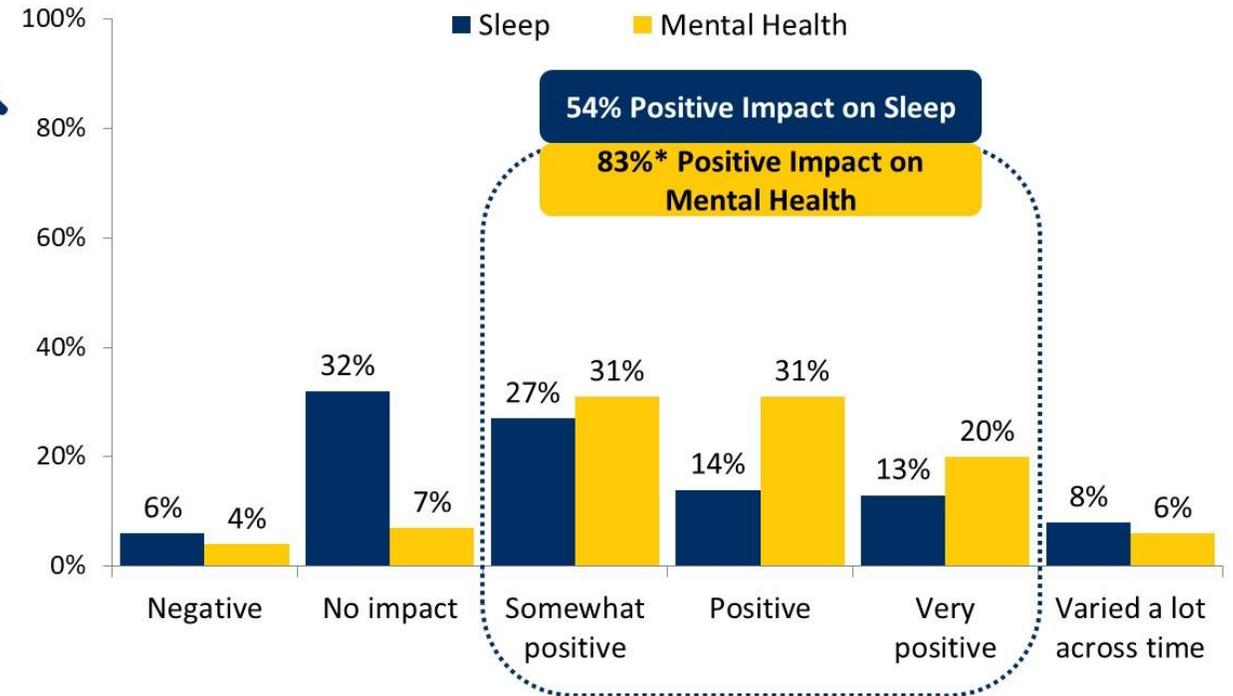
There is generally a perception among those respondents that prescribed medication has a positive impact on their mental health (83%) and to a lesser extent, on their sleep (54%). (Tables D7a-b)

Currently Taking Prescribed Medication for Your Mental Health



Q.D6: Are you currently taking any prescribed medication for your mental health? (n=1,249) | Q.D7a-b: [IF 'YES' IN Q.D6] What impact did these medications have on your mental health/sleep? (n=239-246) *Due to rounding.

Impact of These Medications On... Among Those Who Are Currently Taking Prescribed Medication for Mental Health



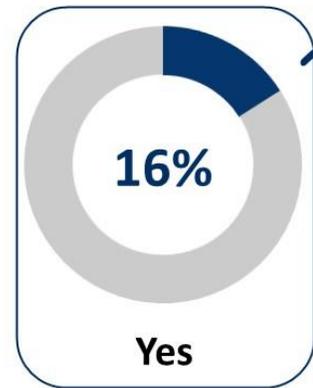


Cognitive behavioural therapy for mental health is deemed to have a positive impact on improving mental health, though its impact on sleep is less certain.

About one in six respondents have tried cognitive behavioural therapy for mental health. This is notably the case of those who have a formal mental health diagnosis (53%) and those with a sleep disorder diagnosis (39%). (Table D8)

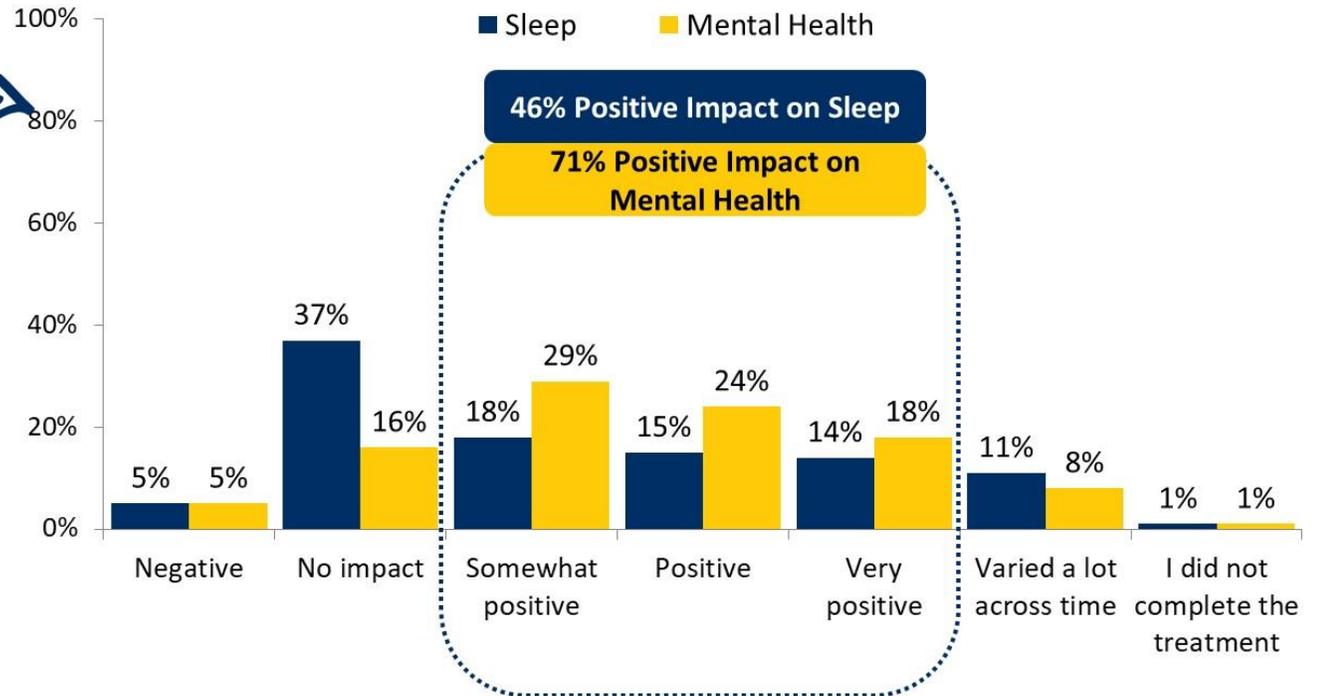
The impact of the therapy on mental health is generally seen as positive, while respondents are divided on whether the therapy has had a positive impact on their sleep or no impact. (Tables D9a-b)

Ever Tried Cognitive Behavioural Therapy (CBT) for Mental Health



Q.D8: Have you ever tried *cognitive behavioural therapy (CBT) for mental health*? (n=1,249) | Q.D9a-b: [IF 'YES' IN Q.D8] What impact did *cognitive behavioural therapy (CBT) for mental health* have on your mental health/sleep? (n=186-191) *Due to rounding.

Impact of CBT for Mental Health On... Among Those Who Have Tried CBT for Mental Health





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Perceptions About Sleep



Sleep issues are seen as having important consequences on society, and findings highlight a need for increased public education on the topic. Opinions are mixed in terms of the government affording enough attention to the issue at this time.

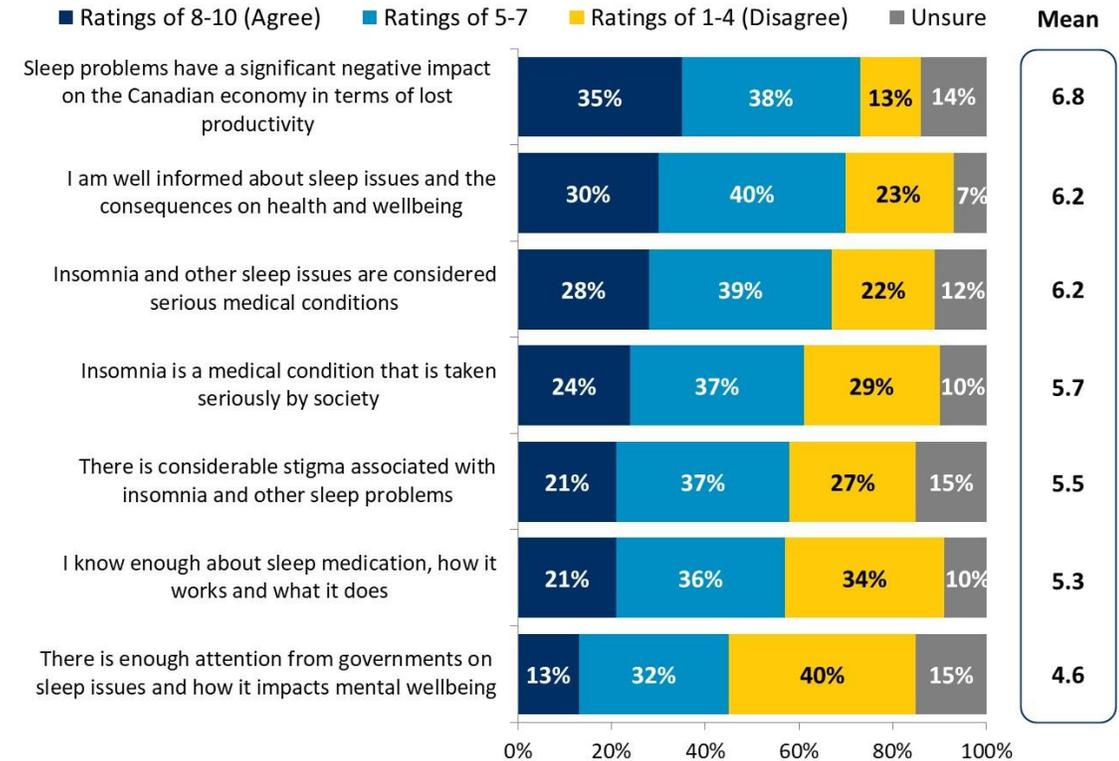
Respondents were asked to what extent they agree or disagree with a number of statements related to sleep. A number of statements looked at how sleep is perceived in society and attention that should be afforded to it. Generally, **sleep problems are considered as having a significant negative impact on the Canadian economy** in terms of productivity. There is also general recognition that **insomnia and other sleep issues are considered serious medical conditions**, and to a slightly lesser extent, that **insomnia is a medical condition that is taken seriously by society**.

Opinions are more divided in terms of whether or not there is **considerable stigma associated with insomnia and other sleep problems**, with nearly six in ten in agreement with this statement, three in ten who disagree, and one in six who are unsure. Finally, opinions are equally divided in terms of whether **there is enough attention from governments on sleep issues and how it impacts mental wellbeing**.

Two of the statements focused on awareness and knowledge regarding sleep issues. For the most part, respondents feel **well informed about sleep issues and the consequences on health and wellbeing**, although only three in ten offer a high level of agreement with this statement and four in ten are somewhat in agreement. Further, nearly one quarter do not feel adequately informed and nearly one in ten are unsure. This findings point to the need for increased public education. In addition, while just over half of respondents say they **know enough about sleep medication, how it works and what it does**, one-third disagree and one in ten are unsure. (Tables D34a to D34g)

Perceptions About Sleep

Ratings on a 10-pt. Scale, 10=Strongly agree, 1=Strongly disagree



Q.D34a-g: Using your best judgement, to what extent do you agree or disagree with the following statements? (n=1,234-1,240)
Note: 'Unsure' is excluded from the mean.



Perceptions About Sleep Medication and Treatment

There is only moderate satisfaction with the choice of sleep medication and treatment currently offered, and while those with insomnia are open to new approaches to treat the condition, there is a concern about side effects of new medication. There is moderate concern with accessibility of sleep care.

Respondents who have experienced insomnia during the past year (n=673-676) were asked additional questions about sleep medication and treatments. Although nearly two thirds are *satisfied with the choice of sleep medication and treatments currently offered*, most express only moderate satisfaction. Further, one quarter of respondents are clearly dissatisfied. (Table D34i)

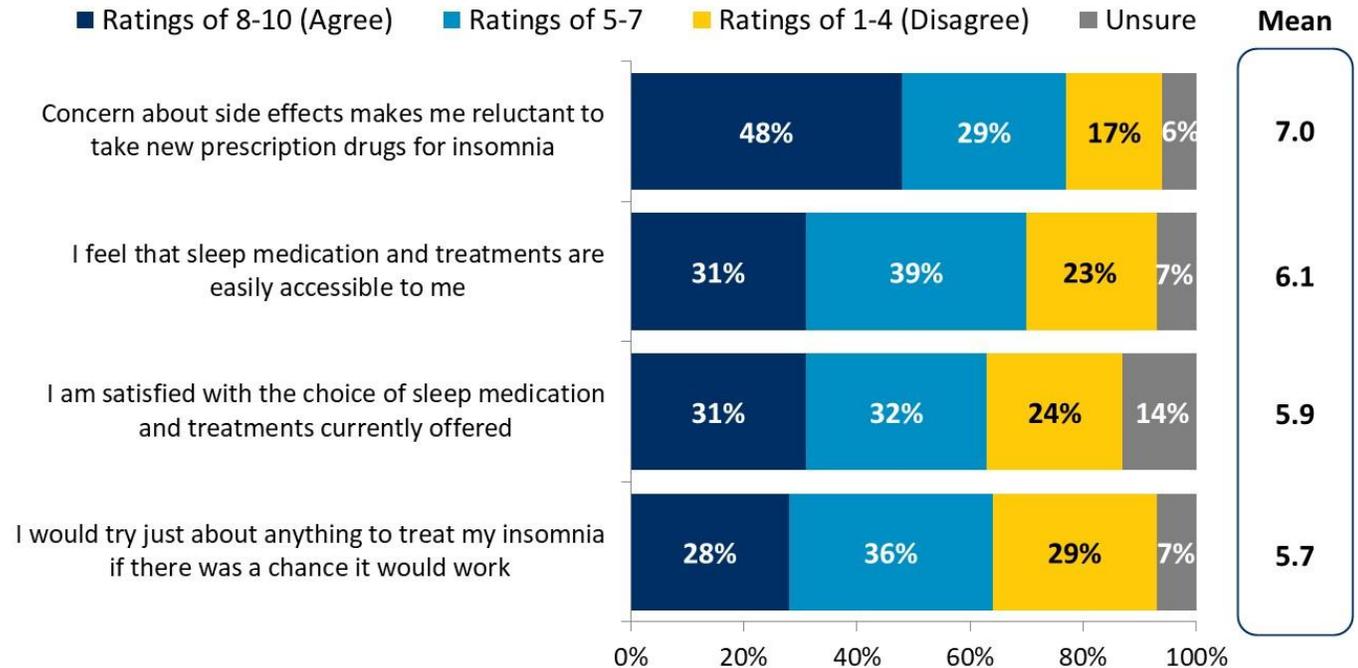
That being said, there is some hesitation in *trying just about anything to treat their insomnia if there was a chance it would work*, with as many who would be open to the idea (highest ratings of 8-10 on a 10-point agreement scale) as there are who would not (bottom ratings of 1-4). The level of hesitancy may be explained by a fairly high level of *concern about side effects which makes respondents reluctant to take new prescription drugs for their insomnia*. (Tables D34j and D34k)

In terms of accessing sleep care, seven in ten believe to varying degrees that *sleep medication and treatments are easily accessible to them*, while nearly one quarter do not, and nearly one in ten are unsure. (Table D34h)

Perceptions About Sleep

Among Those with Insomnia

Ratings on a 10-pt. Scale, 10=Strongly agree, 1=Strongly disagree



Q.D34h-k: [IF 'HAS INSOMNIA' IN Q.B4] Using your best judgement, to what extent do you agree or disagree with the following statements? (n=673-676) Note: 'Unsure' is excluded from the mean.



Interest in Information About Sleep

There is notable interest in learning more about sleep-related topics, particularly sleep techniques, tools and therapies.

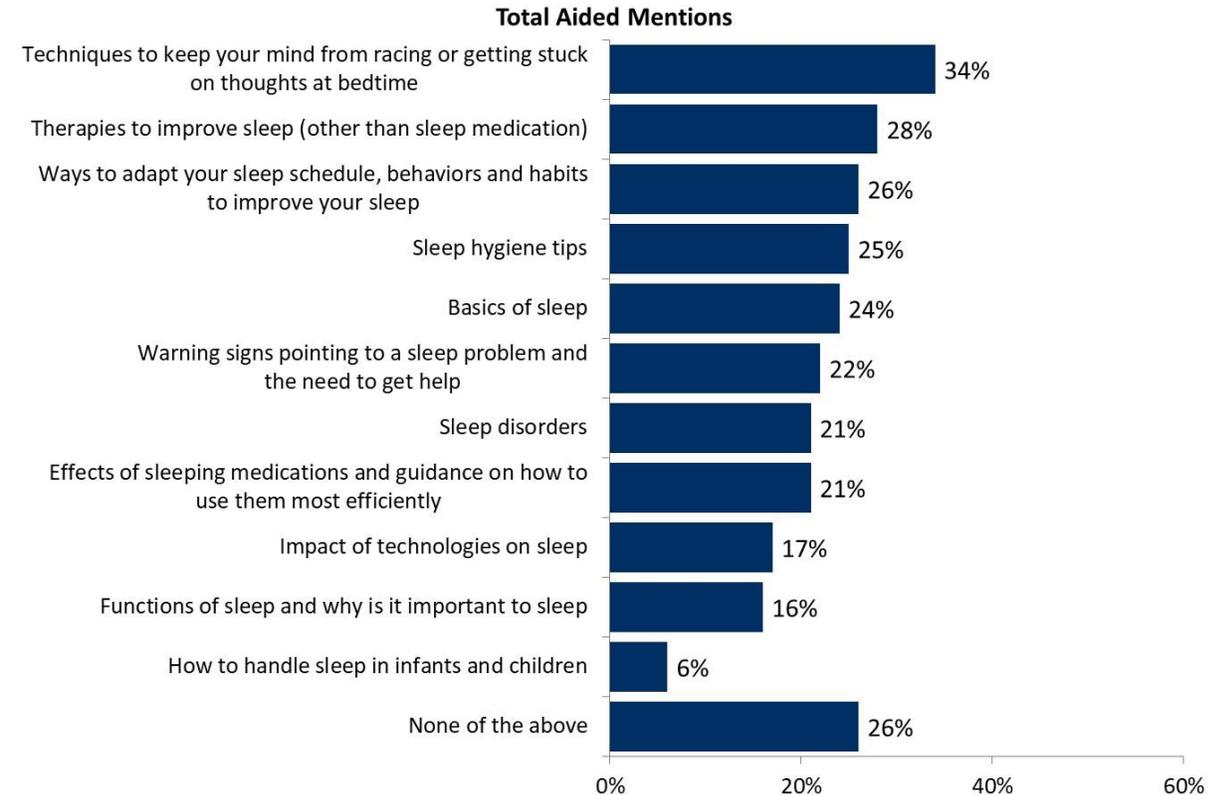
Three-quarters (74%) of respondents identified at least one sleep-related topic they are interested in learning more about from a list of 11 items.

Across topics, there is greater interest for information on **techniques to keep one's mind from racing or getting stuck on thoughts at bedtime**. Many other topics are identified by between twenty and thirty percent of respondents, including information on **therapies to improve sleep**, ways to **adapt the sleep schedule, behaviours and habits**, **sleep hygiene tips**, **basics of sleep**, **warning signs** pointing to a sleep issue, **sleep disorders**, as well as the **effect of sleep medication and guidance on usage**.

Information on the **impact of technologies on sleep** and the **functions of sleep and why it is important to sleep** elicited less interest in comparison, while very few expressed a desire to find out more about **how to handle sleep in infants and children**. (Table B1)

As may be expected, respondents who have a formal sleep disorder diagnosis and those who have experienced insomnia in the past year are much more interested in additional information (88% for each). While they are more interested in most of the topics listed, those with a sleep disorder express a greater interest than other respondents in learning more about sleep therapies, sleep disorders, and the effects of sleeping medication and guidance on how to use them more efficiently. Likewise, those who have experienced insomnia are much more interested than others in techniques to keep their mind from racing or getting stuck on thoughts at bedtime, sleep therapies, ways to adapt their sleep, schedule, behaviours and habits to improve sleep and sleep hygiene.

Interest in Information About Sleep



Q.B1: What sleep-related information are you most interested in learning about? Select all that apply. (n=1,243)



NARRATIVE
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Respondents' Profile

The following pages provide an overview of the profile of respondents based on key demographic characteristics. Note that the data was weighted based on age, gender and region.



| | | (n=1,249) |
|-------------------------------------|--|-----------|
| Age | | |
| 16-29 | | 13% |
| 30-49 | | 39% |
| 50+ | | 48% |
| Sex Assigned at Birth | | |
| Female | | 54% |
| Male | | 46% |
| Gender(s) Self-Identify With | | |
| Girl/Woman | | 54% |
| Boy/Man | | 45% |
| Transgender (female to male) | | 0% |
| Transgender (male to female) | | 0% |
| Gender fluid | | 0% |
| Gender non-binary | | 0% |
| Other | | 0% |
| Prefer not to say | | 0% |



| | | (n=1,249) |
|---|--|-----------|
| Identify as | | |
| White-North American (e.g., Canadian, American) | | 56% |
| White-European (e.g., English, Italian, Portuguese, Russian) | | 26% |
| East Asian (e.g., Chinese, Japanese, Korean) | | 6% |
| South Asian (e.g., Indian, Pakistani, Punjabi, Sri Lankan, etc.) | | 5% |
| Southeast Asian (e.g., Filipino, Malaysian, Vietnamese, Cambodian, Laotian, Thai, etc.) | | 3% |
| Black and/or Black African heritage | | 3% |
| Indigenous - First Nations | | 3% |
| Middle Eastern/West Asian (e.g., Lebanese, Iranian, Afghan, etc) | | 2% |
| Indigenous - Inuit | | 1% |
| Indigenous - Métis | | 1% |
| Latin American (e.g. Argentinian, Chilean, Salvadorian) | | 1% |
| Other | | 1% |
| Prefer not to say | | 2% |



| | | (n=1,249) |
|--------------------------------------|--|-----------|
| Employment Status | | |
| Employed full-time | | 44% |
| Employed part-time | | 9% |
| Self-employed | | 5% |
| Unemployed but looking for a job | | 5% |
| Unemployed and not looking for a job | | 4% |
| Retired | | 27% |
| Student | | 3% |
| Volunteering full time | | 0% |
| Short term disability | | 0% |
| Long term disability | | 4% |
| Prefer not to say | | 1% |



| | | (n=1,249) |
|---|--|-----------|
| Type of Health Coverage to Cover Costs Associated with Prescription Medication | | |
| Provincial health care plan | | 32% |
| Private/company plan | | 29% |
| Both private and provincial | | 23% |
| None of the above | | 16% |



| | | (n=1,249) |
|---------------------------------|--|-----------|
| Household Income in 2020 | | |
| \$27,000 or less | | 10% |
| \$27,001 to \$33,000 | | 7% |
| \$33,001 to \$41,000 | | 8% |
| \$41,001 to \$50,000 | | 9% |
| \$50,001 to \$100,000 | | 36% |
| \$100,001 or more | | 22% |
| Prefer not to say | | 8% |



| | | (n=1,249) |
|---|--|-----------|
| Highest Level of Education Completed | | |
| Less than high school | | 4% |
| High school | | 23% |
| CEGEP | | 6% |
| College or equivalent | | 23% |
| University graduate | | 30% |
| University postgraduate | | 13% |
| Prefer not to say | | 1% |



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Every insight tells a story.