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Insomnia Management in Primary Care: Outcomes from a Canadian National Survey Reveal Challenges and Opportunities to Improve Clinical Practice

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ABSTRACT

Insomnia is prevalent yet remains underrecognized and inconsistently treated in Canadian primary care. Significant learning and knowledge gaps exist for Canadian Primary Care Physicians (PCPs) managing patients with insomnia. Consequently, Canadian PCPs were invited to participate in a national Needs Assessment survey to provide real-world insights into the management of insomnia and to identify current gaps in clinical care of insomnia. A Steering Committee comprising Canadian psychiatrists and PCPs, with strong expertise in insomnia, collaborated on a national survey on the management of insomnia and a subsequent article exploring survey results. The Collaborative CME and Research Network (CCRN) and the article authors validated the content and conducted factor analysis for construct validity to assess the survey's validity and reliability. Data were analyzed using descriptive statistics to summarize and identify trends. CCRN ensured appropriate regional representation in the survey roll-out and subsequent collection of responses. Survey findings revealed limitations in training, skills, and knowledge regarding insomnia management. Critical knowledge and learning gaps identified through the survey underscored the need for training and targeted Continuing Medical Education (CME) to help Canadian Healthcare Providers (HCPs), especially PCPs, understand better the complexities of insomnia. Barriers include reluctance to recommend cognitive behavioural therapy in insomnia (CBT-I) and limited awareness of the orexin pathway's role in the sleep/wake cycle, as well as therapies specifically indicated for insomnia. This article highlights the need to address these barriers to help HCPs better support their patients with insomnia and alleviate the burden on the healthcare system.

Insomnia is defined as having nocturnal difficulties falling and staying asleep, or nonrestorative sleep, resulting in significant daytime distress or functional impairment [1]. It impacts up to one in three adults [2], with over 10% of the global adult population affected by chronic insomnia syndrome [1,3]. In Canada, over 24% of adults report experiencing nighttime insomnia symptoms; these numbers are increasing, especially as the population ages [4-6]. As such, Canadian Healthcare Providers (HCPs), including primary care physicians (PCPs), face a growing trend of patients experiencing sleep disturbance [5-7]; statistics estimate between 10% and 20% of primary care patients report persistent and significant insomnia symptoms to their HCPs [3,6,7]. Yet, physicians or patients may not fully appreciate how significantly insomnia can impact every aspect of patients' lives [3]; as a result, insomnia remains underrecognized, underdiagnosed, and inadequately treated [3,8-10].

Chronic insomnia, characterized by difficulties with sleep disturbances for three months or more, is causally linked to serious long-term health issues [11], including mental health disorders, cardiac and metabolic dysfunctions, and impaired cognitive function [12]. As such, HCPs often face challenges in screening for and diagnosing insomnia; they also have limited time, training, and resources to stay informed about evidence-based therapies that balance pharmacologic and non-pharmacologic approaches [3].

As well, patient preferences and concerns about medication side effects and dependence play significant roles in the management of insomnia [3]. Addressing patients' and PCPs' potential misperceptions regarding the pharmacological differences of current therapies is essential to supporting informed decision-making and optimal healthcare outcome [13]; these issues need to be a priority [13].

Consequently, insomnia continues to be an ever-expanding concern for Canadian HCPs, yet numerous studies indicate that HCPs may lack the knowledge and training they need to manage patients with insomnia more effectively [3,5,14,15].

Method

Questionnaire Development

To uncover existing knowledge and learning gaps, understand practice disparities, and identify areas for improvement in the management of patients with insomnia, the Collaborative CME and Research Network (CCRN) collaborated with a Steering Committee comprising two psychiatrists, two PCPs, and a medical student with expertise in insomnia to create the "National Survey on Insomnia and Comorbidities for Canadian Primary Care." The psychiatrists on the Committee are known Canadian insomnia experts who were key authors in the Delphi Consensus Recommendations for the Management of Insomnia in Canada [16].

CCRN, a not-for-profit, academic physician organization led the organization and roll-out of the national survey. The article authors and CCRN developed the questions comprising the online survey. To assess the reliability of the 52 multiple-choice and scale questions (e.g., 1 to 5 ratings), the article authors, as field experts, validated the survey's content (refer to Table 1), and in partnership with CCRN, conducted factor analysis for construct validity. Data were analyzed in Excel, using descriptive statistics to summarize responses and to identify clinical practice patterns. CCRN assessed each response from individual responders to ensure accurate analysis of results.

Table 1. Examples of survey topics

Impact of insomnia in clinical practice
Use of functional scales
Screening for and diagnosis of insomnia
Bidirectional relationship between insomnia and specific comorbidities
Utilization of non-pharmacologic treatments/interventions
Use of over-the-counter (OTC) products
Prescribing of off-label/on-label pharmacologic therapies
Addiction/dependency concerns
Pharmacologic medications with known addictive/dependency properties
Role of the orexin pathway in sleep/wake cycle
New and emerging therapies specifically indicated for insomnia, (e.g., dual orexin receptor antagonists (DORAS)

Participant Demographics

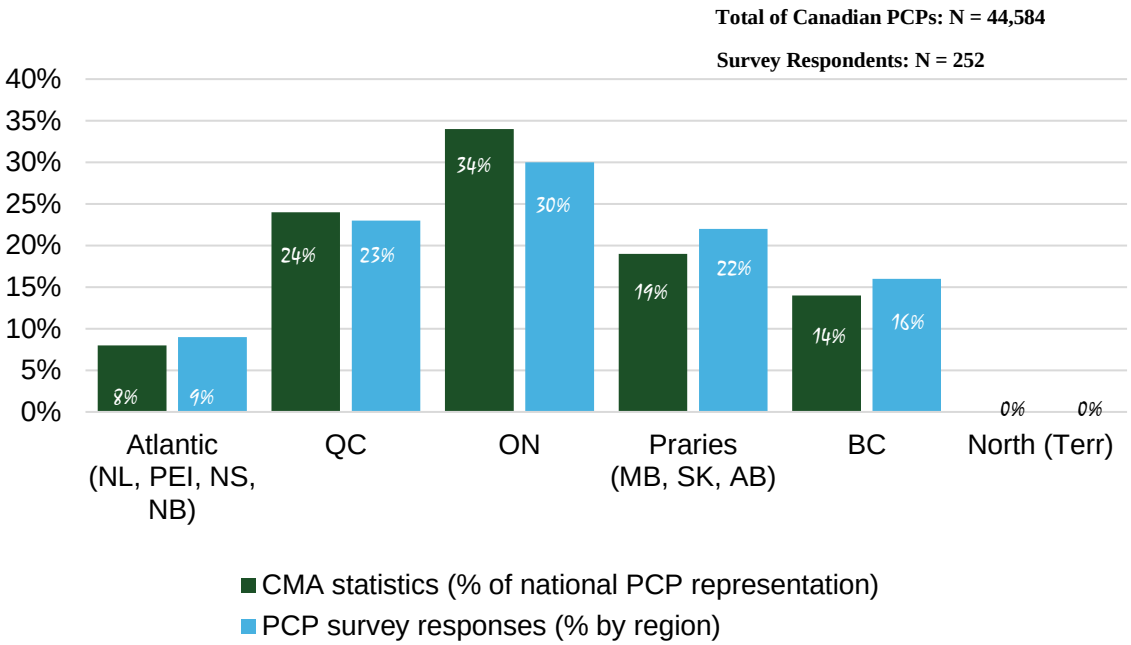
On February 5, 2024, CCRN distributed the survey electronically, using SurveyMonkey, to physicians in the CCRN database who identified as PCPs practicing in Canada. Participants were offered a token stipend for their participation in the survey, which closed on February 27, 2024. No modifications were made to the survey during its circulation.

CCRN sought to achieve balanced national and regional representation of PCPs as defined by the Canadian Medical Association (CMA) family practice specialty profile [17]. To facilitate this, CCRN distributed the online survey to PCPs across the provinces; the survey was available in French for those who preferred it. To ensure fair representation, survey collection in a province was halted once the number of completed responses aligned with the CMA-reported regional PCP representation percentages across Canada.

Two hundred and fifty-two (252) PCPs from across Canada completed the survey, representing a national participation rate of 9% (Figure 1). This participation rate, slightly lower than average, was a deliberate choice to ensure fair regional balance of responses, as explained above. This balance safeguarded the survey's representativeness.

Throughout the survey, the total number of responses varied between 252 and 240, and included an attrition rate of approximately 5%. Despite the survey's length of 52 questions, participants remained engaged; notably, when prompted in the last survey question to provide comments, 52 (21%) participants offered feedback.

Figure 1. PCP responses national distribution



Upon the survey's close, CCRN compiled the survey results and provided them to the article authors comprising the Steering Committee. The Committee subsequently met to review and discuss the survey results, identifying the most critical knowledge and practice gaps for inclusion in this article.

Limitations

Response totals fluctuated throughout the survey; however, most questions received responses from all 252 participants. For questions with fewer than 252 responses, the exact total (e.g., 240 responses) is indicated to ensure calculation accuracy.

For the final questions related to DORAs and the orexin pathway in the wake/sleep cycle, more than half of the survey participants indicated limited or no knowledge of this drug class or the orexin pathway in treating insomnia. This lack of knowledge may have precipitated a response drop-off, with the last seven of 52 survey questions having fewer than 250 responses. Two hundred and forty (240) was the lowest total response rate, which constituted a minimum response rate of 95% throughout the survey.

Upon reviewing the survey results, the Steering Committee determined, in hindsight, that some of the questions should have offered additional choice options and more clear instructions. For example, "pre-, peri-menopause, and post-menopause" and "urinary issues" were not included in the survey questions about screening triggers for insomnia or comorbidities with insomnia.

At the time of the survey's development, the DORA, daridorexant, had not yet been approved in Canada; therefore, only the DORA, lemborexant, was included in the survey.

Results

Physician Demographics

All 252 participants in the survey were primary care physicians (PCPs), with reasonably equitable distribution by years of PCP experience (ranging from <5 years to 31+ years, averaging ~50 (20%) in each category). Regarding clinical practice, 194/246 (79%) of the PCPs completing the survey worked in urban areas, with 191/248 (77%) in private offices/clinics, of which 167/246 (68%) worked in group practices, similar to Canadian demographics according to the Canadian Institute for Health Information [18].

Management of Insomnia in Primary Care Clinical Practice

One hundred and six (106 [42%]) survey participants saw between 0-10 patients weekly with sleep issues, while 96 (38%) reported seeing 11-20 patients. Table 2 provides the results of three survey questions on PCPs' initial approaches to managing patients with insomnia, e.g., how often PCPs asked patients about sleep quantity and quality (Table 2, 2a), what steps were included in evaluating a patient for insomnia (Table 2, 2b), and what factors were discussed with a patient prior to prescribing a medication (Table 2, 2c).

Table 2. Survey results re: clinical practice patterns

	Responses	
2a: How often do you ask patients about their sleep quantity and quality? (select choice)	**N=252**	
Proactively, at every appointment as part of a comprehensive health assessment	19	8%
Regularly, when I observe signs/symptoms that may suggest sleep disturbances	143	57%
Reactively, I address sleep health if/when the patient expresses related concerns	78	31%
Infrequently, and typically only if the patient specifically mentions sleep problems	9	3%
Not at all, I do not routinely discuss insomnia issues unless they are directly related to a presenting problem	3	1%
2b: When assessing a patient for insomnia, which of the following steps do you routinely include in your evaluation? (multiple choice)	**N=252**	
Conduct a focused sleep history to detail sleep patterns and lifestyle factors that may affect sleep and to rule out other sleep disorders	227	90%
Perform a physical examination to rule out any physical causes of insomnia	159	63%
Evaluate psychological and emotional factors that may contribute to sleep disturbances	227	90%
Review the patient's current medication list and any substance use that could impact sleep	229	91%
Recommend the patient to maintain a sleep diary for self-monitoring of sleep habits and disturbances	143	57%
Consider a referral to a sleep specialist if the condition is complex or refractory to initial interventions	142	56%
Order blood work (e.g., thyroid levels)	166	66%
Other*	4	2%
2c: Which factors do you discuss with patients when prescribing medications? (multiple choice)	**N=251**	
Possible dependence with some hypnotics (e.g., benzodiazepines, zopiclone, eszopiclone, or zolpidem (Z-drugs)	235	94%
Efficacy of pharmacologic therapies over lifestyle changes	152	61%
Use of additional OTC sleep aids	97	39%
Dosage increases should the initial doses be ineffective to treat their insomnia	83	33%
Potential side effects and interaction with other medications	216	86%
Specific consideration for certain hypnotics (e.g., dual orexin receptor antagonists [DORAS]. benzodiazepines, Z-drugs, etc.)	168	67%
Off-label use of trazodone, mirtazapine, quetiapine	158	63%
Other*	4	2%

*Specific responses not indicated

Screening for and Diagnosing of Insomnia (and Comorbidities)

Table 3 shows respondents' choices when asked which were the most common "health complaints" a patient might present with that would prompt screening for insomnia. Participants identified the health complains in rank of priority for screening; out of all 20 complaints, the highest ranked (see Table 3) were depression, anxiety disorders, obstructive sleep apnea, fatigue, pain (acute/chronic), Post-Traumatic Stress Disorders (PTSD), grief/adjustment reaction, Restless Legs Syndrome (RLS). Notably, substance abuse/abuse disorders and medical conditions ranked lowest.

Table 3. Screening for "health complaints" (multiple choice)

	No of respondents (%)
Highest ranked	
1. Depression	233 (93%)
2. Anxiety disorders	227 (90%)
3. Obstructive sleep apnea	214 (85%)
4. Fatigue	205 (81%)
5. Pain (acute/chronic)	178 (71%)
6. Post-traumatic stress disorders (PTSD)	169 (67%)
7. Grief/adjustment reaction	166 (66%)
8. Restless leg syndrome (RLS)	155 (62%)
Lowest ranked	
19. Substance abuse/abuse disorders	116 (46%)
20. Medical conditions (e.g., type 2 diabetes mellitus (T2DM), cardiovascular disease (CVD)	52 (21%)

Table 4 displays the participants' responses when asked the opposite, which comorbidities they screened for in a patient presenting with insomnia symptoms, ranked in order of priority. Of the 11 comorbidities, those ranked highest (see Table 4) were mood disorders, sleep disruptive issues, pain (acute/chronic), and substance abuse/abuse disorders. Ranked lowest (see Table 4) were obesity, respiratory conditions, and medical conditions.

Table 4. Screening for comorbidities (multiple choice)

	No of respondents (%)
Ranked highest	
1. Mood disorders (e.g., anxiety disorders, PTSD, depression, grief/adjustment reaction)	242 (96%)
2. Sleep disruptive issues (e.g., RLS, OSA, gastrointestinal reflux disease [GERD])	209 (83%)
3. Pain (acute/chronic)	159 (63%)
4. Substance abuse/abuse disorders	134 (53%)
Ranked lowest	
9. Obesity	105 (42%)
10. Respiratory conditions (e.g., asthma, chronic obstructive pulmonary disease [COPD], allergies)	97 (39%)
11. Medical conditions (e.g., type 2 diabetes mellitus (T2DM), cardiovascular disease (CVD)	58 (23%)

Use of Screening Assessment Questionnaires

Asked if they used assessment questionnaires to screen for insomnia, 196 (78%) of respondents indicated they used face-to-face clinical interviews/assessments to screen; application of other assessment questionnaires listed in the survey question included the Sleep Condition Indicator (3 [1%]) [19], the Athens Insomnia Scale (4 [2%]) [20], the Pittsburgh Sleep Quality Index (8

[3%]) [21], Insomnia Severity Index (29 [12%]) [22], and the Epworth Sleepiness Scale (108 [43%]) [23]. Also, in the "other" column, two respondents (2 [<1%]) mentioned the STOP-Bang questionnaire (used primarily for screening for OSA) [24].

As for measuring disability and functional impairment, 214 (85%) of respondents did not use functional scales to assess patients with insomnia. Of the functional scales, the respondents utilized the Sheehan Disability Scale (28 [11%]) most often [25]. Regarding which comorbidity rating scales were employed, respondents used the Generalized Anxiety Disorder-7 (195 [77%]) [26], the Patient Health Questionnaire (191 [76%]) [27], the Adult Attention Deficit Hyperactivity Disorder (ADHD) Self-Report Scale (91 [36%]) [28], and the STOP-Bang Questionnaire (74 [30%]) [24].

Participants employed functional scales to assess impairment due to mood disorders (35 [14%]), pain (45 [18%]), or RLS (9 [4%]); 46 (18%) of the 252 respondents did not utilize comorbidity scales/questionnaires in functional assessments. Two hundred and forty-two (242 [96%]) respondents stated they screened for mood disorders. One respondent commented, "I've heard of them [functional scales] but [have] not really used [them]."

Patient Self-Management Strategies

Patients try to self-manage insomnia before seeking professional help [3]; self-management may include massage, relaxation techniques, yoga, exercise—and self-medication [29].

Survey respondents indicated that patients did self-medicate frequently, using over-the-counter (OTC) products such as melatonin (249 [99%]), diphenhydramine (141 [56%]), herbal teas (137 [54%]), dimenhydrinate (128 [51%]), and magnesium (120 [48%]). The majority of participants (217 [86%]) noted that between 25% and 75% of their patients continued to use OTC products despite being prescribed pharmacologic insomnia medications.

One hundred and thirty (130 [52%]) of participants stated that between 25% and 50% of their patients used non-prescription "recreational" substances regardless of prescription insomnia therapies, of which patients used cannabis (228/251 [91%]) and alcohol (166/251 [67%]) primarily to treat their insomnia.

Non-pharmacologic Interventions for Insomnia

When participants initiated a dialogue about insomnia with their patients, they prioritized non-pharmacologic measures. Two hundred and forty-seven (247 [98%]) participants reviewed sleep hygiene education first with their patients. These non-pharmacologic measures also included diet and exercise modifications (224 [89%]), relaxation techniques (182 [72%]), and stimulus control (e.g., bed routines, no television/internet before bedtime; 179 [71%]).

Regarding cognitive behavioural therapy for insomnia (CBT-I), 146 (58%) of participants reviewed CBT-I with their patients. When asked how often they recommended CBT-I, 141 (56%) of participants "consistently or frequently" advocated for CBT-I; 71(28%) of respondents stated they "seldom or never" recommended CBT-I (including advocating online programs) to their patients. 52 (21%) of PCPs did not recommend CBT-I resources to their patients.

One hundred and thirty-four (134 [53%]) respondents indicated <10% of their patients accessed or completed prescribed CBT-I programs, with 80 (32%) of respondents signifying they did not know (or ask) if their patients had accessed and/or completed CBT-I therapy. For those patients completing CBT-I, respondents merited CBT-I's effectiveness as neutral (56

[22%]), effective (99 [39%]) or very effective (12 [5%]) therapy for insomnia, with 82 (33%) respondents indicating they would refer patients to a CBT-I specialist instead.

Pharmacologic Management of Insomnia

One hundred and seventy (170 [68%]) of survey respondents prescribed pharmacologic therapies after non-pharmacologic measures. The key factors (Table 1, 1c) discussed with patients when prescribing hypnotics for insomnia included possible dependence with some hypnotics (235 [94%]) and potential side effects/interactions with other medications (216 [86%]). Ninety-seven (97 [33%]) respondents discussed using additional OTC sleep aids.

Prescribing Practices for Hypnotics and Other Therapies

Off-label use of hypnotics and other therapies, e.g., atypical antidepressants (AADs) such as trazodone, other antidepressants (ADs), and atypical antipsychotics (AAPs), was common. Asked how concerned they were about prescribing certain medications to treat insomnia (refer to Table 5), respondents ranked the medications in each category (the drug/class ranked highest in each category is bolded).

Table 5. How concerned are you about prescribing any of the following medications to treat insomnia? (Bold indicates highest choice in each category)

	Benzo		**Z-drugs**		**AAD (SARI; trazodone**		**TCAs (ex. low-dose doxepin)**		**DORAS (e.g., lemborexant)**		**Other ADs (e.g., citalopram)**		**AAPs (ex. quetiapine)**		**ASMs (ex. gabapentin)**	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Extremely concerned	**199**	**79**	76	32	16	7	18	9	17	8	16	10	35	15	20	9
Very concerned	34	14	**79**	**33**	23	9	24	12	12	6	8	5	33	14	31	14
Moderately concerned	15	6	48	20	52	22	40	19	38	18	29	17	**58**	**25**	50	23
Concerned	3	1	24	10	38	16	42	20	34	17	42	25	48	21	**53**	**25**
Only slightly concerned	1	<1	10	4	**84**	**35**	58	28	56	27	49	30	47	21	46	22
Not concerned at all	0	0	1	<1	26	11	24	12	**49**	**24**	21	13	9	4	14	7
Answer RR n (%)	**252 (100%)**		**252 (100%)**		**239 (95%)**		**206 (82%)**		**206 (82%)**		**165 (66%)**		**230 (91%)**		**214 (85%)**	

Note. AD, antidepressant; AAD, atypical antidepressant; AAP, atypical antipsychotic; ASM, antiseizure medication; benzo, benzodiazepine; DORA, dual orexin receptor antagonist; RR, response rate; SARI, serotonin antagonist and reuptake inhibitor; TCA, tricyclic antidepressant; Z-drugs, nonbenzodiazepines.

Regarding key concerns (including "red-flag" behaviours; (250 responses) for specific medications, for "requests for early refills," respondents ranked trazodone (66 [26%]) and lemborexant (53 [21%]) as least concerning; benzodiazepines (224 [90%]), Z-drugs (zopiclone [171 {68%}], zolpidem [141{56%}]), and eszopiclone [122 {49%}]) were rated highest. As for "medication misuse," the same trend occurred: trazodone (88 [35%]) and lemborexant (61 [24%]) ranking lowest, while benzodiazepines (212 {85%}), Z-drugs (zopiclone [155 {62%}], zolpidem [123 {49%}]), and eszopiclone [111 {44%}]) ranked highest.

Responses (250 responses) to "increased concerns re: dependency/addictions to the drug" indicated that participants were less concerned about trazodone (65 [26%]) and lemborexant (45 [18%]) but more concerned about benzodiazepines (204 [82%]). Z-drugs also ranked high (zopiclone [151 {60%}], zolpidem (113 {46%}), and eszopiclone (107 {43%}). The "expected side effect" indicated as most concerning was "next-day side-effects," with benzodiazepines ranking highest (165 [66%]) and lemborexant ranking lowest (72 [29%]). One hundred and forty-one (141 [56%]) survey participants specified concern about "next-day side-effects" for trazodone.

Challenges in Prescribing Multiple or Switching Insomnia Medications

Asked (250 responses) about the rationale for prescribing more than one hypnotic simultaneously, 171 (68%) respondents stated they would not prescribe more than one medication at a time; 53 (21%) indicated that "complementary mechanisms of action for classes of hypnotics" was a rationale to prescribe more than one hypnotic medication, while 48 (19%) participants considered "managing insomnia symptoms more efficiently" as a rationale.

Challenges for prescribing multiple hypnotics included "concerns about increased risk of addiction or dependence" (109 [44%]), "side effects, adverse events (AEs), and tolerance to one or more hypnotic" (104 [42%]), and "prescribing multiple hypnotics is considered off-label" (59 [24%]). Three participants (1.2%) stated in the comments section (at the end of the survey), "Risque de suspension du collège des MDs," [sic] about increased scrutiny from professional bodies, e.g., provincial Colleges of Family Physicians.

Knowledge of the Orexin Pathway in Sleep-Wake Cycle and DORAs

One hundred and five (105 [51%]) respondents were "only slightly/not concerned at all" about prescribing DORAs but reported limited knowledge or familiarity about the orexin pathway in sleep (164 [66%]) and in the sleep/wake cycle (165 [67%]). Respondents identified mechanisms of action (155 [62%]), interactions with other medications (153 [61%]), and safety profile (150 [60%]) as principal knowledge gaps related to the orexin pathway in insomnia treatment.

Regarding DORAs, 138/251 (55%) participants indicated no or limited knowledge of the drug class. They (240 responses) identified the main advantages of DORAs as reduced risk of dependence (164 [68%]), fewer next-day residual effects (137 [57%]), enhanced sleep maintenance (125 [52%]), and improved sleep onset (122 [51%]). Asked what they perceived were the barriers to using DORAs, 163 (66%) respondents indicated cost/coverage to be the primary obstacle, as well as newness of treatment (118 [48%]) and lack of clinical experience (110 [44%]).

Discussion

Summary

The survey results showed the critical learning needs that exist regarding the screening for and diagnosis of insomnia, which, according to the responses, included a lack of understanding about the bidirectional relationship between insomnia and comorbidities. Survey participants also had limited perception about non-pharmacologic and pharmacologic measures. Acknowledging these would be crucial because they highlight the disconnect between physician and patient expectations for managing insomnia [30-33].

Major misperceptions included the respondents' potential lack of awareness about patient self-medication concurrent with prescribed medications, concerns over "next-day functioning," e.g., fall risks associated with trazodone use [32], plus the significant lack of confidence in CBT-I for patients with insomnia despite the CFPC's recommendations for use as the first-line non-pharmacologic measure [4,33]. Studies show that anywhere from 14% to 40% of patients withdraw from individual or group CBT-I treatment before mid-treatment [33]. HCPs' lack of familiarity and the perception that CBT-I is not effective also drives the underutilization of CBT-I [33]. Moreover, although CBT-I therapy is available across Canada and is generally free of charge, wait times for these programs can average from 15-68 days to years depending on location [34].

Screening for and Diagnosing of Insomnia (and Comorbidities)

Results indicate that many HCPs may view insomnia simply as a symptom rather than as a disorder in its own right, creating significant barriers to the proper screening for and diagnosis of patients with insomnia [3,4,6]. This limited viewpoint may hamper the recognition of the intricate bidirectional relationship between insomnia and various comorbidities, e.g., depression, diabetes, and PTSD, etc [18,35-37]. Recent studies show that primary care physicians (PCPs) have overlooked this bidirectional relationship that exists between specific health conditions and insomnia [18,35-37].

In fact, studies found that patients with chronic insomnia, particularly those with anxiety or other mental health issues, are at high risk of T2DM [18]. Further studies show that 63% of patients with PTSD experienced insomnia [36,37], while patients with insomnia following a traumatic experience were at a significant risk factor for future mental health disorders [35]. As one Steering Committee member noted, "those with PTSD do not sleep."

Consequently, the limited recognition of insomnia as a distinct bidirectional disorder, coupled with the perception of insomnia as a symptom only—and the lack of urgency in screening for related comorbidities—illustrates the foundational learning gaps HCPs face when screening and diagnosing patients with sleep disturbances.

Underutilization of Assessment Questionnaires and Functional Impairment Scales

Regarding the assessment and screening of patients, a study investigating primary care clinical practice patterns, found that 52% of the 106 primary care physicians participating indicated they did not regularly screen patients for insomnia, while 51% said they did not have the time to address a patient's needs appropriately [38].

Moreover, survey results showed that overwhelmingly, participants preferred to assess patients for insomnia face-to-face, using clinical assessments rather than self-reporting questionnaires. Studies have found that validated questionnaires are more effective than clinical encounters when screening and identifying patients with symptoms suggestive of insomnia [10,31,37]. Yet, tools are not used enough for any Central Nervous System (CNS) disorder, despite recommendations [10,31,37-42].

The absence of any initiative to use screening tools may indicate a reinforcement of perceived and unperceived knowledge gaps; studies show that PCPs may not have enough initial training on these tools amid significant time constraints [3,31,38]. This lack of utilization of practical assessment tools for managing patients with insomnia should be addressed promptly.

Respondents indicated that the key evaluation step when assessing a patient for insomnia was to conduct a focused sleep history to detail sleep patterns and to rule out other sleep disorders (90%); however, the Steering Committee, drawing from their clinical experiences, stated that it was "almost the norm" to receive insomnia referrals from PCPs without proper or adequate documentation, and that often, they had to ask for more information from the PCP's office.

Moreover, a recent study of 200 PCP charts of patients diagnosed with insomnia reflects this view [31]; investigators determined clinicians' notes were often incomplete, with significant details missing about patient symptoms, insomnia diagnosis, and subsequently prescribed therapies [31]. Results also showed that participating PCPs rarely noted related comorbidities [31]. This evidence appears to underscore the significant barriers facing PCPs in evaluating—and documenting their patients with insomnia appropriately [31,38,39].

Patient Self-Management Strategies

Participants noted that almost all of their patients used melatonin for insomnia self-management, with a significant number also using OTC products, cannabis, and alcohol to self-medicate. Studies have shown that melatonin only improves sleep onset marginally [40-44], while further evidence indicates that melatonin's effectiveness for chronic insomnia remains inconsistent and is likely effective only for certain subgroups of patients with insomnia [40-44].

As for patients self-medicating with other substances, results from the previously mentioned study exploring clinician and patient perceptions of treating insomnia, showed that patients often used sedating hypnotics inappropriately, in conjunction with OTC medication [31,38,39]. As such, HCPs may not be aware of these practices, and lack the time to discuss appropriate use of ongoing therapies [31,38,39]. Furthermore, a common misconception that "natural" products are risk-free, without the potential for significant side effects, can have a deleterious effect on a patient's health [45].

Notably, one of the factors discussed the least between survey participants and their patients was the use of additional OTC sleep aids, which contrasts with the reality of everyday patient use of OTC and "recreational" products, as highlighted in the survey and supported by studies [31,38,39,44].

The misperceptions and lack of communication must be addressed with—and by HCPs, especially PCPs; otherwise, patients may continue to self-medicate in potentially harmful ways—or spend money ill-advisedly on ineffective products [5,38,44].

Non-pharmacologic Interventions for Insomnia

One of the more significant and surprising knowledge gaps uncovered in the survey was that only half of survey participants discussed CBT-I with patients diagnosed with insomnia; almost a third declared they "never" or "seldom" recommended CBT-I, although major guidelines and the CFPC recommends CBT-I as the first-line, non-pharmacologic measure for patients diagnosed with insomnia [3,4,33,39-42].

The Steering Committee asked whether CBT-I was too idealistic an approach to treating insomnia; some survey participants stated the reasons why they did not recommend CBT-I were because they had never heard of CBT-I, that CBT-I resources were scarce/not available in their region, or what were previously free CBT-I resources, including online CBT-I programs paid for by the government, were no longer free [3,4,34].

The lack of access, cost, time, a lack of inclination or inability of patients to go through CBT-I were all common reasons in the studies that correlate with the survey participants' responses [31,38,39].

Unfortunately, this lack of willingness or confidence of PCPs to use CBT-I may carry significant and long-term negative consequences for patients with insomnia in primary care. Ways to broach this disconnect by providing practical information and resources should be a priority for education and training.

Pharmacologic Management of Insomnia

Survey results revealed prescribing habits and the use of pharmacologic therapies, which showed that participants may not fully differentiate among risk levels of drug classes. One reason may be that they assume there are no safe, long-term treatment options for treating insomnia [31,32,38,39,45,47,49,50]. This perspective may represent a lack of awareness (and training) about current treatment choices, including understanding the different modes of action, receptor affinities, and which areas of the cortex are involved for each therapy [31,32,38,39,45,47,49,50]. The overgeneralization and grouping of all hypnotics may prevent HCPs from understanding clearly each therapeutic option [45,47,49,50]; As such, comprehensive training and education should be provided to HCPs on how to differentiate between sedating versus non-sedating hypnotics.

Prescribing Practices for Hypnotics and Other Therapies

While participants had strong concerns about benzodiazepines and the Z-drugs, their level of comfort with trazodone was a key finding. Data show that although there are risks with trazodone for harm, adverse events, and falls [32,50], the majority of HCPs tend to use trazodone off-label to treat insomnia [32,38-40,43,45,50-52]. Yet, Canadian and other international insomnia guidelines, including AASM guidelines [4,40-44], do not recommend trazodone as a first-line treatment [4,33,34,40-44,47]. A large recent network meta-analysis underlines trazodone's lack of evidence for chronic insomnia, with trazodone's risk for serious side effects duly noted [32,50].

However, one reason for HCPs' comfort and use of trazodone may be the misperception that they can treat both insomnia and depression at the lower trazodone dose used for depression despite a lack of clinical trial evidence confirming its effectiveness at that dose to treat insomnia [32,38-40,43,45,50-52].

While they may understand correctly a lower risk of dependence with trazodone, HCPs may not appreciate the impact of trazodone's side effects compared with other drugs [32,38-40,43,45,50-52]. Furthermore, although trazodone is one of the most prescribed medications for insomnia [34], not more than half of the survey participants were concerned about "next-day side-effects" for trazodone due to its poor tolerability [38-40]. These are also critical learning gaps that should be addressed in training and education initiatives.

Challenges in Prescribing Multiple or Switching Insomnia Medications

Survey participants indicated they may not be accustomed to deprescribing, switching, or co-prescribing between multiple insomnia therapies or understand the rationale behind such strategies since few guidelines exist [4,44-50,53]. The Steering Committee, as specialist and primary-care insomnia experts, who prescribe multiple insomnia medications, determined that specialists may be more comfortable than primary care physicians and other HCPs in co-prescribing lower-risk medications to reduce the dosage of higher-risk medications. As well, studies showed that PCPs are less comfortable referring to clinical practice guidelines than are specialists and sleep experts [3,32,38-40,47,50,53].

The lack of PCP training on how to cross-taper when transitioning or switching insomnia medications, especially with emerging new treatment options such as DORAs, represents critical knowledge and learning gaps that require urgent attention.

Knowledge of the Orexin Pathway in Sleep-Wake Cycle and DORAs

Although responders indicated they had little to no knowledge or familiarity with the orexin pathway in sleep/sleep-wake cycle and with DORAs, there is an interest in medications expressly specified for insomnia as survey results showed most participants were willing to respond to questions about the orexin pathway and DORAs.

DORAs are a new class of insomnia medication with a unique mechanism of action (MoA) [54-56], which can lead to misperceptions about how they (and the orexin pathway) work. Additionally, HCPs may not yet discern the difference, perceiving DORAs as another hypnotic/sedating agents [54-56]. Understanding that DORAs inhibit wakefulness rather than induce sedation and exhibit little evidence of rebound insomnia, withdrawal, and abuse potential, may help HCPs select appropriate therapies [54-56].

Therefore, HCPs should be provided information regarding the options they have to treat their patients with insomnia safely and effectively—while prioritizing treatments specifically indicated for insomnia.

Conclusion

This article presented key findings from a national survey on insomnia for PCPs, exposing significant challenges faced by HCPs in managing this widespread condition. Notable learning gaps identified include issues with patient self-medication—especially extensive use of OTC products, cannabis, and alcohol concurrently taken with prescribed medications. Additionally, participants also identified understanding appropriate prescribing practices for insomnia therapies, including emerging pharmacotherapies as a key learning gap. Moreover, a lack of confidence in CBT-I as the first-line non-pharmacologic option was also evident in the survey responses.

These barriers highlight the critical need for targeted training on practical care measures, accurate symptom recognition, understanding the bidirectional relationship between comorbidities and insomnia, the proficient use of validated assessment tools alongside insomnia-specific pharmacotherapies.

The survey results emphasize a disconnect between the high prevalence of insomnia in primary care and the proactive measures required to address it effectively. Enhanced training in medical schools and targeted continuing medical education (CME) are essential to equip physicians and other HCPs with the knowledge and skills to manage insomnia, ultimately improving patient outcomes.

Declarations

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Disclosure Statement

No potential conflict of interest was reported by the authors.

Ethics Approval

As the original National Needs Assessment Survey and this subsequent article did not use or ask for specific participant identification, nor were there any specific case studies/reports used in the Survey, ethics approval was not sought.

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