Terms used by healthcare professionals to describe opioid use disorder

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Research Article

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Abstract

Background

Using prescription opioids for a long period of time or at high doses can increase the risk of developing opioid use disorder (OUD). Whether a patient has an official diagnosis of OUD or not can change medical practice regarding how that individual is treated. It is imperative to be aware of who may have an undiagnosed OUD in order to avoid potential negative events such as infectious diseases associated with intravenous drug use. The purpose of this research project is to identify unique words and phrases healthcare professionals commonly use to describe patients with OUD.

Methods

We conducted a retrospective chart review at a tertiary care academic medical center. We included all patients with a diagnosis of OUD who had an encounter with a clinician in 2018. The chart notes from a specific appointment were reviewed to identify any unique terms or phrases used by the healthcare professionals in this note. The unique terms found were reported as a number and rate that represents how many chart notes it appeared in overall.

Results

Overall, 297 encounters in the electronic medical record were analyzed for terms associated with OUD. Of the 297 encounters reviewed, 83 notes had no mention of OUD, and 214 notes were found to have unique terms associated with OUD with a total of 322 unique terms and phrases identified. Opioid use disorder was the most used term occurring in 95 of the 297 (32.0%) encounters. A phrase or term containing the word “opioid” was found in 154 of the 297 (51.9%) notes. Suboxone was the second most common term found in 53 (17.8%) notes. Other common terms included cravings (49, 16.5%), relapse (42, 14.1%), and trigger (26, 8.8%).

Conclusions

OUD often goes undiagnosed. Knowing these key words and searching for them can assist healthcare professionals in identifying patients with undiagnosed OUD.

Background

Millions of Americans suffer each year from chronic pain for which they are frequently prescribed opioids to treat this condition; however, using prescription opioids for a long period of time or at high doses can increase the risk of developing opioid use disorder (OUD). OUD can develop when an individual becomes unable to decrease or control their opioid use resulting in failure to fulfil daily tasks such as work, school,
or other responsibilities. The term OUD is preferred over other terms with similar definitions like “opioid abuse”, “opioid addiction”, or “opioid dependent” due to the potential associated stigma[1].

Using the correct terms to describe patients with OUD make a difference. The continued use of stigmatizing language promotes false stereotypes, spreads wrong information, and keeps people from obtaining the proper medical help they need[2]. It is important for individuals to understand OUD as a medical illness and not a moral weakness or lack of self-control[3]. The long-term use of opioids causes the body to develop a tolerance resulting in an increased requirement for more opioids to feel any beneficial pain effects. As an individual’s tolerance increases, the severity of withdrawal symptoms when not using opioids also increase making it more difficult to stop taking opioids all together. For some, the feelings of withdrawal become so severe that it is nearly impossible to overcome opioid dependence all together. Opioid prescribing in the United States hit its peak in 2012 with over a total of 250 million prescription opioids dispensed. Since then prescribing rates have slowly been declining but the effects of opioid prescribing have not disappeared[1].

Whether a patient has an official diagnosis of OUD or not will change medical practice regarding how that individual should be treated. It is imperative to be aware of who may have an undiagnosed OUD in order to avoid potential negative events. The increase in opioid use over the past few years has led to a surge in infectious diseases such as HIV infection with or without AIDS, viral hepatitis, infective endocarditis, skin and soft tissue infections, and fungal infections. Patients with IV drug use carry an increase risk in developing these associated infectious diseases.

It is necessary for providers to be able to effectively diagnose patients with OUD and refer them to appropriate resources to care for this underlying disorder. Medication therapy, along with harm reduction interventions, for the treatment of OUD have shown to reduce the frequency of opioid use, as well as reduce the rate of IV drug use associated infections[4]. Although a patient may not have an OUD diagnosis in their medical chart, being aware of the common terms or phrases used to describe these individuals can help alert providers about potential cases of OUD and associated adverse events, such as the increased risks of infectious diseases associated with this specific patient population. Research has shown that early intervention leads to decreased progression of this disorder[5].

**Objective**

The way healthcare professionals describe patients with OUD matter and the language used can vary greatly. Being able to identify patients with OUD and diagnosis them appropriately early may lead to reduction of adverse events, cost effectiveness, and overall better outcomes in morbidity and mortality. Having a good understanding of these common terms and phrases helps draw attention to patients that do not have an associated diagnosis code and can aid providers to ensure their patients receive proper preventive treatments. Currently, there is limited research regarding the specific language healthcare professionals use to describe patients with OUD. The purpose of this research project is to identify specific words or phrases healthcare professionals commonly use to describe patients with OUD.
Methods

We conducted a retrospective chart review at a tertiary care academic medical center. We included all patients with a diagnosis of OUD, as defined by ICD-10: F11.1, F11.2, T40.0, T40.1, T40.2, T40.3, T40.4, ICD-9: 305.5, 304.0, 304.7, 965.0, and who had an encounter with a clinician in 2018. The chart notes from a specific appointment in the patient’s medical record was reviewed by two blinded data collectors. They reported any unique terms or phrases used by the healthcare professionals in this note. Ten percent of all notes included were reviewed by both data collectors. A member of the research group oversaw the data collectors and audited these notes to ensure they were identifying the same terms and phrases. This certified consistency throughout the data collection process. The unique terms found were reported as a count as well as a percentage of charts in which it appeared.

Results

Overall, 297 encounters in the electronic medical record were analyzed for terms associated with OUD. Of the 297 encounters reviewed, 214 notes were found to have unique terms associated with OUD with a total of 322 unique terms and phrases identified. Forty encounters did not have a note associated with it, and 43 encounters did not have any terms in the note associated with OUD.

Table 1 depicts a list of the top 25 most used terms with both the frequency and rate of occurrence reported. Of the top 25 most used terms amongst patient’s medical records, opioid use disorder, the name of the disease itself, was the most used term occurring in 95 of the 297 (32.0%) encounters.
Table 1
Rate and occurrence of top 25 most frequently used terms to describe patients with OUD

<table>
<thead>
<tr>
<th>Medical Term</th>
<th>Frequency (n)</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioid use disorder</td>
<td>95</td>
<td>32.0%</td>
</tr>
<tr>
<td>Suboxone</td>
<td>53</td>
<td>17.8%</td>
</tr>
<tr>
<td>Cravings</td>
<td>49</td>
<td>16.5%</td>
</tr>
<tr>
<td>Relapse</td>
<td>42</td>
<td>14.1%</td>
</tr>
<tr>
<td>Heroin</td>
<td>40</td>
<td>13.5%</td>
</tr>
<tr>
<td>Substance</td>
<td>39</td>
<td>13.1%</td>
</tr>
<tr>
<td>Opioid dependence</td>
<td>38</td>
<td>12.8%</td>
</tr>
<tr>
<td>Sobriety</td>
<td>32</td>
<td>10.8%</td>
</tr>
<tr>
<td>Trigger</td>
<td>26</td>
<td>8.8%</td>
</tr>
<tr>
<td>Addiction</td>
<td>24</td>
<td>8.1%</td>
</tr>
<tr>
<td>Clean</td>
<td>24</td>
<td>8.1%</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>24</td>
<td>8.1%</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>23</td>
<td>7.7%</td>
</tr>
<tr>
<td>Opioid</td>
<td>21</td>
<td>7.1%</td>
</tr>
<tr>
<td>Sober</td>
<td>20</td>
<td>6.7%</td>
</tr>
<tr>
<td>Recovery</td>
<td>19</td>
<td>6.4%</td>
</tr>
<tr>
<td>Methamphetamine use disorder</td>
<td>18</td>
<td>6.1%</td>
</tr>
<tr>
<td>Coping</td>
<td>17</td>
<td>5.7%</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>15</td>
<td>5.1%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>13</td>
<td>4.4%</td>
</tr>
<tr>
<td>As prescribed</td>
<td>13</td>
<td>4.4%</td>
</tr>
<tr>
<td>Cannabis use disorder</td>
<td>12</td>
<td>4.0%</td>
</tr>
<tr>
<td>Dependence</td>
<td>12</td>
<td>3.7%</td>
</tr>
<tr>
<td>Compliance</td>
<td>11</td>
<td>3.7%</td>
</tr>
<tr>
<td>Abstinence</td>
<td>10</td>
<td>3.4%</td>
</tr>
</tbody>
</table>
Opioid was paired with various words to produce other terms used to describe patients with OUD. Other terms that included opioid in their description were opioid dependence, opioid, opioid use, opioid withdrawal, opioid addiction, opioid overdose, opioid management, opioid agreement, opioid pills, opioid related harm, and opioid treatment agreement. Opioid dependence and opioid were amongst the top 25 most used terms to describe patients with OUD. Figure 1 shows that all of the terms containing the word “opioid” were found in 154 of the 297 (51.9%) notes.

Aside from the disease’s term itself and terms that have “opioid” within their term, suboxone was the second most common term found in 53 (17.8%) notes. Following that was cravings (49, 16.5%), relapse (42, 14.1%), and heroin (40, 13.5%) which were the third, fourth, and fifth most used terms, respectively. Additional terms in the top 25 most used terms to describe patients with OUD are shown both as frequency and percentage of encounters in Table 1. Another commonly used term to describe patients with OUD is trigger, which was found in 26 (8.8%) encounters.

Discussion

This study examines the electronic medical records of patients with a confirmed diagnosis of OUD to determine commonly used terms that describe this patient population. After examining the records of 297 patients it was evident that there are key words used to describe patients with OUD. Using these terms, machine learning can be utilized to find trigger words in electronic medical records to help identify patients who may have undiagnosed OUD. For example, an electronic medical record could be programmed to flag any patient charts that contained these unique terms. This can notify physicians that the patient may have an undiagnosed OUD and to subsequently interview the patient regarding this as well as to consider certain IV drug use associated infectious diseases.

Another finding was that 28% of patients had no mention of OUD in the note. For these patients, OUD was most likely not discussed. OUD cannot be treated, even with a documented diagnosis without discussion. Previous research has found that physicians have negative attitudes about opioid addiction and are unaware of treatment options.[6] In addition, only 10% of early-career family physicians felt adequately trained during residency to prescribe buprenorphine for OUD.[7] Our study was conducted in a tertiary care center, and rates of non-discussion may be higher elsewhere.

This study had several limitations, mostly notably is the design of the study. Given that this is a retrospective chart review with two data reviewers, this could present documentation bias as well as inconsistency in data collection. To help mitigate this, a member of the research group whom oversaw the data collectors audited 10% of the all the notes to evaluate for consistency in identifying what the data collectors deemed to be unique words and terms. Additionally, this study was conducted at a tertiary-care academic medical center where the same group of clinicians in the psychiatry department were documenting encounters with these patients. This may limit generalizability. Future research could be conducted to include electronic medical records from numerous health systems to account for the variation in terminology use in the medical record across different regions. Another limitation was the
amount of missing data encountered in this study. A total of 297 patient encounters were reviewed, and 83 of them contained no unique descriptive terminology which decreases the sample size. Our initial goal was to review 300 patient encounters, and while we did not reach our goal sample size, we began to identify patterns of specific terminology that were frequently found in the medical chart. We believed that the percentages of unique terms found in our study would not significantly change had we reviewed more patient encounters.

Conclusion

We identified common terms and phrases found in chart notes of patients with OUD. Early detection and diagnosis in this patient population is beneficial to ensure meaningful and quality patient care, therefore knowing these key words can assist healthcare professionals in identifying patients with undiagnosed OUD to prevent future opioid-related adverse events.

Abbreviations

OUD – opioid use disorder

Declarations

Ethics approval and consent to participate: The University of Iowa Institution Review Board approved this study. The reference number is 201906768. The IRB deemed it unnecessary to obtain informed consent from the subjects, and granted the study members access to patient data that was only relevant to our study through the EMR.

Consent for publication: Not applicable.

Availability of data and materials: The datasets used and analyzed during the current study are available from the corresponding author on reasonable request.

Competing interests: The authors declare that they have no competing interests.

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Authors’ contributions BN was involved with project conceptualization, data curation, methodology, project administration, validation, investigation, visualization, formal analysis, and writing. HK was involved with visualization and writing. LP was involved with conceptualization, methodology, validation, writing, supervision, and project administration. All authors read and approved this manuscript.

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References


Figures
Figure 1

Rate of the top 25 most frequently used terms to describe patients with OUD