

Influence of circadian rhythmicity in development and course of Substance Use Disorders, Major Depression, and their comorbidities

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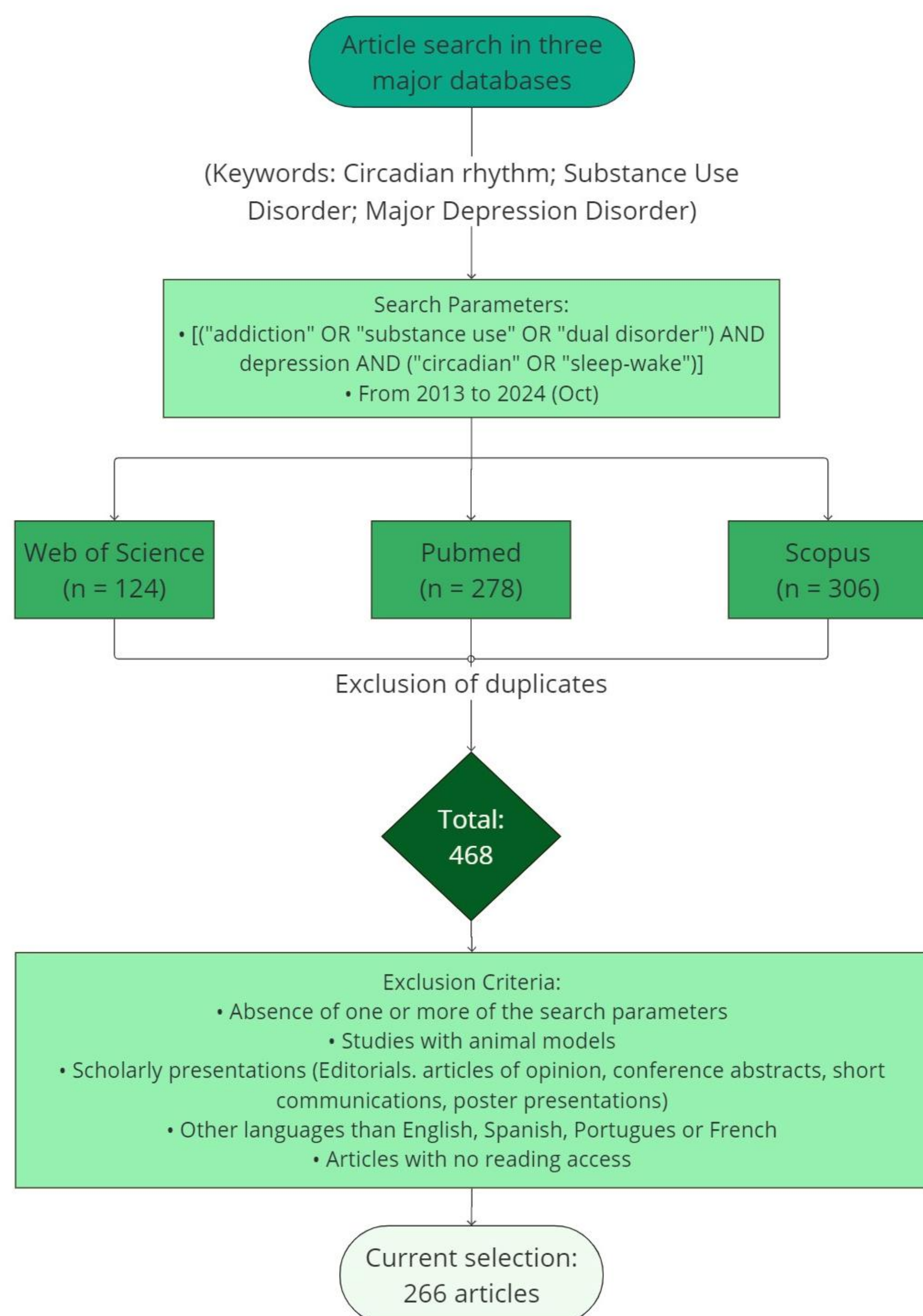
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INTRODUCTION & AIM

Substance Use Disorders (SUD), and Major Depression Disorders (MDD) are both causes of disability around the world, and the prevalence of their comorbidity is very high and complicates the clinical management of patients. The alteration of the circadian rhythmic system has been proposed as a factor related to the onset, severity, and course of both disorders, although the exact influence is not yet well defined and less in dual condition.

The aim of this work is to understand the current state of scientific publications related to dual depression (SUD+MDD) and the circadian rhythm and scope the main gaps regarding the comprehension of these diseases.

METHOD



RESULTS & DISCUSSION

A total of 708 articles were found. After exclusion of the duplicates, a total of 468 articles were left. From those, more than 23% of those (n = 108) did not have anything regarding SUD of any type, licit or illicit. With the application of the inclusion and exclusion criteria, a total of 266 articles were selected. From the current selection, about 48.5% (n = 129) did not make any differentiation between MDD and depression symptoms of any kind, and approximately 40% (n = 106) did not characterize circadian disorders. When we overlap the results, only 35% (n = 93) of the articles present both criteria well defined. However, the lack of criteria in the definition of these disorders do not allow us to completely rule out the remaining 65% prior to a more comprehensive read.

Several authors simplify circadian disorders as sleep problems, ignoring important factors in the circadian rhythm, such as activity, temperature and light exposure. As for depressive disorders, the most recent version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) presents six different depressive disorders (among them, MDD), along with two other categories registered as “Other Specified Depressive Disorder” and “Unspecified Depressive Disorder”. Almost half of the articles found do not use the DSM-5 criteria to present their results.

CONCLUSION

This work highlights the main findings of circadian rhythmicity, including data of the sleep-wake rhythm, with an emphasis on improving our understanding of the multifactorial explanatory model of SUD, MDD, and their comorbidities. It is important to steer future studies aiming at the clarification of the onset and possible treatment outcomes of these disorders. This could lead to more assertive and efficient prevention and treatment programs for the coexistence of both disorders, from a more individualized approach.

FUTURE WORK

The next steps regarding this review will be an extensive analysis of each article to understand the current situation we have regarding dual depression and their relationship with the circadian rhythm. With this well established, non-pharmacological or behavioral treatments can be better explored and optimize the combination of therapeutics in patients.