# INPLASY PROTOCOL

**Corresponding author:**
**Najwa Basis**

najwab0206@gmail.com

**Author Affiliation:**
**The University of Haifa.**

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**Conflicts of interest:** **None declared.**

# Associations between religion and sleep: A systematic review of observational studies in the adult population

Basis, N[1]; Shochat, T[2].

**Review question / Objective:** The aim of this systematic review is to investigate observational studies on the association between religion and sleep in the adult population. To this end, the proposed systematic review will address the following question: What is the role religion plays in shaping an individual's sleep health?

**Condition being studied:** Sleep is a fundamental biological process increasingly recognized as a critical indicator of development and overall health. Generally, insufficient sleep is associated with depressed mood, daytime fatigue, poor daytime functioning and daytime sleepiness, increased risk of cancer, cardiovascular problems, diabetes, and the cause of the higher risk of mortality. Furthermore, changes in sleep architecture and quality have been related to cognitive deterioration, including dementia and Alzheimer's disease. Here we will identify the role of religion in elements of sleep health, to include sleep duration and sleep quality, and associated health outcomes in the adult population.

## INTRODUCTION

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**Rationale:** Throughout history, religion has shaped individual lifestyle choices and guided health-related behaviors, yet few have studied the role of religion in sleep health. For example, it was found that religious attendance was inversely

associated with sleep disturbances in Mexican-American adult population. Additional research found that frequent church attendance was linked to higher quality of sleep. Given the importance of sleep in physical and mental health and development, understanding the role of religion and religiosity in shaping sleep health may inform stakeholders such as religious leaders, clinicians and educators.

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## METHODS

**Search strategy:** Seven databases were searched, including PubMed, Cochrane, CINAHL, PsycINFO, Soc Index, Web of Science and Scopus.

**Participant or population:** Adults in the general population.

**Intervention:** This study is a cross-sectional systematic review without intervention.

**Comparator:** This study is a cross-sectional systematic review comparing religious with non-religious individuals. Level of religiosity may also be included as a continuous variable comparing high to low levels of religiosity.

**Study designs to be included:** Observational cross-sectional and longitudinal cohort studies.

**Eligibility criteria:** Overall healthy adults, men, and women, > 18 years. Religion and religiosity measures based on self-report. Sleep measures: objective and/or subjective measures of sleep patterns to include sleep duration, timing, and quality.

**Information sources:** Seven databases were searched, including PubMed, Cochrane, , PsycINFO, CINAHL' Soc Index, Web of Science, and Scopus before May 2022. Our review is limited to English articles. The search keywords were presented as follows: "religio*" or "divine" or "divinity" or "God" or "faith" or "spiritual" or "prayer" as exposure factors; and "sleep*" or" insomnia" or "nap" or "napping" or "naps" as outcome factors.

**Main outcome(s):** Sleep patterns (quality, quantity, and timing) in the adult population based on subjective and objective measurements.

**Additional outcome(s):** Physical and psychosocial health-related lifestyle and behaviors that may explain the association between religion and sleep.

**Data management:** The two authors (Najwa Basis and Tamar Shochat) extracted and managed the data separately and agreed on any differences.

**Quality assessment / Risk of bias analysis:** To assess the methodological quality and risk bias of included studies we will use the Newcastle-Ottawa Scale (NOS) for cohort studies. The NOS has three broad categories (patient selection, comparability of study groups, and assessment of the outcome) and provides a maximum total score of 9. Two investigators will rate each study based on the relevant quality criteria independently, and any disagreement will be discussed and ultimately resolved by consensus.

**Strategy of data synthesis:** We will provide a systematic synthesis of the findings from the included studies, structured around the level of religiosity, its characteristics and the summary of associations with sleep patterns. Included studies will be

discussed to highlight possible limitations and suggest any possible countermeasures that can be taken for future studies.

**Subgroup analysis:** Males and females will be analyzed separately.

**Sensitivity analysis:** Sensitivity analysis will be conducted based on NOS scores (high and low).

**Language:** English.

**Country(ies) involved:** Israel.

**Keywords:** Sleep quality, Sleep quantity, Adults, Religion, Religiosity.

**Contributions of each author:**
Author 1 - Najwa Basis - The author drafted the manuscript.
Email: najwab0206@gmail.com
Author 2 - Tamar Shochat - The author contributed to the development of the selection criteria, and the risk of bias assessment strategy.
Email: tamarshochat@gmail.com