

There is no aspect of daily life or routine that goes unmentioned or unexplored by the Talmud. Jewish law, or *halacha*, permeates every aspect of daily life. Therefore, it is of no surprise that the Talmud and Jewish traditions speak at length about sleep. What is more fascinating, however, is that much of our modern-day understanding of sleep and its cycles, which modulate states of consciousness, were accurately described by the Talmud and analyzed by Jewish tradition long ago.

The first mention of sleep is in the Book of Genesis when Adam's rib was removed in the creation of Eve. Here, G-d caused "a deep sleep to fall on Adam, and he slept..." (Genesis 2:21). This description of sleep, which was sent by G-d, suggests that sleep includes varying levels of consciousness, such as the level of consciousness (or unconsciousness) accomplished by use of anesthesia [3].

It is now known that a complete sleep cycle is composed of two stages: active and quiet sleep. The active sleep stage is also known as the rapid eye movements (REM) stage of sleep. The quiet sleep, also known as non-REM (NREM), is subdivided into four stages based on the depth of sleep [1]. Stage 1 is the lightest stage of sleep, while stages 2-4 get progressively deeper [3]. Although the first documentation of the differing stages of sleep was in the 1950s, the Talmud knew long before that sleep contained various stages, each with its own level of consciousness. For example, when Rabbi Yosi addressed the time at which one is

allowed to eat on Passover, he seemingly described stage 1 of the sleep cycle:

"If they fell into a light sleep, they might eat; if they fell fast asleep, they must not eat. What is meant by "a light sleep"? - said R' Ashi. A sleep which is not sleep, a wakefulness which is not wakefulness, *e.g.*, if he answers when called, cannot make a reasoned statement, yet recollect when reminded (*Talmud Pesachim* 120b) [3].

Additionally, in the Bible, there are different Hebrew words that describe sleep in a way that corresponds to the different stages of sleep as we know them today. "*Tenumah*" often connotes drowsiness, corresponding to stage 1 of sleep, such as dosing off or engaging in a light sleep. "*Yashen*" and "*Shenah*" correspond to stage 2 sleep since they connote a switch from conscious thought to one that becomes involuntary and unconscious. "*Radum*" connotes a deep or heavy sleep, such as in stage 3 and 4 sleep, as well as divinely induced sleep [3]. For example, a word with the same root is used when G-d casts an involuntary sleep upon Adam to remove his rib (Genesis 2:21). Lastly, "*tardeimah*" indicates a stage of sleep where thoughts flow into revelation or dreams, which perfectly describes today's understanding of REM sleep.

The normal sleep cycle at night and sleep-wake cycles during the day are both controlled by chemical substances in various nuclei in the brain. Sleep is understood

today as a necessary interruption in our normal functioning and vital to the body's health. Consistent with modern-day medicine is the rabbinic understanding of the value of sleep. In Genesis 1:31, the verse states, "And G-d saw everything that He had made and, behold, it was very good". The *midrash* interpreted this verse as a reference to sleep, since when a person sleeps for some time, he arises rejuvenated and can study *Torah* rigorously (*Midrash Rabbah* 9:8) [1].

One modern theory of sleep is for physiological restoration and renewing the ability to remain awake. This is described in *Pirkei D'Rabbi Eliezer*, when stated that G-d "created the sleep of life, so that man lies down and sleeps while He sustains him and heals and [gives] him life and repose". Another modern scientific theory regarding the purpose of sleep is that of a "homeostatic process". The Talmud states that a wise individual finds a balance between wakefulness and sleep, saying that "... a man sometimes sleeps a little and arises and toils much in the study of Torah" (Genesis R. 9:6). Similarly to the homeostatic theory, this idea suggests that the inclination for sleep builds up during the waking hours and is relieved by sleep. In other words, the more one sleeps, the more alert he will find himself the following day [3].

Another theory for the purpose of sleep is healing. There are many quotes from the rabbis that emphasize the healing nature of sleep, such as "sleep is like food and medicine to the sick" (*Pirkei D' Rabbi Eliezer*) and "Sleep is the best medicine. It strengthens the natural forces and

diminishes the injurious fluids" (*Sefer Shaashu'im* 9). Lastly, the Talmud lists sleep as one of the six actions that will heal a sick individual (*Talmud Berachot* 57b). The rabbis understand that sleep is necessary for a person's sustenance and health.

Maimonides, a great Torah scholar and medical doctor, emphasized that if a person tries to sleep to rest his mind and body to prevent illness, his sleep is considered a service to G-d. To such an extent, according to the *Mishnah Berurah*, it is permitted to extinguish a light on Shabbat to help an ill person sleep. In Psalms [127:2], King David also considers sleep a blessing. The Book of Lamentations [3:23], describes that when a man sleeps, his soul returns to his body refreshed and healthy [1]. Thus, whether throughout Tanach, Gemara, or other various rabbinic sources, there was an understanding of the value of sleep.

Research today shows that sleep deprivation can cause "impairment in concentration, memory, social, business, and personal relationships and overall diminishment in quality of life". The rabbis not only emphasized the importance of sleep as described previously, but they also considered abstinence from sleep to be a sin. For example, in Tractate *Nedarim* [15a] it stated, "If someone swears not to sleep for three days, he is flogged..." This statement, in addition to implying the necessity of sleep, also implies that this individual is lying, since it is impossible to stay awake for three days. This is also in line with the scientific understanding that it is impossible to remain awake for too long [4].

Nonetheless, just like it is known today that sleeping too much is a cause for alarm, the rabbis in *Pirkei Avot* stressed a similar practice of moderation in sleep habits [1]. Many rabbinic sources warn against sleeping in excess, expressing that it is beneficial in small amounts but harmful in excess [2]. The Talmud Moed Katan [11a] suggested that one should take a walk after eating and not sleep immediately after a meal, consistent with today's recommendations. It is also known today that anxiety can negatively affect one's sleep. As also noted in Genesis [31:40] and *Megilat Esther* [6:1], anxiety over bad thoughts during the day or misfortune interferes with sleep [1].

Sleep disorders, such as insomnia, are mentioned in the Bible and discussed by the rabbis. In Ecclesiastes [5:11], it is stated, "A worker's sleep is sweet, whether he has much or little to eat; but the rich man's abundance doesn't let him sleep". An interpretation of this verse is sleep being compared to a blessing G-d gives the worker to "soften his difficult life". The rabbis here are suggesting physical exercise as a cure for insomnia, which is strongly supported by today's research [4]. The laboring man is physically active and will, therefore, sleep better as opposed to the wealthy man who is constantly counting his money.

In conclusion, whether it is the stages of sleep, the purpose and importance of sleep, the serious consequences of sleep deprivation, or knowledge of sleep disorders, the rabbis presciently understood basic concepts of sleep.

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