

# [Earlier in the laboratory conditions not mimicking "real](https://assignbuster.com/earlier-in-the-laboratory-conditions-not-mimicking-real/)

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Earlier studies have been shown an alteration in activity times, changeshappen in sleep period and feeding behavior together influence circadiancontrol of the endocrine system (16, 17).

In our study, secretion pattern cortisol is similar to the circadianryhtem of cortisol seen in previous reports (3, 12) with peak levels occurringat early morning (06. 00 p. m.) and sleep disruption had no significant effect onthis pattern. The results of Scheer et. al (2009) study showed, the cortisol secretion pattern is more influenced by the internaldaily rhythms rather than behavior (fasting-feeding and sleep/wake) cycles (18).

The study Fumihisa et al. (2013) showed that nightshift (from 0: 00 to 8: 00) had not effect on circadian rhythm in male nurses. Inaddition,  the concentration ofcortisol  in night shift did not differfrom that of the control group (19).  Alsoin our study, the average concentration of cortisolthroughout 24 h  was not significantlyhigher in the disrupted sleep group than the control group. In agreement withour study, a previous study,  did not show a significant circadian rhythm foracylated ghrelin in  the normal subjectsthat take 3 meals in a day (14).

It seemsthat the nutritional state of the person is effective on ghrelin secretionpulses. Fasting augmented all parameters of ghrelin pulsatile secretion (20). In contrast to our study, some previous studies havereported circadian rhythm for ghrelin (13). This can be due tomethodological differences that prevented comparison  this study with other works.

1- the number of blood sampling: In ourstudy, The number of blood sampling was 6 times during 24 hours. Whereas in otherworks were between 24-72  during 24 hours(14, 13, 21). 2- Age and sex.

Most previous studiesthat reported circadian rhythm for ghrelin have been done in female subjects anda very large age range (13, 21). 3-sleep and sleepdeprivation condition. In most previous studies, effects of sleep on a diurnalor nocturnal pattern of ghrelin secretion investigated in the laboratoryconditions not mimicking “ real life. In conclusion, Sleep deprivation has no significanteffect on the diurnal pattern of cortisol. In addition, ghrelin does not show acircadian rhythm. Limitations: The small number of subjects and lownumber sampling over 24 h are limitations.