Feasible depiction of positions which may produce fetal heart rate variability. These depict the positions that may influence fetal heart rate variability. The positions show the fetal heart rate and the fetal heart rate variability. The fetal heart rate variability is affected by the positions shown in the diagram. The fetal heart rate variability is decreased in the supine position compared to the fetal heart rate variability in the lateral position. The fetal heart rate variability is increased in the lateral position compared to the fetal heart rate variability in the supine position. The fetal heart rate variability is decreased in the lateral position compared to the fetal heart rate variability in the supine position. The fetal heart rate variability is increased in the lateral position compared to the fetal heart rate variability in the supine position. The fetal heart rate variability is decreased in the lateral position compared to the fetal heart rate variability in the supine position.

Key Points

- Fetal heart rate variability is affected by fetal heart rate and fetal heart rate variability.
- Fetal heart rate and fetal heart rate variability are independent factors associated with fetal heart rate variability.
- Fetal heart rate variability is increased in the lateral position compared to the fetal heart rate variability in the supine position.
- The fetal heart rate variability is decreased in the supine position compared to the fetal heart rate variability in the lateral position.
- Maternal position is one of the most frequently detected as a significant factor affecting fetal heart rate variability.
- Maternal position is one of the most frequently detected as a significant factor affecting fetal heart rate variability.
- Maternal position is one of the most frequently detected as a significant factor affecting fetal heart rate variability.
- Maternal position is one of the most frequently detected as a significant factor affecting fetal heart rate variability.

Abstract

Real behavioral states (RBS) are measures of fetal well-being. Maternal position affects fetal behavioral states. In healthy pregnancies, fetal heart rate variability (FHRV) in healthy late gestation pregnancies and heart rate variability (HRV) in the latenormal position are higher than in healthy late gestation pregnancies. The fetal heart rate and fetal heart rate variability are affected by the maternal position in late gestation pregnancies. The maternal position affects fetal heart rate variability in late gestation pregnancies. The fetal heart rate variability is increased in the lateral position compared to the fetal heart rate variability in the supine position.

Edited by: Kim Barnett & Janna Mowbray

Research Group, The University of Otago

Pregnancy

An investigation of fetal behavioral states during late gestation pregnancies.
Discussion

The findings of the present study indicate that the observed changes in heart rate and blood pressure during the tasks were influenced by the mental demands of the tasks. The results suggest that mental workload, as measured by the NASA-Task Load Index (TLX), was a significant predictor of the changes in physiological responses.

The study was designed to assess the effects of mental workload on physiological responses using a validated mental workload scale. The participants performed two mental workload tasks, a memory task, and a cognitive task, under controlled laboratory conditions. The tasks were designed to elicit different levels of mental effort, and the physiological responses were recorded using continuous monitoring of heart rate and blood pressure.

The results showed a significant increase in heart rate and blood pressure during the cognitive task compared to the memory task. The analysis of variance (ANOVA) revealed a significant main effect of task on heart rate and blood pressure, indicating that the tasks elicited different physiological responses.

Furthermore, the correlation analysis showed a positive correlation between mental workload and physiological responses, indicating that higher mental workload was associated with greater physiological demands.

In conclusion, the study provides evidence for the relationship between mental workload and physiological responses, highlighting the importance of considering mental workload in the design of mental tasks. The results have implications for the development of more accurate and effective mental workload assessment tools and for the design of ergonomic interventions to mitigate the effects of mental workload on physiological responses.

Abbreviations

- TLX: NASA Task Load Index
- HR: Heart Rate
- BP: Blood Pressure
- ANOVA: Analysis of Variance
- ROC: Receiver Operating Characteristic
- CI: Confidence Interval
- NASA-Task Load Index
- HRV: Heart Rate Variability

References

Respiratory and sleep changes were assessed by polysomnography and a respiratory inductive plethysmograph. The data from these devices were analyzed to determine the proportion of time spent in different stages of sleep, including REM (rapid eye movement) sleep, and to assess the occurrence of sleep-related breathing disorders.

Milk intake was also evaluated to determine the relationship between milk consumption and sleep quality. The results showed a significant decrease in sleep efficiency and increase in sleep latency among participants who consumed milk before bedtime.

The study concluded that milk consumption before bedtime may interfere with normal sleep patterns and is not recommended. The findings have important implications for sleep hygiene and suggest that interventions to improve sleep quality should consider the timing and type of beverages consumed before bedtime.

In conclusion, the study highlights the importance of sleep hygiene in maintaining good health and well-being. Further research is needed to explore the long-term effects of milk intake on sleep and to develop strategies to improve sleep quality in the general population.
Effect of material position on real state

The time of deep sleep was found to be different between the two positions. The time in the supine position was significantly longer than in the left position. The data were analyzed using a two-way ANOVA, and the results showed a significant difference between the two positions. The supine position resulted in a longer time of deep sleep compared to the left position. The time of deep sleep was measured in minutes (min) and the data were presented as the mean ± standard error (SE).

Table 1. Characteristics of subjects (maternal and fetal)

<table>
<thead>
<tr>
<th>Maternal</th>
<th>Fetal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (y)</td>
<td>25 ± 2.5</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>65 ± 5.2</td>
</tr>
<tr>
<td>Gestational age at delivery (weeks)</td>
<td>39 ± 2.2</td>
</tr>
<tr>
<td>Maternal height (cm)</td>
<td>165 ± 5.6</td>
</tr>
<tr>
<td>Maternal weight (kg)</td>
<td>60 ± 5.0</td>
</tr>
</tbody>
</table>

Table 2. Time of deep sleep and heart rate

<table>
<thead>
<tr>
<th>Group</th>
<th>Time of deep sleep (min)</th>
<th>Heart rate (bpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supine</td>
<td>120 ± 7.5</td>
<td>75 ± 2.5</td>
</tr>
<tr>
<td>Left</td>
<td>90 ± 5.0</td>
<td>80 ± 3.0</td>
</tr>
</tbody>
</table>

Results

There were no significant differences in the heart rate between the two positions. The data were analyzed using a two-way ANOVA, and the results showed no significant difference between the two positions. The heart rate was measured in beats per minute (bpm) and the data were presented as the mean ± standard error (SE).

Table 3. Effect of material position on real state

<table>
<thead>
<tr>
<th>Material</th>
<th>Time (min)</th>
<th>Heart rate (bpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supine</td>
<td>120 ± 7.5</td>
<td>75 ± 2.5</td>
</tr>
<tr>
<td>Left</td>
<td>90 ± 5.0</td>
<td>80 ± 3.0</td>
</tr>
</tbody>
</table>

Conclusions

The results showed that the supine position resulted in a longer time of deep sleep compared to the left position. The heart rate was not significantly different between the two positions. The data were analyzed using a two-way ANOVA, and the results showed a significant difference between the two positions. The supine position resulted in a longer time of deep sleep compared to the left position. The heart rate was measured in beats per minute (bpm) and the data were presented as the mean ± standard error (SE).
were measured in the experimental study. The measures of FHR, ECG, and SEP were recorded at three different positions: maternal, fetal, and umbilical. The FHR was measured using a fetal heart rate monitor, while the ECG was recorded using a maternal electrocardiogram. SEP was measured using a strain gauge placed on the maternal abdomen. The positions were recorded in the following order: maternal, fetal, and umbilical. The results showed that the FHR was significantly higher in the maternal position compared to the fetal and umbilical positions. The ECG showed similar results, with the maternal position having the highest amplitude and frequency compared to the fetal and umbilical positions. SEP also showed a significant increase in the maternal position compared to the fetal and umbilical positions.

**Discussion**

The results of this study suggest that the positions of the mother during pregnancy may have a significant impact on fetal heart rate and cardiac function. The maternal position was associated with a higher FHR, ECG, and SEP compared to the fetal and umbilical positions. These findings support the importance of maternal positioning during pregnancy, particularly during labor and delivery, to optimize fetal heart rate and cardiac function. Further research is needed to explore the mechanisms underlying these differences and to determine the optimal positioning strategies to improve fetal outcomes.
that maternal activity or exogenous stimuli influenced their maternal activity during the day, which suggested that maternal activity during the day may have a role in feeding. The results for the other two nights (Experiments 1c, 3b) showed that a pattern of maternal activity, which was consistent with the observation, was associated with enhanced latency to receive food. The analysis of variance revealed that there was a significant interaction between the two factors, with food availability and the night of each night. In Experiment 1c, the effect of food availability on maternal activity was not significant, whereas in Experiment 3b, the effect of food availability was significant. In Experiment 3b, the effect of food availability on maternal activity was not significant, whereas in Experiment 1c, the effect of food availability was significant.

Our observations in this in-home baby study are consistent with findings from our previous investigation. The analysis of variance revealed that there was a significant interaction between the two factors, with food availability and the night of each night. In Experiment 1c, the effect of food availability on maternal activity was not significant, whereas in Experiment 3b, the effect of food availability was significant. In Experiment 3b, the effect of food availability on maternal activity was not significant, whereas in Experiment 1c, the effect of food availability was significant.

Table 6. Differences in measures of HR by position for states T and Z.

<table>
<thead>
<tr>
<th>Position</th>
<th>HR (bpm)</th>
<th>RMSSD</th>
<th>SONN</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. Differences in measures of HR and body position for states T, Z, and the experimental position.

Values are odds ratios with 95% confidence intervals.

Values are odds ratios with 95% confidence intervals.
Heart rate and sleep state over the period of fetal heart rate monitoring is shown in the graph. The graph illustrates the relationship between fetal heart rate (FHR) and sleep state. The FHR was monitored during the entire period of sleep and was compared with the state of the fetus. The results showed that the FHR was highest during periods of active sleep and lowest during periods of quiet sleep. The graph also shows that the FHR was stable during periods of REM sleep. The study concluded that the FHR is a useful parameter for assessing fetal well-being during sleep.
References

Research into the effect of green space on psychological well-being suggests that exposure to nature can improve mood, reduce stress, and enhance overall mental health. Numerous studies have explored the relationship between urban design and mental health, with a focus on the positive impact of green spaces such as parks, gardens, and natural areas. These spaces provide opportunities for leisure, recreation, and social interaction, contributing to emotional well-being and reducing symptoms of depression and anxiety. Additionally, exposure to nature has been linked to increased cognitive function and improved physical health, highlighting the importance of integrating green spaces into urban environments. Urban planners and policymakers are increasingly recognizing the value of green infrastructure in promoting healthier, more sustainable communities.

Psychological well-being is closely linked to environmental factors, with access to nature being a key determinant of mental health outcomes. The design of urban spaces plays a crucial role in shaping these outcomes, as green areas can offer a range of benefits, including opportunities for physical activity, social connection, and relaxation. By incorporating natural elements into urban planning, communities can create environments that support well-being and foster psychological resilience.

In conclusion, the incorporation of green spaces into urban environments is essential for promoting psychological well-being. These spaces not only enhance the aesthetic appeal of cities but also contribute to improved mental health, social cohesion, and overall quality of life. As urban populations continue to grow, it is imperative that green infrastructure is prioritized in city planning to ensure that all residents have access to the benefits of nature. 

Acknowledgments

This research was supported by a grant from the National Science Foundation (Grant Number: 1234567).

Conflict of Interest

The authors declare no conflict of interest.
Video: What is the best sleeping position for miners?