

LLM Experimentation Report

Introduction

Objective

To get a natural language explanation regarding mental health.

LLM Details

- **Model Name:** Gemma 2B
 - **Version:** Base
 - **Provider:** Hugging Face
 - **Use Case:** (e.g., Mental Health Severity Explanation)
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Experimental Setup

Hardware & Environment: Google Colab

Methodology

Prompt: You are a mental health expert. Explain what it means to have {condition} in simple and empathetic terms. Provide 3 actionable coping mechanisms and 2 potential next steps for someone with {condition}. Write the response in a professional yet compassionate tone.

Observations

Tabular Summary

Experiment	LLM Response

Severe Depression

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****Severe Depression**** is a medical condition that significantly affects a person's mood, thoughts, and behavior. It's characterized by persistent feelings of sadness, hopelessness, and loss of interest in activities that were once enjoyable.

****Symptoms of Severe Depression:****

- Persistent feelings of sadness and hopelessness
- Loss of interest in activities that were once enjoyable
- Changes in appetite and sleep patterns
- Difficulty concentrating and making decisions
- Feeling worthless and guilty
- Thoughts of self-harm or suicide

****Actionable Coping Mechanisms:****

1. ****Self-Care:**** Prioritize self-care activities like getting enough sleep, eating healthy foods, and engaging in regular physical activity.
2. ****Connect with Others:**** Talk to friends, family, or a therapist about how you're feeling. Support groups can also provide a sense of community.
3. ****Professional Help:**** Seek professional help from a therapist or psychiatrist. Therapy can help you understand the underlying causes of your depression and develop coping mechanisms.

****Potential Next Steps:****

1. ****Seek Emergency Help:**** If you're experiencing thoughts of self-harm or suicide, call 911 immediately.
2. ****Join a Support Group:**** Support groups can provide a safe and supportive environment to connect with others facing similar challenges.

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Moderate Depression

“Moderate depression is characterised by a mix of symptoms that affect how you feel, think, and behave. It's not quite as severe as major depression, but it can still significantly impact your life.

****Symptoms of moderate depression may include:****

- Feeling sad or down most of the time
- Losing interest in activities you used to enjoy
- Having trouble sleeping or sleeping too much

- Feeling worthless or guilty
- Having trouble concentrating or making decisions
- Feeling worthless or guilty

****Here are 3 actionable coping mechanisms that can help manage moderate depression:****

1. ****Exercise regularly:**** Physical activity releases endorphins, which have mood-boosting effects. Aim for at least 30 minutes of moderate-intensity exercise most days of the week.
2. ****Eat a healthy diet:**** Eating a balanced diet provides your body with the nutrients it needs to function properly.
3. ****Get enough sleep:**** When you're sleep-deprived, you're more likely to feel depressed. Aim for 7-8 hours of sleep each night.

****Here are 2 potential next steps for someone with moderate depression:****

1. ****Seek professional help:**** A therapist can help you identify the root of your depression and develop coping mechanisms.
2. ****Join a support group:**** Support groups can provide you with a sense of community and support from others who understand what you're going through. why is the prompt getting repeated"

Error Cases

The Gemma model sometimes prints the prompt along with the answer.

5. FUTURE IMPROVEMENTS

- Improve prompt engineering
 - Fine-tune the model
 - Explore alternative LLMs
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