

Response to reviewer #1:

Question 1: 2.2 Search strategies may be revised to clarify the differences between stomach tumor* stomach carcinoma* and gastric carcinoma Cancer* since it contains two words in one term.

Response: This was our negligence. We have modified the search term to “gastric carcinoma Cancer*” and deleted the term “carcinoma”.

Question 2: Figure 2 may be supplemented with the graph where the ratio of the number of publication on GC and depression to the number of total publication in the country.

Response: First of all, we would like to thank the reviewers for their valuable comments. Indeed, it is significant to place the literature volume related to depression and gastric cancer in the total number of publications in this country to see the proportion of different countries from which the ratio of this research field can be seen. However, the research on depression and gastric cancer is a new research field, and the number of studies is tiny compared to the total number of publications in a country over a long period. For example, in China, from 2000 to 2022, the number of pieces of literature that could be retrieved in the WOS database was about 7.2 million, while the number of studies related to depression and gastric cancer was only 64, and the ratio was 0.821 per 10,000. We have added relevant content to the results. Therefore, the comparison effect between various items could have been better. We can incorporate this perspective in subsequent studies as the volume of future publications increases.

Response to reviewer #2:

Question 1: Elaboration on Depression: It is imperative to delve deeper into the intricacies of depression. A more detailed exploration of this psychological condition, including its various manifestations and potential contributing factors, would enhance the comprehensiveness of the study.

Response: As the reviewer stated, depression is a multifactorial triggered psychological illness. In recent years, many researchers have paid attention to the occurrence of depression caused by cancer. There are many discussions on the causes and mechanisms of depression, including oxidative stress, epigenetics, intestinal flora, molecular biology, and neuroendocrine, which we have expanded and enriched in the first paragraph of the introduction.

Question 2: Gradations of Depression: Given that depression spans a spectrum, ranging from mild to severe, it would be advantageous for the authors to elucidate the varying degrees of depression and their potential correlation with the incidence of gastric cancer. Providing nuanced insights into the severity of depression could enrich the study's findings.

Response: In the research related to gastric cancer and depression, there are relatively more studies on the relationship between gastric cancer and depression. Simultaneously, there are relatively few new studies on the relationship between depression and gastric cancer. In the study of gastric cancer leading to depression, some researchers have mentioned that gastric cancer can lead to depression of different severity levels. We have added relevant expressions to the discussion section 4.3. There is currently a lack of relevant research on the relationship between depression of varying severity levels and the occurrence and development of gastric cancer. However, we believe this will be a valuable research issue for the future in this field. We have

added the relevant statement that depression of different severity leads to gastric cancer proposed by the reviewers to 4.4 in the discussion section.

Question 3: Causality of Depression and Gastric Cancer: The causal relationship between depression and gastric cancer, whether depression predisposes individuals to gastric cancer or emerges as a consequence of the disease, merits deeper investigation. A thorough exploration of this intricate connection could yield valuable insights into the mechanisms at play.

Response: As the results of the bibliometric analysis in this paper show, the correlation between depression and gastric cancer is a research field that has received attention recently. Among them, the research on gastric cancer leading to depression accounts for a large proportion, and the related mechanism of depression leading to gastric cancer is a more emerging research problem. With the continuous development of medicine, it is believed that more studies will reveal the relationship between them and their mechanisms in the future to guide clinical work better. We have included the relevant research perspectives proposed by the reviewers in 4.4 of the discussion section.

Question 4: Linguistic Refinements: Additionally, some minor linguistic refinements are warranted to enhance the overall readability and clarity of the manuscript. Attention to grammatical and stylistic details will contribute to the professionalism of the study.

Response: We first discussed and revised the content, terminology usage, abbreviations, and grammar of the article. After the revisions, we sent the manuscript to a professional polishing agency for further inspection and polishing. At present, the language expression of the article has been recognized by professional polishing institutions, and we have attached the polishing certificate in the attachment.