Peer Review File

First of all, negative emotion is a broad term, which does not limit to depressive and anxiety symptoms only. So the authors need to revise the title and elsewhere of this paper. I do not think it is necessary to investigate the factors associated with depressive and anxiety symptoms, since this is not the focus of this study, the prognostic roles of the two negative emotion symptoms. The findings on the relationship between AE and two negative emotion symptoms might be spurious because the authors did not exclude the overlapped symptoms between AE and depression and anxiety.

Reply: Thank you for your suggestions. Depression and anxiety are the most common and important symptoms of negative emotions, thus we here select depression and anxiety as representative negative emotions, which similar to previous studies. Secondly, analyzing the factors associated with depressive and anxiety symptoms is vital in our study as we think, because it is important to prevent the occurrences of negative emotions after verifying the association between negative emotions and prognosis of patients. We agree that there are some overlapped symptoms between AE and depression and anxiety and they may affect the results in our study. However, there is no better method to assess depression and anxiety than SAS and SDS.

Second, the abstract needs some revisions. The background did not indicate the knowledge gap on the prognostic roles of negative emotion and what the clinical significance of this research focus is. The methods need to describe the inclusion of subjects, baseline clinical factors assessed, measurements of depressive and anxiety symptoms, follow up procedures, and measurements of AE and prognosis outcomes. The results need to report the clinical characteristics of the study sample, rates of AE, PFS, and OS in the sample, and quantify the prognostic roles of negative emotion by using OR and P values. The conclusion should have more detailed comments for the clinical implications of the findings.

Reply: Thank you for your suggestions. We have revised the abstract according to your suggestions (Page 2, Line 3-Page 3, Line 25).

Third, in the introduction, the authors need to have an overview of the incidence rates of depression and anxiety in patients with cancer, as well as their prognostic roles and association with AE, review what has been known and have comments on their limitations and knowledge gaps. In terms of GC, please explain why these patients are deserved to be studied and why depression and anxiety are important for their prognosis outcomes.

Reply: Thank you for your suggestions. We have revised the introduction according to your suggestions (Page 4, Line 8-28).

Fourth, in the methodology of the main text, please describe the accurate clinical research design, i.e., prospective cohort study, sample size estimation, the psychometric properties of QLQ scales, SAS, and SDS, the validity of the AE assessment, and details of follow up. In

statistics, the comparisons between subjects with and without the two negative emotions are not necessary since the focus is the prognostic roles. Please compare the levels of depression and anxiety between those with and without progression and death. Please describe the details of the multiple Cox regression analysis in particular the adjustment of the confounding effects of clinical factors. Please ensure P<0.05 is two-sided.

Reply: Thank you for your suggestions. We have revised the methodology according to your suggestions (Page 5, Line 6-Page 6, Line 29).

Reviewer B

The paper titled "Effect of negative emotions on patients with advanced gastric cancer receiving systemic chemotherapy: a prospective study" is interesting. Negative emotions have a significant adverse effect on the prognosis of GC patients. The main risk factor of negative emotions is AEs during treatment. It is necessary to closely monitor the treatment process and improve the psychological status of patients. However, there are several minor issues that if addressed would significantly improve the manuscript.

1) In the introduction of the manuscript, it is necessary to clearly indicate the longitudinal changes in negative emotions in advanced gastric cancer receiving systemic chemotherapy.

Reply: Thank you for your suggestions. We have revised the introduction according to your suggestions (Page 4, Line 8-28).

2) The abstract is not adequate and needs further revisions. The research background does not indicate the clinical needs of this research focus. The study results need to show the characteristics of the two groups of patients.

Reply: Thank you for your suggestions. We have revised the abstract according to your suggestions (Page 2, Line 3-Page 3, Line 25).

3) What are the direct and indirect effects of negative emotions on clinical manifestation? It is recommended to add relevant contents.

Reply: Thank you for your suggestions. It is hard to distinguish between direct and indirect impacts of negative emotions in our study and it will be a focus of our study in the future.

4) The introduction part of this paper is not comprehensive enough, and the similar papers have not been cited, such as "Study on the correlation between postoperative mental flexibility, negative emotions, and quality of life in patients with thyroid cancer, Gland Surg, PMID:34527559". It is recommended to quote this article.

Reply: Thank you for your suggestions. We have added this paper into our study (Page 4, Line 14-15).

5) Whether the design of questionnaire content is authoritative? Is there a similar questionnaire?

Reply: Thank you for your suggestions. EORTC QLQ-C30 and QLQ-STO22 are the most commonly used questionnaires to assess the quality of life among GC patients. To date, there is no better questionnaire as we know.

6) What are the effects of psychological intervention on negative emotions in cancer chemotherapy patients? What is the current research progress? It is recommended to add relevant content.

Reply: Thank you for your suggestions. Only a few studies have improved a series of nursing measures to improve the psychological status of GC patients, so as to improve the prognosis of patients as we mentioned in Page 9, Line 18-20. More efforts still are needed.

Reviewer C

1. You've mentioned "studies", while only one reference was cited in this sentence. Please check.

than healthy people (20). Many studies have reported that the incidence of postoperative anxiety and depression in GC patients is more than 30%, and the occurrence of anxiety and depression will lead to the shortening of PFS and OS (21). Among patients with

Reply: Thank you and we have revised the main text.

2. What do they stand for? SD? Please also define those data inside Table 1.

SAS score at admission	50.4±11.9
Worst SAS score during treatment	53.5±12.4
SDS score at admission	48.7±9.4
Worst SDS score during treatment	51.7±11.8

Reply: Thank you and we have added the definition in table 1.

3. Please define those data in Table 2.

Female	22 (26.5%)	27 (28.4%)		
Age (year)	61.2±6.1	59.2±5.1	0.017	
BMI	22.2±4.5	23.7±3.8	0.015	

Reply: Thank you and we have added the definition in table 2.

4. The timeframe in figure 1 is different from the main text. Please check and revise.

Assessed for eligibility between May 2017 and March 2022 (n=266)

8 **Methods:** Advanced GC patients admitted to our hospital between January 2017 and
9 March 2019 were prospectively enrolled. Demographic and clinical data were collected,
10 as were any adverse events (AEs) related to systemic chemotherapy. Self-rating anxiety

Reply: Thank you for your comments and we have realized that we send the wrong figure 1 to you. We have attached the right one.