

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	The role of empathy in the outcomes of colorectal cancer: protocol for a population-based study in two areas in France (EMPACOL project)
<b>AUTHORS</b>	Mulliri, Andrea; Lelorain, Sophie; Bouvier, Véronique; Bara, Simona; Gardy, Josephine; Grynberg, Delphine; MORELLO, Rémy; Alves, Arnaud; Dejardin, Olivier

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Hajjar, Roy University of Montreal, Surgery
<b>REVIEW RETURNED</b>	21-Aug-2022

<b>GENERAL COMMENTS</b>	<p>This is a highly relevant manuscript and protocol on the relation between patient-healthcare personnel empathy and outcomes in patients with colorectal cancer.</p> <p>The protocol is comprehensive and includes many groups of patients (surgery with and without neoadjuvant and/or adjuvant chemotherapy) which makes the potential conclusions more generalizable.</p> <p>The questionnaires and follow-up are clear and very well explained. The number of questionnaires is reasonable in this population where medical appointments and treatment could be already very demanding. The statistical analysis is sound and well explained.</p> <p>If I may suggest to add additional scales to assess empathy, as the CARE questionnaire may have some limitations, as explained by the authors. If no other scales (that are not too long to complete) are available, then the CARE form is sufficient.</p> <p>Congratulations on this project, as we definitely need more research on empathy in patients' care, especially those with CRC, who have to face challenging surgeries and chemoradiotherapy treatments, and sometimes morbid complications.</p>
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<b>REVIEWER</b>	Fukuda, Shuichi Kindai University Nara Hospital, Department of Gastroenterological Surgery
<b>REVIEW RETURNED</b>	18-Sep-2022

<b>GENERAL COMMENTS</b>	This manuscript is interesting.
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Roy Hajjar, University of Montreal

Comments to the Author:

This is a highly relevant manuscript and protocol on the relation between patient-healthcare personnel empathy and outcomes in patients with colorectal cancer.

The protocol is comprehensive and includes many groups of patients (surgery with and without neoadjuvant and/or adjuvant chemotherapy) which makes the potential conclusions more generalizable.

The questionnaires and follow-up are clear and very well explained. The number of questionnaires is reasonable in this population where medical appointments and treatment could be already very demanding. The statistical analysis is sound and well explained.

If I may suggest to add additional scales to assess empathy, as the CARE questionnaire may have some limitations, as explained by the authors. If no other scales (that are not too long to complete) are available, then the CARE form is sufficient.

Congratulations on this project, as we definitely need more research on empathy in patients' care, especially those with CRC, who have to face challenging surgeries and chemoradiotherapy treatments, and sometimes morbid complications.

**Rep:**

*Dear reviewer, thank you for your feedback.*

*We have chosen to use only the Empathy-Consultation and Relational Empathy (CARE) questionnaire. Patients' perception of medical empathy is assessed using the 10-item CARE scale (Mercer et al., 2005; Wirtz et al., 2011). The French version has excellent psychometric properties with a Cronbach's  $\alpha$  coefficient equal to 0.96 (Gehenne et al., 2020). This scale provides an overall score and three subscores: establishing rapport, emotional and cognitive empathy complications [REF 1 to 4].*

1. Nazione S, Nazione A, Griner T. How do perceptions of verbal statements and nonverbal actions as empathetic differ by medical appointment context? Patient Education and Counseling. 2020;103(2):410-413. doi:10.1016/j.pec.2019.08.016
2. Sanders JJ, Dubey M, Hall JA, Catzen HZ, Blanch-Hartigan D, Schwartz R. What is empathy? Oncology patient perspectives on empathic clinician behaviors. Cancer. 2021;127(22):4258-4265. doi:10.1002/cncr.33834
3. van Vliet LM, Back AL. The different faces of empathy in cancer care: From a desired virtue to an evidence-based communication process. Cancer. 2021;127(22):4137-4139. doi:10.1002/cncr.33833
4. Gilligan T, Coyle N, Frankel RM, et al. Patient-Clinician Communication: American Society of Clinical Oncology Consensus Guideline. J Clin Oncol. 2017;35(31):3618-3632. doi:10.1200/JCO.2017.75.2311

## VERSION 2 – REVIEW

<b>REVIEWER</b>	Hajjar, Roy University of Montreal, Surgery
<b>REVIEW RETURNED</b>	06-Nov-2022
<b>GENERAL COMMENTS</b>	The manuscript was improved and is suitable for publication.