

Checklist for Reporting Results of Internet E-Surveys (CHERRIES)

<i>Checklist Item</i>	<i>Explanation</i>
Describe survey design	<p>Describe target population, sample frame. Is the sample a convenience sample? (In “open” surveys this is most likely.)</p> <p><u>Target population</u>: “<i>To accurately capture decision making guiding ECT delivery during the first wave of the pandemic, we collected responses from direct ECT providers (i.e., psychiatrists, anesthesiologists, nurses), hospital leadership members (i.e., department Chiefs/Chairs, directors of mental health), and hospital program managers.</i>”</p> <p><u>Sampling frame</u>: “<i>We employed expert sampling and defined our sampling frame considering the academic and professional background of individuals, their job title and employment status at the providing health care centre in mid-March 2020 as the criteria.</i>”</p>
IRB approval	<p>Mention whether the study has been approved by an IRB.</p> <p>No IRB approval was sought as the project was standard professional/reflective practice and relied on the use of anonymous information (direct identifiers were never collected).</p>
Informed consent	<p>Describe the informed consent process. Where were the participants told the length of time of the survey, which data were stored and where and for how long, who the investigator was, and the purpose of the study?</p> <p>“<i>All individuals from the sampling frame received a bilingual e-mail from the principal investigator describing the aims of the project and containing two personalized links to either participate in the e-survey or to opt-out.</i>”</p> <p>“<i>No monetary incentives were offered, and respondents consented to provide their responses voluntarily</i>”.</p> <p>“<i>All collected data were stored in a secure database with encrypted connection on a local server of the Interventional Psychiatry Program, St. Michael’s Hospital hosted in Canada.</i>”</p> <p>The front page of the survey contained information about the length of time of the survey, the purpose of project, the investigators, information about questionnaire domains, the number of items.</p>

<p>Data protection</p>	<p>If any personal information was collected or stored, describe what mechanisms were used to protect unauthorized access.</p> <p>No personal information was collected.</p> <p><i>“All collected data were stored in a secure database with encrypted connection on a local server of the Interventional Psychiatry Program, St. Michael’s Hospital hosted in Canada.”</i></p> <p>The survey data was acquired with the use of an open-source survey service called LimeSurvey. LimeSurvey services stores the data on a local server of Interventional Psychiatry Program hosted in Canada, in a separate private database with a separate username/password. The default connection of the LimeSurvey is Secure Sockets Layer (SSL), which establishes encrypted link between the server and the client. Therefore, due to lower inherent risks associated with LimeSurvey and the data protection technologies it deploys, this platform was chosen in place of alternatives.</p>
<p>Development and testing</p>	<p>State how the survey was developed, including whether the usability and technical functionality of the electronic questionnaire had been tested before fielding the questionnaire.</p> <p><i>“The questionnaire development team was comprised of experts and potential survey respondents specializing in psychiatry, anesthesia, infection prevention and control (IPAC), ethics, hospital leadership, and knowledge translation. The questionnaire went through a series of iterations as the team explored the research problem, reviewed the literature, exchanged perspectives from professional practice, and identified constructs to operationalize. The pre-testing of the questionnaire focused on the wording and clarity of each item, the selection of response options and the assessment of face validity. The pilot testing focused on the flow and the structure of the entire questionnaire as well as its content validity. After the two rounds of testing, redundant items were excluded, and further modifications were made to the questionnaire on the basis of received feedback.”</i></p> <p>The technical functionality of the survey was tested by the survey coordinator, who was responsible for setting up the electronic version of the questionnaire on LimeSurvey.</p>

Open survey versus closed survey	<p>An “open survey” is a survey open for each visitor of a site, while a closed survey is only open to a sample which the investigator knows (password-protected survey).</p> <p><i>“The questionnaire was distributed in a closed-access mode...”</i></p>
Contact mode	<p>Indicate whether or not the initial contact with the potential participants was made on the Internet. (Investigators may also send out questionnaires by mail and allow for Web-based data entry.)</p> <p><i>“To increase the participation rate, the survey was advertised to potential respondents via e-mail within one month before the start date.”</i></p> <p><i>“All individuals from the sampling frame received a bilingual e-mail from the principal investigator describing the aims of the project and containing two personalized links to either participate in the e-survey or to opt-out.”</i></p>
Advertising the survey	<p>How/where was the survey announced or advertised? Some examples are offline media (newspapers), or online (mailing lists – If yes, which ones?) or banner ads (Where were these banner ads posted and what did they look like?). It is important to know the wording of the announcement as it will heavily influence who chooses to participate. Ideally the survey announcement should be published as an appendix.</p> <p><i>“To increase the participation rate, the survey was advertised to potential respondents via e-mail within one month before the start date.”</i></p>
Web/E-mail	<p>State the type of e-survey (eg, one posted on a Web site, or one sent out through e-mail). If it is an e-mail survey, were the responses entered manually into a database, or was there an automatic method for capturing responses?</p> <p><i>“All individuals from the sampling frame received a bilingual e-mail from the principal investigator describing the aims of the project and containing two personalized links to either participate in the e-survey or to opt-out. From the date of receipt, participants had four weeks to submit their responses and received three e-mail reminders.”</i></p> <p>Responses were captured automatically.</p>

Context	<p>Describe the Web site (for mailing list/newsgroup) in which the survey was posted. What is the Web site about, who is visiting it, what are visitors normally looking for? Discuss to what degree the content of the Web site could pre-select the sample or influence the results. For example, a survey about vaccination on a anti-immunization Web site will have different results from a Web survey conducted on a government Web site</p> <p>No website was used. Potential respondents were contacted through the Association of General Hospital Psychiatric Services of Ontario (AGHPS, www.aghps.com) and the Canadian Psychiatric Association / Association des psychiatres du Canada (CPA-APC, www.cpa-apc.org) with a priming memo that provided context for the upcoming survey on how the COVID-19 pandemic affected ECT service across Canada. Expert sampling technique was used, meaning that the survey was distributed to individuals with specific professional and academic qualifications.</p>
Mandatory/voluntary	<p>Was it a mandatory survey to be filled in by every visitor who wanted to enter the Web site, or was it a voluntary survey?</p> <p>The survey was voluntary, all participants had an option to ignore the e-mails or to opt out in order not to receive any further communication about the survey.</p> <p><i>“All individuals from the sampling frame received a bilingual e-mail from the principal investigator describing the aims of the project and containing two personalized links to either participate in the e-survey or to opt-out.”</i></p> <p><i>“No monetary incentives were offered, and respondents consented to provide their responses voluntarily.”</i></p>
Incentives	<p>Were any incentives offered (eg, monetary, prizes, or non-monetary incentives such as an offer to provide the survey results)?</p> <p><i>“No monetary incentives were offered, and respondents consented to provide their responses voluntarily.”</i></p> <p>No monetary incentives were offered although the importance of the subject matter was highlighted in the priming communication and respondents were offered to collaborate on the project after the dissemination of the survey results. Respondents were filling the survey only if they found the subject matter important, wanted to contribute to existing knowledge, or share personal experiences.</p>

Time/Date	<p>In what timeframe were the data collected?</p> <p><i>“Data collection took place during November and December 2020.”</i></p>
Randomization of items or questionnaires	<p>To prevent biases items can be randomized or alternated.</p> <p>Items were not randomized to avoid “mixing” between the 5 domains of the questionnaire. All domains needed to be presented in a logical order due to the nature of the constructs measured, the follow-up items, and the adaptive items. For example, if respondents at first indicated that their ECT service was completely suspended, follow-up questions were not asked.</p>
Adaptive questioning	<p>Use adaptive questioning (certain items, or only conditionally displayed based on responses to other items) to reduce number and complexity of the questions.</p> <p><i>“The final version of the questionnaire was available in English and French and contained 47 items (37 general, 10 adaptive): 4 items collecting basic information about respondent’s professional background and their respective ECT centre, and 43 items assessing the impact of COVID-19 on ECT practice between mid-March 2020 and mid-May 2020 (i.e., the first wave). The latter were grouped into 5 domains corresponding to specific constructs of interest.”</i></p>
Number of Items	<p>What was the number of questionnaire items per page? The number of items is an important factor for the completion rate.</p> <p><i>“During completion, respondents saw one questionnaire item per webpage”</i></p>
Number of screens (pages)	<p>Over how many pages was the questionnaire distributed? The number of items is an important factor for the completion rate.</p> <p>47 pages</p> <p><i>“The final version of the questionnaire was available in English and French and contained 47 items (37 general, 10 adaptive): 4 items collecting basic information about respondent’s professional background and their respective ECT</i></p>

	<p>centre, and 43 items assessing the impact of COVID-19 on ECT practice between mid-March 2020 and mid-May 2020 (i.e., the first wave). The latter were grouped into 5 domains corresponding to specific constructs of interest.”</p> <p>“During completion, respondents saw one questionnaire item per webpage ...”</p>
Completeness check	<p>It is technically possible to do consistency or completeness checks before the questionnaire is submitted. Was this done, and if “yes”, how (usually JavaScript)? An alternative is to check for completeness after the questionnaire has been submitted (and highlight mandatory items). If this has been done, it should be reported. All items should provide a non-response option such as “not applicable” or “rather not say”, and selection of one response option should be enforced.</p> <p>“All survey items were mandatory for completion and selection of at least one response option was always enforced.”</p> <p>All items reported in our article were mandatory for completion and had a “star” sign that respondents could see. Without providing an answer, respondents were not able to proceed further with the survey - they would receive a notification asking them to provide a response for remaining items on the page. Selection of at least one response option was enforced.</p>
Review step	<p>State whether respondents were able to review and change their answers (eg, through a Back button or a Review step which displays a summary of the responses and asks the respondents if they are correct).</p> <p>“During completion, respondents saw one questionnaire item per webpage and were able to navigate the survey through a ‘Back’ button, which let them review and change their answers before final submission.”</p>
Unique site visitor	<p>If you provide view rates or participation rates, you need to define how you determined a unique visitor. There are different techniques available, based on IP addresses or cookies or both.</p> <p>“The tool assigns a unique token to each e-mail address, which prevents respondents from submitting multiple entries.”</p>
View rate (Ratio of unique survey)	<p>Requires counting unique visitors to the first page of the survey, divided by the number of unique site visitors (not page views!). It is not unusual to have view rates of less than 0.1 % if the survey is voluntary.</p>

visitors/unique site visitors)	<p><i>“The sampling unit of analysis was ECT centre that represented the response of one professional.”</i></p> <p>View rate was not reported since all data was converted to represent ECT centres rather than single individuals.</p>
Participation rate (Ratio of unique visitors who agreed to participate/unique first survey page visitors)	<p>Count the unique number of people who filled in the first survey page (or agreed to participate, for example by checking a checkbox), divided by visitors who visit the first page of the survey (or the informed consents page, if present). This can also be called “recruitment” rate.</p> <p><i>“Out of 107 institutions contacted, responses were collected from 72 ECT centres across Canada, with a participation rate of 67%:...”</i></p>
Completion rate (Ratio of users who finished the survey/users who agreed to participate)	<p>The number of people submitting the last questionnaire page, divided by the number of people who agreed to participate (or submitted the first survey page). This is only relevant if there is a separate “informed consent” page or if the survey goes over several pages. This is a measure for attrition. Note that “completion” can involve leaving questionnaire items blank. This is not a measure for how completely questionnaires were filled in. (If you need a measure for this, use the word “completeness rate”).</p> <p><i>“The sampling unit of analysis was ECT centre that represented the response of one professional.”</i></p> <p>Completion rate was not reported since all data was converted to represent ECT centres rather than single individuals.</p>
Cookies used	<p>Indicate whether cookies were used to assign a unique user identifier to each client computer. If so, mention the page on which the cookie was set and read, and how long the cookie was valid. Were duplicate entries avoided by preventing users access to the survey twice; or were duplicate database entries having the same user ID eliminated before analysis? In the latter case, which entries were kept for analysis (eg, the first entry or the most recent)?</p> <p>Cookies were not used since our survey was closed-access.</p> <p><i>“The tool assigns a unique token to each e-mail address, which prevents respondents from submitting multiple entries.”</i></p>

IP check	<p>Indicate whether the IP address of the client computer was used to identify potential duplicate entries from the same user. If so, mention the period of time for which no two entries from the same IP address were allowed (eg, 24 hours). Were duplicate entries avoided by preventing users with the same IP address access to the survey twice; or were duplicate database entries having the same IP address within a given period of time eliminated before analysis? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?</p> <p>IP check was not used since our survey was closed-access.</p> <p><i>“The tool assigns a unique token to each e-mail address, which prevents respondents from submitting multiple entries.”</i></p>
Log file analysis	<p>Indicate whether other techniques to analyze the log file for identification of multiple entries were used. If so, please describe.</p> <p><i>“The tool assigns a unique token to each e-mail address, which prevents respondents from submitting multiple entries.”</i></p>
Registration	<p>In “closed” (non-open) surveys, users need to login first and it is easier to prevent duplicate entries from the same user. Describe how this was done. For example, was the survey never displayed a second time once the user had filled it in, or was the username stored together with the survey results and later eliminated? If the latter, which entries were kept for analysis (eg, the first entry or the most recent)?</p> <p><i>“The tool assigns a unique token to each e-mail address, which prevents respondents from submitting multiple entries.”</i></p> <p><i>“Participants were able to access the survey through the link three times – this strategy allowed respondents to close the survey while incomplete and return to it later.”</i></p> <p>Enabling closed-access mode stores the uniquely generated token together with the corresponding entries. The survey page is accessible for that unique entry with previously filled responses until the ‘Submit’ button is clicked. Once the responses are submitted, the survey becomes disabled for that unique token.</p>
Handling of incomplete questionnaires	<p>Were only completed questionnaires analyzed? Were questionnaires which terminated early (where, for example, users did not go through all questionnaire pages) also analyzed?</p>

	<i>“Centres that had partial responses were included in the analysis.”</i>
Questionnaires submitted with an atypical timestamp	<p>Some investigators may measure the time people needed to fill in a questionnaire and exclude questionnaires that were submitted too soon. Specify the timeframe that was used as a cut-off point, and describe how this point was determined.</p> <p>Timestamps was not used as a criterion since all data was converted to represent ECT centres rather than single individuals.</p>
Statistical correction	<p>Indicate whether any methods such as weighting of items or propensity scores have been used to adjust for the non-representative sample; if so, please describe the methods.</p> <p>No such methods were used since this is a descriptive rather than an inferential project. Analysis methods are described in the corresponding paragraph.</p>

This checklist has been modified from Eysenbach G. Improving the quality of Web surveys: the Checklist for Reporting Results of Internet E-Surveys (CHERRIES). *J Med Internet Res.* 2004 Sep 29;6(3):e34 [erratum in *J Med Internet Res.* 2012; 14(1): e8.]. Article available at <https://www.jmir.org/2004/3/e34/>; erratum available <https://www.jmir.org/2012/1/e8/>. Copyright ©Gunther Eysenbach. Originally published in the *Journal of Medical Internet Research*, 29.9.2004 and 04.01.2012.

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