STROBE Statement—checklist of items that should be included in reports of observational studies

| | Item No. | Recommendation | Page No. | Relevant text from manuscript |
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| **Title and abstract** | 1 | (*a*) Indicate the study's design with a commonly used term in the title or the abstract | 1 | Methods: A cross-sectional descriptive correlational study was conducted using an online survey of 260 registered nurses. |
| | | (*b*) Provide in the abstract an informative and balanced summary of what was done and what was found | 1 | Abstract Methods reports the design, sample, measures, mediation analysis and 5,000 bootstrap resamples; Results reports descriptive, associations, regression analysis, and indirect association; Conclusions summarises the findings using non-causal language. |
| | | **Introduction** | | |
| Background/rationale | 2 | Explain the scientific background and rationale for the investigation being reported | 2–3 | The Introduction and Background describe the clinical importance of stroke knowledge, self-efficacy, and evidence-based practice implementation, the persistent knowledge–practice gap, evidence linking knowledge, self-efficacy and EBPI, and the rationale for conducting the study. |

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| Objectives | 3 | State specific objectives, including any prespecified hypotheses | 3 | Aim: to examine association between stroke knowledge, self-efficacy, and evidence-based practice implementation. Pre specified objectives 1-4 are stated in the introduction. |
| | | **Methods** | | |
| Study design | 4 | Present key elements of study design early in the paper | 3 | “This was a cross-sectional, descriptive correlational study.” |
| Setting | 5 | Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection | 3-4 | Nurses working in ED, ICU, and SU in two medical cities in Riyadh, Saudi Arabia in were invited. Single-page recruitment poster was displayed on notice boards in the relevant departments. The poster includes QR code that directed participants to a recruitment statement. Data were collected from April to June 2026. |

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| Participants | 6 | (*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up<br>*Case–control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls<br>*Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants | 8 | 2.2. Setting, Study population and sampling. The manuscript states that nurses recruited through single-page recruitment displayed on notice boards in the relevant department includes QR code. The inclusion criteria were as follows: (1) being a registered nurse; (2) working in the ED, ICU, or SU; and (3) having at least six months of experience in the department; and (4) being able to read and understand English. Nurses were excluded if they (1) were float pool nurses, (2) were undergoing training or rotation programmes at the time of data collection. |
| | | (*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed<br>*Case–control study*—For matched studies, give matching criteria and the number of controls per case | N/A | Not applicable to this cross-sectional study; no matching was used. |
| Variables | 7 | Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable | 8–11 | The outcome (Evidence-based practice implementation), exposure/predictor (stroke knowledge and self-efficacy), mediator (self-efficacy), are described in 2.6. Data Analysis section. |

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| Data sources/ measurement | | 8* | For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group | 4–5 | Data sources and measurement are described in measurements section includes, the stroke knowledge test, the general self-efficacy scale, and evidence-based practice scale, including scoring and reported psychometric properties. |
| Bias | | 9 | Describe any efforts to address potential sources of bias | 5, 10 | Partially reported. Duplicate submissions were limited by allowing one response per account. The Limitations section acknowledges self-report/common-method bias and possible recruitment/selection bias. |
| Study size | | 10 | Explain how the study size was arrived at | 4 | 2.2. Sample size calculation included in the second paragraph in Setting, Study Population, and Sampling section |
| Quantitative variables | 11 | Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why | | 4–6 | Scale scores and score ranges are described in the Measures section. Continuous variables were summarised using means/SDs, and categorical variables using frequencies/percentages. |
| Statistical methods | 12 | (*a*) Describe all statistical methods, including those used to control for confounding | | 5 | 2.6. Data Analysis. Descriptive statistics, Pearson correlations and mediation model are described. Indirect effects used 5,000 percentile bootstrap resamples. |

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| | | (*b*) Describe any methods used to examine subgroups and interactions | N/A | No subgroup or interaction analyses were reported. |
| | | (*c*) Explain how missing data were addressed | 5 | 3.6. Data Analysis. Questionnaires with missing responses were excluded from the final analysis. Because the online survey platform required completion of all items before submission, no missing data were present in the final dataset. |
| | | (*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed<br>*Case–control study*—If applicable, explain how matching of cases and controls was addressed<br>*Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy | N/A | No complex sampling or weighting analysis was described; this item is not otherwise applicable to the reported cross-sectional analysis. |
| | | (*e*) Describe any sensitivity analyses | N/A | No sensitivity analyses were reported. |
| | | **Results** | | |
| Participants | 13* | (a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed | 4, 6 | Partially reported. “A total of 260 valid questionnaires were included in the final analysis,” and the Results again reports 260 analysed nurses. The number of participants at earlier recruitment and eligibility stages was not available. Follow-up was not applicable because this was a cross-sectional survey. |

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| | | (b) Give reasons for non-participation at each stage | Not available. | Because recruitment was conducted through an open online survey, information on individuals who received the invitation but chose not to participate, including their reasons for non-participation, was not available. |
| | | (c) Consider use of a flow diagram | Not applicable | A flow diagram was not considered necessary because this was a single-stage cross-sectional online survey without follow-up. Participant recruitment and the final analytic sample are described in the Methods and Results. |
| Descriptive data | 14* | (a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders | 6 | Table 1 reports participant characteristics, including age, sex, education, position, clinical experience, department, having mentor, and attending EBP and stroke care course training. |
| | | (b) Indicate number of participants with missing data for each variable of interest | Not applicable | 2.6. Data Analysis. Questionnaires with missing responses were excluded from the final analysis. Because the online survey platform required completion of all items before submission, no missing data were present in the final dataset. |
| | | (c) *Cohort study*—Summarise follow-up time (eg, average and total amount) | N/A | Not applicable to a cross-sectional study; there was no follow-up period. |

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| Outcome data | 15* | *Cohort study*—Report numbers of outcome events or summary measures over time | N/A | Not applicable to a cross-sectional study. |
| | | *Case–control study*—Report numbers in each exposure category, or summary measures of exposure | N/A | Not applicable to a cross-sectional study. |
| | | *Cross-sectional study*—Report numbers of outcome events or summary measures | 6–7 | Summary measures are reported for the main study variables: stroke knowledge, self-efficacy, self-efficacy and evidence-based practice implementation (means, SDs, with correlations reported in the Results. |
| Main results | 16 | (*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included | 7-8 | adjusted mediation coefficients as covariate attendance at EBP training, standardised coefficients, 95% CIs and p values. Table 4 reports the adjusted direct, indirect and total associations. |
| | | (*b*) Report category boundaries when continuous variables were categorized | N/A | There was no category boundaries |
| | | (*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period | N/A | Not applicable: the analysis did not estimate relative risks or risks over a defined time period. |
| Other analyses | 17 | Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses | N/A | No subgroup, interaction or sensitivity analyses were reported. |
| **Discussion** | | | | |

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| Key results | 18 | Summarise key results with reference to study objectives | 8–10 | Section 4 summarises the main findings in relation to the study aim: greater stroke knowledge was associated with higher self-efficacy; greater self-efficacy was associated with higher engagement in EBP activities. The indirect association was statistically significant. |
| Limitations | 19 | Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias | 10 | Partially reported. The Limitations section discusses cross-sectional temporality/causal inference, self-report and common-method bias. The likely direction and magnitude of these biases are not quantified. |
| Interpretation | 20 | Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence | 8–10 | The Discussion interprets the findings in relation to the SCT and prior studies, distinguishes statistical mediation from causal sequence, considers self-efficacy as a motivational personal factor, and derives nursing engagement in EBP activities. |

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| Generalisability | 21 | Discuss the generalisability (external validity) of the study results | 10 | The manuscript notes that recruitment of nurses from ED, ICU, and SU limits generalisability and that nurses more interested in stroke care may have been more likely to respond. However the study conducted in two medical cities which strengthens the result of the study. |
| **Other information** | | | | |
| Funding | 22 | Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based | 11 | This research received no external funding. |

*Give information separately for cases and controls in case–control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

**Note:** An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.