STROBE Statement—Checklist for Cross-Sectional Studies

Manuscript Title: Impact of Infertility Duration on ART Outcomes and Psychological Status: A Cross-Sectional Study of 11,906 Women

Item No	Recommendation	Reported on Page/Section
Title and abstract		
1(a)	Indicate the study's design with a commonly used term in the title or the abstract	Title page: "A Cross-Sectional Study"
1(b)	Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract, page 1
Introduction		
2	Explain the scientific background and rationale for the investigation being reported	Section 1.1-1.3, pages 2-5
3	State specific objectives, including any prespecified hypotheses	Section 1.4, page 6; Hypotheses H1-H3 stated
Methods		
4	Present key elements of study design early in the paper	Section 2.1, page 9; Abstract
5	Describe the setting, locations, and relevant dates	Section 2.1, page 9: "tertiary reproductive medicine center between January 2020 and December 2023"
6(a)	Cross-sectional study—Give the eligibility criteria, and the sources and methods of selection of participants	Section 2.2.1-2.2.2, pages 9-10: inclusion and exclusion criteria
7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers	Section 2.3, pages 10-12: Primary exposure (2.3.1), Primary outcomes (2.3.2), Psychological assessment (2.3.3), Covariates (2.3.4)
8	For each variable of interest, give sources of data and details of methods of assessment	Section 2.3.2-2.3.4, pages 10-12; Section 2.4, page 12: data sources and measurement methods described
9	Describe any efforts to address potential sources of bias	Section 2.2.2, page 10: exclusion criteria; Section 2.4, page 12: double data entry; Section 4.4, page 29: bias discussion in limitations
10	Explain how the study size was arrived at	Section 2.5, page 12: power analysis provided (>99% power for small effect sizes)
11	Explain how quantitative variables	Section 2.3.1, page 10: duration

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	were handled in the analyses	categorization; Section 2.5, pages 12-13: statistical handling
12(a)	Describe all statistical methods, including those used to control for confounding	Section 2.5, page 13: multivariable regression models described
12(b)	Describe any methods used to examine subgroups and interactions	Section 2.5, page 13: group stratification and post-hoc comparisons
12(c)	Explain how missing data were addressed	Section 2.5, page 13: listwise deletion; variables with >20% missingness excluded
12(d)	Cross-sectional study—If applicable, describe analytical methods taking account of sampling strategy	N/A: consecutive sampling of all eligible patients
12(e)	Describe any sensitivity analyses	Section 2.5, page 13: mentioned for missing data; Section 4.4, page 29: sensitivity analyses mentioned in limitations
Results		
13(a)	Report numbers of individuals at each stage of study	Section 3.1, page 14: total n=11,906 analyzed; stratification reported
13(b)	Give reasons for non-participation at each stage	Section 2.2.2, page 10: exclusion criteria
13(c)	Consider use of a flow diagram	Not included (optional for cross-sectional studies)
14(a)	Give characteristics of study participants and information on exposures and potential confounders	Table 1, page 15; Section 3.1, pages 14-16
14(b)	Indicate number of participants with missing data for each variable of interest	Table 1 note, page 15: AFC missing data (n values provided); Section 2.5, page 13: 25.4% missing for AFC
15	Cross-sectional study—Report numbers of outcome events or summary measures	Table 2 (clinical outcomes), page 17; Table 3 (psychological outcomes), page 18
16(a)	Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision	Tables 2-3 (unadjusted), pages 17-18; Tables 4-5 (adjusted with OR/β and 95% CI), pages 19-21
16(b)	Report category boundaries when continuous variables were categorized	Section 2.3.1, page 10: duration categories (<5, 5-10, ≥10 years); Table 1 note describes groupings
16(c)	If relevant, consider translating estimates of relative risk into absolute risk	Tables 2-3 provide absolute percentages/means; ORs in Table 4

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17	Report other analyses done	Section 3.4, pages 19-22: Extended multivariable analyses
Discussion		
18	Summarise key results with reference to study objectives	Section 4.1, pages 22-23: key findings linked to hypotheses H1-H3
19	Discuss limitations, taking into account sources of potential bias or imprecision	Section 4.4, pages 29-30: comprehensive limitations discussion including selection bias, information bias, missing data
20	Give a cautious overall interpretation considering objectives, limitations, and other evidence	Section 4.2, pages 23-28: interpretation with references to existing literature; Section 4.4, page 29: cautious interpretation
21	Discuss the generalisability (external validity) of the study results	Section 4.4, page 29: "single-center design may limit generalizability across different healthcare systems, cultural contexts"
Other information		
22	Give the source of funding and the role of the funders	Funding section stating "Supported by Sichuan Nursing Association (H23008)"