SA1: Additional File: STROBE checklist

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract **Provided on page 1**
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found **Provided on page 2**
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported **Provided in detail on pages 4 to 5**
Objectives	3	State specific objectives, including any prespecified hypotheses **Objectives stated clearly in abstract and again on page 6**
Methods		
Study design	4	Present key elements of study design early in the paper **Provided on page 7**
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection **Provided on page 7**
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up **Provided on pages 7 and 8, with flow diagram in Figure 1**
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed **Not applicable**
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable **Provided on pages 8 to 11. Theoretical hierarchical model demonstrating how potential confounding and mediating factors may interact with both levels of physical activity and common mental disorders provided in Figure 2.**
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 **Provided on pages 8 to 11**
Bias	9	Describe any efforts to address potential sources of bias **Tests for possible sample and attrition bias described on pages 8 and 14**
Study size	10	Explain how the study size was arrived at **Provided on page 8 and in Figure 1**
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why **Provided on pages 8 to 12**
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding **Description of multivariate logistic regression techniques used provided on pages 11 to 13**
		(*b*) Describe any methods used to examine subgroups and interactions **Description of methods used for *apriori* planned tests for interaction by age and gender on page 12**
		(*c*) Explain how missing data were addressed **Description of multiple imputation model using the imputations by chained approach (ICE) method provided on pages 11 and 12**

		(*d*) If applicable, explain how loss to follow-up was addressed **As above**
		(*e*) Describe any sensitivity analyses **All analyses repeated without any imputed data**
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 **Provided on pages 8 and 14**
		(b) Give reasons for non-participation at each stage **Provided on pages 8 and 14**
		(c) Consider use of a flow diagram **Figure 1**
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders **Table 1**
		(b) Indicate number of participants with missing data for each variable of interest **Table 1**
		(c) Summarise follow-up time (eg, average and total amount) **As described on page 7, an average follow up time of 11 years with a range of 9 to 13 years**
Outcome data	15*	Report numbers of outcome events or summary measures over time **Reported on page 14**
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 **Table 2**
		(*b*) Report category boundaries when continuous variables were categorized **Described on page 12**
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses **Reported on page 15 and in Figure 3**
Discussion		
Key results	18	Summarise key results with reference to study objectives **Page 16**
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 **Limitations discussed on pages 17 and 18**
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence **Presented on pages 19 to 21**
Generalisability	21	Discuss the generalisability (external validity) of the study results **Discussed on page 18**
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 **Pages 21 and 22.**