

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a	Confirmed
☐	☒ The exact sample size (<i>n</i>) for each experimental group/condition, given as a discrete number and unit of measurement
☐	☒ A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
☐	☒ The statistical test(s) used AND whether they are one- or two-sided <i>Only common tests should be described solely by name; describe more complex techniques in the Methods section.</i>
☐	☒ A description of all covariates tested
☐	☒ A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
☐	☒ A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals)
☐	☒ For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i>) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted <i>Give P values as exact values whenever suitable.</i>
☒	☐ For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
☒	☐ For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
☐	☒ Estimates of effect sizes (e.g. Cohen's <i>d</i> , Pearson's <i>r</i>), indicating how they were calculated

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

Data collection	We conducted a systematic literature search on PsycINFO on May 5, 2024 and updated the literature search on October 1, 2024 using the following search string: ("volitional" OR "self-regulated" OR "intentional") AND ("personality trait change*" OR "personality trait development" OR "personality change*" OR "personality development"). We limited the search to peer-reviewed articles written in English. In total, 373 studies were identified in this literature search, which were then screened for eligibility. In addition, we screened the reference lists of two review articles on related topics.
Data analysis	R (Version 4.3.2), packages: metafor, tidyverse, psych, kableExtra, papaja, readxl

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A description of any restrictions on data availability
- For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

All data extracted from the primary research included in the review and coding materials can be retrieved from <https://osf.io/tw358/> 75.

Human research participants

Policy information about [studies involving human research participants and Sex and Gender in Research](#).

Reporting on sex and gender

Information on the gender composition of the studies included in our review is available in the ShinyApp and the extracted dataset published at OSF.

Population characteristics

Information on demographic characteristics of the studies included in our review is available in the ShinyApp and the extracted dataset published at OSF.

Recruitment

We conducted a systematic literature search on PsycINFO on May 5, 2024 and updated the literature search on October 1, 2024 using the following search string: ("volitional" OR "self-regulated" OR "intentional") AND ("personality trait change*" OR "personality trait development" OR "personality change*" OR "personality development"). We limited the search to peer-reviewed articles written in English. In total, 373 studies were identified in this literature search, which were then screened for eligibility. In addition, we screened the reference lists of two review articles on related topics.

Ethics oversight

As this review relied on published research data, it was exempt from ethical review at the University of Zurich.

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see nature.com/documents/nr-reporting-summary-flat.pdf

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description

Systematic review and meta-analysis

Research sample

Samples used in published literature on volitional personality change

Sampling strategy

n/a

Data collection

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Timing

May 5, 2024; update: October 1, 2024

Data exclusions

Studies fulfilling the following criteria were included in the systematic review: (1) empirical, quantitative study with human subjects, (2) written in English, (3) longitudinal personality assessment, and (4) examination of VPC in line with the above presented definition. Additionally, if a study examined an intervention, the study had to have a prospective design (i.e., at least one personality assessment

before and after assessment after the intervention). Applying these inclusion criteria, 30 studies were included in our review (Figure 2).

Non-participation

n/a

Randomization

n/a

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

Methods

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☒	☐ Clinical data
☒	☐ Dual use research of concern

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging