INPLASY PROTOCOL

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Review Stage at time of this submission: Formal screening of search results.

A systematic review of the empirical literature on character development in individuals in low- and middle-income countries

Jeffery-Schwikkard, D[1]; Lomas, T[2]; Nagpal, P[3]; Morgan, E[4]; Li, J[5].

Review question / Objective: How has character development in individuals been studied in low-income and middle-income countries? Constituent questions: 1. Which populations are being studied? a. Which demographics? (gender, age, income, minorities, disabilities) 2. What aspects of character development are being studied? a. Including for interventions – intervention design, duration, dosage. b. How is character development itself conceptualized and operationalized? 3. What are the contexts of these studies? a. Which countries? b. For interventions – what is the site of the intervention? (e.g., schools, communities, religious institutions) 4. What are the methodological designs of these studies? a. What measurement tools are used in these studies? i. Are these developed for use (or otherwise adapted for use) in these regions? If so, how? b. What is the quality of these studies? 5. What are the key findings of these studies? 6. Who is funding and conducting this research?

INTRODUCTION

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Condition being studied: Development of character strengths. This is an overarching concept within which we also situate domains such as virtue, character education, character skills, positive youth development, and moral and ethical development.

METHODS

Search strategy: Scopus, PsycInfo, Medline, PubMed. Where possible (i.e., given search engine capability), these have been limited to journal articles. Unpublished studies, conference proceedings, book reviews, media articles, full-length books, and book chapters have been excluded.

Search was not restricted by date – i.e., all results up until 26 August 2022.

Search was not restricted by language prior to full-text screening. This is because during the pilot phase we identified that one or more databases did not code the language of the article accurately.

We do not plan to re-run the search prior to final analysis.

Search terms included common terms associated with character development (such as character strengths and virtue development) and the names of countries in low- and middle-income categories provided by the OECD or common terms for these regions (such as "LMICs" or "developing countries". Link to full search terms for each platform here: https://www.dropbox.com/scl/fo/

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Participant or population: Inclusion: Research conducted in low-, lower-middle-income, and upper-middle-income countries on individuals (list provided by OECD 2022). Exclusion: Research conducted in high-income countries. Research conducted on entities other than individuals, such as organisations.

Intervention: Character development interventions are defined as those that seek to improve individuals' character strengths (understood as encompassing character education, character skills, virtue development, position youth development, and moral or ethical development). This study is open to all interventions conducted low-, lower-middle-income, and upper-middle-income countries, but is limited to studies that explicitly situate themselves within and reference the literature on character development. That is, there are many specific qualities that could be construed as a character strength (e.g., self-esteem, empathy; see here for an indicative list: https://viacharacter.org/resources/activities/the-via-classification-of-twenty-four-character-strengths.). Each of these qualities has a substantial body of research pertaining to it. As such, to restrict the review to a manageable size, research on what might be construed as character strengths is only included if it explicitly situates itself within the literature on character development.

Comparator: N/A.

Study designs to be included: We will include all empirical studies, i.e., those that entail empirical data collection from individuals. No other study restrictions are applied. All empirical studies in which data was collected on individuals pertaining to character development: RCT.

Eligibility criteria: 1. Is the research explicitly about one of the following? a. Character development, b. Character strength or character strengths, c. Character education or character skills, d.

Personality development, e. Virtue development, f. Positive youth development, g. Moral development or ethical development. 2. Is the study in a LDC, LIC, LMIC or UMIC? (see OECD 2022 classification) 3. Is the article about the character development (or one of the above terms) of individuals? 4. Is the article in English? 5. Is the article published in a journal (i.e., not a full book, book chapter, or media article)? 6. Is the article a research article (i.e., not an editorial or book review)?

Information sources: Scopus, PsycInfo, Medline, PubMed.

Main outcome(s): The review aims to map the outcomes used in character development research in low- and middle-income countries and summarise the results of these studies. Examples of these outcomes include measures of self-esteem, resilience, social understanding, and empathy (among others), as subjective well-being (e.g., satisfaction with life) and psychological wellbeing (e.g., meaning in life).

All the main outcome criteria of interest to the review pertain to mental health. These include 'negative' conceptualizations and assessments of mental health (i.e., phenomena whose absence is indicative of health, e.g., disorders such as depression and anxiety) as well as 'positive' conceptualizations and assessments of mental health (i.e., phenomena whose presence is indicative of health, e.g., constructs such as satisfaction with life and meaning in life).

As these outcomes are diverse, the purpose of the review is not to assess improvements in a narrow selection of these indicators; rather, it is to map and analyse the breadth of these indicators. Nonetheless, where applicable, the review will also report on the changes in outcomes across these indicators.

Quality assessment / Risk of bias analysis: We will assess the quality of all studies included. We do not have quality as an inclusion criteria since our prerogative is to provide an overview of what kind of work is taking place in LMICs on this topic whatever its quality (i.e., if there is low quality research, this is the kind of information we want to elicit and highlight in our review). However, we will assess quality in order (a) provide a summary of the overall state of evidence, and (b) assist health practitioners in discerning the credibility of findings relating to specific outcomes (i.e., the quality of studies on character strengths and depression).

To do so, we developed criteria that vary by study type, and based on established quality assessments tools (cited below).
Qualitative - based on Blignault, I. and Ritchie, J. (2009), Revealing the wood and the trees: reporting qualitative research
Quantitative: Observational - based on von Elm, E., Egger, M., Pocock, S., Gotzsche, P., and Vandenbrouche, J. (2007). Strengthening the reporting of observational studies in epidemiology (STROBE) statement: guidelines for reporting observational studies.
Quantitative: Quasi-Experimental and Quantitative: RCT - both based on CONSORT 2010.
Review: Systematic and Review: Non-Systematic - both based on PRISMA 2020.
For example, the criteria for observational quantitative studies included whether it is clear how the data was collected, where and when the data was collected, how the participants were recruited, whether the demographics of the participants are described, the sample size, what the variables of interest are, and how the variables of interest are measured. These tools (with full citations) are provided in the folder linked to this submission.

This approach is designed to distinguish studies that fail to meet a minimum criteria of quality. This is sufficient for the overall purposes of the review, and it is the maximum level of scrutiny possible given the volume of studies anticipated and the resources available for the review.

Three researchers will apply these tools. A senior researcher, David Jeffery-Schwikkard, will mark 10 percent of each researchers' studies independently, and discuss disagreements. Any disagreements that cannot be resolved by agreement between the researchers will be escalated

to the most senior researcher, Timothy Lomas.

Strategy of data synthesis: The data will be summarised against each of the research questions listed previously. These will be narrative summaries, outlining key trends and patterns (such as which outcomes are most common or which countries feature most prominently) and summarising results (such as the proportion of outcomes that have a positive effect, and the range of effect sizes). We anticipate that our main synthesis strategy will be the aggregation of relevant data in the form of tables and figures. We will firstly have one overarching table in which each study reviewed will have a line assigned to it, with columns detailing key details and findings of interest (as summarised above). We will further aim to have tables focusing on specific details and findings of interest in themselves. For example, once we have mapped which character strengths are studied, we anticipate having a table focusing on the prominent character strengths, in which we can record details such as the number of studies focusing on each strength and the types of findings obtained. Where possible we will also seek to synthesise data in the form of figures. This could include, for instance, a timeline (i.e., with chronology on the x axis) showing the rate of publications pertaining to character development over time.

Subgroup analysis: We may include separate analyses for upper-middle income countries versus lower-middle and low-income countries. This is because it is anticipated that that there will be especially little research in low- and lower-middle income countries, and it is important to identify potential gaps in the research. As above, these groups will be determined using the OECD classification from 2022.

Sensitivity analysis: Results may be disaggregated by those that meet the mininum quality threshold outlined above; both full and disaggregated studies will be included.

Language restriction: English.

Country(ies) involved: United Kingdom, United States of America, India, Costa Rica.

Keywords: Character development; character strengths.

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Conflicts of interest: Ellen Morgan is employed by Templeton World Charity Foundation, which funds several research projects in character development in low- and lower-middle income countries. The other authors declare that they have no known conflicts of interest.