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INVITED ARTICLE

Flourishing in South Africa: Benchmarks and sociodemographic variation across 69 health, wellbeing, and related factors in the Global Flourishing Study

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Abstract: Using nationally representative data for South Africa (N = 2,651) from Wave 1 of the Global Flourishing Study, we explored the distributions of 69 health, wellbeing, and related factors and tested for potential sociodemographic differences in the means/proportions of those indicators. When comparing estimates for South Africa with pooled estimates for the combined set of 22 countries included in the Global Flourishing Study, we did not find definitive evidence of differences on most of the main health and wellbeing outcomes. On the few main outcomes where we observed differences, estimates for some were more favorable in South Africa (e.g., peace, suffering) while others were less favorable (e.g., life satisfaction, trust). South Africa was more distinguishable from the entire set of 22 countries on the outcomes within the supplementary domains of socioeconomic factors and religion/spirituality, with lower estimates found for South Africa on several socioeconomic factors and higher estimates observed for almost all religion/spirituality indicators. Our exploration of sociodemographic variation in the outcomes suggested that some subpopulations might be flourishing to a greater degree than others (e.g., those aged 80 years or older, males), but the pattern of sociodemographic differences across the outcomes was somewhat mixed and the flourishing profile of subpopulations varied quite considerably. These findings offer important insights for South African policymakers and public health practitioners on the need to support vulnerable subpopulations (e.g., females, those who are divorced), as well as lay the foundation for population-level monitoring of flourishing in South Africa using future Global Flourishing Study panel data.

Keywords: culture; disparities; health; Global Flourishing Study; population wellbeing

1. Introduction

In recent years, there has been a resurgence of interest in understanding and promoting human flourishing (VanderWeele et al., 2023). Although there are different ways in which human flourishing may be understood (Willen et al., 2025), one might define it as "the relative attainment of a state in which all aspects of a person's life are good, including the contexts in which that person lives" (Lomas & VanderWeele, 2022, p. 10). Embedded in this definition is a broad conception of human health and wellbeing that takes into account mental, physical, social, and

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spiritual dimensions of human existence. This conceptual vantage point also implies that an individual's flourishing depends on the quality of the socioecological context in which an individual is situated (VanderWeele et al., 2023). Thus, a complete understanding of individual flourishing might only be possible if one considers the quality of the various dimensions of human existence within the specific sociocultural context in which people live. In this study, we bring together these two ingredients of flourishing by using the first wave of Global Flourishing Study (GFS) data to explore the distribution and potential sociodemographic differences in a range of health, wellbeing, and related factors within South Africa.

1.1 Brief history and contextual overview of South Africa

South Africa is sometimes referred to as the 'cradle of humankind' because it has some of the richest fossil evidence of early human ancestors. The hunter-gatherer Sān and pastoralist Khoekhoe (collectively known as the KhoeSān) are considered South Africa's earliest distinct cultural groups, dating back thousands of years. They were later joined by Bantu-speaking farmers who migrated over centuries from the north to eventually become the dominant ethnic group in the region (Thompson, 2001). African spiritual belief systems and practices within the region can be traced back to these indigenous communities. Today, descendants of Bantu-speaking people make up most of South Africa's population (Statistics South Africa, 2012).

The first Europeans reached South Africa in the 15th century when Portuguese explorers rounded the southern tip of Africa. In the 1650s, the Dutch established a permanent settlement at the Cape of Good Hope (in the southern part of present-day Western Cape province), introducing Christianity (Heese, 1988). As the Cape Colony evolved into a more established settler community, enslaved laborers were brought from parts of South and Southeast Asia and Southeast Africa (Worden, 2005). The British took control of the Cape in the early 1800s, but increasing discontent with British authority led Dutch-speaking Boers to move toward the northern and eastern regions of South Africa where they established settlements that were independent of British rule (Etherington, 2013). This migration contributed to tensions, conflicts, and even warfare between the Boers and indigenous groups, such as the Ndebele and Zulus, in the latter half of the 19th century. Some native communities were displaced or forced to abandon their traditional ways of life (Thompson, 2001). Following the abolition of slavery, South Africa's colonists sourced labor from temporary African migrants and through indentured labor agreements with India and later with China.

South Africa's abundant natural resources resulted in conflicts. After diamonds were discovered on the banks of the Orange River in the mid-1860s, there were disputes over land ownership where the diamonds were mined. The British asserted their imperial control over these diamond fields (Beck, 2000), resulting in conflict and eventually the conquest of the Zulus. The discovery of gold in the late 1800s on the Witwatersrand (part of present-day Gauteng province) brought about tension and conflict over gold, leading to open warfare between the Boer settlers and the British Empire. Following their victory over the Boers, the British annexed and transformed both the South African Republic and the Orange Free State into British colonies. In 1910, the four previously separate British colonies were merged to create the Union of South Africa.

South Africa gained full legislative independence in 1934 (although it was still under British rule until 1961). From 1948 to 1994, South African politics was dominated by the Afrikaner nationalist government, which enforced a system of white minority rule through policies of racial segregation, discrimination, and oppression. After years of civil disobedience, armed resistance, and global condemnation of apartheid, South Africa held its first election with universal adult

suffrage in 1994. The African National Congress won the election, marking the end of apartheid and the country's transition to a constitutional democracy, fostering hope for a more just and unified 'rainbow nation' (Worthington & Cowden, 2017).

Despite the political transition in the mid-1990s, the first post-apartheid census revealed severe socioeconomic disparities, with much of the population (primarily black South Africans) facing limited education, unemployment, and poverty (Statistics South Africa, 2004). While there have been significant achievements, such as improvements in access to education and healthcare, progress has been slower than anticipated and deep-rooted inequalities persist. South African society continues to face a range of social-structural challenges (e.g., economic inequality, crime and safety concerns, public service delivery problems) that have important implications for the health and wellbeing of the entire population.

1.2 Brief overview of flourishing in South Africa

South Africa has been featured in a number of large-scale multinational studies, typically those focused on indicators of subjective wellbeing (e.g., happiness, life satisfaction). Several of these more recent studies have placed South Africa within the bottom half of global rankings (e.g., Helliwell et al., 2021, 2023), suggesting that the localized contextual challenges faced by the country may be impinging upon population flourishing. In particular, South African society continues to be challenged by deep-seated social-structural vulnerabilities (e.g., economic inequality, weak healthcare infrastructure) that have developed over the years through a confluence of factors (Cowden et al., 2020; Wilson Fadiji et al., 2025). However, most prior studies with large South African samples or based on data that is roughly nationally representative of the South African population have focused narrowly on one or a few indicators of health and wellbeing (e.g., Kollamparambil, 2020; Olonisakin & Idemudia, 2022), which may overlook possibilities that South Africans might be flourishing to a greater degree in some areas compared to others (Lomas & VanderWeele, 2022). Providing support for this idea, Lomas et al. (2024) averaged three years (2020-2022) of repeated cross-sectional data from the Gallup World Poll to explore the distribution of 38 health and wellbeing indicators in nationally representative samples from 145 countries around the world (including South Africa). Compared to other countries, they reported that South Africa ranked relatively low (worse) on some indicators of health and wellbeing (e.g., life evaluation, calmness) but quite high (better) on others (e.g., feeling well rested, helped someone). These findings highlight the importance of assessing a wide range of health, wellbeing, and related indicators to develop a more complete picture of flourishing in a population.

Although the evidence reported in Lomas et al. (2024) and a growing number of other studies (e.g., Case et al., 2023; Counted et al., 2024) has contributed significantly to our understanding of flourishing within South Africa, some gaps in knowledge remain. Most notably, even when studies with nationally representative samples have included a range of flourishing indicators, some important domains of wellbeing have relatively low representation among the outcomes. For example, Lomas et al.'s (2024) 38-indicator analysis included many more health and wellbeing outcomes than most earlier studies, but only three outcomes approximating character—an arguably important domain of flourishing—were part of their analysis. Moreover, while religion/spirituality has important implications for human flourishing in many parts of the world (Davis et al., in press; Koenig et al., 2024), few studies addressing multidimensional health and wellbeing with nationally representative samples of South Africans have included religion/spirituality indicators. The GFS, which includes a range of survey items concerning

character and religion/spirituality, provides a unique opportunity to expand and enrich existing knowledge about flourishing in South Africa.

1.3 Sociodemographic variation in flourishing in South Africa

Successful promotion of population-level flourishing in South Africa requires empirical evidence about subpopulations that may be at higher risk of poor health and wellbeing, which can be used for guiding decisions about policies, interventions, and efficient allocation of resources to support vulnerable groups. Although previous research has made important strides in documenting disparities for many indicators of flourishing across population segments (e.g., age, gender) in South Africa, evidence of variation for different sociodemographic characteristics is generally quite mixed. For example, studies focusing on indicators of subjective wellbeing (e.g., life satisfaction) with representative data have found evidence of U-shaped (e.g., Ebrahim et al., 2013) and null associations with age (e.g., Cramm et al., 2012) in South Africa. Mixed findings have been reported for other sociodemographic characteristics (e.g., gender) as well (e.g., Ebrahim et al., 2013; Hinks & Gruen, 2007), although some sociodemographic characteristics (e.g., marital status, immigration status) have received more limited empirical attention.

A key challenge to reconciling mixed findings on sociodemographic variation is methodological differences across studies, such as differences in target populations, sampling designs, measures, and analytic decisions. Furthermore, since most previous studies focus on only one or a few indicators of flourishing, differences in methodology across studies can complicate efforts to develop a holistic and integrated understanding of flourishing based on evidence derived from studies that emphasize different indicators. The impact of methodological inconsistencies across studies on our ability to construct a comprehensive picture of flourishing in different subpopulations can be mitigated by assessing a wide range of indicators within the same sample. With its broad conceptual coverage of health, wellbeing, and related factors, the GFS offers an opportunity to identify potential disparities in flourishing across different sociodemographic characteristics within South Africa.

1.4 The present study

This study uses nationally representative data from the 22-country GFS to document the distribution of 69 health, wellbeing, and related factors in South Africa. We descriptively compare estimates for South Africa to pooled estimates for the 22 countries included in the GFS. We also explore potential disparities in the indicators within South Africa by testing for potential differences across key sociodemographic groups (i.e., age, gender, racial/ethnic identity, marital status, employment status, years of education, immigration status, religious affiliation, frequency of religious service attendance).

2. Methods

The methods used in this study have been adapted from VanderWeele et al. (2025). Further methodological detail is available elsewhere, including an overview of the GFS as a whole (Johnson et al., 2024) and its general methodology (Ritter et al., 2024); the extensive GFS survey development, testing, and refinement process (Cowden, Skinstad, et al., 2025; Crabtree et al., 2021; Lomas et al., 2025; Padgett, Cowden, et al., 2025); the survey sampling design for Wave 1 (Padgett, Cowden, et al., 2025; Ritter et al., 2024); the analytic approach (Padgett, Bradshaw, et al., 2025) and statistical code (Padgett et al., 2024) used in this study involving Wave 1 GFS data for South Africa, which was preregistered as part of a coordinated set of analyses

(https://doi.org/10.17605/osf.io/trcf3) for a special issue of papers each focusing on one of 22 countries included in the GFS (Lomas et al., in press).

2.1 Data

Wave 1 of the GFS included nationally representative samples of adults from 22 geographically and culturally diverse countries: Argentina, Australia, Brazil, Egypt, Germany, Hong Kong (Special Administrative Region of China), India, Indonesia, Israel, Japan, Kenya, Mexico, Nigeria, the Philippines, Poland, South Africa, Spain, Sweden, Tanzania, Turkey, the United Kingdom, and the United States (N = 202,898). The countries were selected to maximize coverage of the world's population, ensure geographic, cultural, and religious diversity, and prioritize feasibility in line with existing data collection infrastructure. About half of the global population is represented in the countries included in this Wave 1 sample of the GFS.

Data collection was conducted by Gallup Inc. Data for Wave 1 was collected primarily during 2023, although some countries began data collection in 2022 and exact dates of data collection varied to some extent by country (Ritter et al., 2024). There are plans to collect four additional waves of panel data on the participants annually from 2024-2027. The precise sampling design that was used to ensure samples were nationally representative varied by country (for details, see Padgett, Cowden, et al., 2025). The GFS survey focuses on salient aspects of wellbeing (e.g., happiness, health, meaning, character, relationships), along with other sociodemographic, social, economic, political, religious/spiritual, personality, childhood, community, health, and wellbeing variables. These data are publicly available through the Center for Open Science (https://www.cos.io/gfs). Gallup Inc. translated the GFS survey into multiple languages following the TRAPD (translation, review, adjudication, pretesting, and documentation) model for cross-cultural survey research (Lomas et al., 2025).

2.2 Measures

Details about the measures used to assess the variables included in this study can be found in the GFS Codebook (https://osf.io/cg76b).

2.2.1 Sociodemographic variables

Sociodemographic variables included age, gender, racial/ethnic identity, marital status, employment status, years of education, immigration status, religious affiliation, and frequency of religious service attendance. Continuous age was classified into 18-24, 25-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80 years or older categories. Gender was assessed as male, female, or other. Racial/ethnic identity was assessed with Asian/Indian, Black, Colored, White, and other. Marital status was assessed as single/never married, married, separated, divorced, widowed, and domestic partner. Employment was assessed as employed, self-employed, retired, student, homemaker, unemployed and looking for a job, and none of these/other. Years of education was assessed as up to 8 years, 9-15 years, and 16 or more years. Immigration status was dichotomously assessed with an item that asked participants to report whether they had been born in South Africa. Religious affiliation response category options included Christianity, Islam, Hinduism, Buddhism, Judaism, Sikhism, Baha'i, Jainism, Shinto, Taoism, Confucianism, primal/animist/folk religion, Spiritism, Umbanda, Candomblé, and other African-derived religions, Chinese folk/traditional religion, some other religion, or no religion/atheist/agnostic. Frequency of religious service attendance was assessed as more than once a week, once a week, one to three times a month, a few times a year, and never.

2.2.2 Outcomes

Consistent with prior studies that have applied a multidimensional conception of individual flourishing (e.g., Cowden et al., 2024; Shiba et al., 2023), outcome variables were selected to provide a holistic indication of people's lives across various dimensions of human existence based on the data available in Wave 1 of the GFS. We included 42 main outcomes across six domains of health and wellbeing, including 12 indicators of psychological wellbeing (happiness, life satisfaction, life evaluation today, future life evaluation [five years from now], optimism, freedom, peace, balance in life, mastery, meaning in life, sense of purpose, self-rated mental health); four indicators of psychological distress (traumatic distress, depression symptoms, anxiety symptoms, suffering); nine indicators of social wellbeing (subjective social connectedness, social support, intimate friend, government approval, political voice, belonging, place satisfaction, trust, community participation); two indicators of social distress (loneliness, discrimination); nine indicators of character & prosocial behavior (promoting good, delayed gratification, hope, gratitude, love, forgivingness, charitable giving, helping, volunteering), and six indicators of physical health & health behavior (self-rated physical health, health limitations, pain, smoking, drinking, exercise).

We supplemented these outcomes with 19 related outcomes across two domains, namely six socioeconomic factors (financial security, material security, years of education, employment, subjective financial wellbeing, homeownership) and 13 indicators of religion/spirituality (self-reported religion/spirituality, frequency of religious service attendance, life after death belief, religious experience, religious reading, prayer/meditation, belief in God or a spiritual force, intrinsic religiosity, religious comfort, loved by God or a spiritual force, spiritual punishment, religious criticism, evangelism).

For readers who might be interested in other factors beyond the health, wellbeing, and related outcomes outlined above, we also report estimates for the Big Five personality traits (extraversion, openness to experience, agreeableness, conscientiousness, neuroticism) and three family factors (ever married, currently divorced, number of children in household).

A summary of the items that were used to assess the outcomes, response options for each, recoding decisions, and which outcomes were modelled as binary vs. continuous variables is available at https://osf.io/9kpd8 (see 'W1—country specific analyses' worksheet). Most outcomes have an associated preregistration that follows a similar analytic approach to this study, except that each of those focuses on a single outcome variable across all 22 countries included in Wave 1 of the GFS (see Supplemental Table S1). In contrast, this study is focused on all outcomes within a single country (i.e., South Africa).

2.3 Data analyses

2.3.1 Statistical models

Analyses were performed using R 4.4.1 (R Core Team, 2025). Descriptive statistics, weighted to be nationally representative of the South African population, were estimated for each of the sociodemographic variables using the observed sample. Nationally representative means/proportions (accompanied by complex survey adjusted standard errors and 95% confidence intervals [CIs]) for South Africa were estimated for each outcome. We contextualize these results by pooling nationally representative means/proportions for the same set of outcomes across the entire set of 22 GFS countries (see Supplemental Table S2), as per the analyses described in the linked preregistrations within Supplemental Table S1.

Next, we estimated variation in means/proportions for the outcomes across sociodemographic categories for South Africa. A global *p*-value from a test of differences in means/proportions across categories of each sociodemographic characteristic is provided for each outcome, and the reported *p*-values are a Wald-type test for complex surveys (Lumley & Scott, 2014; Rao & Scott, 1984). Given the vast array of outcomes, we focus on estimates of means/proportions to broadly summarize sociodemographic variation trends.

2.3.2 Inference criteria

For tests of differences in means/proportions across sociodemographic categories, we present exact *p*-values (two-tailed test) and 95% CIs.

2.3.3 Missing data and multiple imputation

Missing data on all sociodemographic and outcome variables in the South African sample were imputed using multivariate imputation by chained equations, with five imputed datasets produced (Sterne et al., 2009; van Buuren, 2018). The imputation model incorporated the sociodemographic characteristics, outcomes, and sampling weights. Including sampling weights in the multiple imputation procedure allowed specific-variable missingness to be related to the probability of inclusion in the study.

2.3.4 Accounting for complex sampling design

All analyses accounted for the complex survey design components by including weights, primary sampling units, and strata. Additional methodological details, including the approach that was used to account for the complex sampling design, can be found elsewhere (Padgett, Bradshaw, et al., 2025; Padgett, Cowden, et al., 2025).

3. Results

The sociodemographic characteristics of the observed South African sample are reported in Table 1. A majority of the sample was 39 years or younger (56%), female (51%), and single/never been married (59%). Most individuals identified racially/ethnically as Black (90%), were born in South Africa (95%), and had completed 9-15 years of education (68%). More than one-third of participants were unemployed and looking for a job (38%). Most of the sample affiliated religiously with Christianity (82%), with half indicating they attended religious services once a week or more often (50%).

Table 1. *Nationally representative descriptive statistics for sociodemographic characteristics in South Africa (N = 2,651)*

Characteristic	***n* (%)**
Age group	
18-24 years	461 (17%)
25-29 years	364 (14%)
30-39 years	655 (25%)
40-49 years	522 (20%)
50-59 years	309 (12%)
60-69 years	195 (7.4%)
70-79 years	120 (4.5%)
80 years or older	17 (0.6%)

Missing	9 (0.3%)
Gender	
Male	1,288 (49%)
Female	1,356 (51%)
Other	2 (< 0.1%)
(Missing)	4 (0.2%)
Racial/ethnic identity	
Asian/Indian	6 (0.2%)
Black	2,381 (90%)
Colored	252 (9.5%)
Other	1 (< 0.1%)
White	8 (0.3%)
(Missing)	3 (0.1%)
Marital status	
Married	539 (20%)
Separated	76 (2.9%)
Divorced	51 (1.9%)
Widowed	133 (5.0%)
Domestic partner	264 (10.0%)
Single, never married	1,561 (59%)
(Missing)	28 (1.0%)
Employment status	
Employed for an employer	569 (21%)
Self-employed	412 (16%)
Retired	243 (9.2%)
Student	204 (7.7%)
Homemaker	137 (5.2%)
Unemployed and looking for a job	1,008 (38%)
None of these/other	74 (2.8%)
(Missing)	3 (0.1%)
Years of education	
Up to 8 years	668 (25%)
9-15 years	1,796 (68%)
16+ years	183 (6.9%)
(Missing)	4 (0.2%)
Religious affiliation	
Christianity	2,163 (82%)
Islam	62 (2.3%)
Hinduism	1 (< 0.1%)
Buddhism	12 (0.5%)
Judaism	0 (0%)
Sikhism	0 (0%)
Baha'i	0 (0%)
Jainism	2 (< 0.1%)
Shinto	2 (< 0.1%)
Taoism	1 (< 0.1%)
Confucianism	0 (0%)

Primal, animist, or folk religion	127 (4.8%)
Spiritism	0 (0%)
Umbanda, Candomblé, and other African-derived religions	0 (0%)
Chinese folk/traditional religion	0 (0%)
Some other religion	5 (0.2%)
No religion/atheist/agnostic	253 (9.6%)
(Missing)	23 (0.9%)
Frequency of religious service attendance	
> 1/week	414 (16%)
1/week	891 (34%)
1-3/month	574 (22%)
A few times a year	431 (16%)
Never	334 (13%)
(Missing)	7 (0.3%)
Immigration status	
Born in South Africa	2,511 (95%)
Born in another country	139 (5.2%)
(Missing)	1 (< 0.1%)

3.1 Distribution of outcomes

The descriptive statistics for all outcomes in South Africa are reported in Table 2. For the six health and wellbeing domains, we compared 95% CIs for the 42 outcomes in Table 2 with the analogous pooled results for the 22 countries included in Wave 1 of the GFS (see Supplemental Table S2). We found support for better health and wellbeing in South Africa on five outcomes: peace (psychological wellbeing), suffering (psychological distress), hope, forgivingness (character & prosocial behavior), and pain (physical health & health behavior); in contrast, health and wellbeing was worse in South Africa on six outcomes: life satisfaction, meaning in life (psychological wellbeing), place satisfaction, trust (social wellbeing), discrimination (social distress), and charitable giving (character & prosocial behavior). Overlapping 95% CIs suggested similar means/proportions for the remaining 31 health and wellbeing outcomes.

For the other 19 related outcomes on the socioeconomic factors and religion/spirituality domains, 95% CIs suggested lower values in South Africa for years of education, employment, and subjective financial wellbeing (socioeconomic factors). Higher values were observed in South Africa for homeownership (socioeconomic factors), self-reported religion/spirituality, religious experience, prayer/meditation, belief in God or a spiritual force, intrinsic religiosity, religious comfort, loved by God or a spiritual force, spiritual punishment, religious criticism, and evangelism (religion/spirituality). Overlapping 95% CIs suggested similar means/proportions for the other five outcomes on these two domains.

Table 2. *Means and proportions across outcome variables for South Africa*

Outcome	Mean	Proportion	*SE*	95% CI	*SD*
Psychological wellbeing					
Happiness	6.95		0.080	(6.80, 7.11)	2.65
Life satisfaction	6.36		0.081	(6.21, 6.52)	2.81
Life evaluation today	6.11		0.093	(5.92, 6.29)	2.84
Future life evaluation	7.60		0.074	(7.45, 7.74)	2.45
Optimism	8.22		0.064	(8.09, 8.34)	2.22

Freedom	7.97		0.069	(7.83, 8.10)	2.39
Peace		0.80	0.011	(0.78, 0.82)	-
Balance in life		0.70	0.012	(0.68, 0.73)	-
Mastery		0.84	0.009	(0.83, 0.86)	-
Meaning in life	6.71		0.080	(6.56, 6.87)	2.78
Sense of purpose	8.07		0.063	(7.94, 8.19)	2.40
Self-rated mental health	8.18		0.071	(8.04, 8.32)	2.47
Social wellbeing					
Subjective social connectedness	7.40		0.062	(7.28, 7.52)	2.30
Social support	7.19		0.068	(7.05, 7.32)	2.82
Intimate friend		0.83	0.010	(0.81, 0.85)	-
Government approval		0.38	0.013	(0.36, 0.41)	-
Political voice		0.61	0.016	(0.58, 0.64)	-
Belonging	7.65		0.072	(7.50, 7.79)	2.71
Place satisfaction		0.62	0.015	(0.59, 0.65)	-
Trust		0.11	0.008	(0.09, 0.12)	-
Community participation		0.24	0.011	(0.22, 0.27)	-
Psychological distress					
Traumatic distress		0.35	0.013	(0.32, 0.37)	-
Depression symptoms		0.32	0.014	(0.30, 0.35)	-
Anxiety symptoms		0.29	0.013	(0.27, 0.32)	-
Suffering		0.30	0.011	(0.28, 0.32)	-
Social distress					
Loneliness	3.68		0.084	(3.51, 3.84)	3.05
Discrimination		0.37	0.014	(0.35, 0.40)	-
Character & prosocial behavior					
Promoting good	7.82		0.071	(7.68, 7.96)	2.37
Delayed gratification	7.68		0.069	(7.54, 7.81)	2.43
Hope	8.58		0.058	(8.47, 8.70)	2.07
Gratitude	7.85		0.068	(7.71, 7.98)	2.42
Love	8.59		0.060	(8.47, 8.71)	2.02
Forgivingness		0.84	0.010	(0.82, 0.86)	-
Charitable giving		0.19	0.011	(0.17, 0.22)	-
Helping		0.58	0.015	(0.55, 0.61)	-
Volunteering		0.25	0.012	(0.22, 0.27)	-
Physical health & health behavior					
Self-rated physical health	7.53		0.080	(7.37, 7.68)	2.72
Health limitations		0.22	0.012	(0.20, 0.24)	-
Pain		0.29	0.012	(0.26, 0.31)	-
Smoking	1.66		0.166	(1.34, 1.99)	4.26
Drinking	2.32		0.120	(2.08, 2.55)	4.77
Exercise	2.34		0.066	(2.21, 2.47)	2.44
Socioeconomic factors					
Financial security	5.22		0.090	(5.04, 5.40)	3.25
Material security	5.55		0.088	(5.37, 5.72)	3.41
Years of education		0.07	0.006	(0.06, 0.08)	-
Employment		0.37	0.015	(0.34, 0.40)	-

Subjective financial wellbeing		0.50	0.013	(0.47, 0.52)	-
Homeownership		0.72	0.013	(0.69, 0.74)	-
Religion/spirituality					
Self-reported religion/spirituality		0.85	0.009	(0.83, 0.86)	-
Frequency of religious service attendance		0.49	0.014	(0.47, 0.52)	-
Life after death belief		0.53	0.015	(0.50, 0.56)	-
Religious experience		0.60	0.013	(0.57, 0.63)	-
Religious reading		0.35	0.014	(0.32, 0.38)	-
Prayer/meditation		0.71	0.012	(0.69, 0.73)	-
Belief in God or a spiritual force		0.96	0.005	(0.95, 0.97)	-
Intrinsic religiosity		0.88	0.009	(0.86, 0.90)	-
Religious comfort		0.92	0.007	(0.91, 0.94)	-
Loved by God or a spiritual force		0.96	0.006	(0.95, 0.97)	-
Spiritual punishment		0.48	0.015	(0.45, 0.51)	-
Religious criticism		0.53	0.013	(0.50, 0.55)	-
Evangelism		0.79	0.012	(0.77, 0.82)	-
Personality traits					
Extraversion	4.19		0.048	(4.10, 4.29)	1.70
Openness to experience	5.36		0.049	(5.26, 5.45)	1.60
Agreeableness	5.64		0.045	(5.56, 5.73)	1.40
Conscientiousness	6.07		0.046	(5.98, 6.16)	1.32
Neuroticism	2.70		0.046	(2.61, 2.79)	1.54
Family factors					
Ever married		0.30	0.014	(0.28, 0.33)	-
Currently divorced		0.02	0.003	(0.01, 0.03)	-
Number of children in household	1.91		0.060	(1.80, 2.03)	1.94

Note. CI = confidence interval, *SD* = standard deviation, *SE* = standard error.

3.2 Sociodemographic variation

Results for the sociodemographic variation analyses are reported in Supplemental Tables S3-S11. Given the expansive set of results, the description of the results that follows is based on differences between the means/proportions of sociodemographic categories (regardless of whether 95% CIs overlapped). Thus, when interpreting these results, it is worth noting that (1) some sociodemographic categories (e.g., 80 years or older age group, Asian/Indian racial/ethnic group) have very small sample sizes, which can impact the reliability of the estimates; and (2) differences between sociodemographic categories may vary in magnitude, and therefore some differences may be more negligible.

For the 42 outcomes across the six main domains of health and wellbeing, the sociodemographic characteristic categories with better scores on the greatest number of outcomes included the 80 years or older age group on 22 outcomes (the 60-69 years category had the greatest number of least favorable means/proportions, 10 outcomes; see Supplemental Table S3); males vis-à-vis females on 27 outcomes (see Supplemental Table S4); those who were widowed on 14 outcomes (the divorced category had the greatest number of least favorable means/proportions, 22 outcomes; see Supplemental Table S5); those in the none of these/other employment category on 17 outcomes (the homemaker category had the greatest number of least favorable means/proportions, 13 outcomes; see Supplemental Table S6); those with 16 or more years of education on 21 outcomes (the 9-15 years of education category had the greatest number

of least favorable means/proportions, 19 outcomes; see Supplemental Table S7); those who reported attending religious services more than once a week on 26 outcomes (the never attend religious services category had the greatest number of least favorable means/proportions, 20 outcomes; see Supplemental Table S8); those born in South Africa on 22 outcomes (see Supplemental Table S9); those who affiliated religiously with Islam or a primal, animist, or folk religion on 16 outcomes each vis-à-vis other major religious affiliation categories (i.e., Christianity, no religion/atheist/agnostic) in the country (the primal, animist, or folk religion category also had the greatest number of least favorable means/proportions, 19 outcomes; see Supplemental Table S10); and those who identified as Asian/Indian on 30 outcomes vis-à-vis other major racial/ethnic identities (i.e., Black, Colored, White) in the country (the White racial/ethnic identity category had the greatest number of least favorable means/proportions, 18 outcomes; see Supplemental Table S11).

On the socioeconomic factors, more favorable means/proportions were generally observed for the 80 years or older age category, males, those in the none of these/other employment category, those with 8 or fewer years of education, those born in South Africa, those in the no religion/atheist/agnostic religious affiliation category, and those who self-identified racially/ethnically as White, although the pattern of results for each sociodemographic characteristic was somewhat varied and there was not a clearly discernible trend for marital status or religious service attendance. A somewhat consistent pattern of least favorable means/proportions on the socioeconomic factors was observed for females, those with 9-15 years of education, those who never attend religious services, those born outside of South Africa, those affiliated with a primal, animist, or folk religion, and those who identified racially/ethnically as Asian/Indian or Colored.

For the outcomes on the domain of religion/spirituality, the sociodemographic categories that were most consistent in providing a positive endorsement across the indicators were those aged 70-79 years, females, those who are widowed, those who are retired, those with 8 or fewer years of education, those who attend religious services more than once a week, those affiliated with Christianity or Islam, and those who identified as Asian/Indian, although this trend did not hold for all outcomes and the pattern of results for immigration status was especially mixed. The sociodemographic categories that were more inclined to provide the least positive endorsement of religion/spirituality across different outcomes were the 25-29 years of age category, males, those who reported their marital status as separated, those who were self-employed, those with 16 or more years of education, those who never attend religious services, those in the no religion/atheist/agnostic religious affiliation category, and those who identified racially/ethnically as White or Colored.

4. Discussion

Using nationally representative data from Wave 1 of the GFS for South Africa, we explored the distributions of numerous health, wellbeing, and related factors. We also tested for potential sociodemographic differences in the means/proportions of those indicators. Our main findings are twofold. First, we did not find definitive evidence of differences in most of the main health and wellbeing outcomes when comparing South Africa with all 22 countries included in Wave 1 of the GFS. This may be seen as being consistent with comparisons of means across countries on a composite 12-item index of personal flourishing (VanderWeele, 2017), with South Africa's mean situated near the middle (14th) of the 22 countries (VanderWeele et al., 2025). On the outcomes where we observed differences, estimates for some were more favorable in South Africa (e.g., peace, suffering) while others were less favorable (e.g., life satisfaction, trust). South Africa was

more distinguishable from the entire set of 22 countries on the outcomes within the supplementary domains of socioeconomic factors and religion/spirituality, with lower estimates found for South Africa on several socioeconomic factors and higher estimates observed for almost all religion/spirituality outcomes. Second, while our findings suggested that some subpopulations might generally be flourishing to a greater degree than others (e.g., those aged 80 years or older, males), the pattern of sociodemographic differences across the outcomes was somewhat mixed and the flourishing profile of subpopulations varied quite considerably.

4.1 Distribution of outcomes

Whereas prior research with South African samples has tended to focus on a small or narrow set of health, wellbeing, and related outcomes, the expansive scope of the indicators included in this study provides an opportunity to develop a more comprehensive and nuanced understanding of flourishing within South Africa. Consider the domain of psychological wellbeing as one example. When comparing means/proportions for South Africa with all 22 countries included in Wave 1 of the GFS, we found that South Africans tended to score lower on life satisfaction and meaning in life, higher on peace, and could not be definitively differentiated from the combined set of 22 countries on the other psychological wellbeing outcomes. These findings underscore the multifaceted nature of psychological wellbeing that may be overlooked if only one or a few indicators are examined (Shiba et al., 2022), while also pointing to relative strengths and areas of potential improvement on this domain within the South African population. Although previous work with specific indicators of psychological wellbeing (e.g., life evaluation) that are regularly employed in large-scale multinational surveys (e.g., Gallup World Poll) has ranked South Africa quite low relative to other countries (Helliwell et al., 2023), our findings suggest that this picture may be more complex and can vary based on the aspect of psychological wellbeing under consideration. Recent qualitative research (Nilsson et al., 2024) suggests that the Cantril ladder life evaluation item used in the World Happiness Report (Helliwell et al., 2023) may lead respondents to focus more on money and status than on other aspects of wellbeing. This may be particularly relevant in South Africa, where socioeconomic factors tend to be rated less favorably.

Looking across domains, our findings also provide an opportunity to explore complexities in the overall flourishing profile of the South African population. Lomas and VanderWeele (2022) use an orchestral metaphor to illustrate how a person might be doing better in some domains of flourishing than others. With the combined 22 GFS countries as a reference point, our findings provided some evidence supporting this idea within South Africa. As one particularly striking example, estimates for the socioeconomic factors tended to be less favorable in South Africa. In contrast, estimates for indicators on the religion/spirituality domain were generally more favorable (which is consistent with the high level of religious affiliation in the South African population). Taken together, these findings corroborate some of the key and longstanding social-structural vulnerabilities (e.g., poverty, unemployment) within the South African context (Achoki et al., 2022; Cowden et al., 2020) and resonate with both theory (e.g., insecurity hypothesis) and evidence that suggests religious/spiritual engagement is often more pronounced in less developed contexts where existential threats and social-structural disadvantages tend to be more prevalent (Dhima & Golder, 2021; Norris & Inglehart, 2011). Against the backdrop of difficult socioeconomic circumstances for many South Africans, evidence of more positive findings on outcomes within other domains of health and wellbeing (e.g., peace, forgivingness) is a further indication that these challenges are not necessarily a barrier to experiencing flourishing in certain aspects of life (Counted et al., 2024; Cowden, Worthington, et al., 2025; Wong et al., 2022).

4.2 Sociodemographic variation

Our findings provided evidence of sociodemographic disparities in some of the examined health, wellbeing, and related outcomes. While some of the outcomes have received attention in prior work that has tested for evidence of sociodemographic differences for selected indicators of flourishing (e.g., happiness, life satisfaction) in samples approximating the South African population, the present study extends this body of empirical work by including other salient indicators of flourishing (e.g., promoting good, suffering) that have yet to receive attention at the population level. Focusing more specifically on the main health and wellbeing outcomes, estimates were generally more favorable among the 80 years or older age group, males (vis-à-vis females), those who were widowed, those in the none of these/other employment category, those with 16 or more years of education, those who reported attending religious services more than once a week, those born in South Africa, those who affiliated religiously with Islam or a primal, animist, or folk religion (vis-à-vis Christianity and the no religion/atheist/agnostic category), and those who identified racially/ethnically as Asian/Indian (vis-à-vis Black, Colored, and White racial/ethnic groups). However, this was not the case across every outcome. For example, although estimates of health and wellbeing on the main outcomes tended to be more favorable for the 80 years or older age group, this group had the least favorable estimates on at least one outcome for each of the six domains (e.g., optimism, suffering). A similar pattern of findings was observed for other sociodemographic characteristics, suggesting that different subpopulations may have different flourishing profiles and reinforcing the utility of applying a multidimensional approach to population health and wellbeing (Lomas et al., 2024).

While our descriptive findings should be interpreted with caution until corroborated with follow-up studies that are able to provide evidence of causation, estimates across the outcomes suggested that females, those who are divorced, those with 9-15 years of education, and those who never attend religious services may be especially vulnerable subpopulations. These groups may merit special attention from policymakers and public health practitioners invested in promoting flourishing in South Africa. Additional research is needed to identify potentially modifiable factors that may be impinging upon the possibility of flourishing among these (and other) sociodemographic groups whose flourishing appears to be suboptimal relative to other segments of the South African population.

4.3 Strengths and limitations

A key strength of this study is that it offers a snapshot of various health, wellbeing, and related indicators within South Africa, the first of its kind to cover such an expansive range of flourishing indicators in a single nationally representative sample of the South African population. By estimating the distributions of various indicators of flourishing among different subpopulations, our findings provide insight into which population segments might be especially likely to benefit from interventions to promote different aspects of flourishing. However, the strengths of this study need to be considered alongside methodological limitations. Almost all outcomes were assessed with a single item. While this approach is not uncommon in large-scale epidemiologic studies such as the GFS, the breadth of our conceptual coverage of many constructs that we included as outcomes is limited by the use of single items (Cowden, Chen, et al., 2025). Our analysis followed a descriptive approach using cross-sectional data, and therefore our exploration of sociodemographic variation in health, wellbeing, and related factors should not be interpreted as implying causality. For example, those who attended religious services more than once a week had the greatest number of most favorable means/proportions across the outcomes relative to the other religious service attendance categories, but this could be because attending

religious services more regularly promotes flourishing or because those who are flourishing to a greater degree are more likely to attend religious services with greater regularity; this association could also be confounded by other factors. These causal questions could be explored when the GFS panel data for South Africa are available.

5. Conclusion

In this paper, we documented evidence concerning the distribution of numerous health, wellbeing, and related factors in South Africa and sociodemographic variation in those outcomes within the country. The evidence reported herein extends prior research by providing benchmarks of flourishing in South Africa for an expansive range of indicators, including domains (e.g., religion/spirituality) that have received more limited population-level attention in research on flourishing in the country, and point to some potential areas in which public health strategies and policies to promote flourishing in South Africa could be strengthened. Our findings set the stage for tracking year-on-year changes in the flourishing of South Africans using future GFS panel data.

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Lomas: Conceptualization, Writing - Review & editing.
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Johnson: Conceptualization, Methodology, Funding acquisition, Supervision, Writing - Review & editing.
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Inclusion and ethics

This project was ruled exempt by the Baylor University Institutional Review Board (#1841317-2). All personally identifiable information was removed from the data used in this study by Gallup Inc. Institutional Review Board approval for all data collection activities was obtained by Gallup Inc.

Conflict of interest

Tyler J. VanderWeele reports consulting fees from Gloo Inc., along with shared revenue received by Harvard University in its license agreement with Gloo Inc. according to the University IP policy.

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