

# **Flourishing communities: A new model to promote sustainable community leadership and transformation in semi-rural Kenya**

Michael Goodman<sup>1,\*</sup>, Linda Theron<sup>2</sup>, Sarah Seidel<sup>3</sup>, Aleisha Elliott<sup>1</sup>, Lauren Raimer-Goodman<sup>1</sup>, Philip Keiser<sup>1</sup>, Stanley Gitari<sup>4</sup>, Christine Gatwiri<sup>4</sup>

<sup>1</sup>Department of Internal Medicine & Pediatrics, University of Texas Medical Branch, Galveston, Texas, USA

<sup>2</sup>Department of Educational Psychology, University of Pretoria, Pretoria, South Africa

<sup>3</sup>Department of Social Research, Sodzo International, Houston, Texas, USA

<sup>4</sup>Department of Community Transformation, Sodzo Kenya, Maua, Kenya

\*Correspondence: Michael Goodman, Department of Internal Medicine & Pediatrics, University of Texas Medical Branch, Galveston, TX, USA. Email: [mlgoodman15@gmail.com](mailto:mlgoodman15@gmail.com)

## **Funding information**

National Institute of Mental Health, Grant/Award Number: K01MH119973; Moody Methodist Permanent Endowment Fund

## **ABSTRACT**

Communities often face numerous challenges and opportunities—situations that may be reduced to specific domains by researchers, policy makers and interventionists. This study informs and animates a new “flourishing community” model that seeks to build collective capacity to respond to challenges and opportunities. Our work is a response to children living on the streets, whose families face myriad challenges. The Sustainable Development Goals make explicit the need for new, integrative models that acknowledge the interplay of challenges and opportunities within communities through the flow of everyday life. Flourishing communities are generative, supportive, resilient, compassionate, curious, responsive and self-determined, and they build resources across economic, social, educational, and health domains. Integrating theoretical models—specifically, community-led development, multi-systemic resilience, and the “broaden and build” cycle of attachment—provides a testable framework to understand and explore hypothesised relationships between survey-collected, cross-sectional variables with 335 participants. Higher collective efficacy, a common byproduct of group-based microlending activities, was correlated with higher sociopolitical control. This correlation was mediated by higher positive emotion, meaning in life, spirituality, curiosity, and compassion. Further research is required to understand replicability, cross-sectoral impact, mechanisms of integrating health and development domains, and implementation challenges of the flourishing community model. Please refer to the Supplementary Material section to find this article's Community and Social Impact Statement.

**KEYWORDS:** collective efficacy, community leadership, empowerment, Kenya, positive psychology

## **1 BACKGROUND**

The animating question behind this study is, how do we, as outsiders to communities from which children have migrated to Kenyan streets, support collective capacity to build resources that respond to their needs, desires, interests and dreams? Our hope is that the answer to this question leads to communities that are better able to care for their members, nurture all of their children, prevent the migration of children to the street, and support the reintegration of children to their home communities. A previous publication articulates the organisational structure and external practices supporting our approach (Goodman et al., 2021); this study articulates and provides empirical support for the theorised social psychological mechanisms supporting our “flourishing communities” model. Our animating question parallels challenges within global health governance. Specifically, how do we, as a global community, support the integration and cultivation of myriad domains and promote global well-being at the community level?

The flourishing community model integrates insights from multiple theories and frameworks. The model emerges from action-reflection cycles with an on-going community program in Meru County, Kenya, to build capacity to care for children at risk of, or returning from, life on the streets. Recognizing multiple factors that contribute to the street-migration of children (Goodman, Martinez, Kstaeiser, Gitari, & Seidel, 2017; Seidel et al., 2018), the on-going community program seeks to build family- and community-level capacity for self-determined growth. The community program is locally called “Kuja Pamoja kwa Jamii” (KPJ, “Come Together to Belong” in Swahili). The KPJ program informs the development of our broader “flourishing community” model, which we believe supports consideration and adaptability of the key insights to other contexts. The KPJ organisational structure has been published previously (Goodman et al., 2021).

First, we review three existing conceptual frameworks informing the flourishing communities model—community-led development, the broaden-and-build cycle of attachment security, and multilevel/multi-systemic resilience. Then, we review the flourishing communities model.

### **1.1 Community-led development**

Community-engaged development has long been a preferred method of optimising benefits intended for marginalised communities (Mansuri & Rao, 2004). The shape of community-engaged development fluctuates from the delivery of basic services closer to where marginalised communities live to efforts to empower marginalised communities to control their own development (Nel, 2018). Intended benefits risk being captured by local elites who, through informal networks and political backchannels, may intercept benefits intended to support the most marginalised people (Waheduzzaman, As-Sabre, & Hamid, 2018). To reduce elite capture while supporting personal autonomy, development efforts continue shifting towards increasingly localised, decentralised, and participatory programming models (Baguios, King, Martins, & Pinnington, 2021). Further model development is required to support localised, decentralised, participatory programming fostering leadership of marginalized people to articulate, advocate for, and realise their own goals. Models must build on previous awareness that (1) transfers of benefits may be captured by elites, (2) knowledge hierarchies perpetuate inequalities by dictating whose knowledge can inform resource distribution, (3) external priorities may not match community priorities, (4) socio-cultural contexts and relationships within and beyond intended beneficiaries must be honoured, and (5)

sustainable change requires community ownership and voluntary engagement (Baguios et al., 2021).

Community-led development gained traction in the early 2010 s in response to largely single-sector, top-down interventions funded during the Millennium Development Goal era (Movement for Community-led Development, 2022). Community-led development focuses on building the capacity of a community as a system rather than solely for a specific project. Community-led development creates the capacity to integrate multiple Sustainable Development Goals (United Nations, 2016) across sectors at the community-level, as determined by communal priorities and capacities. Presently, community-led development provides less of an implementation model than an implementation direction—an umbrella paradigm characterised by inclusion, voice, community assets, capacity development, sustainability, transformative capacity, collective planning and action, accountability, community leadership, adaptability and collaboration (MCLD, 2022).

Sociopolitical control—leadership competence and policy influence—resonates with the objectives of community-led development (Zimmerman & Zahniser, 1991). Globally, higher sociopolitical control predicts participation in social movements, political activism, and citizen engagement (Chan, Mak, Chan, & Lin, 2021; Ohmer, 2007). The “flourishing communities” model provides a testable, quasi-linear model for community assessment and interventional design to support community-led development.

## **1.2 Multisystemic resilience**

Integrating multiple sectors at the community level is consistent with multisystemic resilience theory. Multisystemic resilience theory builds on decades of resilience research and characterises the capacity for positive functioning after significant stress through structural, environmental, communal, psychosocial, interpersonal and intrapersonal factors (Masten et al., 2021; Yule, Houston, & Grych, 2019; Theron, Murphy, & Ungar, 2021; Theron & Theron, 2014; Ungar & Theron, 2020). Multisystemic resilience theory forces recognition that capable responding to a threat in one sector—for example, substance use among children living on the street—requires consideration of elements in other sectors—for example, preventing intimate partner violence. Similarly, the “flourishing communities” model emerged from the awareness that childhood challenges reflect a variety of challenges across multiple systems and levels (Goodman et al., 2017; Seidel et al., 2018).

The flourishing community model differs from multisystemic resilience theory in two ways. First, the flourishing communities model recognises individuals and communities facing adversities but characterises communities by their capacity to explore new, self-determined horizons without requiring reference to existing vulnerabilities. Flourishing communities collectively adapt to the challenges they face while pioneering their own growth in organic ways. Secondly, the flourishing communities model provides a broad, quasi-linear interventional approach for work with marginalised communities rather than a cluster of essential, but unordered, co-acting variables. The quasi-linear order of variables within the flourishing community model is informed by basic and applied research with research on the broaden-and-build cycle of attachment security (Mikulincer & Shaver, 2020a).

### **1.3 Broaden-and-Build cycle of attachment security**

Research on the developmental benefits of positive emotion emerged two decades ago, largely under Fredrickson's Broaden and Build theory (Fredrickson, 2004). Positive emotions broaden the mental frameworks people employ and support building resources to serve personal interests such as meeting economic, social, educational or health needs (Fredrickson, 2013). Secure attachments—confidence in the availability, capability, and responsiveness of caring social others—increase positive emotions and subsequently support an individual's capacity to broaden and build their resources (Mikulincer & Shaver, 2020b).

Attachment research began with observing infant-caregiver dyads and expanded to include other forms of connections within dyadic social relations—between intimate partners, friends, owners and pets, believing theists and God (Cherniak, Mikulincer, Shaver, & Granqvist, 2021; Fitton, 2013; Gillath, Karantzas, & Selcuk, 2017). Attachment dynamics depend on a mental script reflecting the degree of confidence in the availability, capability and responsiveness of social others (Waters & Waters, 2006). Collective efficacy is marked by the same script—the degree of confidence one has in the availability, capability and responsiveness of one's communal environment. The main difference between collective efficacy and dyadic relations is the number of individuals involved in considering one's social relations.

Meaning in life among Kenyans is associated with family relations, consistent with the broaden-and-build cycle of attachment security (Goodman, Gibson, Keiser, Gitari, & Raimer-Goodman, 2019). Social relationships may expand cognitive horizons, permitting the assessment of connections between elements of one's lived experience and one's role within this symbolic nexus, experienced as meaning in life.

Theoretical and empirical support for connections between social relations and spirituality also emerges from the “religion as attachment” framework of Granqvist, Mikulincer, and Shaver (2020). The “correspondence mechanism” of the “religion as attachment” framework posits connection with a divine being as a form of attachment security, reflecting human attachments. Positive emotions, which emanate from more secure social connections, may prompt individuals to broaden their cognitive horizons and build towards helpful resources and relationships—potentially including self-God relations. Divine attachments may provide a context to consider one's engagement with worldly matters and build towards what is helpful (Mikulincer & Shaver, 2020a).

Spirituality, above and beyond religious observance, increases compassion and altruistic behaviour (Saslow et al., 2013). Social curiosity and compassion move people beyond themselves and towards others with interest and concern (Estrada, Monferrer, Rodríguez, & Moliner, 2021; Renner, 2006). Curiosity and compassion predict higher academic and employee engagement (Estrada et al., 2021; Garrosa, Blanco-Donoso, Carmona-Cobo, & Moreno-Jiménez, 2017; Nazir & Islam, 2020).

Due to the way in which meaning in life and spirituality provide broader, integrative perspectives on the larger world, we consider these as “broaden” constructs within the broaden-and-build cycle of attachment security. We consider social curiosity and compassion as “build” constructs of the broaden-and-build cycle of attachment security.

The flourishing community model hypothesises positive emotions emerge from improved social connections among community members, increasing meaning in life, spirituality,

curiosity, and compassion. Group-based microfinance programs, including savings and internal-lending groups, increase collective efficacy (Brody et al., 2017). Globally, over 150 million of the world's poorest people participate in some financial self-help group, and over 11 million people participate in savings and internal-lending groups (Goodman et al., 2021). Understanding the developmental implications of such groups can provide a path to supporting and scaling community-led development.

#### **1.4 Flourishing communities in Kenya**

Over the previous 6 years, through iterative action-reflection cycles with community members and leaders, we have developed a “scaffolding” approach to increase community-led development across sectors associated with increased risk of street migration among children (Mair, Wolf, & Seelos, 2016; Goodman et al., 2020).

The first stage promotes inclusion of socially and economically excluded persons, principally through linking caregivers of children identified from the street with other supporting families.

The second stage utilises weekly group-based microlending meetings to increase collective efficacy. To support families whose children desire to return to living in the community from street situations, and others who may find themselves at similar risk, families are invited to form groups of 25–30 members to meet weekly and participate in a savings and internal-lending group. While the initial “focal family” is identified and actively recruited to join the programme by intervention staff, all subsequent participants join based on word of mouth recruitment. Across 25 villages, the total weekly number of participants has grown to over 8,000 families. To mitigate the risk of poor group leadership, and provide participants the opportunity to practise leadership, each group member takes a turn facilitating group meetings and KPJ groups do not have permanent leadership roles (Hermes & Lensink, 2007).

The third scaffolding stage utilises improved social relations to reduce depression, trauma and conflict and increase positive emotion and community leadership to create change across a variety of domains, as co-determined by programme implementers, funders and participants. Data for this present study were collected at baseline of a cluster-randomised trial of a novel 6-month positive psychology-based curriculum (“Pathways to Flourishing”). The Pathways to Flourishing curriculum aims to increase positive emotion, broaden-and-build dynamics, and support the development of personal and group-defined growth goals. We hypothesise that this process will increase leadership across development sectors, influenced by emerging community leaders.

The fourth stage links community demand for change with resources to support growth across specific domains. Communities that develop collective efficacy, increase positive emotion, meaning in life, spirituality, compassion and social curiosity may be better poised to engage in community-led projects across specific domains. Community cohesion and community leadership skills predict the success of community-led total sanitation interventions (Venkataramanan, Crocker, Karon, & Bartram, 2018).

The fifth stage involves normative engagement at a cultural level through telling stories related to success and on-going challenges and to advocate for further support and strengthen dignity and respect for emerging community leaders.

Parallel to Fredrickson's conceptualization of human flourishing on an individual level, where individuals “live within an optimal range of human functioning, one that connotes goodness, generativity, growth and resilience” (Fredrickson & Losada, 2005), we propose flourishing communities are intrinsically motivated to grow and lead towards their own determined, optimised potential. We forward the model as a testable, generalised way to link together sectors and socio-ecological levels in a quasi-linear manner to promote community-led development.

### **1.5 Study aim**

This study assesses whether collective efficacy predicts sociopolitical control among Kenyan participants in the KPJ intervention and whether this association is predicted by positive emotion, meaning in life, spirituality, social curiosity and compassion in a serial fashion.

## **2 METHODS**

### **2.1 Participants**

Study participants were recruited from the KPJ programme during their normal weekly meetings. Village locations were selected because the programme had expanded to these villages within the past 4 months of data collection. Each family in the programme is represented by one family member. Eight participants, representing different families, were recruited from each of the 42 internal-lending groups across 7 villages, yielding a total sample size ( $n = 335$ ). Focal families in each village were recruited to the program by intervention staff because their child was found sleeping on nearby streets. Aside from the focal family in each village, participants join through word-of-mouth recruitment. Most programme participants, as reflected in the study sample, are women.

### **2.2 Measures**

An interview questionnaire was created in English using scales that had been validated in multiple cultures and contexts. The questionnaire was translated into Kimeru, the local language in which the survey was administered, and back translated into English to ensure a reliable translation. Items that had different meanings in the back-translated version were refined to adapt the meaning to the local culture. All data reflect baseline data for a cluster-randomised trial of a novel multicomponent curriculum based largely on positive psychological constructs called “Pathways to Flourishing.” All measures, in English and Kimeru versions, are available in the Supplemental Materials.

#### ***2.2.1 Outcome measures***

The outcome measures for this study were the two factors comprising Zimmerman and Zahniser's sociopolitical control scale: Leadership Competence and Policy Control (Zimmerman & Zahniser, 1991). Since its development, the two-factor scale has been validated, adapted for youth, and utilised in contexts ranging from Malaysia, Israel, Kenya and the urban United States (Itzhaky & York, 2000; Peterson, Peterson, Agre, Christens, & Morton, 2011). Originally measured on a 5-point Likert-type response format, we expanded the scale to 7 points in the present study to pair with other scales within the extended questionnaire, with each point reflecting higher agreement with the statements in the two factors below.

The Leadership Competence factor comprises 8-item measuring self-perceived capacity to lead, speak in front of groups, and enlist the support of other people. The Leadership Competence factor includes statements like “I would rather have a leadership role when I'm involved in a group project” and had good reliability in the present sample ( $\alpha = .71$ ) with a strong single factor solution.

The Policy Control factor assesses the extent to which respondents believe their interests are reflected in governing policy through 9-item with statements like “People like me are generally well qualified to participate in political activity and decision making in our country.” The subscale had good reliability in the present sample ( $\alpha = .85$ ) with a strong single factor solution.

### **2.2.2 Exposure measure**

The exposure measure for this study was collective efficacy, assessed using the “social response,” “social network and personal agency,” and “social attachment” subscales of the Collective Efficacy scale created by Delea et al. (2018). The social response subscale contains 6-item related to the perceived responsiveness of other community members, including statements like “If there is a problem that affects the entire community, for instance, crop disease, people in this community will help each other.” The social network and personal agency subscale includes 5-item related to the presence of mutually-supporting activity among social network members, including statements like “If you and your relatives suddenly had to go away for a day or two, you could count on your neighbours to take care of your children.” The social attachment subscale includes 3-item related to the sense of being accepted by and a part of the broader social environment, including statements like “People in this community accept me as a member of the community.” Together, these 14-items had good internal reliability ( $\alpha = .85$ ) and acceptable single-factor solution using iterative principal factor analysis. The 14-items reflect belief in the accessibility, responsiveness, trustworthiness, competence and concern within respondents' social networks.

### **2.2.3 Mediating measures**

Mediation was assessed in a serial manner, with stages of mediators assessed following the broaden-and-build dynamic of attachment security. Within the broaden-and-build dynamic of attachment security, better social relations contribute to more positive emotion, and more positive emotion supports a broadened perspective and willingness to move beyond oneself towards other people, new possibilities and relationships.

The first set of potential mediators included only positive emotions, following the hypothesis that positive emotion initiates the broadening and builds dynamics (Fredrickson, 2013). The modified Differential Emotions Scale (mDES; Fredrickson, 2013) was used to assess the presence and frequency of experiencing positive emotions in the past 24 hr. This scale has been translated and validated in Italy, Pakistan and other contexts (Conte et al., 2020; Muzaffar, 2017). The original positive emotion sub-scale includes 10 items covering a range of positive emotions—amusement, wonder, gratitude, hopefulness, inspiration, alert, joyfulness, love, pride, peace. The cultural translation into Kimeru of *wonder* was difficult and did not load onto the same factor as the other positive emotions, leaving nine items in the scale with good reliability ( $\alpha = .81$ ).

The second set of potential mediators represented a broader perspective or features representing a cognitively integrated engagement with the world. Two measures were used to identify a

broader perspective—spirituality and meaning in life, both previously explored in the context of emergent phenomena from social relations. Martela, Ryan, and Steger (2018) found that positive emotion did not mediate the association between social relations and meaning in life, so we assessed and adapted to this possibility for both meaning in life and spirituality.

Spirituality was measured using a 9-item subscale identified from previous research on spirituality in the same communities previously (Goodman et al., 2021). To generate this 9-item scale, we conducted factor analysis on the Brief Multidimensional Measure for Religiousness and Spirituality (BMMRS; Fetzer Institute/National Institute on Aging Working Group, 1999). Two factors emerged from this measure—the first related to religious observance and the second related to perceived intimacy with and proximity with God, that is, divine attachment. We utilised the second factor from this scale on the current study, including items that loaded  $>0.4$  on the factor. The divine attachment subscale included items like “I feel God's love for me, directly or through others” with good reliability ( $\alpha = .76$ ). Spirituality was measured using a 7-point Likert-type scale reflecting the degree of agreement with the statement.

Meaning in life was measured using the 3-item Meaning in Life questionnaire, short form (MLQ-sf; Steger & Samman, 2012). The full 10-item version has been used in multiple Kenyan samples with high internal reliability coefficients (Goodman et al., 2019). The 3-item short-form was selected to reduce response burden, and under the hopes that the previously high reliability would be repeated with a shorter scale. The short form includes items like “My life has a clear sense of purpose,” and demonstrated good reliability for a short scale ( $\alpha = .65$ ). The MLQ-sf was measured on a 7-point scale reflecting the degree of agreement with the statement.

The third set of potential mediators represented an effort to move towards subjects beyond oneself—compassion and social curiosity. Compassion was measured using the 16-item Compassion Scale (Pommier, Neff & Tóth-Király, 2020). The Compassion Scale measures the extent to which respondents perceive themselves to be moved by, concerned for and understanding of the well-being of others, including items like “I notice when people are upset, even if they don't say anything.” The scale demonstrated good reliability in the present sample, with a single factor solution identified through iterative principal factor analysis ( $\alpha = .77$ ).

Social curiosity is a subscale of the five-dimensional curiosity scale (Kashdan et al., 2018). The social curiosity subscale measures respondents' interest in acquiring information on how other people think, feel and behave. The subscale contains 5-items similar to “I like finding out why people behave the way they do” and demonstrated good reliability ( $\alpha = .68$ ).

#### ***2.2.4 Control variables***

To control for potential confounding of gender, age, years of schooling and wealth, we included measures reflecting these domains. Gender was considered binary—male or female. Age was measured in years. Years of schooling were measured as the completed number of years in formal schooling. Wealth was measured using an index of ownership of 12 common household items for an index ranging 0–12 (KR20 = 0.69).

### **2.3 Statistical analyses**

Primary analyses utilised structural equation modelling (SEM) to assess associations between collective efficacy and the two domains of sociopolitical control—Leadership Competence and



Policy Control. Path analyses assessed the mediation of each additional set of serial mediator variables. Final models did not require that each set of potential mediators be maintained in pathways where the mediator variables were not significantly associated with the next variable in the model, be it the next mediating variable set or outcome of interest. After determining a preliminary path model using SEM, control variables were added to each pathway to adjust for potential confounding. Where variables were not associated with the outcome at  $p < .20$ , the variable was removed from the pathway with the exception of the exposure variable, collective efficacy. All continuous variables were standardised, and all coefficients reported were fully standardised. All models were assessed using goodness of fit indices, and mediating effects were reported for each variable included in the final model. Covariance matrices were calculated for variables in the same mediator set and maintained when covariance was significant to improve fit indices and model estimates.

Descriptive analyses were conducted to support interpretation of the primary SEM models, including bivariate correlation matrices with Bonferroni adjusted significance estimates and univariate descriptions. To promote understanding of each stage of the model, we provided regression estimates that account for the hierarchical data structure using random effects modelling with a random intercept calculated for the village-level and group-level.

### ***2.3.1 Ethical considerations***

Data were collected from programme participants as part of an ongoing quality assessment of programme elements and, in this case, specifically to understand the potential benefits of the newly developed “Pathways to Flourishing” curriculum. Respondents were informed prior to participation that their participation was fully optional, and each group received \$1 for each member who participated in the survey. The group benefit was intended to offset the potential perception of injustice of not being selected for the interview and to support group dynamics related to equitable resource allocation. Each participant provided informed consent prior to participating in the study—verbal as opposed to written as functional literacy is not universal in the study population. An ethical exemption was provided by the Institutional Review Board at the University of Texas Medical Branch for the analysis of programme-collected, de-identified secondary data.

## **3 RESULTS**

Table 1 demonstrates the non-standardized, univariate descriptions of model variables. The average age in years was 40. The average wealth index score was 5.2 out of a scale ranging 0–12. The average number of completed school years was 5.5. Over 90% of respondents were female. Leadership Competence, Collective Efficacy, Meaning in Life and Spirituality had means that were within one unit of the highest possible value of 7.

**TABLE 1** Univariate description of model variables

	n	Mean (%)	SE	95%CI	
Leadership competence	335	6.01	0.05	5.91	6.11
Policy control	335	4.93	0.08	4.77	5.08
Collective efficacy	335	6.08	0.04	5.99	6.16
Positive emotion	335	3	0.03	2.93	3.06
Meaning in life	335	6.59	0.05	6.5	6.68
Spirituality	335	6.76	0.02	6.73	6.8
Social curiosity	335	5.71	0.07	5.58	5.85
Compassion	335	6.3	0.04	6.24	6.37
Wealth index	335	5.24	0.13	4.98	5.49
Age, years	335	39.68	0.8	38.1	41.26
Years of completed schooling	335	5.45	0.33	4.8	6.11
Female	335	94%	0.01	91.5%	96.6%

Abbreviations: %, percentage reporting this characteristic; 95% CI, 95% confidence interval; n, response size; SE, standard error.

Table 2 shows correlations between continuous variables. Leadership Competence was significantly, and positively correlated with Policy Control, Collective Efficacy, Positive Emotion, Meaning in Life, Spirituality, Social Curiosity and Compassion. Policy Control was significantly and positively correlated with Collective Efficacy, Meaning in Life, and Social Curiosity. Collective Efficacy was significantly and positively correlated with Positive Emotion, Meaning in Life, Spirituality, Social Curiosity and Compassion. Positive Emotion was significantly and positively correlated with Meaning in Life, Spirituality, and Compassion. Meaning in Life was significantly and positively correlated with Spirituality, Social Curiosity and Compassion. Spirituality was significantly and positively correlated with Social Curiosity and Compassion. Social Curiosity was significantly and positively correlated with Compassion. Demographics were not associated ( $p < .05$ ) with any of the main variables of interest.

Collective efficacy significantly predicted higher Leadership Competence, controlling for wealth, age, school and gender ( $\beta = .33$ , 95%CI: 0.23–0.43). After including mediating variables, the magnitude of association between collective efficacy and Leadership Competence reduced by more than 50% ( $\beta = .16$ , 95%CI: 0.05–0.28). Compassion and Social Curiosity remained significantly associated with Leadership Competence in the final model ( $\beta = .14$ , 95%CI: 0.02–0.25;  $\beta = .12$ , 95%CI: 0.01–0.22). Collective Efficacy was significantly predictive of higher Policy Control ( $\beta = .19$ , 95%CI: 0.08–0.29), before including mediating variables. After including mediating variables, the magnitude of effect between Collective Efficacy and Policy Control reduced 37% ( $\beta = .12$ , 95%CI: 0.0–0.24).

In final models, compassion significantly predicted higher Leadership Competence ( $\beta = .12$ , 95%CI: 0.02–0.25), but not Policy Control. Social Curiosity significantly predicted higher Leadership Competence ( $\beta = .12$ , 95%CI: 0.01–0.22) and Policy Control ( $\beta = .2$ , 95%CI: 0.09–0.31) (see Table 3).

**TABLE 2** Correlation matrix of model variables

	LC	PC	CE	PE	MLQ	Sp	SC	Comp.	Wealth	Age	School
Leadership competence	1										
Policy control	0.29***	1									
Collective efficacy	0.34***	0.2*	1								
Positive emotion	0.2*	0.13	0.22**	1							
Meaning in life	0.29***	0.19*	0.35***	0.28***	1						
Spirituality	0.3***	0.12	0.47***	0.2*	0.41***	1					
Social curiosity	0.26***	0.27***	0.22**	0.14	0.29***	0.29***	1				
Compassion	0.33***	0.16	0.46***	0.31***	0.35***	0.47***	0.33***	1			
Wealth index	0.04	-0.05	-0.02	-0.02	0.05	0.01	0	-0.02	1		
Age, years	-0.08	0.01	-0.02	0	-0.02	0.06	0.04	0	-0.01	1	
Years of schooling	-0.02	-0.13	-0.05	-0.02	0	-0.01	-0.01	-0.04	0.12	-0.18 <sup>t</sup>	1

Note: Correlation matrix with Bonferroni adjusted significance estimates. <sup>t</sup> indicates  $p < .06$ .

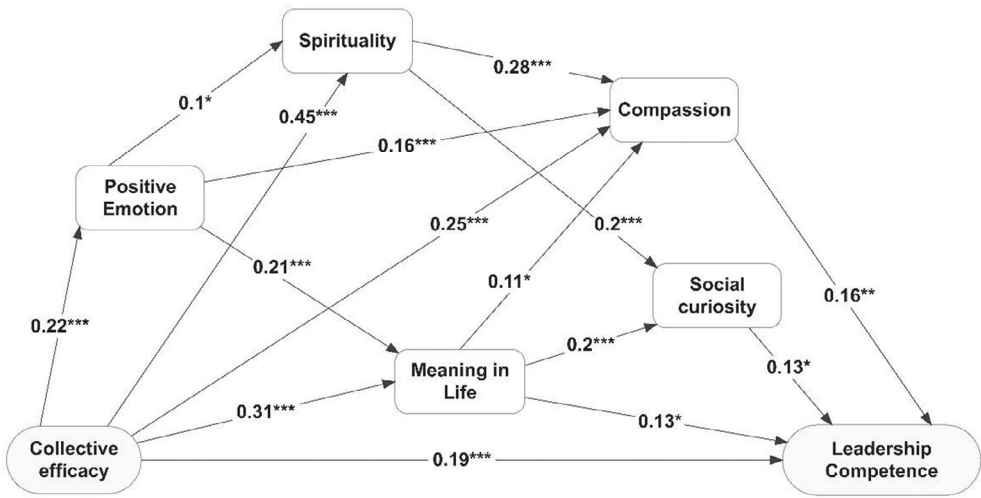
\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

**TABLE 3** Random effects regression of Leadership Competence and Policy Control on Collective Efficacy and Full Mediators

	Leadership competence						Policy control					
	Collective efficacy, only			Full mediator model			Collective efficacy, only			Full mediator model		
	Coef.	95% CI		Coef.	95% CI		Coef.	95% CI		Coef.	95% CI	
Collective efficacy	0.33***	0.23	0.43	0.16**	0.05	0.28	0.19***	0.08	0.29	0.12 <sup>t</sup>	0	0.24
Positive emotion				0.07	-0.03	0.17				0.06	-0.05	0.17
Meaning in life				0.08	-0.04	0.19				0.08	-0.04	0.2
Spirituality				0.08	-0.03	0.2				-0.05	-0.17	0.08
Compassion				0.14*	0.02	0.25				0.01	-0.11	0.14
Social curiosity				0.12*	0.01	0.22				0.2***	0.09	0.31
Wealth	0.02	-0.02	0.06	0.02	-0.02	0.06	0.01	-0.06	0.03	-0.02	-0.06	0.03
Age	-0.01	-0.01	0	-0.01 <sup>t</sup>	-0.01	0	0	-0.01	0.01	0	-0.01	0.01
Years of schooling	0	-0.02	0.01	0	-0.02	0.01	-0.02*	-0.04	0	-0.02 <sup>t</sup>	-0.03	0
Female	-0.38 <sup>t</sup>	-0.82	0.06	-0.27	-0.69	0.15	-0.33	-0.78	0.11	-0.21	-0.64	0.23
Random-effects	Coef.	95%CI		Coef.	95%CI		Coef.	95%CI		Coef.	95%CI	
Village	0.03	0	0.18	0.02	0	0.15	0	0	0	0	0	0
Group	0	0	0	0	0	0	0.01	0	0.94	0.02	0	0.5

Note: Random effects linear models of sociopolitical control factors (leadership competence and policy control) on collective efficacy, and “broaden and build” constructs – positive emotion, meaning in life, spirituality, compassion and social curiosity. Models control for wealth, age, years of formal schooling, and female gender. Random effects calculated for potential clustering at the village- and group-levels.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



Total effect on Leadership Competence			
Variable	Coefficient	95% CI	
Collective Efficacy	0.33***	0.23	0.43
Positive Emotion	0.07***	0.03	0.11
Spirituality	0.07***	0.03	0.11
Meaning in Life	0.17**	0.07	0.28
Compassion	0.16**	0.04	0.27
Social Curiosity	0.13*	0.02	0.23

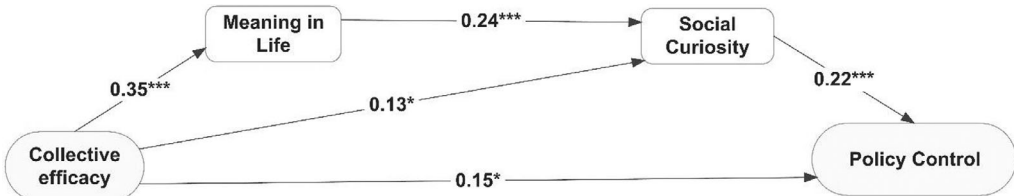
Notes: Standardized coefficients from SEM.  
\* indicates  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

Model pathways include years of education, gender, age and wealth where  $p < 0.20$ .

RMSEA: 0.00; 95%CI: 0.0 - 0; PClose: 1; CFI: 1; TFI: 1

$R^2$ : 0.37; SRMR: 0

**FIGURE 1** Structural Equation Model of Collective efficacy, Leadership Competence and Broaden-and-Build constructs



Total effect on Policy Control			
Variable	Coef.	95% CI	
Collective Efficacy	0.19***	0.09	0.3
Meaning in Life	0.05**	0.02	0.09
Social Curiosity	0.22***	0.12	0.33

Notes: Standardized coefficients from SEM.

\* indicates  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$

Model pathways include years of education, gender, age and wealth where  $p < 0.20$ .

RMSEA: 0.02; 95%CI: 0.0 - 0.09; PClose: .7; CFI: 1; TFI: 0.99

$R^2$ : 0.18; SRMR: 0.023

**FIGURE 2** Structural Equation Model of Collective efficacy, Policy Control and Broaden-and-Build constructs

Figure 1 depicts the Structural Equation Model between Collective Efficacy and Leadership Competence. The table in Figure 1 depicts the total effects between the primary model variables and Leadership Competence. The association between Collective Efficacy and Leadership Competence was significantly mediated by Positive Emotion, Meaning in Life, Spirituality, Compassion and Social Curiosity. Each mediator variable, Positive Emotion, Meaning in Life, Spirituality and Compassion, predicted significantly higher Leadership Competence.

Figure 2 depicts the Structural Equation Model between Collective Efficacy and Policy Control. Collective Efficacy significantly predicted Policy Control, though there were fewer significant mediators of this association than between Collective Efficacy and Leadership Competence. Only Meaning in Life and Social Curiosity mediated the association between Collective Efficacy and Policy Control.

#### **4 DISCUSSION**

This study seeks to support the development of a novel conception of “flourishing communities.” Flourishing communities are those with the collective capacity to provide care for members, respond successfully to threats, identify and successfully engage growth opportunities. Multiple research streams flow to inform this conceptualization, finding integration and creative expression in an active programme to support communities, families and children who have been affected by life on the streets—or at risk of migrating to street life. Flourishing communities integrate insights from community-led development work, multilevel resilience theories, and positive psychology. To support the development of interventions fostering flourishing communities, we ask the question—how can community leadership dynamics be understood in such a way as to inform interventions seeking to support communities as the integration points for a range of Sustainable Development Goals, including community-determined directions and priorities?

Broadly, data analyses support the flourishing community model. Collective efficacy was significantly associated with Leadership Competence and Policy Control, though mediating variables was not equivalent between these two models. A larger set of mediating variables were significantly predictive of Leadership Competence than Policy Control. Common to both models were meaning in life and social curiosity, while positive emotion, spirituality and compassion only predicted Leadership Competence. Zimmerman, Ramirez-Valles, and Maton (1999) proposes that critical awareness, understanding causal agents, skill development and community involvement support psychological empowerment; these features may be reflected in the current analysis of factors associated with sociopolitical control. Future research may explore the role of curiosity in supporting critical awareness, understanding causal agents, skill development and community involvement.

In secondary regression analysis, positive emotion significantly predicted Policy Control when not controlling for collective efficacy. It may be that positive emotion supports the development of collective efficacy—a potential example of recursion between model variables. To parse out the strength of directionality among model variables, there is a need for longitudinal data with multiple panels to conduct more nuanced analyses.

Present data support further investigation into the third scaffolding stage of our flourishing community model—building positive psychological assets to promote flourishing, generative, supportive, resilient, compassionate, curious, responsive and self-determined communities.

Future research should explore whether variables predicting sociopolitical control can be improved and whether sociopolitical control contributes to sector-specific improvements as proposed by the model. Previous programmatic work has demonstrated associations between positive emotion and entrepreneurialism (Baluku, Kikooma, & Kibanja, 2016; Eijdenberg & Thompson, 2020), parenting (Don et al., 2021) and HIV viral suppression (Wilson et al., 2017). Positive emotion predicts longevity and, as seen in this study, other psychosocial benefits and sociopolitical control (Diener & Chan, 2011). Successful validation of the flourishing community model at each proposed stage and across sectoral domains may provide a novel approach to implementing Sustainable Development Goals while building and respecting community dignity (Le Blanc, 2015).

We hypothesised that higher collective efficacy would predict higher positive emotions, similar to how dyadic social relations predict higher positive emotions. Collective efficacy, like the dyadic relationships explored within social attachment theory, builds on working scripts indicating the availability and responsiveness of trusted social figures who are competent to respond and improve the conditions of social network egos. Considering collective efficacy as akin to, or perhaps even a form of, attachment permitted theoretical linkage between collective efficacy and broaden-and-build dynamics of positive emotion and supportive relationships established by prior research (Mikulincer & Shaver, 2020b). Similarly, exploring how and whether internal working models developed during infancy, and through social relationships across the lifespan, may position future research to connect adult collective efficacy with life course trajectories. It may be, for example, that children with lower quality social relationships have lower collective efficacy and sociopolitical control in adulthood, potentially revealing another way in which childhood social experiences influence life-course trajectories.

#### **4.1 Limitations**

As a cross-sectional analysis, there is no temporal order to study the data. Two informing models—community-led development and the broadening and build cycle of attachment security—provided the central constructs and framework, while multisystemic resilience theory provided the motivation for this study. There are most likely recursive dynamics between the investigated variables. Further analyses are required to explore the directionality, nuance, qualitative experience and programmatic effectiveness of the flourishing community model.

Data are subject to self-reported biases. Respondents with a higher social desirability bias likely inflate reports of collective efficacy, sociopolitical control and mediating variables. This would indicate the model reflects, in part or in full, confounding by an unmeasured and uncontrolled heterogenic condition. Study conclusions are supported by the prior hypothesised framework and strong randomised control data. Results of the on-going pilot trial of the “Pathways to Flourishing” study will hopefully clarify this possibility.

Even without spurious associations in analyses, self-reported sociopolitical control may or may not predict observable leadership competence and policy control. Further research is required to validate whether these measures predict engagement within the sociopolitical sphere.

Data provides initial support for a novel and potentially fecund “flourishing communities” paradigm, synthesises experimentally-supported theories developed primarily focused on individuals and dyadic relations.

## 5 CONCLUSIONS

We present a new model for community transformation deserving further investigation, both within the study context and beyond. Research must establish the extent to which observed pathways are modifiable and increase sociopolitical control among community members. In articulating the theoretical underpinnings of the model, we intend to support the transferability of the model to other contexts. Still, the extent to which the flourishing community model may be transferred to other contexts requires further research. This study provides early empirical data, alongside existing theoretical support, to animate a potentially widely scalable, testable, sustainable, integrative and impactful model to promote community engagement and leadership.

## ACKNOWLEDGEMENTS

The women and men who strive with care and grit to make their communities flourish inspire us and elicit the best support we know how to offer. First using the compassionate knowledge of a small interdisciplinary work group at Emory University, the flourishing community model is informed by decades of passionate and insightful research from multiple avenues. Finally, to the children living on the streets asking us to make for them a better world, we are trying our best—sorry to require your patience.

## CONFLICT OF INTEREST

Authors declare no conflict of interests.

## REFERENCES

- Baguios, A., King, M., Martins, A., & Pinnington, R. (2021). Are we there yet? Localisation as the journey towards locally led practice: Models, approaches and challenges (ODI Report). London: ODI <https://odi.org/en/publications/are-we-there-yet-localisation-as-the-journey-towards-locally-led-practice>
- Baluku, M. M., Kikooma, J. F., & Kibanja, G. M. (2016). Psychological capital and the startup capital–entrepreneurial success relationship. *Journal of Small Business & Entrepreneurship*, 28(1), 27–54.
- Brody, C., Hoop, T. D., Vojtkova, M., Warnock, R., Dunbar, M., Murthy, P., & Dworkin, S. L. (2017). Can self-help group programs improve women's empowerment? A systematic review. *Journal of Development Effectiveness*, 9(1), 15–40.
- Chan, R. C., Mak, W. W., Chan, W. Y., & Lin, W. Y. (2021). Effects of social movement participation on political efficacy and well-being: A longitudinal study of civically engaged youth. *Journal of Happiness Studies*, 22(5), 1981–2001.
- Cherniak, A. D., Mikulincer, M., Shaver, P. R., & Granqvist, P. (2021). Attachment theory and religion. *Current Opinion in Psychology*, 40, 126–130.
- Conte, F., Cellini, N., De Rosa, O., Caputo, A., Malloggi, S., Coppola, A., ... Ficca, G. (2020). Relationships between dream and previous wake emotions assessed through the Italian modified differential emotions scale. *Brain Sciences*, 10(10), 690.



- Delea, M. G., Sclar, G. D., Woreta, M., Haardörfer, R., Nagel, C. L., Caruso, B. A., ... Freeman, M. C. (2018). Collective efficacy: Development and validation of a measurement scale for use in public health and development programmes. *International Journal of Environmental Research and Public Health*, 15(10), 2139.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-Being*, 3(1), 1–43.
- Don, B. P., Eller, J., Simpson, J. A., Fredrickson, B. L., Algoe, S. B., Rholes, W. S., & Mickelson, K. D. (2021). New parental positivity: The role of positive emotions in promoting relational adjustment during the transition to parenthood. *Journal of Personality and Social Psychology*, 123(1), 84.
- Eijdenberg, E. L., & Thompson, N. A. (2020). Jump for joy: happiness as the route to increased living standards of entrepreneurs in Zambia. *Small Enterprise Research*, 27(2), 240–257.
- Estrada, M., Monferrer, D., Rodríguez, A., & Moliner, M. Á. (2021). Does emotional intelligence influence academic performance? The role of compassion and engagement in education for sustainable development. *Sustainability*, 13(4), 1721.
- Fitton, V. A. (2013). Attachment theory: History, research, and practice. In *Child and adolescent psychotherapy and psychoanalysis* (pp. 129–151). London: Routledge.
- Fredrickson, B. L. (2004). The broaden-and-build theory of positive emotions. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*, 359(1449), 1367–1377.
- Fredrickson, B. L. (2013). Positive emotions broaden and build. In *Advances in experimental social psychology* (Vol. 47, pp. 1–53). Cambridge, MA: Academic Press.
- Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist*, 60(7), 678–686.
- Garrosa, E., Blanco-Donoso, L. M., Carmona-Cobo, I., & Moreno-Jiménez, B. (2017). How do curiosity, meaning in life, and search for meaning predict college students' daily emotional exhaustion and engagement? *Journal of Happiness Studies*, 18(1), 17–40.
- Gillath, O., Karantzas, G. C., & Selcuk, E. (2017). A net of friends: Investigating friendship by integrating attachment theory and social network analysis. *Personality and Social Psychology Bulletin*, 43(11), 1546–1565.
- Goodman, M. L., Gibson, D. C., Baker, L., & Seidel, S. E. (2020). Family-level factors to reintegrate street-involved children in low-and middle-income countries: A scoping review. *Children and Youth Services Review*, 109, 104664.
- Goodman, M. L., Elliott, A. J., Gitari, S., Keiser, P., Raimer-Goodman, L., & Seidel, S. E. (2021). Come together to promote health: Case study and theoretical perspectives from a Kenyan community-based program. *Health Promotion International*, 36, 1765–1774.

- Goodman, M. L., Gibson, D. C., Keiser, P. H., Gitari, S., & Raimer-Goodman, L. (2019). Family, belonging and meaning in life among semi-rural Kenyans. *Journal of Happiness Studies*, 20(5), 1627–1645.
- Goodman, M. L., Martinez, K., Kstaeiser, P. H., Gitari, S., & Seidel, S. E. (2017). Why do Kenyan children live on the streets? Evidence from a cross-section of semi-rural maternal caregivers. *Child Abuse & Neglect*, 63, 51–60.
- Granqvist, P., Mikulincer, M., & Shaver, P. R. (2020). An attachment theory perspective on religion and spirituality. In *The science of religion, spirituality, and existentialism* (pp. 175–186). London: Academic Press.
- Hermes, N., & Lensink, R. (2007). The empirics of microfinance: What do we know? *The Economic Journal*, 117(517), F1–F10.
- Itzhaky, H., & York, A. S. (2000). Sociopolitical control and empowerment: An extended replication. *Journal of Community Psychology*, 28(4), 407–415.
- Kashdan, T. B., Stikma, M. C., Disabato, D. J., McKnight, P. E., Bekier, J., Kaji, J., & Lazarus, R. (2018). The five-dimensional curiosity scale: Capturing the bandwidth of curiosity and identifying four unique subgroups of curious people. *Journal of Research in Personality*, 73, 130–149.
- Le Blanc, D. (2015). Towards integration at last? The sustainable development goals as a network of targets. *Sustainable Development*, 23(3), 176–187.
- Mair, J., Wolf, M., & Seelos, C. (2016). Scaffolding: A process of transforming patterns of inequality in small-scale societies. *Academy of Management Journal*, 59(6), 2021–2044.
- Mansuri, G., & Rao, V. (2004). Community-based and-driven development: A critical review. *The World Bank Research Observer*, 19(1), 1–39.
- Martela, F., Ryan, R. M., & Steger, M. F. (2018). Meaningfulness as satisfaction of autonomy, competence, relatedness, and beneficence: Comparing the four satisfactions and positive affect as predictors of meaning in life. *Journal of Happiness Studies*, 19(5), 1261–1282.
- Masten, A. S., Lucke, C. M., Nelson, K. M., & Stallworthy, I. C. (2021). Resilience in development and psychopathology: Multisystem perspectives. *Annual Review of Clinical Psychology*, 17, 521–549.
- Mikulincer, M., & Shaver, P. R. (2020a). Broaden-and-build effects of contextually boosting the sense of attachment security in adulthood. *Current Directions in Psychological Science*, 29(1), 22–26.
- Mikulincer, M., & Shaver, P. R. (2020b). Enhancing the “broaden and build” cycle of attachment security in adulthood: From the laboratory to relational contexts and societal systems. *International Journal of Environmental Research and Public Health*, 17(6), 2054.
- Movement for Community-led Development. (2022). History of this movement. <https://mclcd.org/history-of-this-movement/>

- Muzaffar, N. N. (2017). Role of family system, positive emotions and resilience in social adjustment among Pakistani adolescents. *Journal of Educational, Health and Community Psychology*, 6(2), 46–58.
- Nazir, O., & Islam, J. U. (2020). Effect of CSR activities on meaningfulness, compassion, and employee engagement: A sense-making theoretical approach. *International Journal of Hospitality Management*, 90, 102630.
- Nel, H. (2018). Community leadership: A comparison between asset-based community-led development (ABCD) and the traditional needs-based approach. *Development Southern Africa*, 35(6), 839–851.
- Ohmer, M. L. (2007). Citizen participation in neighborhood organizations and its relationship to volunteers' self-and collective efficacy and sense of community. *Social Work Research*, 31(2), 109–120.
- Peterson, N. A., Peterson, C. H., Agre, L., Christens, B. D., & Morton, C. M. (2011). Measuring youth empowerment: Validation of a sociopolitical control scale for youth in an urban community context. *Journal of Community Psychology*, 39(5), 592–605.
- Pommier, E., Neff, K. D., & Tóth-Király, I. (2020). The development and validation of the compassion scale. *Assessment*, 27(1), 21–39.
- Renner, B. (2006). Curiosity about people: The development of a social curiosity measure in adults. *Journal of Personality Assessment*, 87(3), 305–316.
- Saslow, L. R., John, O. P., Piff, P. K., Willer, R., Wong, E., Impett, E. A., ... Saturn, S. R. (2013). The social significance of spirituality: New perspectives on the compassion–altruism relationship. *Psychology of Religion and Spirituality*, 5(3), 201–218.
- Seidel, S., Muciimi, J., Chang, J., Gitari, S., Keiser, P., & Goodman, M. L. (2018). Community perceptions of home environments that lead children & youth to the street in semi-rural Kenya. *Child Abuse & Neglect*, 82, 34–44.
- Steger, M. F., & Samman, E. (2012). Assessing meaning in life on an international scale: Psychometric evidence for the meaning in life questionnaire-short form among Chilean households. *International Journal of Wellbeing*, 2(3), 182–195.
- Theron, L., Murphy, K., & Ungar, M. (2021). Multisystemic resilience: Learning from youth in stressed environments. *Youth & Society*, 54(6), 1000-1022. 0044118X211017335.
- Theron, L. C., & Theron, A. M. (2014). Meaning-making and resilience: Case studies of a multifaceted process. *Journal of Psychology in Africa*, 24(1), 24–32.
- Ungar, M., & Theron, L. (2020). Resilience and mental health: How multisystemic processes contribute to positive outcomes. *The Lancet Psychiatry*, 7(5), 441–448.

United Nations. (2016). Transforming our world: The 2030 agenda for sustainable development.  
<https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>

Venkataramanan, V., Crocker, J., Karon, A., & Bartram, J. (2018). Community-led total sanitation: A mixed-methods systematic review of evidence and its quality. *Environmental Health Perspectives*, 126(2), 026001.

Waheduzzaman, W., As-Saber, S., & Hamid, M. B. (2018). Elite capture of local participatory governance. *Policy & Politics*, 46(4), 645–662.

Waters, H. S., & Waters, E. (2006). The attachment working models concept: Among other things, we build script-like representations of secure base experiences. *Attachment & Human Development*, 8, 185–197.

Wilson, T. E., Weedon, J., Cohen, M. H., Golub, E. T., Milam, J., Young, M. A., ... Fredrickson, B. L. (2017). Positive affect and its association with viral control among women with HIV infection. *Health Psychology*, 36(1), 91–100.

Yule, K., Houston, J., & Grych, J. (2019). Resilience in children exposed to violence: A meta-analysis of protective factors across ecological contexts. *Clinical Child and Family Psychology Review*, 22(3), 406–431.

Zimmerman, M. A., Ramirez-Valles, J., & Maton, K. I. (1999). Resilience among urban African American male adolescents: A study of the protective effects of sociopolitical control on their mental health. *American Journal of Community Psychology*, 27(6), 733–751.

Zimmerman, M. A., & Zahniser, J. H. (1991). Refinements of sphere-specific measures of perceived control: Development of a sociopolitical control scale. *Journal of Community Psychology*, 19(2), 189–204.