



# Contributions of Positive Youth Development to Intervention Science

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## Abstract

**Background** Advances in knowledge of how to promote positive youth development (PYD) have significant potential to enrich intervention science. As part of a broader movement in the direction of a more fully integrated intervention science, PYD intervention research can provide practitioners in youth behavioral and mental health with an updated set of intervention tools beyond problem-focused strategies for reducing or preventing dysfunction.

**Objective** The objective of this commentary is to highlight potential contributions of PYD research to the development of more complete models of youth intervention, as well as to identify directions for future PYD intervention research.

**Method** This commentary discusses and expands on findings from the present articles that contribute to an empirical foundation for connecting PYD promotion with the science and practice of treatment and prevention.

**Results** The findings point to practical advantages that result from understanding the empirical links among PYD, treatment, and prevention on the way to achieving a more fully integrated intervention science, as well as methodological challenges involved in pursuing this agenda.

**Conclusions** In this context, the next generation of intervention science will be driven by integrating PYD's contextual, cultural, relational, global, and participatory values into the science of building and testing youth interventions.

**Keywords** Positive youth development intervention · Implementation · Change process research · Cascade effects · Integrated intervention science

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Advances in positive youth development (PYD) have the potential to realize a more fully integrated intervention science (Ferrer-Wreder 2013; Tolan 2014; Weisz et al. 2005), which will open up new ways for practitioners to partner with youth to actualize beneficial change. Specifically, an integrated intervention science will include a complete set of intervention tools for promoting positive development, treating dysfunction when it occurs, and reducing risk for future dysfunction. Fostering a more complete set of intervention tools beyond treatment and prevention strategies for reducing or preventing dysfunction would expand the range of possibilities for professionals who aim to employ evidence-based intervention strategies in real-world practice settings. In operational terms, “a complete set of intervention tools” means that when a young person is referred to a specialist in youth behavioral and mental health (e.g., a psychotherapist, social worker, mental health counselor, etc.), that specialist would not be restricted to only problem-focused conceptualization and treatment. Instead, the specialist could draw on an integrated youth intervention research literature on evidence-based strategies for treatment, prevention, and promotion, as well as the specialist’s own professional expertise. In other words, an integrated intervention science can more fully equip practitioners with the tools for meeting the complete range of needs of the youth they serve—including capitalizing on the strengths of young people that are central to positive youth development. The articles in this special issue, as contributors to a more fully integrated intervention science, have wide ranging, practice-relevant implications and possibilities.

From a research perspective, the achievement of a more integrated intervention science requires developing links between evolving theoretical and practical models for promoting positive development across different PYD associated frameworks (i.e., models of the structure and process of PYD and models of what specifically to *do* to promote a wide array of positive development indicators; Tolan 2016; Tolan et al. 2016), as well as exploring intersections between PYD intervention approaches and existing treatment and prevention intervention models, including resilience theory (e.g., Dutra-Thomé et al. 2018) and associated intervention models. It also requires incorporating well-developed methodological tools that have been tested and refined in treatment and prevention science over several decades into PYD interventions. Integrated theoretical, practical, and evaluation models of promotion, prevention, and treatment have rarely been developed. However, the articles in this special issue contribute to the vital work that is needed to provide a globally relevant empirical basis for advancing such models. Indeed, a particular strength of the articles in this special issue as a whole is that they illustrate the relevance and vitality of PYD as it is expressed in diverse youth and emerging adults living in different parts of the world. Having globally relevant evidence on PYD is essential considering several wider trends in intervention science. For instance, cutting-edge prevention interventions (e.g., Mejia et al. 2017) and some positive development interventions such as social emotional learning programs are more frequently leveraging knowledge of young people’s context and culture in more systematic ways to refine and make intervention strategies increasingly efficient, beneficial, and transportable (i.e., the intervention cultural adaptation research literature).

A persistent challenge to the integration of PYD with treatment and prevention intervention science is a conflict in the basic assumptions underlying PYD and those underlying the use of models available for evaluating change in youth intervention programs. Available evaluation models, drawn originally from treatment science but extended to prevention science, are typically rooted in the dichotomized (i.e., “split”; Overton 2010) conceptualization of intervention outcome as an effect on youth behavior caused by the intervention efforts of adults. In contrast, PYD, as exemplified by the work described in this issue, is rooted in a relational developmental systems perspective that refuses such dichotomized

explanations. From this perspective, PYD is a contextualized, dynamic process involving the relational person ↔ context unit (Tirrell et al. 2018). Although the effects of the developmental system's activity may manifest as multi-directional change in positive, problematic, and risky outcome domains, the mechanism of development is always the “organism's embodied action-in-the-world” (Overton 2010, p. 22). Thus, PYD interventions are aimed at changing the person ↔ context relation by providing contextual resources that youth can use to develop in healthy and positive ways (Lerner and Overton 2008). On the other hand, evaluation models that are typically available are aimed at evaluating the effects of intervention procedures on change in youth behavior or propensity for behavior (i.e., a specified context → person effect).

The articles in this issue all draw on the relational developmental systems perspective to conceptualize PYD. Three studies explicitly conceptualized PYD as the accrual of internal and external developmental assets (the developmental assets model of PYD—Benson 2007; Scales et al. 2011). The other three studies conceptualized PYD as the thriving that results out of the coaction between internal and external developmental assets, which manifests as youths' sense of Competence, Confidence, Character, Caring, and Connection (the 5 Cs model of PYD—Lerner et al. 2015). Across these six studies, two consistent patterns of findings relevant to advancing the development of PYD interventions emerged. Regardless of the PYD model employed and the national context of the study, PYD

1. was empirically linked to outcome domains of interest to a wide range of practitioners and scientists, including both positive and problem/risky outcome domains, and
2. co-varied with dimensions of the developmental context, whether proximal or distal.

The first pattern of findings is consistent with and provides support for the proposition that changes in positive, problem, and risky outcome domains are manifestations of the same underlying processes and mechanisms of development (with positive development essentially constituting a “third variable” unrepresented in typical models of treatment and prevention intervention). The second pattern of findings is consistent with and provides support for the proposition that all behavioral development emerges out of the activity of the entire developmental system and that developmental contexts should be represented in models of intervention outcome. These findings are briefly reviewed below.

Several of the studies in this issue identified relations between indices of PYD and other outcomes, including both adaptive and maladaptive functioning. Adams et al. (2018) found that higher levels of internal assets, such as social competencies and positive identity, were associated with greater academic performance among adolescents in Ghana, Kenya, and South Africa. Similarly, Kozina et al. (2018) found that higher levels of self-related 5 Cs (character, confidence) but not other-related 5 Cs (connection, caring) were associated with greater math achievement among adolescents in Slovenia. Although the relation between PYD and academic outcomes is likely to be complex, bidirectional, and co-active with other features of the developmental context, these studies suggest that promoting internal developmental assets should be investigated as a strategy for enhancing adaptive functioning in educational settings.

On the other hand, Dutra-Thomé et al. (2018) found that higher levels of connectedness to different ecological systems were associated with improvements in either self-concepts (associated with connectedness to family and college) or antisocial behavior (associated with connectedness to the community) among Brazilian emerging adults. The inverse relation between community connectedness and antisocial behavior is in line with previous

findings of inverse longitudinal linkages between indicators of PYD and risky/problem behaviors (Tirrell et al. 2018). As before, the relation between PYD and risky/problem behaviors is likely to be complex, bidirectional, and co-active with other features of the developmental context, including environmental uncertainty (Chen et al. 2018). However, linkages between PYD and risky/problem behaviors raise the possibility that promoting PYD may be an effective strategy for reducing risk and problem behaviors.

Several of the studies in this issue also identified relations between features of the developmental context and indices of PYD. Wiium et al. (2018) found that national context was not only associated with the level of developmental assets but also that this association was moderated by the gender of the participant and the education level of the father. Chen et al. (2018) found that a specific and measureable dimension of the developmental context, i.e., environmental certainty, was associated with both internal and external development assets. Further, this association was decomposed into direct and indirect components, with the indirect effect being statistically mediated by long-term planning and goals (i.e., a slow life history strategy). The direct effect was the component of the environmental certainty-developmental assets relation that was not explained by long-term planning and goals.

Tirrell et al. (2018) also examined the association between a specific feature of the developmental context and indices of PYD. However, the feature of the developmental context examined in this study differed from national context and environmental uncertainty in an important way: a “slice” of the developmental context was intentionally changed to facilitate positive change in the lives of youth. That is, a network of PYD programs systematically provided El Salvadorian youth with contextual resources (opportunities to participate in organized skill-building activities) in order to change the person ↔ context relation. The goal was to increase the probability that youth would develop in healthy and positive ways. Consistent with this conceptualization, Tirrell et al. found preliminary evidence that participation in PYD programs was associated with increased levels of character development and spirituality.

## Implications: PYD Contributes to More Complete Models of Youth Intervention

The picture that begins to emerge is that, despite conflicting underlying assumptions between PYD and problem-focused intervention, there is an empirical foundation for connecting PYD promotion with the science and practice of treatment and prevention. Providing contextual resources to youth may be an avenue for bringing about desired change in specific problematic youth behavior or propensity for such behavior. That is, the causal effects of youth’s actions in the context of PYD intervention may spread beyond what is measured by indices of PYD. These effects are likely to follow complex pathways that interact in multifaceted ways with moderator and mediator variables. Some of these pathways may be pathways of promotion, while at the same time other pathways may be prevention and/or treatment pathways.

In other words, in a relationally integrated intervention science, what PYD is may simply be a matter of a scientist or practitioner’s standpoint, aims, and choice of outcome variables. From a treatment perspective, PYD may be hypothesized as a mediating mechanism of change in problem behaviors. At the same time, from a prevention perspective PYD may be hypothesized as a protective factor that buffers risk (Dutra-Thomé et al. 2018). Of course, from a PYD perspective, PYD is the primary outcome of interest. However,

to empirically evaluate the plausibility of these hypotheses requires incorporating useful methodological tools from treatment and prevention science into the study of PYD, despite conflicting underlying assumptions, but extending and refining those models and methods to meet the aims of PYD intervention research. In particular, models and methods for employing a full range of evaluation information (implementation, change processes, and cascade effects) should be pursued.

## Evaluate PYD Program Implementation

Implementation refers to what exactly occurs in a particular program delivered in a particular setting, including both how much of it was provided and how well it was provided (Durlak and DuPree 2009). Understanding implementation processes and how they influence the success of PYD interventions is crucial from both a practical and theoretical perspective. Unfortunately, much of what we know about promising implementation practices within PYD programming comes from descriptive analyses. For example, in an early review of twenty-five effective PYD programs, Catalano et al. (2004) found that these programs shared specific implementation characteristics in terms of duration, dose, structure, and fidelity. In a more recent descriptive analysis, investigators specifically concerned with the influence of context on implementation and receipt of PYD programs found that community, organizational, and staff characteristics were descriptively influential in improving fidelity and acceptability of PYD interventions (Dickson et al. 2018). Unfortunately, experimental evidence as to the impact of the above characteristics on youth outcomes is scant.

In the current issue, the findings of Wiium et al. should not be overlooked for their implications for connecting PYD and implementation outcome. Just as the nature and structure of developmental assets at the individual youth level may be impacted in profound ways by economic, social, cultural and political structures so may important implementation drivers be impacted by these same contextual processes. For example, implementing a well-regarded and effective PYD program in a context of high parental-teacher collaboration, communication, and trust can be hypothesized to yield better outcomes than when attempting to implement that same program in a context of low parental-teacher collaboration, communication, and trust. Understanding contextual effects on the implementation of interventions is paramount for future efforts to bring PYD interventions to scale. This understanding can be developed in future attempts to incorporate implementation variables into experimental studies of PYD programming.

## Evaluate Change Processes for Promoting PYD

Change process research focuses on the actions, experiences, and relationships that occur during intervention sessions (Llewelyn et al. 2016). It goes beyond the comparative outcome approach of evaluating intervention-related pre to posttest change in group means to examine intra-individual processes of session-by-session change using quantitative (e.g., self-report instruments) and qualitative (e.g., transcript analysis) methods (Hayes et al. 2018). As articulated in the psychotherapy research literature, the aim of the change process approach is to draw on theory to identify predictable and empirically established sequences of dynamic, progressive, and multilevel changes that occur on the route toward achieving intervention goals (Hofmann and Hayes 2018). Thus, despite evolving out of a

different research tradition, the dynamic and ideographic orientation of the change process approach fits well within the relational developmental systems perspective.

Although specific change processes for promoting PYD have been theorized, such processes have rarely been empirically examined (Roth and Brooks-Gunn 2016). Lerner (2004) specified the “Big Three” change processes that youth development programs should facilitate: (1) building positive and sustained youth-adult relations, (2) engaging youth in life-skill building activities, and (3) creating opportunities for youth participation and leadership in valued family, school, and community activities. Other PYD approaches have hypothesized similar underlying processes (e.g., Roth and Brooks-Gunn 2003). A change process approach would require developing quantitative and qualitative measures of these hypothesized PYD change processes that can be used on a session-by-session basis. The data generated through the use of such measures could then be used to empirically identify sequences of dynamic, progressive, and multilevel changes that predictably enhance PYD, which would both inform evolving theoretical models of PYD at the level of interpersonal interactions and have direct practice implications regarding what processes practitioners should aim to facilitate when they interact with youth.

## Identify PYD Cascade Effects

If one considers positive development in broad terms (Tolan et al. 2016), there is a growing evidence base documenting what PYD interventions can and cannot do (e.g., Ciocanel et al. 2017; Taylor et al. 2017). The results of two separate meta-analyses considered together show that a diverse array of PYD interventions such as school-based social emotional learning programs, as well as after school interventions that consist of, for example community service, mentoring, recreation, and academic training can indeed ameliorate emotional distress and improve academic achievement (Ciocanel et al. 2017; Taylor et al. 2017). Social emotional learning interventions may confer even further benefits in terms of being associated with reductions in conduct problems and drug use (Taylor et al. 2017).

This pattern of findings raises the issue of *how* PYD interventions produce effects on outcome domains that they do not specifically target, including problem behavior and mental health outcomes. Is it because the same change processes mediate improvements in both positive development and problem outcomes? Or is it because promoting PYD produces cascade effects that spread across domains of functioning (Masten and Cicchetti 2010). Cascade effects can occur in the context of an intervention if intervention effects on developmental processes spread from one outcome to other outcomes (Bonds et al. 2010). With regard to PYD intervention, the question has three parts: (1) does PYD intervention promote change in targeted domains of positive development; (2) is this intervention-related change then transmitted to outcome domains not targeted by the intervention; and (3) under what conditions do these intervention cascade effects occur? This question, which can be addressed using outcome mediation research designs and evaluation models (Kazdin 2009) extended to include moderation analysis (Hayes 2018), has potentially important implications for practice. On the one hand, the problem-focused approach to youth intervention has resulted in a proliferation of separate problem-specific programs, despite evidence that adolescent risk behaviors often share common causal pathways and common predictors (Guerra and Bradshaw 2008). On the other hand, those who work with youth in real-world practice settings (e.g., a psychotherapists, social workers, mental health counselors, etc.) often do not have the resources to match problem-specific programs to youths’ problem

profiles. The reason for this is that the youth populations that practitioners typically serve tend to have high levels of variability in problems, both inter-individual and intra-individual variability. A school counselor, for example, cannot expect that all referred students will have the same presenting problem (or even that any of them will have only one problem) so that a particular problem-specific program can be delivered to all of them. However, if promoting PYD has identifiable cascade effects on the risky/problem behaviors that bring the students to the counselor, then this raises the possibility that participating in a PYD intervention would have benefits for each student. In that case, PYD cascade effects could be used as building blocks to develop more efficient youth intervention programs that are both realistic and useful in practice settings.

## **PYD Research Advances Intervention Science**

The next generation of intervention science will be advanced by continued evaluation and development of grass roots interventions that occur within contexts as a part of everyday practices and that are developed by non-scientist driven organizations that are dedicated to support youth development (e.g., youth clubs, charitable organizations) but also through new ways of creating interventions, from the intervention scientist perspective. For example, if evidence-based PYD interventions are combined in a coordinated fashion with efficient multi-problem-oriented intervention strategies, intervention scientists are then in a better position to offer stakeholders something of considerable value—programs and interventions that can take on multiple important and pressing problems, have the advantage of not problematizing youth, engage youth and respect and incorporate their strengths, and are likely more sustainable because they make efficient use of available resources that may now be spread out across a range of vitally important but uncoordinated prevention programs (e.g., many primary and secondary schools for example are commonly required or encouraged to have plans, policies, or programs that prevent drug use, bullying, truancy and school dropout, suicide, and violence).

The other important advances will come out of understanding how interventions that are beneficial can be sustained and ways to make useful interventions cost less and be more widely available (e.g., digitalization of training and supervision for implementation quality and technical assistance, open source intervention materials, empowerment evaluation training or professional competence development for intervention implementers). Continued advances will also come out of outcome analysis approaches that make clear, on an empirical basis, how interventions actually work, under what conditions, and for whom. As noted by Tolan et al. (2016), a sole reliance on group difference comparisons over time (pre to posttest change in an intervention versus control group) while clearly needed and informative for some questions, may miss out on a central PYD tenet which lifts up the importance of person ↔ context coactions and the alignment of youth strengths with contextual resources to produce thriving. The everyday science of outcome evaluation analyses tends not to be as nuanced as we would like to capture such changes, but innovations coming from person-oriented analysis and dynamic systems-based analysis as well as individual level analysis along these lines are likely to become more mainstream in the everyday scientific practice of outcome evaluation in the future.

In summary, the articles in this special issue represent vital and necessary work that will make a more integrated intervention science possible. Positive youth development is a newer field relative to treatment and prevention science, yet it has the advantage of the



potential of starting off with a more culturally attuned, global evidence base, as the articles in this special issue exemplify. Positive youth development has an explicit participatory ethos that values partnership with communities and youth and it has been shaped at its outset by a strong consideration of the importance of person ↔ context coactions from a developmental science standpoint. This is a highly demanding framework, if one takes it seriously and not just as a guiding meta-theory, because it calls for substantial shifts in the way in which interventions are designed, evaluated, and disseminated. This is a difficult but worthwhile challenge to take on considering the resources that youth themselves have and the ethical responsibility of adults to help youth realize their best potentials.

## Compliance with Ethical Standards

**Conflict of interest** All authors declare that they have no conflict of interest.

**Ethical approval** This article does not contain any studies with human participants performed by any of the authors.

## References

- Adams, B. G., Wiium, N., & Abubakar, A. (2018). Developmental assets and academic performance of adolescents in Ghana, Kenya, and South Africa. *Child & Youth Care Forum*. <https://doi.org/10.1007/s10566-018-9480-z>.
- Benson, P. L. (2007). Developmental assets: an overview of theory, research, and practice. In R. Silbereisen & R. Lerner (Eds.), *Approaches to positive youth development* (pp. 33–59). London: SAGE Publications Ltd.
- Bonds, D. D., Wolchik, S. A., Winslow, E., Tein, J., Sandler, I. N., & Millsap, R. E. (2010). Developmental cascade effects of the New Beginnings Program on adolescent adaptation outcomes. *Developmental Psychopathology*, 22, 771–784. <https://doi.org/10.1017/S0954579410000453>.
- Catalano, R. F., Berglund, M. L., Ryan, J. A. M., Lonczak, H. S., & Hawkins, J. D. (2004). Positive youth development in the United States: Research findings on evaluations of positive youth development programs. *The Annals of the American Academy of Political and Social Science*, 591, 98–124. <https://doi.org/10.1177/0002716203260102>.
- Chen, B., Wiium, N., & Dimitrova, R. (2018). A life history approach to understanding developmental assets among Chinese adolescents. *Child & Youth Care Forum*. <https://doi.org/10.1007/s10566-017-9433-y>.
- Ciocanel, O., Power, K., Eriksen, A., & Gillings, K. (2017). Effectiveness of positive youth development interventions: A meta-analysis of randomized controlled trials. *Journal of Youth and Adolescence*, 46, 483–504. <https://doi.org/10.1007/s10964-016-0555-6>.
- Dickson, K., Melendez-Torres, G. J., Fletcher, A., Hinds, K., Thomas, J., Stansfield, C., et al. (2018). How do contextual factors influence implementation and receipt of positive youth development programs addressing substance use and violence? A qualitative meta-synthesis of process evaluations. *American Journal of Health Promotion*, 32, 1110–1121. <https://doi.org/10.1177/0890117116670302>.
- Durlak, J. A., & DuPree, E. P. (2009). Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *American Journal of Community Psychology*, 41, 327–350. <https://doi.org/10.1007/s10464-008-9165-0>.
- Dutra-Thomé, L., DeSousa, D., & Koller, S. H. (2018). Promotive and risk factors for positive youth development among emerging adults in Brazil. *Child & Youth Care Forum*. <https://doi.org/10.1007/s10566-018-9475-9>.
- Ferrer-Wreder, L. (2013). Advancing child and adolescent well-being through positive youth development and prevention programs. In A. Ben-Arieh, I. Frones, F. Casas, & J. E. Korbin (Eds.), *The handbook of child well-being* (pp. 3025–3041). New York: Springer.
- Guerra, N. G., & Bradshaw, C. P. (2008). Linking the prevention of problem behaviors and positive youth development: core competencies for positive youth development and risk prevention. In N. G. Guerra & C. P. Bradshaw (Eds.), *Core competencies to prevent problem behaviors and promote positive youth development. New directions for child and adolescent development* (Vol. 122, pp. 1–17). Hoboken: Jossey-Bass. <https://doi.org/10.1002/cd.225>.



- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis* (2nd ed.). New York, NY: Guilford.
- Hayes, S. C., Hofmann, S. G., Stanton, C. E., Carpenter, J. K., Sandfor, B. T., Curtiss, J. E., et al. (2018). The role of the individual in the coming era of process-based therapy. *Behaviour Research and Therapy*. <https://doi.org/10.1016/j.brat.2018.10.005>.
- Hofmann, S. G., & Hayes, S. C. (2018). The future of intervention science: Process-based therapy. *Clinical Psychological Science*. <https://doi.org/10.1177/2167702618772296>.
- Kazdin, A. E. (2009). Understanding how and why psychotherapy leads to change. *Psychotherapy Research*, 19, 418–428. <https://doi.org/10.1080/10503300802448899>.
- Kozina, A., Wium, N., Gonzalez, J., & Dimitrova, R. (2018). Positive youth development and academic achievement in Slovenia. *Child & Youth Care Forum*. <https://doi.org/10.1007/s10566-018-9457-y>.
- Lerner, R. M. (2004). *Liberty: thriving and civic engagement among America's youth*. Thousand Oaks, CA: Sage.
- Lerner, R. M., Lerner, J. V., Bowers, E. P., & Geldhof, G. J. (2015). Positive youth development and relational-developmental-systems. In W. F. Overton & P. C. M. Molenaar (eds.), *Theory and method* (Chapter 16, pp. 607–651), (Volume 1: handbook of child psychology and developmental science, 7th edition). R. M. Lerner, series editor. New York: Wiley.
- Lerner, R. M., & Overton, W. F. (2008). Exemplifying the integrations of the relational developmental system: Synthesizing theory, research, and application to promote positive development and social justice. *Journal of Adolescent Research*, 23(3), 245–255. <https://doi.org/10.1177/0743558408314385>.
- Llewelyn, S., MacDonald, J., & Doorn, Aafjes-van. (2016). Process-outcome studies. In J. Norcross (Ed.), *Handbook of clinical psychology* (pp. 451–463). Worcester: American Psychological Association.
- Masten, A. S., & Cicchetti, D. (2010). Developmental cascades. *Developmental Psychopathology*, 22, 491–495. <https://doi.org/10.1017/S0954579410000222>.
- Mejia, A., Leijten, P., Lachman, J. M., & Parra-Cardona, J. (2017). Different strokes for different folks? Contrasting approaches to cultural adaptation of parenting interventions. *Prevention Science*, 18(6), 630–639. <https://doi.org/10.1007/s1121-016-0671-2>.
- Overton, W. F. (2010). Life-span development: Concepts and issues. In R. M. Lerner (Ed.), *The handbook of lifespan development*. Hoboken, NJ: Wiley.
- Roth, J. L., & Brooks-Gunn, J. (2003). What exactly is a youth development program? Answers from research and practice. *Applied Developmental Science*, 7, 94–111. [https://doi.org/10.1207/S1532480XADS0702\\_6](https://doi.org/10.1207/S1532480XADS0702_6).
- Roth, J. L., & Brooks-Gunn, J. (2016). Evaluating youth development programs: Progress and promise. *Applied Developmental Science*, 20, 188–202. <https://doi.org/10.1080/10888691.2015.1113879>.
- Scales, P. C., Benson, P. L., & Roehlkepartain, E. C. (2011). Adolescent thriving: The role of sparks, relationships, and empowerment. *Journal of Youth and Adolescence*, 40, 263–277.
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88, 1156–1171. <https://doi.org/10.1111/cdev.1286>.
- Tirrell, J. M., Geldhof, G. J., King, P. E., Dowling, E. M., Sim, A. T. R., Williams, K., et al. (2018). Measuring spirituality, hope, and thriving among Salvadoran youth: Initial findings from the compassion international study of positive youth development. *Child & Youth Care Forum*. <https://doi.org/10.1007/s10566-018-9454-1>.
- Tolan, P. (2014). Future directions for positive development intervention research. *Journal of Clinical Child and Adolescent Psychology*, 43, 686–694. <https://doi.org/10.1080/15374416.2014.936604>.
- Tolan, P. (2016). Positive youth development interventions: advancing evaluation theory and practice. *Applied Developmental Science*, 20, 147–149. <https://doi.org/10.1080/10888691.2015.1014485>.
- Tolan, P., Ross, K., Arkin, N., Godine, N., & Clark, E. (2016). Toward an integrated approach to positive development: Implications for intervention. *Applied Developmental Science*, 20(3), 214–236. <https://doi.org/10.1080/10888691.2016.1146080>.
- Weisz, J. R., Sandler, I. N., Durlak, J. A., & Anton, B. S. (2005). Promoting and protecting youth mental health through evidence-based prevention and treatment. *American Psychologist*, 60, 628–648. <https://doi.org/10.1037/0003-066X.60.6.628>.
- Wium, N., Dost-Gözkın, A., & Kosic, M. (2018). *Developmental assets among young people in three European contexts: Italy*. Norway: Child & Youth Care Forum. <https://doi.org/10.1007/s10566-018-9446-1>.