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Unlocking the transformative power of mentoring for youth development in communities, schools, and talent domains

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Abstract

Mentoring is a highly individualized educational measure that can support youth development in communities, schools, and talent domains. Depending on the target population, goals, structure, and medium, mentoring for youths can differ considerably. This article first reviews the main types of mentoring programs and practices for youth development in communities, schools, and talent domains. Despite the popularity of mentoring programs, many programs fail to realize the full potential of mentoring as meta-analyses consistently show relatively small effects of mentoring. The discrepancy between the potential and actual effect of mentoring is referred to as the mentoring paradox. Crucial aspects that are held responsible for the mentoring paradox, such as adequate planning and implementation of mentoring programs, adherence to research-based mentoring practices, as well as quality assurance of mentoring programs through systematic program research and evaluation are described. Finally, implications on how to professionalize mentoring are provided for different stakeholders.

KEYWORDS

professionalize mentoring, talent mentoring, youth mentoring

1 | INTRODUCTION

Mentoring is a highly individualized educational measure that can support youth development in communities, schools, and talent domains. It is commonly defined as a reciprocal, at-will relationship between an older or more-experienced individual (mentor) and a younger or less experienced individual (mentee), in which the mentor shares their knowledge and experience with the mentee and supports the mentee's development (Eby et al., 2013; Jacobi, 1991; Kram, 1985; Rhodes et al., 2005). The concept of mentoring dates to Homer's Odyssey, in which mentor, a friend of King Odysseus, is entrusted to counsel and guide young Telemachus, when his father, King Odysseus, is away at war. Throughout centuries, the term "mentor" has continued to be used to describe someone who imparts wisdom and shares knowledge with a younger or less-experienced person. Nowadays, mentoring remains to be a common way to support youth academic and socioemotional development all around the world. As a mechanism to promote positive youth development and academic outcomes, mentoring has gained tremendous popularity over the past decades. In the United States, more than 2.5 million children and adolescents receive mentoring every year (Raposa et al., 2017). Mentoring programs are also growing rapidly in many countries such as Israel, Canada, the United Kingdom, Australia, New Zealand, and continental Europe (Preston et al., 2019).

Mentoring for youths can differ with respect to various aspects such as their target population, goals, structure, and medium. For example, traditionally, community-based youth mentoring programs focused on helping vulnerable youths (DuBois & Neville, 1997; Grossman & Tierney, 1998; Rhodes & DuBois, 2006, 2008). Program goals range from preventing risk behaviors (e.g., drug use) to changing attitudes and behaviors (e.g., increased attendance in school). In recent years, the focuses of youth mentoring programs have expanded to also provide academic support and well-being for students (Eby et al., 2013; Mullen & Klimaitis, 2021; Stelter et al., 2021; Stoeger et al., 2017). Some school-based mentoring programs focus more on instrumental goals (e.g., improving grades); others focus on developmental goals (e.g., forming supportive relationships). A third strand of mentoring programs promotes learning and talent development in specific subject areas in youth (e.g., science, technology, engineering, and mathematics [STEM]). Depending on the goals of these programs (e.g., getting students interested in a field, improving competencies, developing excellence), mentors range from peers and teachers to subject experts. Mentoring formats also vary. Besides the traditional one-on-one mentoring, alternative mentoring formats such as one-to-many, many-to-one, many-to-many, and hybrid formats are also emerging in mentoring research and practices (e.g., Huizing, 2012; Moss et al., 2008; Stoeger et al., 2017; Tynjälä et al., 2021). Finally, mentoring for youths can take place in person (e.g., Grossman & Tierney, 1998; Herrera et al., 2011; Marino et al., 2020; Moodie & Fisher, 2009) or online (e.g., Lindsay et al., 2019; Ohlson et al., 2017; O'Neill et al., 2014; Stoeger et al., 2019). In the following section, we review the three main strands of mentoring for youth development and showcase the different formats and mediums mentoring can take.

2 | COMMUNITY-BASED MENTORING FOR YOUTH

Community-based youth mentoring typically refers to a youth (mentee) receiving mentoring support from a caring, nonparental adult volunteer (mentor) from the community (DuBois et al., 2002; Rhodes & DuBois, 2008). It can occur in formal mentoring programs or naturally through social connections with supportive, nonparental adults in family and community settings (e.g., neighbors, coaches, and religious leaders). Traditionally, community-based youth mentoring aims to help at-risk youths and promote their prosocial attitudes and behaviors (DuBois & Neville, 1997; Grossman & Tierney, 1998; Rhodes & DuBois, 2006, 2008). Rhodes (2005) proposed the developmental model of youth mentoring to theorize the mechanism of change through youth mentoring. The model postulates that mentors bring about positive changes in youths via three processes: social-emotional, cognitive, and identity formation. First, when interacting with youths, mentors can model prosocial skills and emotional security in a consistent relational context (Nakkula & Harris, 2005; Rhodes, 2005). These positive

relational experiences build trust through demonstrated social support over time, which becomes the basis for youths to form more positive expectations about other social relationships and connect with other adults and peers more readily (Kanchewa, 2016; Ruzek et al., 2016). Second, caring mentors can facilitate youths' cognitive development such as self-regulation and information processing (Parra et al., 2002; Radziszewska & Rogoff, 1991). According to the social interaction perspective (Bruner, 1983; Vygotsky & Cole, 1978), youths gain knowledge and complex cognitive skills when they interact and communicate with more advanced adults. Finally, mentors promote identity development by serving as role models for youths. At-risk youths often lack role models in their families. Having mentors as successful role models allow mentees to have a positive future orientation (Herrera et al., 2013). Youth mentoring can take place in (a) formal, community-based mentoring programs, (b) informal settings, and (c) youth-initiated mentoring (YIM).

Formal community-based youth mentoring programs typically match a youth (mentee) with a caring, nonparental adult volunteer (mentor) from the community and monitor mentor–mentee interactions based on outlined program expectations and protocols (DuBois et al., 2002; Rhodes & DuBois, 2008). The goals of community-based youth mentoring programs range from preventing risk behaviors (e.g., drug use), to changing attitudes and behaviors (e.g., increased attendance in school), to promoting the well-being of at-risk youths (DuBois et al., 2002; DuBois & Karcher, 2005; Raposa et al., 2019). One well-known community-based youth mentoring program is Big Brothers Big Sisters Community-Based Mentoring (CBM) Program. The program targets at-risk youths who often come from single-parent households and low-income neighborhoods. To support the development of these at-risk youths, the program recruits caring adults from the community to serve as mentors and provide role modeling and positive interactions with the youths (Big Brothers Big Sisters of America, 2003). Research, comparing the development of youth who participated in such CBM programs with those who did not, indicates that CBM programs can be an effective protective measure for at-risk youths. First, mentoring leads to reduced delinquent behaviors such as aggression, substance use, and other behavior problems (e.g., DuBois et al., 2011; Jolliffe & Farrington, 2007; Rhodes et al., 2005; Tolan et al., 2008). Second, it promotes positive psychosocial outcomes such as emotional regulation, mental health, and social competencies (e.g., Cavell et al., 2021; Herrera et al., 2013; McDowell et al., 2002; Wyman et al., 2010), and third, it improves academic and school performances (e.g., Cadima et al., 2010; Clarke, 2009; Erickson et al., 2009).

In addition to formal, CBM programs, youth mentoring may occur naturally. This type of mentoring is referred to as informal or natural mentoring. A natural mentor can be a neighbor, nonparent relative, youth group leader, or teacher, who is willing to provide support and guidance to a young person without being matched through a formal mentoring program (Van Dam et al., 2018; Zimmerman et al., 2005). As natural mentors are often already within youths' existing social networks, natural mentoring requires fewer resources for mentor recruitment and mentor–mentee meeting arrangements. Thus, natural mentoring is more accessible to youths than formal mentoring programs (Raposa et al., 2017). As natural mentoring occurs outside of a formal program, no mentor training or mentor–mentee interaction guidelines are provided. Therefore, the quality and effect of natural mentoring heavily depend on the qualification of the mentors. A recent meta-analysis found that natural mentoring was significantly more effective when mentors had a helping professional background (Van Dam et al., 2018).

Another emerging mentoring approach is YIM (Schwartz et al., 2013), which can be considered a hybrid approach of formal mentoring programs and natural mentoring. YIM requires mentees to identify and recruit mentors themselves but provides program guidelines and scaffolding to help mentees in the processes. It also provides ongoing support for mentors and mentees to engage (Schwartz et al., 2013). YIM is thought to meet the shortcomings of both formal mentoring programs and natural mentoring. On the one hand, by asking mentees to identify and recruit mentors themselves, YIM requires fewer resources for mentor recruitment—a major challenge to formal mentoring programs (e.g., Rhodes, 2004). YIM may also facilitate more enduring mentoring relationships as youths are more likely to recruit mentors who share similar cultural backgrounds from their extant social networks (DuBois & Silverthorn, 2005; Schwartz et al., 2013; Zimmerman et al., 2005), whereas formal mentoring programs typically assign mentors who are strangers to youths, which can lead to difficult relationship building and

premature closure (Grossman et al., 2012; Grossman & Rhodes, 2002; Spencer, 2007). On the other hand, unlike natural mentoring, YIM provides training and structure for interactions between youths and community mentors to ensure natural mentors' readiness and ongoing support for the mentoring process. A recent meta-analytic study of YIM reviewed 14 studies and found small-to-medium effect sizes for YIM programs on youth outcomes in psychological, cognitive, social, school, and health aspects (van Dam et al., 2021).

3 | SCHOOL-BASED MENTORING FOR YOUTH

School-based mentoring (SBM) typically refers to formal mentoring programs where teachers or other school personnel identify and nominate academically at-risk students to be mentees and match them with volunteers from the school or community. SBM takes place at school usually during or after a school day and arranges for mentors and mentees to meet regularly (e.g., 1 h per week) for the entire school year (Portwood & Ayers, 2005). Thus, SBM can be a subset of academic mentoring that facilitates positive youth development both in terms of instrumental support and emotional support (Jacobi, 1991; Kram, 1985; Lyons et al., 2019; Ragins & McFarlin, 1990). When it comes to instrumental support, mentors can help their mentees to improve their school performance (e.g., grades, positive behaviors at school) and academic outcomes (e.g., new skills and knowledge, research productivity). To fulfill this role, mentors engage youths in goal-directed activities, provide scaffolding to help youths develop new skills, and give constructive feedback. When it comes to emotional support, mentors can provide emotional support when youths encounter academic challenges or troublesome experiences at school (e.g., bullying) and at home (e.g., chaotic family life). Mentors practice active listening, teach socioemotional skills, and serve as sounding boards for youths as they navigate through their adolescent years.

Whether or not academic mentoring is the focus in SBM, some of these programs focus more on instrumental goals such as improving grades (as do academic mentoring programs that focus on instrumental support) and reducing discipline referrals and unexcused absences. For example, a school-based one-on-one mentoring program for at-risk middle school students with elevated disruptive behaviors aimed to reduce students' school misconduct and improve their academic performance in 10 sessions of goal-focused mentoring (McQuillin & McDaniel, 2021). Other SBM programs focus more on developmental goals such as forming cultural identity and social integration. For example, the Peraj Mentoring Program in Mexico provides at-risk late elementary school students with university students as mentors to improve these at-risk students' self-esteem, social skills, and cultural identity (Moreno-Candil & Garza, 2017). Research indicates that SBM programs are cheaper than as well as equally effective as CBM programs (McQuillin & McDaniel, 2021). SBM programs have three advantages compared to community-based youth mentoring programs. First, mentoring activities take place in a safe, convenient, and centralized location for mentees (i.e., schools). Second, mentoring is built into youths' regular school schedules, which increases the likelihood of a consistent mentor–mentee interaction routine. Finally, teacher nomination may give underprivileged youths access to mentoring, whereas parents or guardians of underprivileged youths may not sign them up for a CBM program. Although SBM originated with a focus on helping academically at-risk youths, some SBM programs nowadays also serve students that are not at risk (e.g., Earl Irving et al., 2003; Stoeger et al., 2019; Syed et al., 2012). For example, a German-wide SBM program for high-achieving students is the Learning Pathway Mentoring (Stoeger, 2019). The target mentees are high-achieving secondary students who want to develop competencies in a specific school subject. The mentors are secondary teachers who teach the respective school subject and are trained to also support individual students as mentors. Mentees and mentors meet weekly in a 45–60 min mentoring session for up to 3 years. Mentoring sessions take place in schools, either as pullout sessions during the regular school day or after school (Stoeger et al., accepted).

School-based peer mentoring is another type of SBM. In contrast to traditional mentors who are typically nonparent adults, peer mentors refer to youth mentors who are a few years older and more experienced than the mentees (Karcher, 2013). For example, the Cross-Age Peer Mentoring Program is a school-based peer mentoring

program in which high school students—under the supervision of school teachers and counselors—provide one-on-one mentoring to late elementary and early middle school students (Karcher, 2008). The program aims to foster mentees' connectedness and promote academic achievement via structured mentoring activities and a supportive mentoring relationship with an older peer mentor (Karcher, 2008). Peer mentoring programs are often used to support students' academic adjustment when they change from one level of education to the next (e.g., middle school to high school, high school to university). Peer mentoring takes advantage of the peer mentor's own recent experiences as a new student and may be less intimidating than mentoring by an adult, as the mentee may feel more comfortable sharing his or her concerns honestly with a peer mentor. Evaluation studies of peer mentoring programs validate the effectiveness of peer mentoring when mentors receive proper training and sufficient program support (Akinla et al., 2018; Hall & Jaugietis, 2011; Karcher, 2013).

4 | TALENT DEVELOPMENT MENTORING IN SUBJECT DOMAINS FOR YOUTH

A third strand of youth mentoring aims for talent development in subject domains. The special relevance of mentoring for talent development has been noted in expertise and talent research (e.g., Bloom, 1985; Simonton, 1992; Subotnik et al., 2011). In Bloom's (1985) seminal study, 120 eminent individuals in six domains (i.e., tennis, swimming, sculpture, piano, mathematics, and neurology) were interviewed about how they developed their talent and achieved eminence in their respective fields. One common factor shared by these eminent individuals was having mentors who influenced and shaped them significantly. Based on the analysis of the interviews, Bloom (1985) proposed three stages of talent development and suggested that talented individuals need different mentors for different stages, as the roles and functions of mentors change (Subotnik et al., 2021).

Stage 1 of talent development is about falling in love with a topic or domain. Mentors at this stage develop children's and youths' interests in a domain and teach them the basics of a domain. Parents and teachers often act as mentors at this stage (Bloom, 1985; Subotnik et al., 2021). They introduce the youths to the domain, provide them with many opportunities to explore the domain, and model a passion for the domain. Stage 2 of talent development is about acquiring advanced knowledge, skills, and values of a domain. In essence, it is about becoming an expert in the domain. This stage is marked by intensive periods of goal-oriented learning and deliberate practices (Bloom, 1985; Ericsson et al., 1993). Mentors support their mentees' learning process, help them acquire and refine skills, and teach them "the culture of the discipline" (Subotnik et al., 2011, p. 20). Stage 2 of talent development can last many years up to adulthood, and mentees may need different mentors as they progress. At the beginning of this stage, teachers in a subject domain are suitable as mentors, while later on, university professors are better suited as mentors. Stage 3 of talent development is about creating a unique style, exploring original problems, and ultimately contributing to or even redefining a domain. At this level, mentors are typically leaders in the talent domain, and they select promising talented individuals (often adults) to be mentees. Mentors serve as professional role models, promote their mentees' original work, and open doors to important networks in the domain.

Talent mentoring research originated from retrospective investigations of talented and eminent individuals (e.g., Nobel Laureates, renowned innovators, and Olympic medalists) and inquired about the roles of mentors and the process of talent mentoring through interviews, documentaries, and biographies (e.g., Bloom, 1985; Kiewra et al., 2021; Paik et al., 2018; Zuckermann, 1977). Although much of talent mentoring remains informal (e.g., mentoring by advisors in graduate schools), there is an increasing number of formal, talent mentoring programs in recent years, many of them working with youths. Depending on the goals of the programs and targeted talent development stages, mentors range from subject teachers to domain experts, to eminent domain leaders. For example, to promote talent development from stage 1 to stage 2 (i.e., developing a lasting interest and commitment in a domain), a German-wide program, CyberMentor, matches school-age girls who want to learn more about STEM with female college students and professionals in STEM domains, so young girls can learn about interesting

STEM topics, gain opportunities to engage deeper in a STEM domain, form a positive attitude toward STEM, and have a female STEM role model (Stoeger et al., 2013, 2017, 2019; Stoeger, Heilemann, et al., 2021). An example of talent mentoring from stage 2 to stage 3 is an online mentoring program called Global Talent Mentoring (Stoeger et al., accepted). This program matches talented youths who are already dedicated to studying one specific STEMM domain (including medical sciences) with professors and senior researchers in the respective STEMM domain for up to 10 years, so the talented youths can acquire advanced knowledge, hone skills, form an identity in their domain, and grow to be a domain expert eventually.

As shown in the examples, talent mentoring programs often embrace an online format, as opposed to the other types of youth mentoring programs, which are more likely to take place in person. This is because mentors become exceedingly domain-specific and can be difficult to locate in the mentee's surroundings as talented youths advance in their talent development stages. Online mentoring can connect mentors and mentees from different locations within one county and even from different countries, thus overcoming geographic barriers. With technological advancement in the last decade, many online mentoring programs are now equipped with online collaboration tools to work on joint projects and also include video chat features, allowing mentors and mentees to meet virtually, and have synchronized communication and interactions. Furthermore, online mentoring offers a unique opportunity for talented youths from less-resourced regions to develop their talent as they may not have educational, economic, and infrastructural resources for talent development otherwise. Finally, online mentoring programs also create a mentoring network and community for the youth participants. This has been shown to be especially important for talent development in STEM (Dasgupta, 2011; Hopp et al., 2020; Stoeger et al., 2017; Stout et al., 2011). Despite the many advantages of online mentoring for talent development, there are also limits. For example, in some domains where lab experiences are required, in-person mentoring, where mentors can show mentees how to work in a lab and train mentees' lab skills, is ideal. On the other hand, online mentoring is a cost-effective way to fulfill many mentoring needs such as connecting mentees with opportunities, sharing insider knowledge, providing emotional support, and giving career guidance.

5 | THE MENTORING PARADOX

Despite theoretical arguments for the transformative potential of mentoring for youths (e.g., Bloom, 1985; Subotnik et al., 2021; Ziegler et al., 2017), research findings painted a less promising picture. Meta-analyses consistently show relatively small effects of mentoring (Christensen et al., 2020; DuBois et al., 2002, 2011; Raposa et al., 2019). Ziegler et al. (2021) described the discrepancy between the potential and actual effect of mentoring as the mentoring paradox. The mentoring paradox may stem from the fact that many youth mentoring programs adopt a nonspecific friendship model of mentoring, which posits that a supportive relationship between mentor and mentee is sufficient to bring about positive developmental outcomes for youths (Christensen et al., 2020). However, the nonspecific friendship model of mentoring has not been proven effective (Christensen et al., 2020; DuBois et al., 2002, 2011; Eby et al., 2013). In contrast, mentoring programs adopting a targeted mentoring approach, where a developmental goal is specified, and mentoring is viewed as a vehicle for goal-directed, intentional skill and competency development, were found to be much more effective (Christensen et al., 2020). The targeted approach does not negate the importance of cultivating a caring, mutually trusting mentor–mentee relationship (Werntz et al., 2023). Instead, it suggests that positive youth outcomes cannot simply happen as a result of a caring relationship, but it requires mentor–mentee engagement in goal-directed, competency-building mentoring activities.

The mentoring paradox may also stem from failures to attend to the crucial aspects of effective mentoring, including careful considerations of program characteristics and adherence to research-based mentoring practices. Therefore, to realize the potential of mentoring for promoting youth development, more attention needs to be given to understanding the conditions for effective mentoring (programs) and professionalizing mentoring practices

(Raposa et al., 2019; Stoeger, Balestrini, et al., 2021). In the following sections, we describe key aspects of effective mentoring in the context of mentoring programs, although many aspects also apply to informal mentoring services.

6 | PLANNING AND IMPLEMENTING EFFECTIVE MENTORING PROGRAMS

An effective mentoring program starts with careful consideration of its objectives and targeted population. For instance, mentoring programs aimed at reducing risk behaviors of vulnerable adolescents require different planning and resources from mentoring programs aimed at promoting talent development in STEM domains for middle school girls. Therefore, program objectives and the targeted population of mentees must be specified (Stoeger, Balestrini, et al., 2021). Depending on the mentoring objectives, programs can further plan and decide on targeted mentors (e.g., caring adults from the community, teachers, peers), mentoring formats (e.g., one-on-one, many-to-many, group mentoring), mediums (e.g., in-person, online, or hybrid), methods and criteria for matching, and suggested mentoring activities. Although the specific program aspects are highly individualized and can vary largely from program to program (Lyons & McQuillin, 2021), mentoring research provides general guidelines on program practices (Garringer et al., 2015). Studies show that the use of research-evidenced program practices is associated with high-quality mentoring relationships and outcomes (Keller et al., 2023; Stelter et al., 2023). In the following, we provide examples of such research-evidenced practices in the areas of program design, participant preparation, and implementation of mentoring programs.

In terms of program design, mentoring programs need to consider mentoring goals, available resources, and program activities that can lead to the desired goals and targeted youth outcomes. Program design also comprises other research-based factors such as matching criteria, intended duration of the mentoring relationship, frequency of mentor–mentee interactions, and contextual factors of the mentoring program such as cultural background (e.g., Cavell & Elledge, 2014; Garringer et al., 2015; Kupersmidt et al., 2017; Preston et al., 2019; Stoeger, Balestrini, et al., 2021). For example, perceived similarity with their mentor seems to be especially important for female mentees in STEM and mentees of ethnic minority groups (e.g., Blake-Beard et al., 2011; Campbell & Campbell, 2007; Kricorian et al., 2020; Lyons & Edwards, 2022; Raposa et al., 2019; Santos & Reigadas, 2002). Therefore, when planning a mentoring program serving these groups, same-gender and/or same-ethnicity matching should be considered. Regarding program duration and mentor–mentee interactions, greater benefits of mentoring were observed when mentors and mentees had frequent and regular interactions for a relatively long period (e.g., 12 months) (Eby et al., 2013; Grossman et al., 2012; Grossman & Rhodes, 2002; Santos & Reigadas, 2002). In the case of talent mentoring, the expected mentoring commitment may be even longer as talent development takes many years (Bloom, 1985; Ericsson et al., 1993). Finally, mentoring is contextually dependent, which means one cannot simply transfer a successful mentoring program from one context to another. Rather, special considerations and adjustments may be needed, for example, based on the specific cultural contexts of a mentoring program (Brady & Curtin, 2012; Bullen et al., 2020; Preston et al., 2019).

Besides attending to aspects of program design, programs also need to prepare the participants, namely, mentors and mentees. Prematch and ongoing training for mentors and mentees lead to greater mentoring success (Garringer et al., 2015; McQuillin & Lyons, 2021; Nearing et al., 2020; Stelter et al., 2021). Adequate training should cover both general aspects of mentoring and program-specific aspects (Stelter et al., 2021). Training on general aspects of mentoring consists of initiating a mentoring relationship, aligning mentor–mentee expectations, establishing an interaction routine, and other communication and interpersonal skills (Garringer et al., 2015). Training on program-specific aspects includes an introduction to the program and its goals, aligning participant–program expectations, and other program-specific areas important for mentoring success. For instance, an online mentoring program may consider providing training for mentors and mentees to navigate the mentoring platform and become familiar with the communication and collaboration tools. A talent mentoring program may

provide training for mentors to better understand different stages of talent development and desired mentor roles for each stage.

When implementing a mentoring program, various factors can affect mentoring success. One such factor at the beginning of mentoring is aligned expectations between mentor and mentee (Brace et al., 2018; Harrington & Marshall, 2014; Huskins et al., 2011; Spencer, 2007; Stoeger, Balestrini, et al., 2021). Aligned expectations include logistics of mentor–mentee interactions such as agreed-upon meeting frequency, but more importantly, mentor roles and functions and mentors' expectations for the mentees as well as vice versa (Young & Perrewé, 2004). As previously mentioned, mentors can facilitate positive youth development via instrumental support and emotional support, and assume various roles such as expert teacher, intellectual sparring partner, door opener, sounding board, and confidant (Jacobi, 1991; Ragins & McFarlin, 1990; Subotnik et al., 2021). Therefore, without explicit alignment of expectations, mentor and mentee can enter mentoring with different expectations of mentor roles and support. For example, a mentor in an academic mentoring program may assume the role of teaching content knowledge to the mentee, whereas the mentee mostly needs help to deal with test anxiety and increase his or her self-efficacy. Or a mentee in a talent mentoring program is eager to start a research collaboration with the mentor, but the mentor wants to get to know the mentee first, thus taking time to build a relationship. Misaligned mentor–mentee expectations regarding mentor roles and functions can lead to dissatisfaction and even premature closure (Huskins et al., 2011; Limeri et al., 2019; Spencer, 2007). Therefore, mentoring programs should provide adequate training on different types of mentor roles and support, as well as on the importance of aligning expectations and steps for participants to align their expectations.

Another important implementation factor for successful mentoring is ongoing monitoring and support from program staff (Keller et al., 2020; Keller & DuBois, 2021; Sipe, 2002). Both frequent contacts between program staff and participants and participants' perceived mentoring support are associated with mentoring success (Keller et al., 2020; Keller & DuBois, 2021). Furthermore, staff support and emphasis on adherence to program practices and suggested mentoring activities predicted more favorable mentoring outcomes (Keller & DuBois, 2021). The critical role of program support has received increasing attention in recent years (Karcher et al., 2023; Keller et al., 2023; Spencer et al., 2023). For instance, Karcher et al. (2023) explored the effects of program staff support on youth mentoring outcomes in a structural equation model and found that program support impacted match length directly and indirectly via youth-centeredness, goal-oriented mentoring, and perceived match closeness.

7 | QUALITY ASSURANCE OF MENTORING PROGRAMS

Mentoring success also relies on ongoing monitoring and evaluation of the program, as well as adaptations based on program evaluation. As Keller et al. (2023) showed, greater uses of research-evidenced program practices lead to more favorable mentoring outcomes. Therefore, in addition to planning and implementing these program practices as suggested, it is crucial to ensure that participants adhere to the program design, such as taking advantage of the training materials and engaging in suggested mentoring activities. This requires training program staff to perform systematic monitoring and provide guidance to participants when needed (Stoeger, Balestrini, et al., 2021).

Besides ongoing monitoring, formative and summative program evaluations are needed to determine whether predefined youth outcomes are being achieved (e.g., skills, competencies, and behavioral changes of the mentees). To examine whether positive youth changes can be attributed to participating in the mentoring program, a randomized controlled trial design is ideal. A randomized controlled trial design measures targeted youth outcomes before mentoring and after mentoring (and ideally some time after participation) for both the intervention group (i.e., mentored youths) and control groups of comparable youths such as mentees in a waitlist group or statistical twins using propensity score matching (Lane et al., 2012; Rogers et al., 2022). Only in this way, it can be ensured that positive changes observed for participants can be attributed to the mentoring, instead of other educational and environmental influences or to traits of individuals who apply for or those who are referred to a mentoring program (Shadish & Steiner, 2010).

Furthermore, as mentoring is perceived as the vehicle of change for targeted youth outcomes, accompanying research seeking to understand the promotive and hindering factors of mentoring relationships at the individual level, contextual level, and program level is imperative. Some research focuses on the characteristics of mentors and mentees (Hagler, 2023; Hagler & Poon, 2023), and other studies aim to uncover essential program-level practices (Uebler et al., 2023). To this end, both quantitative and qualitative research methods have been utilized. For example, Uebler et al. (2023) investigated the dynamic processes of mentoring with the help of survival analyses and showed that changing patterns (e.g., a sudden change of frequency and focus shift from program content) of mentees' communication to mentors from 1 month to another predicted premature match closure. Parnes et al. (2023) employed a design-based mediation analysis to examine caregivers' role in at-risk youths' mentoring relationships and found that the involvement of caregivers was associated with mentoring quality and match length. These results help program staff understand individual, contextual, and program-level factors contributing to the mentoring success and can provide guidance in the selection and matching processes, as well as program monitoring. Furthermore, qualitative research approaches such as in-depth interviews and focus groups are especially appropriate to understand the complex processes of how mentoring relationships develop and change. For example, Spencer et al. (2023) used a longitudinal qualitative approach to identify different trajectories of CBM relationship development (e.g., continued growth, initial growth followed by decline and then recovery, and little to no growth) and factors influencing the development such as youth interest in mentoring, mentor empathy, and program support. Especially for new mentoring programs that are still in the pilot stage or programs that have a smaller number of participants due to the program nature (e.g., mentoring program for ethnic minority youths in a specific context, highly selective talent mentoring program), it may not always be possible to implement randomized controlled trial designs. Qualitative and mix-method research approaches provide a good alternative for quality assurance and for researchers and program staff to understand key elements and processes of effective mentoring. Moreover, logic analysis is a type of program theory evaluation to test the validity of the program theory of complex interventions such as mentoring (Bufali et al., 2023).

Results from the aforementioned research as well as from program evaluations should be used for making changes in the program. Such program adaptations are necessary for the continuous optimization of mentoring programs. For example, a Germany-wide online STEM mentoring program for girls conducted evaluation research over the years and found that mentees who not only had a good relationship with their mentee but also had larger STEM networks on the mentoring platform and communicated more about STEM topics benefited the most from the mentoring experience (Stoeger et al., 2016, 2017, 2019). Based on these findings, the program made changes, introduced STEM projects, and expanded the mentoring structure from one-on-one mentoring to a hybrid form of one-on-one and group mentoring, where two mentor–mentee dyads were brought together.

8 | CONCLUSION

The present paper aims to provide a comprehensive review of mentoring as a potential supportive measure for youths. When talking about mentoring for youths, many would think about mentoring at-risk youths to promote positive attitudinal and behavioral outcomes. While this type of mentoring is certainly a prevalent type of youth mentoring, there are more types of mentoring for youth development. To this end, we reviewed mentoring programs and services in three strands: community-based youth mentoring, school-based youth mentoring, and talent development mentoring in subject domains for youth. In each strand, we described the main types of mentoring and provided examples of how mentoring can vary in terms of structures (e.g., formal, informal, and hybrid), mediums (e.g., in-person, online, and hybrid), formats (e.g., one-to-one, one-to-many, many-to-one, many-to-many, and group mentoring), and mentor types (e.g., nonparental adults and peers). In summary, mentoring—if implemented professionally—can support youth development in different areas.

Some aspects of mentoring remain the same independent of the mentoring areas, such as program practices outlined in the Elements of Effective Practice for Mentoring and its supplements (Garringer et al., 2015; Kupersmidt et al., 2018), as well as the key issues of professionalizing mentoring (Stoeger, Balestrini, et al., 2021). However, there are also differences in mentoring in different areas that should be attended to. First, depending on the program goals and targeted population, the process of selection and matching can vary a lot. For example, compared to community-based youth mentoring programs, talent mentoring programs tend to have a more rigorous selection process to make sure the selected mentees fit well with the talent development stage of the program and have the subject knowledge necessary to fully utilize the mentoring. Additionally, mentor–mentee matching for talent mentoring is usually based on shared domain interest and knowledge, rather than demographic characteristics of mentor and mentee as in some community-based youth mentoring and academic mentoring programs.

Second, program-suggested mentoring activities (e.g., suggested mentor–mentee interactions) and resources facilitating the targeted outcomes also vary depending on the focus of mentoring. For in-person CBM programs, the mentor and mentee in a dyad can meet and discuss relevant topics, or they can go to a museum or a sporting event together, depending on the goal and needs of their mentoring. However, it may be more effortful and resource-consuming to organize group activities involving many mentor–mentee dyads. For online talent mentoring programs, on the other hand, the mentor and mentee in a dyad are most likely to interact via video chat or written messages, focusing on the mentee's talent development goal. However, it is rather convenient to create networking opportunities (e.g., an online gathering or webinar) among all program participants. Therefore, program-specific guidelines and practices should be devised and communicated to program participants.

Finally, ongoing monitoring, support, and evaluation for effective youth mentoring require realistic resource allocations and careful staffing (Keller & DuBois, 2021; Wheeler et al., 2010). Therefore, the professional development of program staff is central to mentoring success. It is not enough for program staff to learn about the general concept of mentoring. They must also understand the program goals, targeted outcomes, and proposed mechanisms of change, so they can provide appropriate support conducive to the program goals. For example, staff support for mentees who are at-risk youths and for mentees in an academic mentoring program can differ. Similarly, the indicators of success staff members monitor can also differ. Therefore, plans for program support and evaluation should be carefully designed and aligned with the program's theory of change.

In conclusion, effective mentoring relies on at least three aspects. First, effective mentoring needs knowledge of evidence-based mentoring. Thus, high-quality mentoring research and program evaluations are essential for ensuring ongoing effective mentoring. Second, program planners must have the willingness to utilize the knowledge about effective mentoring to plan and implement mentoring programs, train program staff, and to assure the quality of mentoring programs. Finally, effective mentoring requires funding and policy-level support to ensure the acquisition and utilization of the state of the art within mentoring research (Cavell et al., 2009; DuBois & Karcher, 2014).

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