Do Men Need Empowering Too? A Systematic Review of Entrepreneurial Education and Microenterprise Development on Health Disparities among Inner-City Black Male Youth

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ABSTRACT *Economic strengthening through entrepreneurial and microenterprise development has been shown to mitigate poverty-based health disparities in developing countries. Yet, little is known regarding the impact of similar approaches on disadvantaged U.S. populations, particularly inner-city African-American male youth disproportionately affected by poverty, unemployment, and adverse health outcomes. A systematic literature review was conducted to guide programming and research in this area. Eligible studies were those published in English from 2003 to 2014 which evaluated an entrepreneurial and microenterprise initiative targeting inner-city youth, aged 15 to 24, and which did not exclude male participants. Peer-reviewed publications were identified from two electronic bibliographic databases. A manual search was conducted among web-based gray literature and registered trials not yet published. Among the 26 papers retrieved for review, six met the inclusion criteria and were retained for analysis. None of the 16 registered microenterprise trials were being conducted among disadvantaged populations in the U.S. The available literature suggests that entrepreneurial and microenterprise programs can positively impact youth's economic and psychosocial functioning and result in healthier decision-making. Young black men specifically benefited from increased autonomy, engagement, and risk avoidance. However, such programs are vastly underutilized among U.S. minority youth, and the current evidence is insufficiently descriptive or rigorous to draw definitive conclusions. Many programs described challenges in securing adequate resources, recruiting minority male youth, and sustaining community buy-in. There is an urgent need to increase implementation and evaluation efforts, using innovative and rigorous designs, to improve the low status of greater numbers of African-American male youth.*

KEYWORDS *Entrepreneurship, Microenterprise development, Black/African-American, Inner-city, Men, Youth, Health disparities*

INTRODUCTION

Microenterprise development programs, including entrepreneurial education, aim to improve the financial well-being of the poor by providing business education, small loans, and technical support.^{1, 2} These initiatives have been implemented largely among women in developing countries to mitigate gender-based poverty and

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inequity.³⁻⁵ They have also been used within the public health sector in international settings to address women's issues related to HIV/AIDS,⁶⁻¹¹ reproductive health,¹²⁻¹⁴ nutrition,¹⁵ and mental health.¹⁶ Given the success of such programs in developing countries, there is growing interest regarding the potential of entrepreneurial and microenterprise development initiatives among economically-disadvantaged U.S. populations, particularly in addressing economic health disparities among low-income black/African-American young men.¹⁷⁻¹⁹

Young African-American men living in resource-constrained communities have disproportionately high rates of poverty, incarceration, and low educational attainment as compared to young African-American women and men of other racial and ethnic groups in the U.S.²⁰⁻²⁴ Approximately half of black men aged 20-34 in the U.S. are either unemployed or earn less than the poverty line for a four-person household.^{20, 23} This has significant implications for their social and physical well-being. Research has shown that young men, including male teens, who lack employment and economic resources are more likely to engage in illicit income generation, such as selling drugs, panhandling, or theft, in order to survive.^{25, 26} In turn, such behaviors increase their risk of violence, drug addiction, mental illness, and sexually transmitted disease.²⁵⁻²⁸ The rate of new HIV infections for black/African-American males (103.6 per 100,000 population) is 6.6 times higher than the rate for white males (15.8) and 2.7 times the rate for black/African-American females (38.1).²⁹ The prevalence of binge alcohol use for African-American men is 79 % higher than U.S. national rates,³⁰ and research has shown that African-American young men experience high rates of undiagnosed depression and psychological distress due to difficulties in maintaining housing, employment, and financial self-sufficiency.³¹ Non-Hispanic black males are also six times more likely to die from homicide and have the lowest life expectancy among all racial/ethnic and gender groups in the U.S.³²⁻³⁴

Youth entrepreneurial and microenterprise programs have recently proliferated in underserved U.S. communities³⁵⁻³⁷ and may be a viable approach to more meaningfully address socioeconomic and health disparities among African-American male youth.^{38, 39} While in many settings empowerment strategies must target the low status of women, researchers have argued that the deprioritization of men's issues in the development agenda is one of growing concern.⁴⁰ The vulnerabilities of poor young men contribute to a loss of agency and identity which adversely impacts their health and well-being and that of their partners and families.⁴⁰⁻⁴⁴ From an economic standpoint, entrepreneurial education may help underserved male youth to increase their financial assets, in addition to improving the economic conditions of their communities.^{1, 18, 35, 45} From a health perspective, when coupled with health promotion services, such interventions may also incentivize and enable disadvantaged male youth to adopt healthier lifestyles.⁴⁶⁻⁴⁸ According to asset theory, increases in productive assets can influence health behaviors by motivating protective attitudes to avoid negative health consequences and spur more positive expectations and planning for the future.⁴⁹⁻⁵² In addition, psychosocial skills such as industriousness, perseverance, and persistence are targeted attributes of entrepreneurial development initiatives and are associated with higher rates of educational and professional success among black young men, including healthier life habits.^{53, 54} As a result, the process of new venture creation for poor male youth may be invigorating and protective against violence, substance abuse, and illicit drug trade. Such benefits may also minimize young men's economic stressors that lead to risky health behaviors.^{36, 55-57}

Given the growing popularity of microenterprise programs targeted towards inner-city youth, this paper summarizes findings from a systematic review of the current literature and trials registration of entrepreneurial and microenterprise development initiatives aimed towards economically-disadvantaged youth in the U.S., with a focus on intervention effects on economic, psychosocial, and health behavioral outcomes among African-American male youth. The review’s findings are also used to discuss entrepreneurial programming and research implications for health promotion in this population.

METHODS

Search and Screening

Entrepreneurial and microenterprise development initiatives were broadly defined as any pedagogical program or empowerment process, including microfinance, aiming to expand the capacity of individuals to start their own small business through enhanced attitudes, skills, and resources. This review focused on entrepreneurial and microenterprise programs targeting youth, aged 15 to 24, living in underserved U.S. urban communities, with a specific lens on development implications for African-American male youth.

To examine the current peer-reviewed literature, two electronic bibliographic databases were assessed, PubMed and PsycINFO, using paired keyword sets related to “entrepreneurship” and “disadvantaged male youth” as shown in Table 1. These databases were selected to identify entrepreneurial and microenterprise initiatives aiming to improve health outcomes. The review’s inclusion criteria were studies that were published in English from 2003 to 2014 which evaluated an entrepreneurial and microenterprise development program targeting U.S. inner-city youth. Microenterprise programs that excluded male participants were not eligible for inclusion. Potentially relevant citations were selected based on a screening of all titles and abstracts identified in the search results, followed by a thorough assessment of the full-text publication and reference list. The bibliographic database in Google Scholar was also used to similarly screen and identify peer- and non-peer-reviewed entrepreneurial program literature available online. Given that many such initiatives have only recently been implemented and may not yet be published, active and

TABLE 1 Search sets for electronic databases

PubMed, PsycINFO, Google Scholar, ClinicalTrials.Gov			
Search topic	Entrepreneurship		Disadvantaged male youth
Search terms	Entrepreneurship, income generation(ing), microenterprise, microfinance, micro-credit, livelihood, small business(es), vocational training, job, asset, economic empowerment/enhancement, economic intervention/activities/strengthening, livelihood, employment	AND	Male(s), boy(s), men, youth, teen(s), adolescent(s), disadvantaged, underserved, inner-city, urban, poor, low-income, marginalized, at-risk, Black, African-American, minority(ies)

completed study records within the U.S. government clinical trials database (<http://clinicaltrials.gov>) were also searched using similar keywords. All search and screening activities were conducted by the sole author in February and March 2014.

Data Synthesis

To accommodate the inclusion of qualitative and quantitative data across the entrepreneurial evaluation literature, a thematic approach was used to synthesize findings from each of the included studies. First, information on the programmatic content, financial products, setting, study design, sample, and evaluation findings were extracted and summarized. Each publication was then read several times to interpret the summation of findings for topics relating to intervention effects on underserved youth’s economic, psychosocial, and health behavioral outcomes, including operational lessons learned. A final step in the synthesis process was to summarize implications for using entrepreneurial and microenterprise development initiatives to address economic health disparities among African-American male youth.

RESULTS

Published Literature Search

A total of 26 full-text publications were retrieved for review from 2,598 potentially relevant peer-reviewed citations and 10,100 Google Scholar hits based on the publication’s title and abstract (Fig. 1). Following a full-text review, six publications were retained for analysis: Doucet et al.,⁵⁸ Iverson,⁵⁹ Miller,⁶⁰ Nakkula et al.,⁶¹ Needham,⁶² and Pierce.⁶³ All six publications were drawn from the non-peer-reviewed gray literature. The most common reasons for exclusion were conduct in a developing country or an evaluation among U.S. populations of employment skills programs not specific to entrepreneurship or microenterprise development. One U.S. study was additionally omitted due to excluding male participants, and two U.S. studies were omitted due to focusing on college-enrolled adults.

FIGURE 1. Search results of published studies.

The retained studies were drawn from several metropolitan areas across the U.S. (Table 2). While specific programmatic content was often omitted, youth entrepreneurial programs most commonly employed a didactic course that was coupled with a hands-on business practicum. Entrepreneurial programs for inner-city youth did not appear to be implemented at their full potential. Micro-credit options were available in none of the interventions. However, in two articles, participating youth were provided matched savings accounts or competitive cash awards, respectively. To assess effectiveness, the majority of studies conducted a single group post-intervention assessment using quantitative, qualitative, or mixed methods with small sample sizes. Longitudinal and comparative evaluations were less common. Entrepreneurial and psychosocial outcomes were more frequently assessed than health behavioral outcomes. Four of the six studies differentiated findings by gender.

Search of Registered Trials

Figure 2 outlines the search results of the U.S. federal government database of active and completed registered clinical trials. A total of 36 study records were identified from the application of entrepreneurial and microenterprise search terms. Upon full review of each record, 16 study trials were identified as evaluations of entrepreneurial and microenterprise development programs. However, all 16 were being conducted in a developing country. As of March 25, 2014, no such registered trials were identified among disadvantaged U.S. populations.

Entrepreneurial and Economic Impact

All selected articles assessed intervention effects on youth's entrepreneurial knowledge and skills. The most common finding was that youth did not have initial business interests or knowledge, but demonstrated substantial increases in business knowledge, aspirations, and initiation. Doucet et al. found among 27 inner-city high school graduates in Los Angeles, aged 18–20, that following an entrepreneurial knowledge and skills program, 70 % had started a business and intended to pursue an entrepreneurial career.⁵⁸ Miller reported similar findings among 30 low-income youth, aged 13–18, in South Bend, who following an after-school entrepreneurial course and business camp began microenterprises such as garden irrigation and car repair.⁶⁰ Needham reported that 42 % of 19 former trainees in inner-city Detroit, aged 18–30, had started their own businesses and 47 % were business majors in college.⁶² Qualitative data also showed improved knowledge in marketing, financial planning, and accounting.⁶² In Boston, Nakkula et al. found that among 268 low-income high school students, those who received entrepreneurial training and practice had significantly higher scores for starting (+0.35 vs. -0.06, $p < 0.05$) and leading (+0.54 vs. -0.08, $p < 0.05$) entrepreneurial activities compared to control youth.⁶¹ The majority of underserved youth (83–95 %) in Rockford who had completed a 6-month urban gardening program with business and nutrition workshops reported gaining knowledge on how to start and run a garden exchange.⁶³

The literature also showed that entrepreneurial development programs for low-income youth can have positive economic influences. Among three underprivileged youth, aged 15–18, in Washington D.C., Iverson noted that youth saved an average of \$100 USD following an entrepreneurship training and landscape business.⁵⁹ Learning to budget, save money, and make informed financial decisions were mentioned by a third of participants in Los Angeles as an important outcome of the entrepreneurial program.⁵⁸ Youth in South Bend reported in qualitative interviews

TABLE 2 Summary of selected articles

Author (Year)	Programmatic Content	Financial Products	Setting	Study Design	Sample	Main Findings (Assessment Areas)				Implications for Inner-city Black Male Youth
						Entrepreneurial and Economic	Psychosocial	Health Behavioral	Operational	
Doucet et al. (2012) ⁵⁸	Entrepreneurial knowledge and skills training	None	Los Angeles, CA	Single group, post-test mixed methods	N = 27 inner-city high school graduates, aged 18–20	70 % attempted to start their own business; 32 % reported learning to budget, save, and manage money	69 % reported greater confidence and emotional balance; 15–35 % struggled with staying focused and negative peer pressure	None	Hard to acquire start-up funds after graduation. Interests in expanding program length, enroll- ment, and online access	No gender differentiation
Iverson (2004) ⁵⁹	Entrepreneurial 3-month class with landscape business option	Matched savings accounts	Washington, DC	Single group qualitative case study	N = 3 at-risk youth, aged 15–18	Youth applied skills to acquire new side-businesses and save US\$100	None	None	Faced difficulty sustaining program financing	No gender differentiation
Miller (2009) ⁶⁰	Entrepreneurial weekly after- school course, 2-week business camp, and mentoring	Competitive cash awards	South Bend, IN	Single group, pre- and post-test mixed methods	N = 30 youth from low- income commu- nities, aged 13–18	71 % reported increases in knowledge; qualitative findings indicated several business start-ups and changes in investment outlook	Qualitative findings highlighted that social bonds with peers and mentors improved academic and social engagement and sense of purpose	Youth reported qualitatively more capacity to avoid “trouble” and experiencing less violence due to time off “the streets”	Implementing an out-of-school program helped to engage like- minded students, but difficult to keep school and business partners	Positive alternative to “hanging on the streets.” Business camps seen as helping young men to thrive by building on current strengths
Nakkula et al. (2004) ⁶¹	Entrepreneurial knowledge and skills training	None	Boston, MA	Two group (intervention and control) pre- and post-test quantitative surveys	N = 268 inner- city high school students	Significant gains observed over time in intervention start- up and leadership scores vs. control (+0.35 vs. –0.06, $p < 0.05$; +0.54 vs. –0.08, $p < 0.05$) and recognition of entrepreneurial opportunity	Intervention youth had higher locus of control scores over time, but NS (+0.79 vs. +0.15, $p > 0.05$); no differences in industriousness (+0.11 vs. –0.07, $p > 0.05$) or hopefulness (–0.07 vs. +0.22, $p > 0.05$)	None	None	Intervention male youth experienced declining sense of school/peer con- nectedness in hopes of using new business knowledge (–0.62 vs. +0.15, $p < 0.05$) as compared to females

Needham (2009) ⁶²	Entrepreneurial knowledge and skills training with mentoring	None	Detroit, MI	Single group, post-test mixed methods	N=19 inner- city former par- ticipants, aged 18–30	42 % reported having started their own business; 47 % attended college as a business major. Qualitative findings showed improved business knowledge	Qualitative themes noted greater sense of direction, interest in learning, self-esteem, self-reliance, autonomy, and teamwork	None	Needed to include greater numbers of peers, mentors, and community buy-in for business start-ups, including more financial resources	Young black men valued having more autonomy, benefited from role models, and enjoyed being able to teach others in the community
Pierce (2012) ⁶³	Urban garde- ning 6-month program with biweekly business and nutrition workshops	None	Rockford, IL	Single group, post-test quantitative surveys	N=64 urban minority youth, aged 6–17	83–95 % reported increased agribusiness/ gardening knowledge, including being able to start a garden exchange on own or teach others	83 % were better at working on long projects, were more of a leader (83 %), felt more in control over things (88 %), and felt proud of themselves (95 %)	88 % reported eating more fruits/vegeta- bles, 81 % ate fewer prepackaged foods, and 75 % tried new kinds of foods	Additional resources were needed to expand the number of youth benefiting from the program	Intervention uptake by teens and boys was low, requiring new targeted strategy to recruit boys and address unique vulnerabilities

FIGURE 2. Search results of registered trials.

that the weekly after-school entrepreneurship intervention substantially changed their views on how to spend and invest money.⁶⁰ However, across several studies, the authors also noted the limitations of their findings which were based largely on youth's self-reported perceptions of increased knowledge or economic impact, rather than actual measures.

Psychosocial Impact

Five of the six selected studies examined changes in youth's psychosocial outcomes. A commonly reported finding was that entrepreneurial interventions improved youth's future outlook by giving them a sense of purpose, inspiring educational and occupational goals, and strengthening internal loci of control. Doucet et al. found in post-course assessments that 16 % of entrepreneurial graduates in Los Angeles reported having "created a new mindset" to make more positive decisions for the future.⁵⁸ Survey data in Boston by Nakkula et al. showed higher scores (+0.79 vs. +0.15, $p > 0.05$), although not significant, relating to youth's internal beliefs and locus of control that they could "make things happen."⁶¹ Most studies also reported that participating youth exhibited greater leadership skills. Pierce noted that Rockford youth, aged 6–17, coupled their leadership skills with increased confidence fostered by the opportunity to persevere with their 6-month gardening exchange.⁶³ Approximately 83 % said they were more of a leader, and 88 % felt more "in control over things that happened to them."⁶³ Doucet et al. found that 69 % of Los Angeles entrepreneurial graduates with improved leadership skills also

reported being more capable of “balancing their lives” in terms of greater emotional well-being.⁵⁸ Needham echoed this phenomenon using qualitative data from intervention youth who expressed an increased sense of direction, interests in learning, and self-esteem.⁶² A third common finding was the expansion of youth’s social networks. Miller suggests that the entrepreneurial mentors in the after-school program were critical for youth living in underserved communities where social assets were often limited.⁶⁰

In contrast, several authors highlighted the inability of entrepreneurial programs to overcome negative psychosocial pressures among inner-city youth. Doucet et al. indicated that 15 % of youth in a post-training assessment indicated having trouble “staying focused” since this had been a challenge for them during high school.⁵⁸ One third also expressed concerns of being “on their own,” lacking motivation, and being encouraged by others to discontinue their entrepreneurial pursuit.⁵⁸ Nakkula et al. also found no differences in intervention youth’s measures of industriousness (+0.11 vs. -0.07, $p>0.05$) or hopefulness (-0.07 vs. +0.22, $p>0.05$) over time, attributed in part to unfavorable attitudes in the school environment.⁶¹

Health Behavioral Impact

Only two of the six studies examined health behavioral outcomes among participating youth. According to Pierce, the urban gardening program, with integrated business and nutrition education, was developed to address unemployment and obesity risks among inner-city youth.⁶³ The post-test surveys showed that in addition to increased agribusiness knowledge, 88 % of youth reported eating more fruits and vegetables, 81 % reported eating fewer prepackaged foods, and 75 % said they had tried new kinds of foods as a result of the 6-month gardening business.⁶³ Miller noted also that low-income youth, aged 13–18, in South Bend, described in qualitative interviews that they were better able to avoid the “pressures of finding trouble” and other violence risks given their off-street time in the entrepreneurship after-school course and business camp.⁶⁰ However, for some programs, although the microenterprise activities targeted youth who were vulnerable to drugs, violence, or crime, the studies were unable to measure these outcomes.^{59, 63}

Empowering Black Male Youth

None of the six studies specifically targeted African-American male youth, although black young men were participants in most programs. In qualitative research by Needham, black men ages 18–30 in Detroit reported that the entrepreneurship training gave them a sense of autonomy and that they valued their role models and the opportunity to teach entrepreneurship skills to peers.⁶² In comparison, among peer and school relationships, Nakkula et al. found that connectedness scores substantially declined over time among intervention male participants as compared to controls (-0.62 vs. +0.15, $p<0.05$).⁶¹ The authors suggested that, as compared to girls, this decline may have reflected a stronger desire among minority male youth “to get out into the world and make things happen,” which may have diminished their perception of school or peers as a meaningful pathway to entrepreneurial success.⁶¹ In contrast, Miller describes a male participant in South Bend who indicated that in the absence of the after-school entrepreneurship program, he would have been “out on the street” and engaging in risky behaviors.⁶⁰ Pierce also points out that the urban gardening business was less successful in attracting older youth (ages 12–17), including African-American boys who represented less than a third of

participants.⁶³ This disparity was considered crucial given the program's intention to attract youth most at-risk for violence, substance abuse, and unsafe sexual practices.

Operational Learning

Several operational lessons learned were found in the literature. Miller suggested that the youth entrepreneurship program's after-school and "outside of school" format in South Bend was an effective recruitment strategy for engaging the most self-motivated young people.⁶⁰ On the other hand, many authors highlighted the challenge of having limited funds to sustain the program and cover youths' business start-up costs.^{58, 59, 62, 63} As a result, small numbers of inner-city youth were served by the microenterprise initiative.^{62, 63} Some authors also indicated a need to employ more innovative strategies, including online technologies, to foster community buy-in and identify business mentors in underserved urban settings.^{58, 60, 62}

DISCUSSION

Economic strengthening through entrepreneurial and microenterprise development has been shown to mitigate poverty-related health disparities among the developing world's poor.³⁻¹⁶ Yet, there has been no summary to-date of the current evidence on the use of similar approaches among U.S. disadvantaged groups, particularly inner-city black male youth. With the exception of a few non-peer-reviewed publications, this review found that research on the economic, psychosocial, and health behavioral impact of entrepreneurial development initiatives for inner-city American youth is lacking, despite the growing popularity of such programs in underserved urban areas nationwide.

Even so, the existing literature points to several implications for future research and practice. One implication is that entrepreneurship programs appear feasible and acceptable among inner-city youth, including black male youth, and may have positive effects on their business and psychosocial outcomes. Nearly all of the studies reported an increase in some form of entrepreneurial knowledge or activity, in addition to several positive intrinsic changes in youth's attitudes about themselves. Such findings point to the positive asset effects of entrepreneurial development programs that may be further leveraged by health behavioral interventions. However, the review also found that programs targeting youth in impoverished urban areas were not always successful in overcoming negative pressures faced by youth, such as discouragement from peers, limited financial resources, or prior risk histories. There were also few programmatic designs or analyses which considered gendered differences, particularly among inner-city male youth, in entrepreneurial processes and experiences. This highlights a need for future initiatives to integrate strategies not only targeting inner-city challenges but which also address gendered vulnerabilities experienced by youth in these communities.

A second implication relates to the underutilization of entrepreneurial and microenterprise initiatives within the U.S. public health sector. The majority of selected studies did not programmatically address nor assess health behavioral outcomes, such as violence, substance abuse, or sexual risks, despite describing this as part of the rationale for implementation. While there is a large body of evidence on the positive effects of integrated health and microenterprise models on health behaviors in international settings, this review shows that little integrated implementation or evaluation progress has been made in the U.S. This is further

exacerbated by the worrisome omission of U.S. disadvantaged groups in the microenterprise health trials pipeline. Such a phenomenon may reflect the fact that economic, social, and health issues in the U.S. have historically been addressed using separate strategies. However, these issues are interrelated, and the intervention's impact on economic, psychosocial, and health-related outcomes should be concurrently assessed. Additionally, many programs aimed towards low-income youth were under-resourced and unable to reach larger numbers of minority male youth disproportionately impacted by the health and economic risks the programs intended to target. Disadvantaged youth face difficulties in accessing financial institutions, micro-lending, and capital for business start-up, and none of the selected programs effectively addressed this gap. Such findings point to a critical need to mobilize resources, community awareness, and political priority to expand the potential of integrated entrepreneurial and health promotion programs with tailored financial products for disadvantaged American youth.

Furthermore, young black men need empowering too. Entrepreneurial development interventions may help to address intersecting structural barriers to young African-American men's health, such as poverty, race, and gender.^{64, 65} In developing countries, microenterprise programs have often focused on improving health by empowering women who have not traditionally been wage-earners. However, poor young black men in the U.S. similarly struggle to earn livable wages, which contributes to the observed crisis in health disparities.^{66, 67} While it is unlikely that all youth enrollees will become entrepreneurs, it is conceivable that the asset effects gained from entrepreneurial development can be leveraged by vulnerable male youth to mitigate disempowering contexts by increasing their earning potential in addition to enabling and motivating healthier lifestyle choices.

A final implication pertains to the overall low quality of evaluation research in this area. Specific programmatic content, such as details regarding education, apprenticeship, and micro-lending components, were routinely omitted from the literature. The majority of studies in this review additionally lacked a generalizable and controlled study design with objective longitudinal measures. Some findings intended to measure impact were captured anecdotally or based primarily on qualitative inquiry. As a result, the current evidence is both scarce and insufficiently rigorous to determine what specific entrepreneurial and microenterprise development programs are being utilized and the extent to which such initiatives can meaningfully address economic, psychosocial, and related health disparities for inner-city youth, including young black men. While the preliminary evidence suggests that substantial and meaningful gains are possible, more rigorous descriptive and evaluation frameworks are greatly needed.

Limitations

The review's limitations should be taken into account. All search and screening processes were conducted by a single individual. Therefore, to minimize biases, systematic review methods were rigorously applied and multiple screening rounds were performed. In addition, youth entrepreneurship programs do not clearly fall within a single discipline, and many related studies may have been housed in less-conventional databases. To avoid a potential omission of studies not identified in the bibliographic databases, the review examined the web-based gray literature and reference lists. Yet, some studies may still have been overlooked. It is also possible that publications from youth entrepreneurial programs that did not describe such activities in their reports were also overlooked. As a result, this review best

represents a summary of findings from publications available in peer-reviewed and registered trial databases as well as non-peer-reviewed documents posted and searchable online.

CONCLUSIONS

This is the first review to-date to examine the impact of entrepreneurial and microenterprise development initiatives on economic, psychosocial, and health outcomes among disadvantaged U.S. minority youth, particularly African-American male youth who are disproportionately affected by poverty, unemployment, and adverse health outcomes. Preliminary findings suggest that entrepreneurial programs can positively impact youth's economic and psychosocial functioning and result in healthier decision-making. However, integrated health and microenterprise models are virtually non-existent in the U.S., despite accumulating evidence in resource-poor international settings. There is an urgent need to increase implementation and evaluation efforts, using innovative and robust designs, to reach greater numbers of underprivileged, minority young men.

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