2-2023

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Publication Information

Schuler, Brittany R.; Vazquez, Christian E.; and O'Reilly, Nicole. (2023). "From Childhood Obesity Risk to Healthy Growth in the U.S.: A 10-Year Social Work Research & Policy Update". *Preventive Medicine Reports, 31*, 102071. https://doi.org/10.1016/j.pmedr.2022.102071

Preventive Medicine Reports 31 (2023) 102071

Contents lists available at ScienceDirect

Preventive Medicine Reports

journal homepage: www.elsevier.com/locate/pmedr

Short communication

From childhood obesity risk to healthy growth in the U.S.: A 10-year social work research & policy update

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ARTICLE INFO

Keywords:
Childhood obesity
Health disparities
Social work
Social justice
Prevention
Children
Families

ABSTRACT

Childhood obesity is a major health issue and a prominent chronic health condition for children in the United States (U.S.), caused by a multitude of factors. Most existing models of childhood obesity prevention have not worked, yielding little to no effect on improving weight status or the proximal health behaviors most attributed to obesity risk: nutritional intake, physical activity, sedentary behaviors, and sleep. There is an urgent need for new approaches to prevent health disparities that are responsive to impacts of economic inequality on healthy child growth in marginalized populations. In this *Short Commentary*, a social justice update is provided to motivate a new generation of research that promotes equitable and healthy child growth under present-day social, economic, and political circumstances. Social work-specific research and policy recommendations are provided to guide future research that targets underlying social and economic determinants of weight-related health disparities in childhood. Recommendations include research on cross-disciplinary metrics to better capture reductions in health disparities and the development and testing of policy and system interventions that address structural issues and strengthen health resources in marginalized communities. Progress in reducing disparities in childhood obesity will likely remain inhibited until recommendations from social work research are incorporated to strengthen existing medical and public health models and redirect the childhood obesity epidemic toward equitable, healthy child growth.

1. Overview of childhood obesity and the need for a social justice update

Delgado (2013) examined urban obesity in the United States (U.S.) through a social work lens. Centering social justice, the social, ecological, environmental, and spatial aggravators of health disparities were identified as unhealthy community options, failure of local markets to provide healthy food, and lack of safe spaces for play and exercise (Delgado, 2013). This seminal work, along with existing social work health promotion research indicates a social justice framework can augment prominent medical and public health models, providing the leverage needed to move the needle on weight-related disparities in marginalized communities. Yet, youth-focused, community-based programs that recognize systemic injustices, segregation, and structural inequalities, have been mostly absent from medical and public health frameworks (Felner and DeVries, 2013).

Childhood obesity is caused by many factors, including energy imbalance of nutritional intake, sedentary behaviors, and inadequate sleep (Gibbs and Forste, 2014; Kitsantas and Gaffney, 2010; Schuler et al., 2021; Vazquez and Cubbin, 2020; Schuler, 2019). Children with obesity have poorer physical and mental health, making prevention across critical stages of development crucial. Despite the positive association between economic inequality and obesity risk (Gibbs and Forste, 2014; Kitsantas and Gaffney, 2010; Schuler et al., 2021; Vazquez and Cubbin, 2020; Schuler, 2019), intervention trials among low-income samples have typically yielded null findings, attributed to barriers in economically depressed neighborhoods (Moore et al., 2019; Dietz, 2019; Kumanyika, 2017; Skinner et al., 2016; Robinson et al., 2010; Butte et al., 2017; Woo Baidal et al., 2017; Barkin et al., 2018; French et al., 2018). Interventions must move beyond individual behaviors to address

Abbreviations: U.S., United States; SNAP, Supplemental Nutrition Assistance Program; WIC, Supplemental Nutrition Assistance Program for Women, Infants, and Children; CHW, community health worker; BMI, body mass index.

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https://doi.org/10.1016/j.pmedr.2022.102071
Received 3 June 2022; Received in revised form 22 November 2022; Accepted 24 November 2022
Available online 29 November 2022

contextual factors driving weight-related health disparities (Davison et al., 2013).

2. Contemporary challenges

The coronavirus pandemic resulted in a major economic recession that increased poverty and unemployment in the U.S., ending years of declining food insecurity (Bull et al., 2014). Ten million additional people became at risk for food insecurity (Bull et al., 2014), adversely impacting nutrition and health (Moore et al., 2019; Dietz, 2019; Delgado, 2013; Alkon et al., 2020; Gibbs and Forste, 2014). Macroeconomic shifts led to rapid increases in food, housing, and utility costs (Garner and Short, 2008; Moynihan et al., 2016; Herd and Moynihan, 2018), absorbing larger proportions of low-income households' budgets (Bureau of Labor Statistics Reports, 2017). School and childcare closures reduced access to meal programs that provide daily sources of nutrition (Ralston et al., 2017; Hecht et al., 2022). Gun violence and food insecurity, which are more likely to co-occur in economically depressed neighborhood, further complicates access to health-promoting resources. When such forms of threat and deprivation pile up, risks to child growth multiply (Delgado, 2019). However, existing obesity prevention models fail to address co-occurring financial security, physical safety, and food insecurity barriers.

U.S. anti-poverty programming such as SNAP (Supplemental Nutrition Assistance Program), WIC (Women, Infants, and Children), and cash or tax credits to families in need (e.g., Temporary Assistance to Needy Families) could substantially reduce child poverty (National Academies of Sciences E and Medicine, 2019). However, administrative burdens, punitive rules, and complex processes to access and maintain benefits disproportionately restrict access for racial and ethnic minority families (Moynihan et al., 2016; Herd and Moynihan, 2018). Difficulty obtaining appointments, reliable transportation, and covering childcare costs, in addition to having required documentation for applications, conflicts with work, and risk of lost wages prevent eligible families from accessing needed services (Liu and Liu, 2016; Black et al., 2004).

2.1. Existing theories of change for obesity prevention

Childhood obesity has historically been addressed through downstream medical models that emphasize changing health behaviors and midstream public health models that emphasize changing the environment in which behaviors take place, primarily through education on healthy diet and activity choices (*see* Fig. 1) (Collins, 2009). A social justice perspective promotes individual well-being specific to energy balance needs across stages of child development, while recognizing and addressing upstream environmental forces that contribute to health. This lens argues that individuals should be held accountable for engaging in healthy behaviors only when resources shaped by economic, political, and cultural contexts are adequate (Collins, 2009; Adler and Stewart, 2009).

3. Social justice lens: from obesity prevention to healthy growth

The U.S. National Association of Social Workers *Code of Ethics* mandates social workers to challenge social injustice on behalf of underserved populations (National Association of Social Workers, 2021). Social issues are viewed from a broad context, including community influences on individual and family behaviors. Social work can assist in the development of multifaceted interventions using a social justice perspective in collaboration with multidisciplinary teams to address the structures that perpetuate oppression and limit access to resources for optimal health (Delgado, 2013). Social work practice, research, and policy recommendations for a social justice reorientation are summarized below and in Fig. 2. Note that there is consistency in the types of childhood weight-related disparities experienced across high-income countries (National Association of Social Workers, 2021), but the views presented herein may not be applicable to other contexts.

3.1. Practice recommendations

3.1.1. Family support

Social workers use evidence-based practices in collaboration with medical and public health professionals to address safety and strengthen surrounding systems and environments that support health behaviors. Social work provides a level of understanding distinctive from many other disciplines and takes into account family, cultural, and systems implications from a strengths-based perspective (Collins, 2009; Eliadis, 2006). Strengths-based perspectives require identification of assets that enhance families' ability to maintain and sustain health and well-being. This approach promotes collaboration with the family and encourages

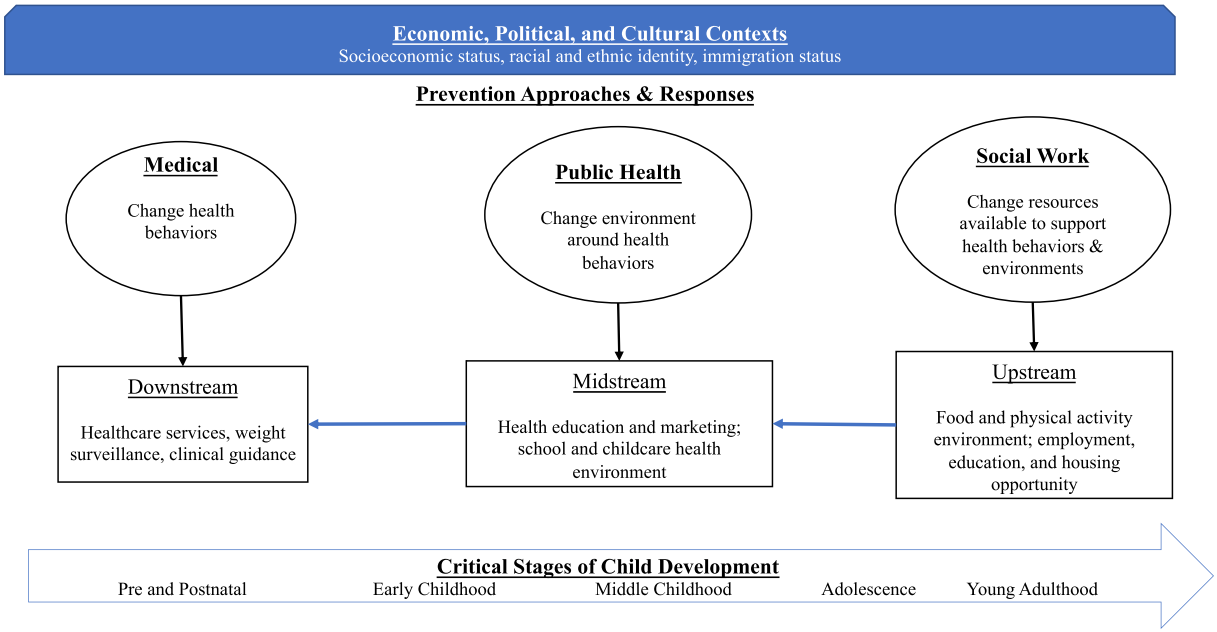

Fig. 1. Theories of change: dominating frameworks for obesity prevention.

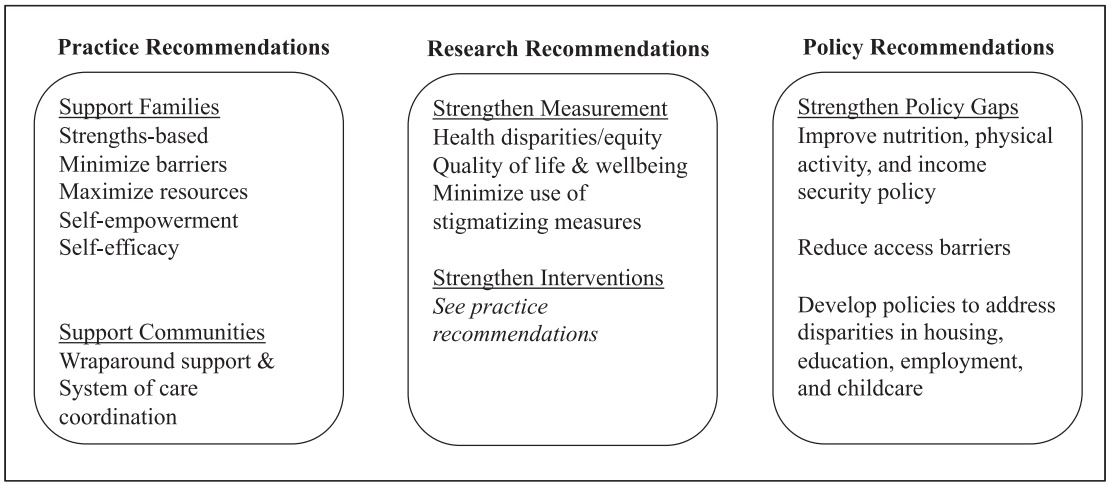

Fig. 2. Social work recommendations for a social justice reorientation: from obesity prevention to healthy child growth.

their aspirations and perceptions (Saleebey, 1997), rather than relying on worker-identified deficits-based approaches (Saleebey, 1997; Warburton and Bredin, 2019; Rapp et al., 2006). Strengths-based methods promote local and culturally specific responses (Foley and Schubert, 2013) by facilitating empowerment and self-efficacy in health and wellness; for example, supporting engagement in health behaviors, while minimizing negative feelings associated with failure to engage in recommended behaviors (e.g., shame, stigma) (Warburton and Bredin, 2019; Foley and Schubert, 2013; Morgan and Ziglio, 2007).

Connections to services, such as food, housing, or employment assistance can help to foster stability, safety, trust, and social inclusion to promote integration of healthy practices over time (Bitler et al., 2021). For example, case coordination and management strategies in social work address problems raised as barriers by clients, and assist with tasks such as applying for emergency funds, completing applications for support services, enrolling in childcare, and advocating in school and health care systems. However, these approaches have not been formally tested in conjunction with childhood obesity prevention approaches.

3.1.2. *Community support*

Connections between community violence and threats to healthy physical growth will ascend in importance as social workers and health care professionals pay closer attention to gun violence and community safety (Delgado, 2019). Intervention approaches that target structural disparities in communities and promote healthy choices that are easy, safe, practical, and affordable for all (Doom, 2020) can provide a foundation for sustainable systems that support health behaviors. Such programs would both reduce access barriers (Sharma et al., 2016; Sharma et al., 2019; Marshall et al., 2020) and provide wraparound financial, mental, social, and emotional supports (Doom, 2020; Doom et al., 2020). Research is needed to strengthen interdisciplinary coordination across community systems to reduce fragmentated service delivery for families with co-occurring physical and mental health needs. Programs can be improved to address basic foundations of safety, be culturally-relevant, holistic and strengths-based to address growth-related health disparities in marginalized communities.

3.1.3. *Research recommendations*

Body mass index (BMI) is the primary metric used to assess weight status. However, the measure is limited, as it does not distinguish between muscle and fat, does not provide information on body fat distribution (Willett, 2012), and relies on categories with arbitrary cut-points (underweight, normal weight, overweight, obesity). BMI metrics as primary outcomes promote medical model interventions that treat health behaviors proximally and physiologically. Recommended research steps are to consider prevention of malnutrition and energy imbalance in all its forms, recognizing obesity as only one of many potential outcomes of a system that does not support energy balance (e.g., diet and activity levels). Community health workers (CHW) are an example of a public health peer mentoring intervention that trains community members to educate patients, identify resources, coordinate care in partnership with the health care system, and provide social support (Norris et al., 2006). Such models have demonstrated evidence in improving health, chronic disease care, and illness prevention in underserved communities (Spencer et al., 2018; Spencer et al., 2011; Thom et al., 2013; Felner and DeVries, 2013). However, CHW models treat health behaviors according to resources available, and do not change the surrounding environments (Adler and Stewart, 2009).

Weight-related stigma such as stereotyping and bullying from providers, peers, and social networks further complicates the experience of oppressed children and exacerbates growth-related disparites (Lawrence et al., 2019; Nutter et al., 2018). Because risks of health disparities are usually greatest among those facing multiple forms of oppression, it is critical that future research and interventions remove weight-based stigma (Brady and Beausoleil, 2017; Russell-Mayhew and Grace, 2016). To reframe primary health outcomes toward equitable and healthy child growth, a change in language is recommended to address underlying determinants of childhood obesity. New metrics are needed to measure reductions in health disparities as outcomes, rather than individual behavior metrics. For example, validated and reliable measures are needed that address proximal and distal factors that impact health-promoting behaviors, improvements in wellbeing, and feedback loops between mental and physical health outcomes (Schuler and DeForge, 2015; Schuler, 2015; Schuler and Raknes, 2022).

3.1.4. *Policy recommendations*

Multi-level approaches that consider all levels of the social ecology require a coordinated policy response across sectors and levels of government (Esdaile et al., 2019). Most existing policy approaches are fragmented, geared towards individual behavior, and use isolated downstream and midstream, rather than upstream approaches (Esdaile et al., 2019). Efforts are needed to strengthen the coherence of national level prevention policies prioritizing upstream determinants of health that incorporate downstream health system factors with midstream lifestyle factors (Esdaile et al., 2019; Sacks et al., 2009). Examples include policy and system investments in food and income security, as well as policies stabilizing housing, employment, education, childcare, and health and mental healthcare systems (Avent-Holt and Tomaskovic-Devey, 2019; Miller et al., 2019). Lastly, coordinated policy approaches

should be specific to child developmental stages, with attention to sensitive periods in which health behavior change is most promising (see Fig. 1, *Critical Stages of Child Development*).

4. Conclusion

Healthy growth is not just a physical health issue, but has application across disciplines, including social work, public health, and medicine. A social work lens can provide a unique interdisciplinary contribution to minimize disparities around healthy growth by examining the issue from individual, family, group, community, and policy perspectives (Delgado, 2013). Because physical growth is entangled with social justice issues, the social work framework presented will be critical for reframing the childhood obesity epidemic toward equitable, healthy child growth.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Acknowledgements

The author would like to thank Professor Melvin Delgado for review of this article.

Funding

This work was supported by the National Institutes of Health National Institute on Minority Health and Health Disparities grant number K01MD015326, 2020–2023. The content is solely the responsibility of the authors and does not necessarily represent the official views of the funders.

Authorship contributions

BRS conceptualized and drafted the manuscript. All authors have participated in the concept and drafting/revising of the manuscript, and have approved the manuscript as submitted.

Ethics approval and consent to participate

Not applicable. No research was conducted to develop this report.

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