

# Exploring Grandparents' Roles in Young Children's Lifestyle Behaviors and the Prevention of Childhood Obesity: an Australian Perspective

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## ABSTRACT

Childhood obesity remains a significant public health issue. Because lifestyle behaviors and weight are established early and track through life stages, prevention strategies must commence in the first years of life. Traditionally, such strategies target parents or formal child care providers. Yet grandparents are increasingly providing care to grandchildren and therefore have an important role in their eating and activity behaviors, which creates a major research gap. This commentary piece, focusing on the Australian context, argues that it is imperative and timely for obesity prevention research to include investigations regarding the role of grandparents in the prevention of obesity-related behaviors in young children.

**Key Words:** activity, behavior, career, child, grandparents (*J Nutr Educ Behav.* 2018;■■:■■–■■.)

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## INTRODUCTION

Childhood obesity in children aged <5 years is a significant public health concern with considerable health consequences including an increased risk for cardiovascular disease and type 2 diabetes.<sup>1,2</sup> Internationally, childhood obesity rates are continuing to rise in some countries (eg, China, Canada) while plateauing in others (eg, US, Australia).<sup>3</sup> Nonetheless, they remain high globally,<sup>4</sup> with an estimated 42 million children aged <5 years overweight or obese in 2015.<sup>5</sup> Strong evidence exists that once obesity is established in childhood, it is difficult to reverse and persists into adulthood.<sup>2</sup> Thus, primary prevention strategies are essential to reduce the rates of childhood obesity worldwide.

Over the past few decades, the evidence base for childhood obesity

prevention has accumulated. School- and community-based interventions have been effective in primary school-aged children<sup>6-8</sup>; however, evidence for prevention in young children aged 0–5 years is still emerging.<sup>8,9</sup> Intervening in the first years of life to establish healthy lifestyle behaviors is crucial because food preferences<sup>10,11</sup> and activity behaviors<sup>12</sup> are established at this time and track into adulthood.<sup>13</sup> As such, the World Health Organization Commission on Ending Childhood Obesity focuses especially on obesity prevention initiatives that target early childhood.<sup>14</sup>

To date, obesity prevention strategies in children aged <5 years typically targeted parents, because they are the agents of change for children's physical activity and nutrition behaviors,<sup>15,16</sup> and the home environment as well as other settings where children spend a significant portion

of their time, such as long-day care centers (ie, formal child care settings).<sup>9,17,18</sup> However, informal care providers such as babysitters, nannies, friends, and family members are increasingly providing significant amounts of care to young children. In particular, grandparents are an important source of child care worldwide, providing care to approximately one quarter of children in the US,<sup>19</sup> UK,<sup>20</sup> and Australia<sup>21</sup>; the prevalence is highest among children aged <5 years. Although child care type may not be associated with child weight status *per se*,<sup>22</sup> the nutrition and physical activity environments within these settings can affect children's health outcomes. Therefore, grandparents could have a potential role in obesity prevention-related diet and activity behaviors in young children.

## THE CURRENT AUSTRALIAN PERSPECTIVE

In Australia, 1 in 5 children are overweight or obese by the time they start school.<sup>23</sup> Over the past decade, obesity prevention trials among children aged 0–5 years were undertaken to address this issue, with a large focus on the first 2 years after birth.<sup>24-28</sup> However, all of these high-quality, randomized, controlled trials targeted the parents and the home environment. Yet, changes

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in the Australian workforce have transformed the use of child care.<sup>29</sup> Over the past 30 years the presence of women in the labor market has risen by 18%<sup>30,31</sup> and in families where the youngest child is aged 0–4 years, 51% and 28% of mothers in coupled and single families, respectively, are employed in some capacity.<sup>29</sup> This has increased the need for child care. Low availability and/or the high cost of formal care<sup>32</sup> have subsequently resulted in a rise in the number of young Australian children being cared for by informal resources such as grandparents. Data from 2011 indicated that of young Australian children aged birth to 4 years who regularly attended some type of child care, 1 in 2 (50%) were cared for by a grandparent.<sup>33</sup> Importantly, children aged birth to 4 years spent more time in care by grandparents (10 h/wk) than did older children aged 5–12 years (6 h/wk).<sup>33</sup> With half of Australian children aged <5 years in care regularly cared for by a grandparent<sup>33</sup> for an average of 19 h/wk,<sup>32</sup> grandparents represent a significant source of informal care provision for young children.

### GRANDPARENTS' ROLE IN YOUNG CHILDREN'S OBESITY-RELATED BEHAVIORS

Given that children's food preferences<sup>10,11</sup> and activity behaviors<sup>12,34</sup> are extremely malleable in the early years of life and influence future behaviors,<sup>13</sup> grandparents who care for children aged <5 years may have a role in developing their food preferences and activity behaviors. Previous research in children, including those aged <5 years, showed that some grandparents may unintentionally employ unhelpful feeding practices such as using food to regulate emotions<sup>35</sup>; restricting access to certain foods<sup>35</sup>; spoiling or treating their grandchildren with food<sup>36–40</sup>; using food as a reward<sup>39,41</sup>; pressuring grandchildren to eat more<sup>37,42</sup>; making high-fat and high-sugar foods available<sup>43</sup>; allowing grandchildren a high degree of input and control when planning mealtimes and food choices<sup>35,37,44</sup>; and providing less encouragement of a balanced intake than do parents.<sup>35,36</sup> Various reasons have been identified for such behavior, such as to differentiate their role

from that of other carers and parents,<sup>39</sup> to demonstrate love and care,<sup>36,45</sup> or to exercise power over the parents.<sup>39</sup> These practices by parents are known to be associated with maladaptive eating patterns in young children and can increase the risk of childhood obesity.<sup>46</sup> Whether this same relationship exists for grandparents requires further exploration. Grandparents may also influence children's physical development through their own activity behaviors and environment,<sup>38</sup> which is also an area for further exploration. Although the amount of time grandparents spent with children was not accounted for in a recent review on links between grandparents and child health, findings showed a negative effect of grandparent involvement (which varied from full-time carers who live in the child's home to part-time carers) on children's (aged 0–18 years) weight status.<sup>47</sup> This suggests that grandparents may be an appropriate intervention target.

### GRANDPARENTS' ROLE IN THE FEEDING RELATIONSHIP AND FAMILY DYNAMICS

Societal changes, including an increase in the proportion of mothers of young children in the paid workforce in recent decades,<sup>48,49</sup> has led to changed family roles and an increased reliance on child care. As parents are increasingly struggling to find formal child care centres with a suitable location, price, quality, and availability,<sup>32</sup> many are turning to informal care, in particular grandparents, to meet their child care needs.<sup>33</sup> Many parents now rely on grandparents to provide care to their young children and significantly value their contribution. However, there is evidence that some parents feel their efforts to undertake positive child feeding practices, such as repeated exposure to a range of flavors and textures, and responsiveness to infant cues of hunger and satiety,<sup>50</sup> are often undermined by grandparents.<sup>37–39</sup> Given that the current food and activity environments of children are different from prior generations,<sup>51,52</sup> feeding children and adhering to recommendations regarding physical activity are often mentioned as sources of conflict between parents and grandparents.<sup>36,53</sup>

Studies reported that conflict and tensions between caregivers may arise owing to different food rules or practices,<sup>37,39</sup> different definitions of healthy eating,<sup>38</sup> and parents' beliefs about grandparents undermining their authority and disregarding their rules.<sup>39</sup> Similarly, grandparents' fear about interfering with and undermining parents may result in ambivalence about getting involved with any aspect of child rearing.<sup>54</sup> The need for grandparents to manage familial relations carefully, particularly with parents, was previously expressed,<sup>45,55</sup> and thus supporting grandparents, as well as parents, with the skills to foster good intergenerational relationships could be beneficial for child health.<sup>54</sup>

### THE NEED TO SUPPORT GRANDPARENTS IN THEIR ROLE AS CARERS OF YOUNG CHILDREN

Considering the significant number of children being cared for regularly by a grandparent in Australia and internationally, and the important role they can have in influencing the eating and activity behaviors of young children, supporting grandparents in caring for young children may help to improve their eating and activity behaviors. However, in Australia, informal child care provided by grandparents is currently largely unsupported.<sup>56</sup> In comparison, formal child care (ie, long-day child care and family day care) is regulated and receives government funding and support<sup>57</sup> to foster healthy lifestyle behaviors in young children. Thus, support programs or initiatives for grandparents would complement other established activities in formal care environments to promote healthy lifestyle behaviors in young children. In addition, research showed that grandparents who are responsible for providing valuable care for grandchildren often experience social isolation,<sup>58</sup> among other considerable sacrifices.<sup>59</sup> Social support for grandparents who care for grandchildren may minimize any negative impacts on grandparents' well-being<sup>60</sup> and even protect against childhood obesity.<sup>61</sup> Thus, a program or initiative that focuses on social support and recognizes and supports the important

contribution that grandparents provide to caring for young children could benefit both generations.

## SUPPORTING GRANDPARENTS IN THEIR ROLE AS CARERS OF YOUNG CHILDREN: THE EVIDENCE GAPS

To date, healthy lifestyle programs for children have generally been delivered solely to parents.<sup>62,63</sup> However, recent research has recognized the importance of involving grandparents in support initiatives.<sup>54</sup> Yet, such interventions are sparse, and those that exist predominately focus on custodial grandparents<sup>64-66</sup> or on assisting part-time grandparents to manage challenging child behavior.<sup>67</sup> For example, a 9-week parenting program targeting Australian grandparents, *Grandparent Triple P*, found an immediate, short-term improvement in child (mean age, 4.4 years) behavior, grandparent anxiety, and depression, and in the grandparent–parent relationship.<sup>67</sup> Evidence-based parenting programs such as this, which are designed to support grandparents in helping grandchildren develop, building a positive parenting team, and planning ahead,<sup>67</sup> for example, also have positive impacts on the parents and grandchildren and the potential to inform healthy lifestyle programs. International research showed that intergenerational interventions can improve children's lifestyle behaviors<sup>68</sup> and grandparents' health and well-being.<sup>66</sup> For example, Werner et al<sup>68</sup> reported that upon completion of the US *Active Generations* program, a short-term intergenerational, childhood obesity prevention intervention, children ( $n = 760$ ; mean age, 9 years) had significantly increased intake of fruit and vegetables, were more confident in participating in physical activity, and participated in less screen time. To the authors' knowledge, no similar work is being conducted with grandparents of young Australian children with a focus on healthy lifestyle behaviors.

## IMPLICATIONS FOR RESEARCH AND PRACTICE

As a result of changing social and financial environments, parents are

making alternative child care arrangements for their children, often relying on grandparents. From this emerges an increased interest in understanding how to support grandparents and promote health and well-being in children, grandparents, and parents. To date, little research has explored the role of grandparents and their needs in fostering healthy lifestyle behaviors in young children in cases where grandparents provide informal, temporary care. There is subsequently an opportunity to create tailored, evidence-based healthy lifestyle interventions for grandparents. Such interventions should have a strong theoretical underpinning to enhance program effectiveness.<sup>69,70</sup> Selection of the most appropriate theory (or theories) on which to build an intervention is important; Davis et al<sup>69</sup> identified 82 theories of potential use in designing and evaluating public health interventions. Commonly applied theories to date include Social Cognitive Theory, the transtheoretical model of change (TTM), the theory of planned behavior, and the information–motivation–behavioral skills model,<sup>69</sup> accounting for nearly two thirds of the articles identified in the review.<sup>69</sup> However, frequency of use does not necessarily correlate with theory quality, and thus awareness of the many other theories available upon which to design an intervention is important.<sup>69</sup> Other theories not appraised in this review,<sup>69</sup> such as parenting styles theory<sup>71,72</sup> and family-systems theory,<sup>73</sup> may also be appropriate. Finally, use of the Behavior Change Wheel<sup>74</sup> should be considered in intervention development, as is being done in related fields of research.<sup>75</sup> The Behavior Change Wheel is a theory- and evidence-based tool that draws on a range of theoretical approaches to address the target behavior of interest; it has the potential to lead to more effective interventions.<sup>74</sup>

Including grandparents in interventions will provide consistency in parenting and create supportive and health-promoting environments for children<sup>67</sup> while providing benefits across generations.<sup>65</sup> It would open up a dialogue in which parents and grandparents could safely discuss expectations and resolve conflict in a

mediated environment.<sup>54</sup> However, inclusion of grandparents in interventions with parents or families, rather than on their own, may be challenged by logistical factors and generational differences. For example, finding a common available time for intervention delivery becomes increasingly difficult with increasing number of family members,<sup>76</sup> whereas older generations of grandparents may be less receptive to technology-based interventions than would younger generations of grandparents and/or parents. In addition, recruitment of multigenerational families into trials may be difficult because a 1-size-fits-all approach may not be appropriate<sup>77</sup> and may lead to increases in resources required for recruitment. Thus, consideration must be given to whether interventions ought to be intergenerational or solely targeting grandparents.

Nevertheless, findings from the limited research conducted with grandparents indicates that grandparents may be receptive to support programs. Kirby and Sanders<sup>67</sup> reported high program satisfaction among grandparents, which supports the possible transfer of these methods to more specific healthy lifestyle-based interventions. However, future programs must be mindful of the capacity and needs of the target population. Understanding the needs of grandparents caring for young children with regard to the type of support desired will allow researchers to develop support programs or initiatives that are desired and therefore used. Populations with greater needs, such as custodial grandparents or grandparents of a child(ren) with special needs, may benefit from higher-intensity, group-based, evidence-based parenting programs. In contrast, lower-risk populations may benefit more from lighter-touch interventions such as social support groups, self-directed programs, or education seminars.<sup>54</sup> Modular-designed interventions<sup>78</sup> composed of subunits that can be implemented independently or together may be suitable, because of potentially different needs and capacity among grandparents. Particular modules may focus on improving grandparent–parent communication<sup>55</sup> to alleviate tensions that may arise between generations



when it comes to the provision of food and the activity environment, whereas others may build on parenting skills to create a positive eating and activity environment.<sup>79</sup> Furthermore, involving grandparents in designing such interventions from the outset and building an ongoing collaborative approach between researchers and end users could lead to successful outcomes.<sup>80</sup>

Understanding the needs of grandparents would also enhance program effectiveness and potentially lead to community-wide rollout with appropriate government support. It would also provide evidence for researchers and relevant agencies to lobby for government policy that better supports grandparents caring for young grandchildren. This may include policies that support the development of accessible playgrounds or play areas and a reduction in accessible fast food outlets, to facilitate healthy eating and activity behaviors in young children. It could also lead to the development of targeted wide-reach social marketing campaigns.<sup>39</sup> Such campaigns could highlight the vitality of grandparents in today's society, show appreciation for their efforts and of the impact caring has on their own lives, and build self-esteem and social capital.<sup>33</sup> Further research is required to inform such initiatives.

Overall, grandparents have an increasingly important role in the eating and activity behaviors of young children and are an important group that has been overlooked to date in efforts to reduce childhood obesity. Thus, initiatives that promote healthy lifestyle behaviors in young children should include grandparents. Carefully designed programs that focus on the needs of both the child and the grandparent have the potential to support the development of healthy food preferences, eating habits, and activity behaviors in children and to provide a social support network to promote positive well-being in grandparents. As such, the current researchers believe that it is imperative and timely for obesity prevention research to focus on the role of grandparents in developing healthy lifestyle behaviors in the young children for whom they provide care. Doing so could be a significant and innovative child obesity prevention strategy.

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## CONFLICT OF INTEREST

The authors have not stated any conflicts of interest.