

Parental Perceptions of Childhood Obesity: Systematic Literature Review

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Abstract

Aim: This review investigated the parental perceptions of their child's obesity including theoretical perspectives that have been used to explore and understand the phenomenon.

Design: Integrative review of empirical and theoretical literature.

Methods: The CINAHL, PsychINFO, and SocINDEX databases were used to conduct a literature search of the terms "parental perception and childhood obesity". Search requirements were indicated full text academic journals with a timeline of 2000-2013. Both quantitative and qualitative articles that focused on participant perceptions were viewed. Among the 127 articles, there was only one that defined the term "parental perception of childhood obesity" and another article defined the term "parental perception". A possible clarification for why none of the articles clearly defined "perception" may be an underlying assumption that the reader simply understood the term.

Results: The results of these studies indicate that a large percentage of parents do not perceive their children to be overweight or obese. Parental beliefs regarding childhood obesity, parental weight status, and parental educational level may influence parents' perceptions of their children's weight. Moreover, from the synthesis of the literature, the father's role has been underrepresented in child health research.

Conclusion: Future research is required to validate the conceptual definition of parental perception and encourage father involvement in childcare. Such research will enable nurses to assist parents to improve the health outcomes for their children by developing effective strategies to manage and prevent childhood obesity.

Keywords: Parental perception; Childhood obesity; Childhood overweight; Perception, Parent; Concept analysis

Introduction

Childhood obesity is one of the most serious public health challenges of the 21st century [1]. The World Health Organization (WHO) documented that over 340 million children and adolescents aged 5-19 years old were overweight or obese in 2016 [2]. Childhood obesity has been linked to numerous medical conditions such as diabetes, sleep apnea, and cardiovascular disease, which have been listed as the most common health problems among children [3]. Cognitive deficits in children and adolescents and academic deficits in adolescents associated with obesity have been frequently observed [4]. The promotion of healthy lifestyles is a crucial factor in fighting the childhood obesity epidemic. As with any pediatric chronic illness, parents play a major role in their children's weight-related condition and health outcomes. However, parents of children who are overweight or obese often fail to accurately identify their child's weight status [5]. Therefore, it is essential to examine and establish the relationship between children's weight gain throughout childhood with parents' attitudes and behavior toward the weight status of their children.

In examining the present literature on parental perception of child weight status, it was apparent that conceptual definitions of the term of perception were rarely explained. In order to accept any study of parents' perceptions of their child's weight status, it is important to explain conceptual definitions for the perception. Each study reviewed either directly or indirectly implied that the purpose of the research was to evaluate parent perceptions of child weight status, yet none of the studies defined the concept of parental perception. Therefore, the concept of perception should be clearly understood through the historical process in order to develop a worldwide accepted standard definition.

Gibson [6] and Reed [7] defined perception as a construction of mental symbols or representations of reality gained from the senses. Perception is the process by which organisms interpret and organize sensation to produce a meaningful experience of the world [8]. However, what an individual interprets or perceives may be substantially different from reality [9]. Although concept analysis is an important first step in providing a comprehensive conceptual definition of parental perception of child weight and generating theory related to this concept, the concept of perception has not been consistently operationalized

in this integrative literature review [10]. Lara-García et al., study was the only study that provided some explanation to the parental concept [11]. The authors stated that perceptions are influenced by the relationship between the perceiver and the person, who is perceived, as well as the perceiver's experiences, beliefs, and characteristics, which will affect thoughts, feelings, and attitudes about the perceived person. A clear definition of this concept is necessary to further examine the phenomenon of parental perceptions. Demonstrating the defining qualities of a concept allows healthcare professionals to use the concept in a more effective manner.

Theoretical Perspectives

Nursing practice is enhanced not only through evidence-based practice but with a strong connection between theory and research [12]. Based on this philosophy, the theories related to perception will be explored. The Health Belief Model (HBM) and the Social Cognitive Theory (SCT) are the most common theories that have been used as theoretical approaches to study the phenomenon of parental perceptions of childhood weight status.

Social Cognitive Theory (SCT) states that any behavioral change occurs through reciprocal interactions between intrapersonal, behavioral, and environmental influences [13]. It has been broadly studied in medical weight loss, particularly in diet-related behavioral changes and increased physical activity [14]. Within this theoretical framework, the self-efficacy construct represents an individual's confidence in his or her ability to engage in a specific behavior to achieve a desired outcome [13]. In this regard, a parent's self-efficacy to engage in behaviors that will prevent his or her child from developing obesity (i.e., providing healthy meals, limiting unhealthy snacks, and encouraging the child participate in physical activity) is affected by his or her ability to overcome personal and sociocultural obstacles and carry out these behaviors [15].

Accordingly, the Health Belief Model (HBM) was originally developed in the 1950s by a group of social psychologists in order to explain why people had failure in programs designed to prevent disease [16,17]. According to HBM, the action to prevent, screen, and control illness is based on the individual's beliefs. This will take place only if he or she perceives himself or herself as susceptible to illness [17]. Perceived susceptibility, severity, benefits, a call to action, and modifying variables are the main concepts of this model [18]. Through the application of this model, many researchers were able to examine what parents perceive as barriers to preventing and treating children's obesity [19,20]. The model also establishes a basis for recognizing these barriers to treating and preventing childhood obesity. In addition, it gives a basis for the fact that if a parent does not perceive the child as obese, then no treatment or intervention will be given [21].

Description of Relationships

Rodgers BL argued that a more contemporary view of concept analysis is that concepts are socially constructed, context-dependent, and vary as time and circumstances change [22].

Therefore, he denies a fixed, essentialist viewpoint of a concept as a single, unchanging phenomenon.

Attitude has a strong relationship with perception. Selective perception occurs when a person limits the processing of external stimuli by selectively interpreting what he or she sees based on beliefs, experience, or attitudes [23]. Parental attitudes on body weight significantly influence how a parent perceives a child's weight. As with parental perception, parental attitude, as a term, was not well explained on the studies. Parental perception refers to a mindset or a tendency to act in a particular way based on the individual's experience and temperament [24,25]. It has also defined more simply as a mindset or a tendency to act in a particular way due to both an individual's experience and temperament [9]. Three components of any attitude exist: an affect (a feeling), cognition (a thought or belief), and behavior [9]. For example, a mother's attitude toward childhood obesity encompasses her point of view about the topic and how she feels about this topic, as well as the actions she engages in to prevent or manage this health problem. Since a person's attitude of the stimuli plays an important role in the perception process, parents' attitudes about their child's weight also should be clearly explained in the research.

Methods

The CINAHL, PsychINFO, and SocINDEX database were used to conduct a literature search of the terms "parental perception and childhood obesity". Search requirements were indicated full text academic journal with publication timeline of 2000-2013. Both quantitative and qualitative articles that focused on participant perceptions were viewed. In the 127 articles, there was only one article that defined the term "Parental Perception of Childhood Obesity" and one another article that defined the term "Parental Perception". A possible explanation for why none of the articles clearly defined "Parental Perception" may be an underlying assumption that the reader simply understood the term.

Results and Discussion

Majority of studies regarding parental perception of child's weight status revealed that a large percentage of parents do not perceive their children as overweight or obese.

Because health disparities are prevalent in the United States (US), Porter L, et al. in their study explored perceptions and attitudes related to eating and weight among low-income African American mothers of preschoolers [26]. Through utilizing Social Cognitive Theory (SCT), eight focus groups, four mothers in each group, were recruited from two Head Start programs in a southeastern state of the United States. The results showed that six themes emerged that were related to maternal perspectives about healthy food, eating habits, and weight. Also, it revealed that more than 25% of mothers underestimated their child weight status. The present study recommends that improving nutrition education can have positive influence on maternal perceptions and beliefs about healthy eating and thus help to

reduce health risks linked with low diet quality among low-income African American preschoolers.

In a quasi-experimental study by Abdeyazdan et al. their aim was to evaluate the effectiveness of lifestyle education based on the Health Belief Model (HBM) for mothers of obese and overweight school-age children on obesity-related behaviors [19]. The sample consisted of 64 mothers of obese and overweight students (fifth and sixth graders) who participated in the study after meeting the inclusion criteria. Each participant was randomly assigned into either an experimental or control group. Four educational and training sessions were provided to the control group. Information such as the definition of obesity, effective factors of obesity, the role of healthy diet, and physical activities in preventing obesity were discussed the educational sessions. A standard questionnaire for evaluating knowledge, attitudes (perceived threat, benefits, and barriers structures), and performance related to obesity among children was completed before, immediately after, and 2 months after the intervention by interviewing the mothers [20]. The results were statistically significant in obesity-related behaviors among the mothers of the intervention group 2 months after the intervention was significantly higher than that before the intervention. Likewise, the mean score of perceived threat in mothers immediately after and 2 months after the intervention was significantly higher than before the intervention. Moreover, mothers became more sensitive about obesity, its complications, and severity; after increasing their knowledge, they could transfer correct health behaviors to their children. Therefore, the researchers recommended the implementation of an educational program based on the health belief model to improve mothers' knowledge and perception about childhood obesity.

Schmied et al., the study aimed to qualitatively explore the factors influencing parent engagement in a family-based childhood obesity prevention and control program [19]. Although it did not address parental perceptions about a child weight, this study was included primarily for its cultural component. The health belief model and the transtheoretical model guided semi-structured interviews that were conducted with 22 predominantly Latina mothers following the scheduled conclusion of program activities. The significant finding of the study was that differences in parent engagement may be at least partially explained by differences in parental motivations for participating and in barriers and facilitators, such as children's level of support and enthusiasm for the program. Furthermore, the participants were motivated by a desire to learn parenting techniques and how to improve their own health as well as by the desire to improve their children's health behaviors and health status. This led to a recommendation that future programs should clearly consider the role of parental readiness to change and family functioning and examine the extent to which these constructs mediate program outcomes.

A recent quantitative descriptive study done in Tekirdag, Turkey, and Ekim A looked at the self-efficacy perceptions of parents related to their preschool children's healthy eating and physical activity behaviors [27]. The study was guided by the self-efficacy concept, which is one of the main concepts of

Bandura's social cognitive theory. The researcher selected 425 parents of preschool children aged 3 to 6 years old. The data were collected through demographic information form, and the Parental Self-Efficacy Questionnaire (PSQ), which was about the child's eating habits and physical activities. In addition, the weight and height of the children and their parents were measured. The results of this study indicate that self-efficacy scores being associated with higher BMIs. Furthermore, the perception of healthy eating style behaviors increased as the education and economic status of the parents increased. These findings highlighted the importance of understanding the effect of parental self-efficacy perception in the development of preschool children's healthy eating and physical activity behaviors. A recommendation from this study is to conduct qualitative or mixed methods for future studies because participants are likely to be biased when self-report measurements is used.

Albalawi et al., aimed to assess the maternal perceptions of Body Mass Index (BMI) and dietary habits among school-aged children as indicators in obesity screening in two major cities of Saudi Arabia [28,29]. The major finding of this study was that almost one-third of the mothers perceived that their children were underweight while their BMI was normal. Furthermore, more than half of mothers did not have knowledge about which foods their children ate that led to the development of childhood obesity. There was also a tendency among less-educated mothers to perceive their children's overweight or obesity status. The authors suggested that applied nutritional counselling and education should be provided for both mothers and children.

In a quantitative study by Alqahtani et al., the researchers used a cross-sectional design to assess parents' perception regarding ideal weight for their preschool children and to evaluate their awareness about childhood obesity [30]. This study was conducted in Primary Healthcare Centers (PHCCs) in Abha City, Kingdom of Saudi Arabia. A sample of 385 parents and their healthy children aged 12 to 70 months was recruited for the study. Data was collected through a structured questionnaire that included 32 questions about demographic data, perception and knowledge about ideal weight, preferred weight for children, and child's nutrition and lifestyle. While the study showed that most of the parents preferred ideal weight for their children, the majority of the parents of overweight or obese children were unaware that their children were overweight. In fact, 42.2% of the parents of ideal weight children thought that their children were under weight. As a result, the researchers highly recommend the implementation of a major education campaign to educate parents regarding the ideal weight for children and obesity.

Hansen et al., conducted a retrospective study aimed at investigating the generational shifting of parental perceptions about children's weight [31]. Data was collected from National Health and Nutrition Examination Surveys (NHANES), which was completed from 1988 to 1994 and 2005 to 2010. The participants, mainly mothers, were asked about the weight status of child's who ranged (aged 6 to 11 years old) weight status, ages 6 to 11 years, if he or she was overweight,

underweight, or normal weight. The results demonstrated that overweight and obese children were less likely to be perceived as overweight in the recent survey compared with peers of similar weight but who were surveyed 10 years earlier. These findings suggest a generational shift in social norms related to body weight, such that overweight and obese children are more accurately perceived as such now than from 10 years ago. The researchers conclude that by alerting each parent whose child has a weight issue and providing evidence-based interventions, the burden of childhood obesity could effectively be reduced in the United States.

Conclusion

This literature review investigated how the parental perception concept was identified in previous childhood obesity studies. While there was an abundance of literature on parental perception of child weight, there was no clear definition for the concept. Accurate perception of child's weight status is crucial to understanding parental behaviors toward their children in order to promote healthy weight and the management of childhood obesity. Future research is required to validate the conceptual definition of parental perception of child weight. Such research will enable nurses to assist parents improve the health outcomes for their children through the development of effective strategies to manage and prevent childhood obesity.

Moreover, from the synthesis of the literature, it was clear that most of the parents have not perceived overweightness or obesity in their children in the previous studies.

Summary and Recommendations

Evidence has shown that the success of childhood obesity prevention and management programs is dependent on families' engagement and participation [32,33]. Therefore, identifying the most effective ways to engage parents in childhood obesity management and prevention has become an important area of research. However, the father's role has been underrepresented in child health research [34,35]. In fact, researchers have recommended more meaningful involvement of fathers to examine whether fathers and mothers have a differential influence on the dietary and activity behaviors of children [34]. Since maternal employment has increased, father involvement in caregiving has almost tripled since 1965 [36]. Furthermore, fathers appear to have a particularly important influence on key behaviors such as their children's physical activity and eating habits research [33]. Freeman et al., study showed that children with an obese father but a healthy weight mother were 15 times more likely to be obese than children with healthy weight parents [37]. These findings indicate that neglecting to involve fathers in childhood obesity management and prevention programs may have significant consequences for intervention efficacy [38]. Thus, the American Academy of Pediatrics (AAP) issued a clinical report underscoring the need to encourage and support father involvement in pediatric care through all stages of child development [39]. Nurses and other healthcare professionals must improve the understanding of the

role and presence of fathers in obesity management and prevention through their future studies.

References

1. Aldhaifallah AA, Mwanri L, Aljoudi A (2015) Childhood obesity in Saudi Arabia: Opportunities and challenges. *Saudi J Obes* 3:2-7.
2. <http://www.who.int/mediacentre/factsheets/fs311/en/>
3. Alqarni S (2016) A review of prevalence of obesity in Saudi Arabia. *J Obes Eat Disorder* 2.
4. Alarcón G, Ray S, Nagel BJ (2016) Lower working memory performance in overweight and obese adolescents is mediated by white matter microstructure. *J Int Neuropsychol Soc* 22:281-292.
5. Robinson E, Sutin AR (2016) Parental perception of weight status and weight gain across childhood. *Pediatrics* 137:e20153957.
6. Gibson JJ (1966) *The senses considered as perceptual systems*. Boston, MA: Houghton Mifflin.
7. Reed AS (1988) *James J. Gibson and the Psychology of Perception*. New Haven, CT: Yale University Press.
8. Lindsay PH, Norman DA (1977) *Human information processing*. New York: Academic Press.
9. Borkowski N (2015) *Organizational behavior in health care*. Burlington, MA: Jones & Bartlett.
10. Mareno N (2014) Parental perception of child weight: A concept analysis. *J Adv Nurs* 70:34-45.
11. Lara-García B, Flores-Peña Y, Alatorre-Esquivel MA, Sosa-Briones R, Cerda-Flores RM (2011) Maternal perception of childhood overweight-obesity and health risks in Nuevo Laredo, Tamaulipas, Mexico. *Public Health of Mexico* 53:258-263.
12. Chinn P, Kramer MK (2015) *Knowledge development in nursing: Theory and process*, 9th (edn.). St. Louis, MO: Elsevier.
13. Bandura A (2004) Health promotion by social cognitive means. *Health Educ Behav* 31:143-164.
14. Johnson F, Pratt M, Wardle J (2012) Dietary restraint and self-regulation in eating behavior. *Int J Obes* 36:665-674.
15. Bandura A (1998) Health promotion from the perspective of social cognitive theory. *Psychology & Health* 13:623-649.
16. Becker MH, Maiman LA (1975) Sociobehavioral determinants of compliance with health and medical care recommendations. *Medical Care* 10-24.
17. Janz NK, Becker MH (1984) The health belief model: A decade later. *Health Educ Q* 11:1-47.
18. Lajunen T, Räsänen, M (2004) Can social psychological models be used to promote bicycle helmet use among teenagers? A comparison of the health belief model, theory of planned behavior and the locus of control. *J Safety Res* 35:115-123.
19. Abdeyazdan Z, Moshgdar H, Golshiri P (2017) Evaluating the effect of lifestyle education based on health belief model for mothers of obese and overweight school-age children on obesity-related behaviors. *Iran J Nurs Midwifery Res* 22: 248-252.
20. Schmied EA, Chuang E, Madanat H, Moody J, Ibarra L, et al. (2018) A qualitative examination of parent engagement in a family-based childhood obesity program. *Health Promotion Practice* 19:905-914.
21. Keller C, Fleury J, Sidani S, Ainsworth B (2009) Fidelity to theory in PA intervention research. *West J Nurs Res* 31:289-311.

22. Rodgers BL (2000) Concept analysis: An evolutionary view. In B. L. Rodgers & K. A. Knafl (Eds.), *Concept development in nursing: foundations, techniques and applications*, 2nd (edn.). Philadelphia, PA: Saunders, pp. 77-102.
23. Sherif M, Cantril H (1945) The psychology of attitudes: I. *Psychology Review* 52:295-319.
24. Allport GW (1935) Attitudes. In C. Murchison (ed.), *A Handbook of Social Psychology*. Worcester, MA: Clark University Press.
25. Pickens J (2005) *Organizational behavior in health care*. Sudbury MA: Jones and Bartlett.
26. Porter L, Shriver LH, Ramsay S (2016) Maternal perceptions related to eating and obesity risk among low-income African American preschoolers. *Maternal and Child Health J* 20:2565-2572.
27. Ekim A (2016) The effect of parents' self-efficacy perception on healthy eating and physical activity behaviors of Turkish preschool children. *Comprehensive Child and Adolescent Nursing* 39:30-40.
28. Albalawi MM, Al-Harbi MF, Yakout SMH (2018) Maternal perception of body mass index and dietary habits leading to obesity among Saudi school aged children: A comparative study. *World J Public Health* 3:23-31.
29. Alosco ML, Stanek KM, Galioto R, Korgaonkar MS, Grieve SM, et al. (2014) Body mass index and brain structure in healthy children and adolescents. *Int J Neurosci* 124:49-55.
30. Alqahtani SM, Alsultan BS, Awdah NA, Alshehri MA, Alqahtani AS, et al. (2017) Parental perception and knowledge about ideal weight among preschool-aged children in Abha City, southwestern Saudi Arabia. *Saudi J Obes* 5:85.
31. Hansen AR, Duncan DT, Tarasenko YN, Yan F, Zhang J (2014) Generational shift in parental perceptions of overweight among school-aged children. *Pediatrics* 134:481-488.
32. Kelleher E, Davoren MP, Harrington JM, Shiely F, Perry IJ, et al. (2017) Barriers and facilitators to initial and continued attendance at community-based lifestyle programmes among families of overweight and obese children: A systematic review. *Obes Rev* 18:183-194.
33. Robertson W, Murphy M, Johnson R (2016) Evidence base for the prevention and management of child obesity. *Pediatrics and Child Health* 26:212-218.
34. Morgan PJ, Young MD, Lloyd AB, Wang ML, Eather N, et al. (2017) Involvement of fathers in pediatric obesity treatment and prevention trials: A systematic review. *Pediatrics* 139.
35. Davison KK, Charles JN, Khandpur N, Nelson TJ (2017) Fathers' perceived reasons for their underrepresentation in child health research and strategies to increase their involvement. *Matern Child Health J* 21:267-274.
36. Parker K, Wang W (2013) *Modern parenthood: Roles of moms and dads converge as they balance work and family* (pp. 27-32). Washington DC: Pew Research Center.
37. Freeman E, Fletcher R, Collins CE, Morgan PJ, Burrows T, et al. (2012) Preventing and treating childhood obesity: Time to target fathers. *Int J Obes* 36:12.
38. Sahoo K, Bishnupriya S, Ashok K, Nighat Y, Raman K, et al. (2015) Childhood obesity: Causes and consequence. *J Fam Med Prim Care* 4:187-192.
39. Yogman M, Garfield CF, Committee on Psychosocial Aspects of Child and Family Health (2016) Fathers' roles in the care and development of their children: The role of paediatricians. *Pediatrics* 138:e20161128.