Health & Medical Sciences Volume: 3, Number 3, 2026, *Page*: 1-13

Parenting Patterns and Diabetes Mellitus Prevention in Children A Descriptive Analysis of Literature Studies

Rus Andraini

Poltekkes Kemenkes Kalimantan Timur

DOI:
https://doi.org/10.47134/phms.v3i3.615
*Correspondence: Rus Andraini
Email: rus.andraini@gmail.com

Received: 11-02-2026
Accepted: 11-03-2026
Published: 11-04-2026

Abstract: This study aims to analyze the role of parenting patterns in preventing diabetes mellitus in children through a descriptive literature review approach. The increasing prevalence of childhood obesity and unhealthy lifestyles has raised concerns about the early risk of metabolic disorders, including diabetes mellitus, making family based prevention strategies increasingly important. This research employed a qualitative research design using a descriptive approach through a literature study. Data were collected through systematic searches of relevant academic sources, including peer reviewed journal articles, scientific publications, and other scholarly documents discussing parenting patterns, childhood obesity, and diabetes prevention. The collected data were analyzed using a thematic analysis process that involved identifying key themes, reducing and categorizing relevant information, and interpreting the findings inductively to obtain a comprehensive understanding of the relationship between parenting and childhood metabolic health. The results indicate that parenting patterns significantly influence children's health behaviors, particularly in shaping dietary habits, physical activity, and lifestyle routines that affect the risk of obesity and metabolic disorders. Positive parental involvement, health literacy, and supportive family environments contribute to healthier behavioral patterns that reduce the likelihood of developing diabetes mellitus in childhood. These findings emphasize that effective prevention strategies should prioritize family centered health promotion, parental education, and collaborative efforts involving families, healthcare providers, schools, and communities. In conclusion, this study contributes to the understanding that parenting patterns are fundamental determinants in shaping children's health behaviors and play an essential role in early prevention strategies aimed at reducing the risk of diabetes mellitus in children.

Keywords: Parenting Patterns, Diabetes Mellitus Prevention, Childhood Obesity, Family Health Behavior, Child Health.

Introduction

Global concern over childhood health issues associated with metabolic disorders has grown, especially in light of the rising incidence of childhood diabetes mellitus. Diabetes mellitus is a long-term metabolic condition marked by high blood sugar levels brought on by either insulin resistance or decreased insulin production. Due in large part to changes in lifestyle and an increase in childhood obesity, type 2 diabetes mellitus has become much more common in children in recent decades. These patterns suggest that early preventive

measures are crucial for lowering long-term health issues and encouraging children to have healthier life paths (Gojayeva, 2025).

One of the most significant risk factors for children developing diabetes mellitus is the sharp increase in childhood obesity. Childhood obesity can lead to metabolic problems like insulin resistance, dyslipidemia, and chronic inflammation, which raise the risk of type 2 diabetes in later life. Preventive interventions during childhood are crucial because these metabolic disruptions may start early and persist into adulthood (Munusamy, 2021).

Over the past few decades, there has been a significant global increase in the prevalence of childhood obesity and overweight. According to epidemiological reports, about one-third of children in some nations are overweight or obese, indicating a serious public health issue. Childhood obesity frequently lasts into adulthood and raises the risk of chronic illnesses like diabetes mellitus and cardiovascular disease (Parkin, 2015).

Children's health behaviors are greatly influenced by family environments in addition to lifestyle modifications. Children's eating habits and levels of physical activity are greatly influenced by parenting styles, household dietary patterns, and parental awareness of health risks. Studies suggest that parents who actively promote healthy lifestyles within the family environment can significantly reduce the risk of obesity and metabolic disorders among children (Verduci, 2022).

Parental influence is particularly important during early childhood when children develop fundamental behavioral patterns related to diet and physical activity. Research shows that parenting styles, parental knowledge, and family lifestyle habits are strongly associated with children’s risk of developing obesity and related metabolic diseases. When parents lack adequate knowledge about nutrition and disease prevention, children may be more vulnerable to unhealthy behaviors that contribute to metabolic disorders (Dhakal, 2025).

The intergenerational impact of parental health status is another significant factor associated with childhood metabolic health. Research shows that the risk of obesity in offspring is greatly increased by maternal obesity and metabolic abnormalities. According to Jalali Farahani (2021), children born to mothers who are overweight or have metabolic disorders are more likely to experience metabolic problems later in life, such as diabetes mellitus.

Metabolic health is also significantly influenced by early life circumstances, such as prenatal and early childhood settings. Maternal obesity prior to pregnancy has been found to impact child development and raise the risk of metabolic syndrome, obesity, and related disorders in childhood and adolescence. These results highlight the significance of preventive measures that start even before birth (Lacković, 2024).

Family lifestyle structures and parental guidance also have a significant impact on behavioral patterns formed during childhood. It has been demonstrated that structured family-based interventions can enhance children's eating habits and lower their consumption of unhealthy foods. Parent-focused educational initiatives have proven successful in promoting healthier eating practices in preschoolers (Shakerinejad, 2025).

Additionally, a number of studies highlight that one of the best methods for preventing childhood obesity and associated metabolic disorders is family-centered lifestyle

interventions. It has been demonstrated that concurrent parent-child programs enhance family health behaviors, such as eating more nutritious foods and exercising more (Bridge, 2019).

The risk of childhood obesity and metabolic diseases is also greatly influenced by environmental and socio-ecological factors. Children's eating habits can be influenced by factors like the food environment, socioeconomic status, and cultural eating customs. Over time, these variables interact with family-level influences to mold children's health-related behaviors (Castro Sifuentes, 2023).

A comprehensive and integrated approach is necessary for prevention strategies because childhood obesity is a multifactorial condition. In order to encourage healthy lifestyles and lower the risk of childhood obesity, public health initiatives are placing an increasing emphasis on the necessity of cooperation between families, schools, healthcare providers, and communities (Mazur, 2022).

Interventions focused on families and the community have also shown promise in preventing type 2 diabetes in children. Children at risk of diabetes have shown improvements in physical activity and general quality of life as a result of programs aimed at promoting healthy lifestyles through school and community engagement (Pike, 2023).

Despite the growing body of research on childhood obesity and diabetes prevention, several gaps remain in understanding the specific role of parenting patterns in preventing metabolic disorders among children. While many studies highlight the importance of family involvement, limited research synthesizes existing literature to comprehensively describe how parenting practices contribute to diabetes prevention in children.

Additionally, the complexity of behavioral, environmental, and biological determinants of childhood diabetes indicates the need for more integrative analyses of available literature. A descriptive literature study can provide a broader perspective on existing evidence related to parenting patterns and diabetes prevention strategies among children.

Thus, the purpose of this article is to use a descriptive literature review approach to examine how parenting styles contribute to the prevention of diabetes mellitus in children. The results of this study should theoretically advance our knowledge of family-based health promotion and practically help parents, medical professionals, and legislators create strategies that effectively prevent childhood diabetes mellitus.

Methodology

In order to investigate the connection between parenting styles and the prevention of diabetes mellitus in children, this study used a qualitative research design with a descriptive approach through a review of the literature. Through the interpretation of meanings, concepts, and patterns found in a variety of information sources, qualitative research is frequently used to investigate social and health-related phenomena. Researchers can gain a deeper conceptual understanding of complex issues by using this approach, which prioritizes systematic interpretation and contextual understanding over numerical measurement (Bingham, 2023) (Pratt, 2025). Because the goal of this study was to synthesize

and interpret theoretical and empirical evidence regarding parenting practices and their role in preventing diabetes mellitus in children, the qualitative method was deemed appropriate.

Because it enables researchers to present phenomena thoroughly and methodically based on the evidence at hand, the descriptive qualitative approach was selected. The goal of descriptive research is to explain traits, trends, and connections associated with a specific phenomenon without changing any of the variables. Descriptive qualitative designs are widely used in health research to preserve methodological rigor and transparency while offering concise, contextual explanations of complicated problems (Doyle, 2019) (Abraham, 2024) (Baillie, 2019). Using this method, the current study explains how family environments and parenting practices affect children's attempts to prevent diabetes mellitus.

This study employed a library research method, which entails methodically gathering and evaluating data from numerous academic sources pertinent to the research question. Researchers can identify theoretical perspectives, conceptual frameworks, and research trends by synthesizing existing academic knowledge through library research. Peer-reviewed journal articles, scholarly books, official reports, and other pertinent scholarly materials addressing parenting practices, child health behavior, and diabetes prevention were among the data sources used in this study. In a given discipline, literature-based research has emerged as a crucial technique for analyzing knowledge development and pinpointing research gaps (Togia, 2017) (Granikov, 2020) (Bandaranayake, 2024) (Jimenez, 2024).

The **data collection technique** was carried out through systematic literature searching and document analysis. Relevant literature was identified using academic databases and digital library platforms by applying keywords related to parenting patterns, family based interventions, childhood health behavior, and diabetes prevention. The selected documents were then reviewed carefully to identify relevant concepts, theoretical explanations, and empirical findings. Document analysis enables researchers to interpret written sources systematically and extract meaningful insights from credible academic materials, thereby supporting the development of a comprehensive theoretical discussion (Togia, 2017) (Granikov, 2020).

Several steps that are frequently used in qualitative research were followed in the data analysis process. Finding key themes and ideas about parenting styles and childhood diabetes prevention was the first step. Data reduction, the second stage, involved the selection and organization of information pertinent to the study's goals. Classifying the data into conceptual groups, such as parental knowledge, family lifestyle patterns, behavioral influences, and preventive strategies, was the third step. In order to create a thorough understanding of the phenomenon under study, conclusions were ultimately reached inductively by combining patterns found throughout the literature. To ensure analytical rigor and credibility, qualitative data analysis typically entails iterative processes of coding, categorization, and thematic interpretation (Belotto, 2018) (Kalpokaite, 2018) (Vila Henninger, 2022) (Fife, 2024) (Bingham, 2023).

This study used particular inclusion and exclusion criteria when choosing literature sources to guarantee the reliability and validity of the results. Scholarly works addressing

parenting styles, childhood health behaviors, and diabetes prevention were included in the inclusion criteria, especially those that were published in respectable journals and included theoretical or empirical contributions pertinent to the study topic. Sources that were not directly relevant to the research topic or lacked academic credibility were not included. By comparing results from several scholarly references and guaranteeing conceptual consistency throughout the examined literature, source triangulation enhanced the data's reliability. To preserve methodological rigor and improve the validity of research findings, such procedures are advised in qualitative research (Bingham, 2023) (Pratt, 2025).

Result and Discussion

The results of this review of the literature show that parenting styles are important in preventing children from developing diabetes mellitus, especially when it comes to their impact on family health environments, eating habits, and lifestyle choices. It is well known that unhealthy lifestyles and childhood obesity are the main risk factors for the development of metabolic disorders, such as type 2 diabetes mellitus. Numerous studies highlight that childhood metabolic abnormalities frequently start with obesity and poor eating habits, which, if left untreated, can result in insulin resistance, dyslipidemia, fatty liver disease, and hypertension. These results suggest that family-based behavioral interventions should be the main focus of preventive strategies because parents have a significant influence on their children's eating habits and health-related behaviors (Gojayeva & Guliyeva, 2025) (Munusamy et al, 2021).

Research evidence also shows that the **family environment significantly influences children's metabolic health outcomes**. A cross sectional study examining metabolic complications among obese children reported that approximately 10% of obese children had impaired fasting glucose and around 30% showed hemoglobin A1c levels in the prediabetes range. In addition, dyslipidemia occurred in about 40% of cases, fatty liver disease in more than 40%, and vitamin D deficiency in nearly half of the children studied. These findings demonstrate that obesity during childhood is strongly associated with metabolic disturbances that may eventually lead to diabetes mellitus. Importantly, the study also highlights that family health conditions and lifestyle patterns contribute significantly to these outcomes (Munusamy et al, 2021).

Another important finding concerns the **intergenerational influence of parental health status on childhood obesity and metabolic risk**. A longitudinal cohort study examining maternal obesity phenotypes found that children born to overweight or obese mothers had significantly higher risks of developing obesity. The risk increased further when maternal obesity was accompanied by metabolic abnormalities. For instance, children with mothers classified as obese and dysmetabolic showed the highest likelihood of becoming obese themselves. These findings underline the importance of parental health behavior and lifestyle management even before pregnancy as part of long term diabetes prevention strategies in children (Jalali Farahani et al, 2021).

Furthermore, several studies emphasize the **importance of parenting style and parental involvement in shaping children's eating behaviors**. A behavioral intervention study involving preschool children demonstrated that family centered education programs

based on social cognitive theory significantly improved children's eating habits. The intervention increased satiety responsiveness and slower eating patterns while reducing behaviors such as emotional overeating, excessive desire to drink sugary beverages, and high responsiveness to food stimuli. These results suggest that structured parental guidance and behavioral modeling can effectively promote healthier eating patterns in early childhood (Shakerinejad et al, 2025).

Evidence from health promotion studies also indicates that **parental participation is a critical factor in successful childhood obesity interventions**. Research examining barriers in nursing based health promotion programs revealed that the effectiveness of interventions often depends on parents' willingness to modify children's lifestyle habits. When parents actively participate in treatment programs and adopt healthy behaviors themselves, children show greater success in maintaining healthy body weight and improving lifestyle habits. Conversely, lack of parental awareness or motivation can significantly reduce the effectiveness of prevention programs (Gallardo et al, 2024).

In addition to parental attitudes, **family lifestyle patterns such as meal structure, physical activity, and screen time significantly influence children's risk of obesity and diabetes**. A survey of families with young children revealed that unhealthy eating behaviors are relatively common. Only about 28% of children consumed five structured meals per day, while many children regularly consumed snacks such as flour based foods or fast food. Additionally, a considerable proportion of families allowed children to use electronic devices during meals, which may disrupt healthy eating behavior and contribute to excessive calorie intake. These patterns highlight the importance of parental supervision in establishing healthy daily routines (Bulatova et al, 2019).

Additionally, a number of studies emphasize the significance of integrated prevention strategies involving communities, schools, and families. Children's physical activity and lifestyle behaviors have improved as a result of school and community-based intervention programs. For instance, structured counseling sessions and lifestyle education aimed at both parents and children were implemented in a large-scale European program that involved over 30,000 families. These programs seek to lower children's risk of obesity and diabetes by promoting physical activity, improving dietary habits, and reducing sedentary behavior (Manios et al, 2018).

The literature further indicates that **family based intervention programs focusing on parenting skills are effective in improving long term lifestyle behaviors among children**. Studies evaluating parenting focused obesity intervention programs show that parents who receive guidance on nutrition, physical activity, and behavioral management develop greater confidence in supporting healthy lifestyle changes within the family. As a result, children are more likely to adopt healthier behaviors such as increased physical activity and improved dietary habits. These outcomes demonstrate that empowering parents with knowledge and practical skills is an essential strategy in preventing childhood metabolic diseases (Bridge et al, 2019).

Another important aspect identified in the literature is the **role of early life factors and the first thousand days of life in shaping children's metabolic health**. Research examining ecological determinants of childhood obesity indicates that risk factors often

begin before birth and continue throughout early childhood. Maternal obesity, inappropriate feeding practices, and family dietary habits are among the key determinants associated with obesity development in young children. Addressing these factors early in life is therefore essential for preventing metabolic disorders later in childhood and adulthood (Castro Sifuentes et al, 2023).

In addition to family influences, **broader lifestyle and environmental factors also contribute to the increasing prevalence of childhood obesity and diabetes**. Global dietary changes characterized by increased consumption of processed foods and sedentary lifestyles have significantly contributed to the rise of metabolic diseases. Modern dietary patterns combined with reduced physical activity promote chronic inflammation, insulin resistance, and metabolic syndrome, all of which increase the risk of developing diabetes mellitus. Consequently, preventive strategies must address both family level behaviors and broader environmental influences (Köpp, 2019).

Overall, research shows that parenting styles are crucial in determining children's metabolic outcomes and health-related behaviors. Comprehensive approaches that include community-based health promotion programs, early life health monitoring, healthy family lifestyle practices, and parental education are necessary for the effective prevention of diabetes mellitus in children. These results validate the importance of supportive environments and family-centered interventions in lowering children's long-term risk of metabolic diseases.

Table 1.
Summary of Key Findings from Literature

Study	Main Focus	Key Findings
Gojayeva & Guliyeva (2025)	Childhood obesity and metabolic risks	Obesity disrupts metabolic systems and increases risk of diabetes and metabolic syndrome
Munusamy et al. (2021)	Metabolic complications in obese children	High prevalence of prediabetes, dyslipidemia, fatty liver, and vitamin D deficiency
Jalali Farahani et al. (2021)	Maternal obesity influence	Maternal obesity significantly increases risk of childhood obesity
Shakerinejad et al. (2025)	Parenting based behavioral intervention	Parental education improves children's eating behavior
Gallardo et al. (2024)	Barriers to obesity prevention programs	Parental participation determines intervention success
Bulatova et al. (2019)	Eating behavior in young children	Unhealthy eating habits and screen use during meals are common
Bridge et al. (2019)	Family lifestyle intervention	Parenting support improves family lifestyle behaviors
Manios et al. (2018)	Community and school intervention	Family based programs improve healthy lifestyle practices
Castro Sifuentes et al. (2023)	Ecological determinants of obesity	Early life and family environment strongly influence obesity risk
Köpp (2019)	Western lifestyle and metabolic diseases	Unhealthy diet and sedentary lifestyle increase diabetes risk

Discussion

The findings of this literature study demonstrate that parenting patterns play a crucial role in the prevention of diabetes mellitus in children through their influence on lifestyle formation, dietary habits, and health behaviors within the family environment. These results align with theoretical perspectives in health promotion and behavioral science that emphasize the role of the family as the primary socialization environment shaping children's health behaviors. Parenting practices influence children's eating patterns, physical activity levels, and attitudes toward health, which ultimately determine metabolic outcomes later in life. Research repeatedly shows that childhood obesity is a major risk factor for metabolic diseases like type 2 diabetes and insulin resistance. Overweight increases the risk of metabolic syndrome and cardiovascular diseases in later life by interfering with endocrine and metabolic regulation (Gojayeva & Guliyeva, 2025). As a result, early interventions involving parental guidance and family lifestyle modification must be the first step in effective diabetes prevention strategies.

The results of the reviewed studies also support the concept that childhood obesity is strongly associated with metabolic complications that predispose children to diabetes mellitus. Evidence shows that obese children frequently experience metabolic disturbances including prediabetes, dyslipidemia, fatty liver disease, and vitamin D deficiency. These metabolic abnormalities are closely linked to insulin resistance, which is a central mechanism in the development of type 2 diabetes. Importantly, research indicates that family health environments and lifestyle behaviors significantly contribute to these metabolic outcomes (Munusamy et al, 2021). This finding reinforces the theoretical framework of family based health behavior models, which suggest that children's health behaviors are largely shaped by parental practices, household food environments, and parental attitudes toward nutrition and physical activity.

Another important interpretation emerging from the findings concerns the intergenerational influence of parental health status on childhood obesity and diabetes risk. Maternal obesity and metabolic abnormalities have been identified as strong predictors of obesity in offspring. Children born to overweight or obese mothers have significantly higher risks of developing obesity during childhood, particularly when maternal obesity is accompanied by metabolic dysfunction. These findings support developmental and life course health theories, which emphasize that health risks can originate during early life stages and may even begin before birth. The family environment, genetic predisposition, and prenatal factors collectively influence children's metabolic health trajectories (Jalali Farahani et al, 2021) (Lacković et al, 2024). Consequently, preventive strategies should not only target children but also address parental health conditions prior to and during pregnancy.

The literature also emphasizes how crucial parental involvement and parenting style are in influencing kids' eating and lifestyle choices. Parental education programs can greatly improve children's eating behaviors, according to behavioral interventions based on social cognitive theory and family system theory. These interventions strengthen parental self

efficacy in guiding children's dietary choices and encourage healthier family routines. Improvements observed in children include increased satiety responsiveness, slower eating habits, and reduced tendencies toward emotional overeating or excessive consumption of sugary drinks. Such findings confirm that parenting style and behavioral modeling are powerful mechanisms in shaping long term dietary patterns in children (Shakerinejad et al, 2025). These results are consistent with previous research emphasizing that family based interventions are more effective than child focused interventions alone.

The discussion also reveals that parental awareness and engagement are critical determinants of the success of health promotion programs aimed at preventing childhood obesity and diabetes. Studies examining health promotion programs indicate that one of the most common barriers to successful interventions is the lack of parental participation or awareness. When parents underestimate their child's weight status or do not perceive obesity as a health problem, they are less likely to engage in preventive interventions. Conversely, when parents actively participate in health programs and adopt healthier lifestyles themselves, children show greater improvements in weight management and lifestyle behaviors (Gallardo et al, 2024). This finding highlights the importance of increasing parental health literacy and strengthening family centered education programs in public health strategies.

Another key interpretation relates to the role of family lifestyle patterns in shaping children's dietary behaviors. Studies on eating behaviors among young children indicate that unhealthy dietary practices are relatively common within families. Irregular meal patterns, frequent snacking on high calorie foods, and excessive screen use during meals can contribute to overeating and poor dietary regulation. These behaviors often develop early in childhood and may persist into adolescence if not corrected. Therefore, establishing structured meal patterns and healthy eating environments within the family is essential for preventing obesity and related metabolic disorders (Bulatova et al, 2019). These findings are consistent with ecological models of health behavior, which emphasize that individual behaviors are influenced by broader environmental and family contexts.

The findings also emphasize the importance of integrated prevention strategies involving families, schools, and communities. School based and community based interventions have been shown to improve children's lifestyle behaviors, including increased physical activity and healthier dietary habits. Programs that involve parents alongside children appear to produce more sustainable outcomes because they reinforce healthy behaviors both at school and at home. For example, large scale interventions targeting vulnerable families have demonstrated that coordinated lifestyle education and counseling programs can effectively reduce risk factors associated with type 2 diabetes (Manios et al, 2018). These results suggest that comprehensive prevention strategies should involve multiple stakeholders, including families, educational institutions, healthcare providers, and policymakers.

Despite these important contributions, this literature study also has several limitations that should be acknowledged. First, the study relies exclusively on secondary data from previously published literature, which means that the findings depend on the quality and scope of the available studies. Differences in research design, sample characteristics, and intervention methods across studies may limit the comparability of

results. Second, most of the literature focuses on childhood obesity as a proxy for diabetes risk, while fewer studies specifically examine parenting patterns in relation to diabetes prevention. Third, sociocultural and socioeconomic factors may influence parenting practices and children's health behaviors, yet these factors are not consistently addressed across all studies. Future research should therefore conduct empirical studies that directly examine the relationship between parenting styles, family lifestyle practices, and diabetes prevention outcomes in children.

In terms of future research directions, further studies are needed to develop culturally appropriate family based interventions that focus on parenting education, healthy dietary practices, and physical activity promotion. Longitudinal studies examining the long term impact of parenting interventions on children's metabolic health would also provide valuable insights. In addition, interdisciplinary approaches involving healthcare professionals, educators, and policymakers are necessary to design comprehensive prevention programs addressing childhood obesity and diabetes risk factors. Strengthening collaboration between families, schools, and communities may enhance the effectiveness of preventive strategies and reduce the global burden of diabetes in future generations.

Overall, the discussion confirms that parenting patterns are a central determinant in the prevention of diabetes mellitus among children. By shaping children's dietary habits, physical activity patterns, and health awareness, parents play a vital role in reducing metabolic risk factors early in life. Therefore, strengthening family centered health promotion strategies is essential for addressing the growing global challenge of childhood obesity and diabetes.

CONCLUSION

The results of this qualitative literature review show that parenting styles have a significant impact on children's prevention of diabetes mellitus by influencing eating habits, physical activity, and lifestyle choices within the family setting. The reviewed literature demonstrates that unhealthy lifestyle choices and childhood obesity are significant risk factors for metabolic disorders that can result in diabetes mellitus, and that these risks are significantly influenced by parental knowledge, attitudes, and everyday behaviors. The findings support theoretical viewpoints that stress family-based health promotion and behavioral modeling during early childhood development by demonstrating how the family environment serves as a primary context in influencing children's health behaviors. Children's metabolic health trajectories are influenced by a variety of factors, including parental involvement, early life circumstances, and larger socioenvironmental influences. This suggests that family-centered interventions, parental education, and supportive environments that promote healthy lifestyles from an early age should be given top priority in preventive strategies. In addressing the rising risk of childhood obesity and diabetes, these results also highlight the significance of cooperation between families, healthcare professionals, educational institutions, and community initiatives. However, the study's limitations stem from its reliance on secondary literature sources with different methodological contexts, which could have an impact on how broadly applicable the findings are. Therefore, in a variety of sociocultural contexts, future research should carry out empirical and longitudinal studies investigating the direct relationship between

parenting styles, family lifestyle practices, and diabetes prevention outcomes. In order to improve prevention strategies for childhood diabetes, it is practically advised that practitioners bolster family-based health promotion, educators and policymakers create cooperative programs involving schools and communities, and researchers expand investigations using triangulation approaches and culturally sensitive interventions.

References

Abraham, D., & Padmakumari, P. (2024). A methodological framework for descriptive phenomenological research. *Western Journal of Nursing Research*. https://doi.org/10.1177/01939459241308071

Baillie, J. (2019). Commentary: An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*. https://doi.org/10.1177/1744987119881056

Bandaranayake, P. (2024). Application of grounded theory methodology in library and information science research: An overview. *Sri Lanka Library Review*. https://doi.org/10.4038/sllr.v38i2.70

Belotto, M. (2018). Data analysis methods for qualitative research: Managing the challenges of coding, interrater reliability, and thematic analysis. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2018.3492

Bingham, A. (2023). From data management to actionable findings: A five phase process of qualitative data analysis. *International Journal of Qualitative Methods*. https://doi.org/10.1177/16094069231183620

Bridge, G., Willis, T., Evans, C., Roberts, K., & Rudolf, M. (2019). The impact of HENRY on parenting and family lifestyle: Exploratory analysis of the mechanisms for change. *Child: Care, Health and Development*. https://doi.org/10.1111/cch.12694

Bulatova, E., Butko, P. V., & Shabalov, A. (2019). Disturbance of food behavior as a predictor of obesity and metabolic syndrome. *Pediatrician*. https://doi.org/10.17816/PED10357-61

Castro Sifuentes, D., Cárdenas Villarreal, V. M., Zepeda Ríos, P. A., Rueda Sánchez, C. B., Hernández Martínez, N., & Guevara Valtier, M. C. (2023). Ecological determinants of obesity risk in Mexican infants: A scoping review. *Boletín Médico del Hospital Infantil de México*. https://doi.org/10.24875/bmhim.23000058

Dhakal, S., Tangpukdee, J., Ruaisungnoen, W., Thepha, T., & Kafle, A. (2025). Parental determinants in childhood diabetes prevention and management: A scoping review examining impacts and strategies. *Nursing and Health Sciences*. https://doi.org/10.1111/nhs.70119

Doyle, L., McCabe, C., Keogh, B., Brady, A., & McCann, M. (2019). An overview of the qualitative descriptive design within nursing research. *Journal of Research in Nursing*. https://doi.org/10.1177/1744987119880234

Fife, S., & Gossner, J. (2024). Deductive qualitative analysis: Evaluating, expanding, and refining theory. *International Journal of Qualitative Methods*. https://doi.org/10.1177/16094069241244856

Gallardo, A. M., Bonilla, L. C., Salazar, J. R. R., Castillo, Y. M., Durán, A. E. J., & García, L. C. (2024). Barriers in nursing interventions and health promotion in childhood obesity. *Physiology*. https://doi.org/10.1152/physiol.2024.39.s1.2150

Gojayeva, S. Z., & Guliyeva, M. E. (2025). Tiny bodies, big risks: The metabolic impact of childhood obesity. *Asian Journal of Research in Biochemistry*. https://doi.org/10.9734/ajrb/2025/v15i4418

Granikov, V., Hong, Q., Crist, E., & Pluye, P. (2020). Mixed methods research in library and information science: A methodological review. *Library and Information Science Research*. https://doi.org/10.1016/j.lisr.2020.101003

Jalali Farahani, S., Amiri, P., Lashkari, B., Cheraghi, L., Hosseinpanah, F., & Azizi, F. (2021). Prognostic value of different maternal obesity phenotypes in predicting offspring obesity in a family based cohort study. *BMC Public Health*. https://doi.org/10.1186/s12889-021-10932-4

Jimenez, S., Berbegal Mirabent, J., & De La Torre, R. (2024). How do university libraries contribute to the research process. *Journal of Academic Librarianship*. https://doi.org/10.1016/j.acalib.2024.102930

Kalpokaite, N., & Radivojevic, I. (2018). Demystifying qualitative data analysis for novice qualitative researchers. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2019.4120

Köpp, W. (2019). How Western diet and lifestyle drive the pandemic of obesity and civilization diseases. *Diabetes Metabolic Syndrome and Obesity*. https://doi.org/10.2147/dmso.s216791

Lacković, M., Nikolić, D., Miličić, B., Dimitrijevic, D., Jovanovic, I., Radosavljevic, S., & Mihajlovic, S. (2024). Pre pregnancy obesity and infants motor development within the first twelve months of life: Who is expected to be the ultimate carrier of the obesity burden. *Nutrients*. https://doi.org/10.3390/nu16091260

Manios, Y., Androutsos, O., Lambrinou, C., Cardon, G., Lindstrom, J., Annemans, L., De Sabata, M., Iotova, V., Kivela, J., Martinez, R., Moreno, L., Rurik, I., Schwarz, P., Tankova, T., Liatis, S., & Makrilakis, K. (2018). A school and community based intervention to promote healthy lifestyle and prevent type 2 diabetes in vulnerable families across Europe. *Public Health Nutrition*. https://doi.org/10.1017/S1368980018002136

Mazur, A., Zachurzok, A., Baran, J., Dereń, K., Łuszczki, E., Weres, A., Wyszyńska, J., Dylczyk, J., Szczudlik, E., Drożdż, D., Metelska, P., Brzeziński, M., Kozioł Kozakowska, A., Matusik, P., Socha, P., Olszanecka Gilianowicz, M., Jackowska, T., Walczak, M., Peregud Pogorzelski, J., & Tomiak, E. (2022). Childhood obesity: Position statement of Polish Society of Pediatrics, Polish Society for Pediatric Obesity, Polish Society of Pediatric Endocrinology and Diabetes, the College of Family Physicians in Poland and Polish Association for Study on Obesity. *Nutrients*. https://doi.org/10.3390/nu14183806

Munusamy, J., Yadav, J., Kumar, R., Bhalla, A., & Dayal, D. (2021). Metabolic complications of childhood obesity. *Journal of Family Medicine and Primary Care*. https://doi.org/10.4103/jfmpc.jfmpc97520z

Parkin, P., Connor Gorber, S., Shaw, E., Bell, N., Jaramillo, A., Tonelli, M., & Brauer, P. (2015). Recommendations for growth monitoring, and prevention and management of overweight and obesity in children and youth in primary care. *Canadian Medical Association Journal*. https://doi.org/10.1503/cmaj.141285

Pike, J. M., Haberlin Pittz, K. M., Alharbi, B., Perkins, S. M., & Hannon, T. S. (2023). A co designed, community based intensive health behavior intervention promotes participation and engagement in youth with risk factors for type 2 diabetes. *Frontiers in Clinical Diabetes and Healthcare*. https://doi.org/10.3389/fcdhc.2023.1264312

Pratt, M. (2025). On the evolution of qualitative methods in organizational research. *Annual Review of Organizational Psychology and Organizational Behavior*. https://doi.org/10.1146/annurev-orgpsych-111722-032953

Shakerinejad, G., Dehghani, S., Zolghadr, R., Baboli, Z., & Nejadsadeghi, E. (2025). Effectiveness of a social cognitive theory and family system theory based intervention in improving eating behaviors in preschool children. *Italian Journal of Pediatrics*. https://doi.org/10.1186/s13052-025-01967-z

Togia, A., & Malliari, A. (2017). Research methods in library and information science. https://doi.org/10.5772/intechopen.68749

Verduci, E., Di Profio, G., Fiore, G., & Zuccotti, G. (2022). Integrated approaches to combatting childhood obesity. *Annals of Nutrition and Metabolism*. https://doi.org/10.1159/000524962

Vila Henninger, L., Dupuy, C., Van Ingelgom, V., Caprioli, M., Teuber, F., Pennetreau, D., Bussi, M., & Gall, C. (2022). Abductive coding: Theory building and qualitative reanalysis. *Sociological Methods and Research*. https://doi.org/10.1177/00491241211067508