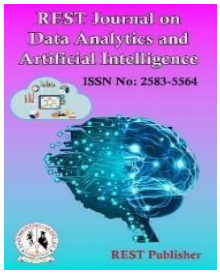
REST Journal on Data Analytics and Artificial Intelligence
Vol: 4(1), March 2025
REST Publisher; ISSN: 2583-5564
Website: http://restpublisher.com/journals/jdaai/
DOI: https://doi.org/10.46632/jdaai/4/1/33



Global Strategies for Maternal and Child Health: The Impact of Health Visitors, Nurses, and Community Support on Improving Child Well-Being Using the VIKOR Method

Pooja K
IIHMR Jaipur, Rajasthan, India
Corresponding Author Email: pujitha2002@yahoomail.com

Introduction: *Child health services aim to support preschool children and their families by promoting prevention and healthy development. Nurses with special training in child health play a key role in supporting parents and promoting child development. In Sweden, frequent visits by child health nurses help to ensure the well-being of children and provide ongoing emotional support to parents. These services, which prioritize establishing strong relationships with families, are essential for fostering child development and serve as a foundation for early intervention to address health problems. Research significance: Research in community child health services plays a key role in improving the capacity of health systems to support families, particularly in maternal and child health (MCH). Extensive studies of the role of English health visitors, Scandinavian child health nurses and North American MCH services have provided valuable insights into the different strategies used to engage families and improve child development. These services priorities prevention, early intervention and building strong nurse-parent relationships. EHV (England), SCHS (Scandinavia), NAMCH (North America), SWCH (Sweden), MP (Domestic Violence), And VMCH (Victoria). Evaluation Parameters: Nurse-to-Child Ratio (Non-Benefit), Parental Support (Benefit), Service Accessibility (Benefit), Operational Cost (Non-Benefit). Result: The results show that NAMCH (North America) received the highest ranking, whereas VMCH (Victoria) received the lowest ranking. Conclusion: According to the VIKOR method, NAMCH (North America) ranks highest in terms of its value for Child Health Nursing.*

Key words: *Community child health services, Scandinavian child health nurses, North American maternal and child health, Preschool children health, Swedish Child Health service, Public health nurses.*

1. INTRODUCTION

The role of English health visitors, particularly in community child health, has been extensively studied, focusing on the methods they use to engage clients. In Scandinavia, community child health nursing services are well established and extensively documented, detailing the services provided and the responsibilities of community child health nurses. In contrast, North America presents a unique perspective on the field. [1] They developed a framework for outcome assessments, comprehensive care plans, best practice guidelines, and client assessment criteria, as well as documentation and other tools for improving practice standards. This data served as a basis for assessing the credibility of quality improvement programs, examining challenges and outcomes related to maternal and child health (MCH), and enabling data comparisons at the district level. [2] Child Health (CH) is a profession that focuses on improving the well-being of preschool children, preventing health problems and supporting families in accessing care. A CH nurse, who is a registered nurse with a general nursing qualification and an additional year of specialist training in child development and health, plays a key role. These nurses work independently and collaboratively with other professionals, such as doctors, to support parents on their parenting journey and help them develop their innate skills to nurture their child's development. [3] In Sweden, the Child Health (CH) service is dedicated to preventing death, illness and disability among preschool children, while supporting parents in reducing stress and promoting the healthy development of their child up to the age of six. Families meet regularly with a CH nurse at the CH clinic, who provides a sense of continuity and security. These frequent visits, especially in the child's early months, help to develop a strong relationship between the

Copyright@ REST Publisher

nurse and the parents. [4] The categories identified included access, knowledge, advice and support. A supporter was considered someone who believed in the abilities of the individual they were helping. Despite some limitations, mothers expected and received support from someone with these qualities. New mothers without a strong social network were more likely to seek out a CH nurse compared to those with a close social circle. [5] The sample size included parents participating in a child health screening and monitoring program in a specific geographic area. Of the 107 mothers invited to participate, 43 completed the survey, resulting in a response rate of 40%. [6] These groups typically focus on topics such as postpartum adjustment, baby feeding, baby massage, and safety at home and child development. Held at a local maternal and child health center, the groups typically have eight to ten participants. First-time mothers with babies under three months old are invited to join, and some nurses extend an invitation to fathers as well. These inclusion groups have been renamed "first-time parent groups." [7] As noted above, nurses avoid using the term "monitoring" in this context, preferring instead to it in the more general sense of observing and monitoring. Families, especially within their own homes, view this approach as a hallmark of effective clinical practice. However, the practice of home visits has been called into question following a British study. Contrary to the assumption of health visitors that mothers are more at ease at home, the findings revealed that some mothers accept these visits primarily out of a sense of duty or courtesy. [8] The MOVE (Moving Maternal and Child Health Care for Vulnerable Mothers) program is a cluster randomized trial designed to improve maternal and child health. The intervention was designed to change domestic violence (DV) screening and care practices across the entire MCH group, rather than limiting changes to individual centers or nurses. To minimize cross-center contamination, randomization was conducted at the group level. [9] Changes in attitudes towards childbirth and parenting, along with natural events, have influenced the delivery of services. The emergence of the health promotion discipline has provided a structured framework for child health services. Rather than targeting specific groups, these services emphasize individualized counseling and care planning. [10] To ensure that evaluations effectively inform policy and practice, the focus shifts from determining whether interventions “work” to understanding how they are implemented and how outcomes vary across contexts. Future evaluation areas include children's cognitive development, maternal health, parental conflict, domestic violence, child abuse prevention, fostering positive parenting, improving maternal and child health, and improving children's development and school readiness. [11] In child health centers, primary responsibility for tasks usually falls to the nurse. Nurses rely on tools such as interviews, observations, and physical examinations to conduct health assessments, identify health problems and developmental concerns, share information, and provide individualized counseling and support to families. These responsibilities are multifaceted, with monitoring and support occurring simultaneously. As a result, nurses must carefully balance routine activities aimed at assessing normal health development with the specific needs of each child and family. [12] These centers provide family support, guidance, and information on a variety of topics, including child health and development, behavior, immunization, breastfeeding, nutrition, child safety, parenting, maternal health, and family planning. They are staffed by registered nurses with midwifery training who specialize in family and child health. [13] Child health services include good infant and child care, immunizations, acute care management, and referrals for chronic health conditions, as well as access to pharmacy, dental, and prenatal care services. Nurses and other health professionals play a key role in bridging these service gaps, improving knowledge, and developing targeted interventions. [14] Mothers with multiple children expected nurses to provide holistic care for both the child and the family, which included support, guidance, and health assessments. Nurses noted that these expectations varied depending on the mother’s age and her social support network. They understood that mothers often turned to a trusted nurse to share their experiences of motherhood. Nurses were seen as sources of comfort and encouragement, rather than as authority figures, particularly when helping mothers cope with feelings of exhaustion and sadness. Nurses noted that it was unusual for mothers to be unavailable, although mothers often needed time to listen. One nurse expressed her opinion on mothers’ expectations as follows: “Mothers look to us not only for medical advice but also for emotional support during their transition. They expect us to be accessible and understanding, someone they can confide in without judgment.” [15] Improving access to prenatal care is essential to public health initiatives aimed at reducing the morbidity and mortality of infants associated with low birth weight. Addressing this issue often requires community-wide collaboration to remove barriers that prevent women from seeking early prenatal care. Community health nurses are instrumental in engaging communities in support of this cause, establishing partnerships, and developing programs designed to remove these barriers. The Health Start Program, run by the Arizona Department of Health Services, is an example of a successful collaboration between public health nurses and community health workers. It employs community health workers to provide education, support, and advocacy to pregnant and postpartum women and their families, aiming to improve maternal and child health outcomes. [16] England's National Health Service (NHS) provides comprehensive support for parents and young children through its services for pregnancy, childbirth and early childhood care. A central component of this support is trained nurses or midwives with specialist public health expertise who help families from pregnancy to the child's fifth year. IHV health visitors provide essential services such as health education and promotion, home visits to provide personalized advice and support to the whole family. Their responsibilities include assessing children’s health needs, promoting healthy lifestyles, preventing illness and ensuring children have the best start in life. Regular home visits are a fundamental aspect of their work, allowing health visitors to build relationships with families, identify health or developmental needs early and provide appropriate support. This proactive strategy is a key practice within the NHS, highlighting the importance of early intervention and ongoing support for families during the crucial early years of a child's development.

[17] Child Health Coordinators manage four zones within the district, focusing on providing additional training to nurses and ensuring the quality of practices in community health centers (CHCs). During the workplace meetings, the coordinators presented the interview survey to the nurses, who expressed their willingness to participate. The nurses were then directly interviewed by the SR. Although the CHC management approved the interview, they were not involved in the recruitment process. Child health coordinators play a key role in ensuring high-quality care in CHCs. Through specialized training and quality assurance, they ensure that nurses are able to address the diverse health needs of children in the community. This approach is consistent with the Global Health Goals, which aim to promote healthy growth and development in childhood. [18] A global program, Victoria's Maternal and Child Health (MCH) service supports families with children from birth to school age. It offers ten essential counselling sessions at various times, starting with a home visit immediately after birth. These sessions include at two, four and eight weeks; four, eight, twelve and eighteen months; and between two and three and a half years. [19] During some health visits, doctors will participate as needed, and dietitians will be consulted when needed. The primary goals of these visits are to monitor maternal well-being and the development of both the fetus and the child. Nurses play a key role in providing health and nutrition advice within the clinics. This guidance is informed by national dietary guidelines and clinic protocols, which aim to ensure a balanced and adequate dietary intake that leads to desired health outcomes. [20].

2. MATERIALS AND METHODS

This study introduces a new approach that combines a modified coarse-grained multi-criteria decision making (MCDM) method with an approximate VIKOR estimation framework. The aim is to address the challenges identified in previous fuzzy MCDM methods. As a result, the study provides an improved approximate VIKOR technique suitable for design concept evaluation. [21] The VIKOR method is a multi-criteria decision-making (MCDM) technique used to identify the most optimal alternative by weighing the best and worst solutions across various criteria. It efficiently manages conflicting data and integrates quantitative and qualitative factors, making it a flexible tool for decision-making. A key advantage of VIKOR is its ability to handle incomplete or conflicting data while considering both numerical and descriptive features. However, one of its limitations is its sensitivity to changes in criterion weights, which can affect ranking results. [22] This study introduces a new approach to assessing citizen satisfaction with municipal services using the Picture Fuzzy VIKOR method. The originality of this work lies in the use of Picture Fuzzy Set (PFS) to capture the neutral opinions that are prevalent in citizen opinions. By extending the traditional VIKOR method with PFS, the analysis fully encompasses all types of feedback—positive, neutral, negative, and disapproval—thus providing a nuanced assessment of satisfaction levels. [23] The spherically fuzzy VIKOR (SF-VIKOR) method is an improved version of the traditional VIKOR approach, developed to address uncertainty and imprecision in decision-making. In this method, each criterion is evaluated using three components: membership, non-membership, and hesitation degrees, which are assigned independently, ensuring that the sum of their squares does not exceed 1. This approach provides a more comprehensive representation of expert judgments. , capturing the ambiguity inherent in subjective assessments. [24] To address the four primary types of information in the decision matrix—deterministic data, fuzzy numbers, interval numbers, and linguistic terms—we introduce an extension of the VIKOR approach. The goal of this advancement is to address the problems of multi-attribute decision making (MADM) using qualitative, uncertain, or precise data. [25] In personnel selection, the inherent uncertainty in data and decision-making processes requires the integration of fuzzy set theory into multi-criteria decision-making (MCDM) methods. This integration improves the ability to manage imprecise judgments, thus improving the selection process. Among the various MCDM techniques, TOPSIS and VIKOR methods have proven to be the most effective for personnel selection. These methods are efficient in managing diverse judgment criteria, providing clear and descriptive results, and effectively incorporating attributes and decision preferences. [26] Traditional VIKOR methods that rely on linguistic criteria face difficulties in effectively addressing the aforementioned MCGDM challenges. By integrating the traditional VIKOR approach with the 2-tuple linguistic method, exploring how to evaluate decision alternatives using linguistic criterion values and weights presents a significant and intriguing research area that motivates our study. [27] VIKOR is a commonly used MCDM method that ranks alternatives, but its ranking ability is somewhat limited. To overcome this limitation, we have introduced a hybrid approach that combines VIKOR and ELECTRE methods and enhances their complementary strengths. The effectiveness of our proposed method is shown through a study on site selection. [28] When dealing with MCDM challenges, the VIKOR approach is very helpful. In an attempt to improve the VIKOR method, the probabilistic dual-hierarchical linguistic VIKOR (PDHL-VIKOR) approach is presented in this study. By adding links between each alternative and the positive and negative optimal solutions, the PDHL-VIKOR method improves the conventional VIKOR method and provides a complete answer. Furthermore, the improved VIKOR method provides a more comprehensive approach to MCDM difficulties, as PDHLs provide more accurate representations of expert evaluations than DHHFLTS. For experts facing these challenges, the PDHL-VIKOR method is a very useful tool. [29] This is the "closeness to the ideal" represented by the aggregation function used by the VIKOR and TOPSIS approaches. The VIKOR approach generates a ranking index using a specific measure of proximity to the best solution. On the other hand, the TOPSIS technique is based on the idea that the selected alternative should be feasible to the positive ideal

solution (PIS) and feasible to the negative ideal solution (NIS). The goal of the compromise ranking technique known as VIKOR is to find a balanced solution to multiple criteria decision-making (MCDM) problems. [30]

Alternatives:

English Health Visitors Program (EHV): Community health nursing focuses on home visits and individual family support.
Scandinavian Child Health Services (SCHS): Well-established preventive child health services that emphasize continuity and parental collaboration.
North American MCH Quality Improvement (NAMCH): Tools and standards for improving maternal and child health practice and documentation.
Swedish Child Health Service (SWCH): A service that aims to promote childhood health and reduce parental stress.
Move Project (MP): A maternal and child health intervention targeting domestic violence screening and care practices.
Victorian MCH Service (VMCH): A structured age-based counselling program for monitoring the health of children from birth to school age.

Evaluation Parameters:
1. Parental support (benefit): The quality of emotional, educational, and practical support for parents.
2. Service accessibility (benefit): The availability and ease of access of services to families.
3. Nurse-child ratio (non-benefit): The average number of children per nurse (minimum, maximum).
4. Operating cost (non-benefit): The cost of implementing and maintaining the service (minimum, maximum)..

3. ANALYSIS AND DISSECTION

TABLE 1. Child Health Nursing

	Determination of best and worst value			
Alternative	Nurse-to-Child Ratio (Non-Benefit)	Parental Support (Benefit)	Service Accessibility (Benefit)	Operational Cost (Non-Benefit)
EHV (England)	15	85	80	20
SCHS (Scandinavia)	10	90	85	22
NAMCH (North America)	18	75	78	18
SWCH (Sweden)	8	92	88	25
MP (Domestic Violence)	12	80	82	15
VMCH (Victoria)	10	88	90	19
Best	8	92	90	15
worst	18	75	78	25

The determination of the best and worst values in the dataset reflects the optimal and least favorable performance for each evaluation parameter among the alternatives.
Best values: Nurse-to-child ratio (useless): The best value is 8 (achieved by SWCH), which indicates a low ratio, allowing for individual attention to each child. Parent support (use): The highest score achieved by SWCH is 92, highlighting its exceptional ability to provide emotional, educational, and practical guidance to parents. Service accessibility (use): The best score is 90, achieved by VMCH, reflecting its ease of access and wide availability to families. Operational cost (useless): The lowest cost is 15, achieved by MP, indicating the most cost-effective program. These values represent the criteria for optimal performance across the evaluation parameters.
Poor Values: Nurse-Child Ratio (Ineffective): The poor value is 18 (NAMCH), indicating a high workload per nurse, which can reduce the quality of care. Parental Support (Benefit): The lowest score is 75, found in NAMCH, reflecting the limited support provided to parents. Service Accessibility (Benefit): The low accessibility score of 78, again with NAMCH, suggests challenges in accessing or using services. Operating Cost (Ineffective): The highest cost incurred by SWCH is 25, indicating a very expensive program to implement and maintain.
Explanation: SWCH performs exceptionally well in terms of nurse-child ratio and parent support, but it incurs high operating costs, making it less efficient on a budget. However, NAMCH, which consistently ranks poorly on all three parameters, highlights significant areas for improvement. VMCH and MP demonstrate balanced strengths in accessibility and cost, respectively, positioning them as competitive alternatives.

Copyright@ REST Publisher

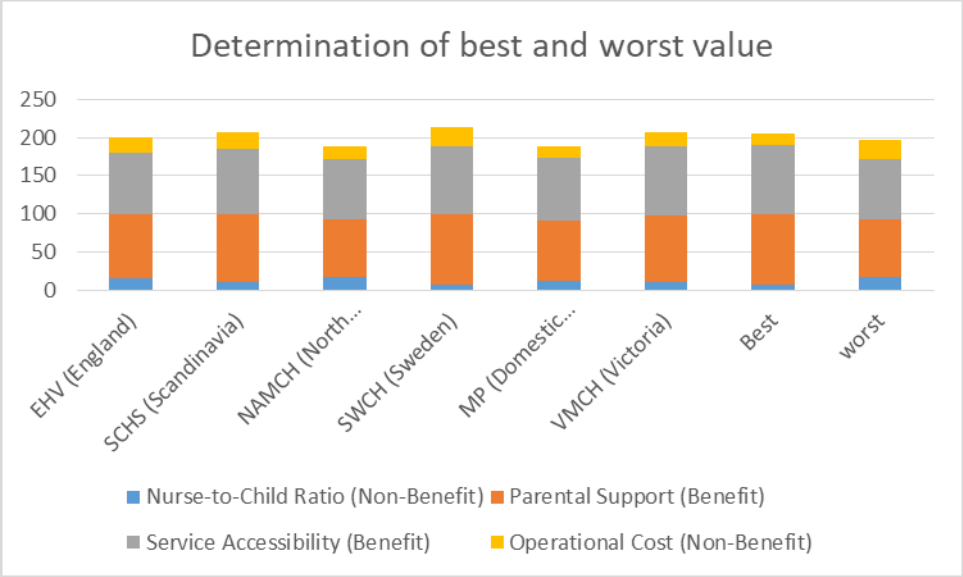


FIGURE 1. Child Health Nursing

The bar chart illustrates the assessment of the best and worst values on four key parameters: nurse-child ratio (non-benefit), parent support (benefit), service access (benefit) and operational cost (non-benefit) for six child health nursing alternatives. Nurse-child ratio (non-benefit): SWCH (Sweden) has the lowest ratio, highlighting its strength in providing personalized care. Conversely, NAMCH (North America) has the highest ratio, indicating potential areas for improvement. Parental support (benefit): SWCH stands out with high scores, demonstrating its strong emphasis on parental involvement and support. On the other hand, NAMCH receives the lowest scores, reflecting inadequate parental support. Service accessibility (benefit): VMCH (Victoria) ranks highest in accessibility, demonstrating its extensive range, while NAMCH has the lowest availability. Operational cost (non-benefit): MP (domestic violence) is a more cost-effective alternative, whereas SWCH has a higher operational cost, which limits its financial viability despite its other strengths.

TABLE 2. Normalization Sj and Rj

Calculation Sj and Rj			
0.175	0.102941	0.208333	0.125
0.05	0.029412	0.104167	0.175
0.25	0.25	0.25	0.075
0	0	0.041667	0.25
0.1	0.176471	0.166667	0
0.05	0.058824	0	0.1

Table 2 shows the calculation of Sj and Rj, which represents the sum of the normalized values from Table 1. These Values are obtained from determining the best and worst values. Normalization of $_{-}$ and R_j

$$S_j = \sum_{j=1}^{m} \left[\frac{w_j(f_i^+ - f_{ij})}{f_i^+ - f_i^-} \right]$$

$$R_j = Max \left[\frac{w_j(f_i^+ - f_{ij})}{f_i^+ - f_i^-} \right]$$

TABLE 3. Calculation Qj

	Sj	Rj	Qj
	0.6112745	0.2083333	0.6876823
	0.3585784	0.175	0.3715195
	0.825	0.25	1
	0.2916667	0.25	0.5672235
	0.4431373	0.1764706	0.4450372
	0.2088235	0.1	0
S+ R+	0.2088235	0.1	
S- R-	0.825	0.25	

Copyright@ REST Publisher

Table 3 illustrates the calculation of Qj obtained from the sum of Sj and Rj calculations to obtain the Qj value. This represents the calculation of Qj for a group of utility functions.

$$Q_j = \frac{v(S_j - S^+)}{(S^- - S^+)} + (1 - v)\left(\frac{R_j - R^+}{R^- - R^+}\right)$$

TABLE 4. Rank

	Rank
EHV (England)	2
SCHS (Scandinavia)	5
NAMCH (North America)	1
SWCH (Sweden)	3
MP (Domestic Violence)	4
VMCH (Victoria)	6

The rankings provided correspond to various organizations or projects, each identified by an acronym and associated with a specific area or focus. Here is a description of each: NAMCH (North America): NAMCH is ranked 1st among the organizations listed. EHV (England): Ranked 2nd, EHV is the second highest ranking organization, indicating strong performance or reputation. SWCH (Sweden): Ranked 3rd, SWCH has earned a commendable position, reflecting its significant position in its respective field. MP (Domestic Violence): MP, ranked 4th, focuses on domestic violence, placing it in the middle of the rankings. SCHS (Scandinavia): Ranked 5th, SCHS represents Scandinavian interests, occupying a respectable position in the rankings. VMCH (Victoria): Ranked 6th, VMCH is the lowest ranked of the organizations listed, yet still occupies a notable position. These rankings suggest a comparative assessment of these institutions or programs, with NAMCH leading and VMCH trailing. No specific criteria are provided for these rankings, but they may reflect performance metrics, reputation, or other evaluation measures in their respective domains.

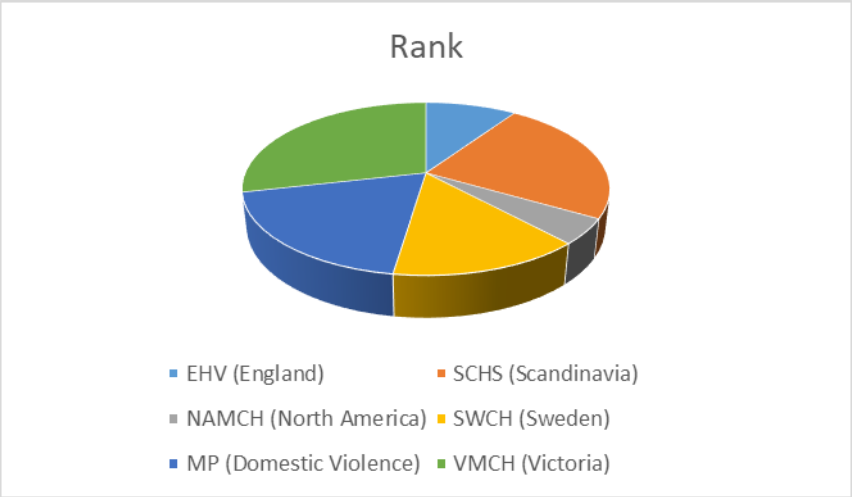


FIGURE 2. Rank

The pie chart illustrates the rankings of various organizations or programs across different regions and sectors. NAMCH (North America): Taking first place, NAMCH occupies the largest portion of the table, indicating its leading position. EHV (England): In second place, EHV is represented by a significant portion, indicating its strong performance. SWCH (Sweden): In third place, SWCH occupies a middle segment, reflecting its moderate position. MP (Domestic Violence): In a small segment, MP is in fourth place, suggesting a moderate ranking. SCHS (Scandinavia): Taking fifth place, SCHS is depicted by a significant but small slice. VMCH (Victoria): At the bottom, VMCH has the smallest segment, ranking sixth among the listed organizations. This visual representation effectively compares organizations, highlighting NAMCH as the leader and VMCH as the lowest ranking. These rankings reflect each company's performance or reputation in their respective domains.

4. CONCLUSION

Community child health services, particularly those involving health visitors and nurses, play a key role in promoting child well-being and providing vital support to parents. These services vary across the country, with each organization

reflecting the unique health structures and priorities of its region. For example, the English Health Visitors (EHV) programmer, which emphasizes home visits and personalized family support, aims to build strong relationships with families to provide practical guidance and emotional support. Similarly, the Scandinavian Child Health Services (SCHS) emphasize prevention, continuous care and collaboration with parents to promote child development and reduce parental stress. These models focus on early intervention, addressing potential health concerns before they escalate. In contrast, the North American Maternal and Child Health (NAMCH) programmers focus on quality improvement, incorporating tools and standards such as client assessments, care plans, best practice guidelines and outcome frameworks. These tools help improve the quality and consistency of care across regions by making health care practices more data-driven. Similarly, the Swedish Child Health Service (SWCH) provides a sustainable foundation for child development by improving children's health, reducing illness and reducing parental stress, and strengthening the relationship between nurses and parents through regular visits. The MOVE Project (MP) represents a more targeted intervention focusing on family violence screening and care within maternal and child health services. This approach highlights broader social issues that are now integrated into child health services to improve overall outcomes. The Victorian MCH Service (VMCH) follows an age-based consultation framework that ensures consistent monitoring of maternal and child health, which supports comprehensive care. In all of these models, the fundamental principles of parental support and service accessibility are central. Families benefit significantly from services that provide emotional, practical and educational support, particularly when health professionals are committed to their well-being. Access to these services is crucial to ensure that they are available to all families, especially in disadvantaged areas. Integrating services into community settings ensures inclusion and helps to avoid leaving any family without support. Nevertheless, challenges persist, particularly in terms of nurse-to-child ratios and operational costs. A low nurse-to-child ratio is crucial for providing individualized care, allowing nurses to give adequate attention to each family. However, high operational costs can limit resources, making it difficult to scale up services to those in need. Striking a balance between these factors is a key challenge for child health services worldwide. Looking ahead, there is increasing recognition of the need to understand and respond to the diverse needs of families. New technologies and decision-making tools, such as multi-criteria decision-making (MCDM) methods, are providing the ability to assess the performance of different child health services. These tools can help identify areas for improvement and provide personalized care that is aligned with the specific needs of different communities.

REFERENCES

[1]. Briggs, Carolyn. "Nursing practice in community child health: developing the nurse–client relationship." Contemporary Nurse 23, no. 2 (2007): 303-311.

[2]. Monsen, Karen A., Jayne A. Fulkerson, Amy B. Lytton, Lila L. Taft, Linda D. Schwichtenberg, and Karen S. Martin. "Comparing maternal child health problems and outcomes across public health nursing agencies." Maternal and Child Health Journal 14 (2010): 412-421.

[3]. Fägerskiöld, Astrid. "Support of fathers of infants by the child health nurse." Scandinavian journal of caring sciences 20, no. 1 (2006): 79-85.

[4]. Fägerskiöld, Astrid, and A-C. Ek. "Expectations of the child health nurse in Sweden: two perspectives." International nursing review 50, no. 2 (2003): 119-128.

[5]. Fägerskiöld, Astrid M., Vivian Wahlberg, and Anna-Christina Ek. "Maternal expectations of the child health nurse." Nursing & Health Sciences 3, no. 3 (2001): 139-147.

[6]. Cawley, Teresa, and Patricia Mannix McNamara. "Public health nurse perceptions of empowerment and advocacy in child health surveillance in West Ireland." Public Health Nursing 28, no. 2 (2011): 150-158.

[7]. Scott, Dorothy, Sue Brady, and Patricia Glynn. "New mother groups as a social network intervention: consumer and maternal and child health nurse perspectives." Australian Journal of Advanced Nursing, The 18, no. 4 (2001): 23-29.

[8]. Wilson, Helen Vivien. "Power and partnership: a critical analysis of the surveillance discourses of child health nurses." Journal of Advanced Nursing 36, no. 2 (2001): 294-301.

[9]. Taft, Angela J., Leesa Hooker, Cathy Humphreys, Kelsey Hegarty, Ruby Walter, Catina Adams, Paul Agius, and Rhonda Small. "Maternal and child health nurse screening and care for mothers experiencing domestic violence (MOVE): a cluster randomised trial." BMC medicine 13 (2015): 1-10.

[10]. Barnes, Margaret, Mary Courtney, Jan Pratt, and Anne Walsh. "Contemporary child health nursing practice: services provided and challenges faced in metropolitan and outer Brisbane areas." Collegian 10, no. 4 (2003): 14-19.

[11]. Adams, Catina, Leesa Hooker, and Angela Taft. "The Enhanced Maternal and Child Health nursing program in Victoria: a cross-sectional study of clinical practice." Australian Journal of Primary Health 25, no. 3 (2019): 281-287.

[12]. Baggens, Christina. "What they talk about: conversations between child health centre nurses and parents." Journal of Advanced Nursing 36, no. 5 (2001): 659-667.

[13]. Edvardsson, Kristina, David Edvardsson, and Åsa Hörnsten. "Raising issues about children's overweight–maternal and child health nurses' experiences." Journal of advanced nursing 65, no. 12 (2009): 2542-2551.

[14]. Gwyther, Marni E., and Melinda Jenkins. "Migrant farmworker children: Health status, barriers to care, and nursing innovations in health care delivery." Journal of Pediatric Health Care 12, no. 2 (1998): 60-66.

[15]. Fägerskiöld, Astrid M., Vivian Wahlberg, and Anna-Christina Ek. "What child health nurses believe mothers with infants expect of them." Nursing & health sciences 2, no. 2 (2000): 83-91.

Copyright@ REST Publisher

[16]. Deal, Lisa W. "The effectiveness of community health nursing interventions: a literature review." Public Health Nursing 11, no. 5 (1994): 315-323.
[17]. Browne, Kevin. "Preventing child maltreatment through community nursing." Journal of Advanced Nursing 21, no. 1 (1995): 57-63.
[18]. Hanse, Jan Johansson, Staffan Mårild, and Susann Regber. "Barriers to and facilitators of nurse-parent interaction intended to promote healthy weight gain and prevent childhood obesity at Swedish child health centers." (2013).
[19]. Laws, Rachel, K. J. Campbell, Paige van der Pligt, Kylie Ball, J. Lynch, Georgie Russell, R. Taylor, and E. Denney-Wilson. "Obesity prevention in early life: an opportunity to better support the role of Maternal and Child Health Nurses in Australia." BMC nursing 14 (2015): 1-14.
[20]. Ilmonen, Johanna, Erika Isolauri, and Kirsi Laitinen. "Nutrition education and counselling practices in mother and child health clinics: study amongst nurses." Journal of clinical nursing 21, no. 19pt20 (2012): 2985-2994.
[21]. Tiwari, Varun, Prashant Kumar Jain, and Puneet Tandon. "Product design concept evaluation using rough sets and VIKOR method." Advanced Engineering Informatics 30, no. 1 (2016): 16-25.
[22]. Taherdoost, Hamed, and Mitra Madanchian. "VIKOR Method—An Effective Compromising Ranking Technique for Decision Making." Taherdoost, H., Madanchian, M (2023): 27-33.
[23]. Yıldırım, Bahadır Fatih, and Sultan Kuzu Yıldırım. "Evaluating the satisfaction level of citizens in municipality services by using picture fuzzy VIKOR method: 2014-2019 period analysis." Decision Making: Applications in Management and Engineering 5, no. 1 (2022): 50-66.
[24]. Kutlu Gündoğdu, Fatma, and Cengiz Kahraman. "A novel VIKOR method using spherical fuzzy sets and its application to warehouse site selection." Journal of Intelligent & Fuzzy Systems 37, no. 1 (2019): 1197-1211.
[25]. Bazzazi, Abbas Aghajani, Morteza Osanloo, and Behrooz Karimi. "Deriving preference order of open pit mines equipment through MADM methods: Application of modified VIKOR method." Expert Systems with Applications 38, no. 3 (2011): 2550-2556.
[26]. Alguliyev, Rasim M., Ramiz M. Aliguliyev, and Rasmiyya S. Mahmudova. "Multicriteria personnel selection by the modified fuzzy VIKOR method." The Scientific World Journal 2015, no. 1 (2015): 612767.
[27]. Ju, Yanbing, and Aihua Wang. "Extension of VIKOR method for multi-criteria group decision making problem with linguistic information." Applied Mathematical Modelling 37, no. 5 (2013): 3112-3125.
[28]. Zandi, A., and Emad Roghanian. "Extension of Fuzzy ELECTRE based on VIKOR method." Computers & Industrial Engineering 66, no. 2 (2013): 258-263.
[29]. Gou, Xunjie, Zeshui Xu, Huchang Liao, and Francisco Herrera. "Probabilistic double hierarchy linguistic term set and its use in designing an improved VIKOR method: The application in smart healthcare." Journal of the Operational Research Society 72, no. 12 (2021): 2611-2630.
[30]. Park, Jin Han, Hyun Ju Cho, and Young Chel Kwun. "Extension of the VIKOR method for group decision making with interval-valued intuitionistic fuzzy information." Fuzzy Optimization and Decision Making 10 (2011): 233-253

Copyright@ REST Publisher