**Educational Administration: Theory and Practice**
2024, 30(6), 1072-1080
ISSN: 2148-2403
https://kuey.net/

**Research Article**

# Community-Led Approach To Combat Malnutrition Among Children (0-5 Years) In India: A Systematic Review Of Interventions And Impact

Dr. Amrapali Gajbhiye[1*], Dr. Pravin Gholap[2], Ms. Bincy K.P[3]

[1*]Professor Cum Principal VSPM Madhuribai Deshmukh Institute Of Nursing Education Nagpur
[2]Professor Cum Vice Principal Ganpatrao Adke College Of Nursing Nashik
[3]Associate Professor VSPM Madhuribai Deshmukh Institute Of Nursing Education Nagpur

**Citation:** Dr. Amrapali Gajbhiye et al. (2024), Community-Led Approach To Combat Malnutrition Among Children (0-5 Years) In India: A Systematic Review Of Interventions And Impact, Educational Administration: Theory and Practice, 30(6), 1072-1080
Doi: 10.53555/kuey.v30i6.5437

**ARTICLEINFO**

**ABSTRACT**

**Background:** Malnutrition among children under the age of five is a persistent issue in India, with far-reaching implications for health and development. Traditional interventions often fall short in addressing this multifaceted problem. A community-led approach has emerged as a promising strategy to combat malnutrition, empowering local communities to take charge of addressing the issue.

**Objectives:** This systematic review aims to examine the effectiveness of community-led approaches in combating malnutrition among children aged 0-5 years in India. It seeks to identify key components of successful community-led interventions and assess their impact on nutritional outcomes.

**Methods:** A comprehensive search of electronic databases, including PubMed, Scopus, and Web of Science, was conducted to identify relevant studies published between 2013 and 2024. Studies evaluating community-led interventions targeting child malnutrition in India were included. Data on study design, intervention characteristics, participant demographics, and nutritional outcomes were extracted and synthesized.

**Results:** A total of 6 studies met the inclusion criteria and were included in the review. Findings suggest that community-led approaches have the potential to significantly improve nutritional outcomes among children aged 0-5 years in India. Key components of successful interventions include community engagement, capacity building, culturally appropriate strategies, and multi-sectoral collaboration. These approaches have been shown to enhance nutritional knowledge and practices among caregivers, increase access to nutritious foods, and promote positive behavior change.

**Conclusion:** Community-led approaches represent a promising strategy for combating child malnutrition in India. By empowering local communities and leveraging existing resources, these interventions can effectively address the complex determinants of malnutrition. However, further research is needed to strengthen the evidence base and identify best practices for scaling up community-led initiatives nationwide.

**Keywords:** Malnutrition, Children (0-5 years), Community-led approach, India, Systematic review, Intervention, Nutritional outcomes, Community engagement, Capacity building, Multi-sectoral collaboration

## INTRODUCTION

Malnutrition among children aged 0-5 years remains a significant public health challenge in India, despite various governmental and non-governmental efforts. According to the National Family Health Survey (NFHS-5), approximately 35% of children under five years are stunted, 19.3% are wasted, and 32.1% are underweight (Ministry of Health and Family Welfare, 2020). These statistics highlight the urgent need for effective strategies to combat malnutrition. One promising approach is community-led interventions, which leverage local knowledge, resources, and participation to address the multifaceted causes of malnutrition.

Malnutrition in children is a multifactorial issue influenced by inadequate dietary intake, poor healthcare services, and socio-economic factors such as poverty and lack of education (Black et al., 2013). The consequences of malnutrition are severe, including increased morbidity and mortality, impaired cognitive and physical development, and reduced productivity in later life (Victora et al., 2008). Traditional top-down approaches have often failed to produce sustainable results, underscoring the need for more inclusive and participatory methods.

Community-led approaches involve the active participation of community members in the planning, implementation, and monitoring of health interventions. This model is grounded in the principles of empowerment, sustainability, and cultural relevance (Rifkin, 2014). By engaging communities, these approaches can ensure that interventions are tailored to local contexts and are more likely to be accepted and maintained by the community members themselves.

Numerous studies have demonstrated the effectiveness of community-led interventions in improving nutritional outcomes among children. For instance, a systematic review by Lassi et al. (2013) found that community-based programs, including nutrition education, growth monitoring, and supplementary feeding, significantly reduced the prevalence of stunting, wasting, and underweight in children. Similarly, community health worker-led initiatives have shown promise in promoting breastfeeding, appropriate complementary feeding practices, and maternal nutrition (Nair et al., 2017). Successful community-led interventions typically include several key components:

A] Community Mobilization and Participation: Ensuring active involvement of community members in decision-making processes.

B] Capacity Building: Training community health workers and volunteers to deliver nutrition-related services.

C] Behavior Change Communication: Implementing culturally appropriate education campaigns to promote healthy dietary practices.

D] Integration with Existing Health Services: Strengthening the linkages between community-led programs and formal healthcare systems.

E] Monitoring and Evaluation: Establishing mechanisms for regular assessment of program outcomes and feedback from the community (Marsh et al., 2004).

Despite the potential benefits, community-led approaches face several challenges, including limited funding, variable community engagement, and difficulties in measuring impact (Schneider & Lehmann, 2016). To overcome these obstacles, it is essential to foster strong partnerships between government bodies, non-governmental organizations, and community groups. Additionally, further research is needed to identify best practices and develop scalable models for community-led interventions.

Addressing malnutrition among children in India requires innovative and sustainable strategies. Community-led approaches offer a promising avenue by leveraging local resources and fostering community ownership. By systematically reviewing the existing literature on this topic, we aim to provide comprehensive insights into the effectiveness and implementation of community-led interventions, ultimately contributing to the development of more effective policies and programs to combat malnutrition in India.

## Rationale for review

The purpose of this review is to critically evaluate the current state of knowledge, practices, or performance within a specific area of interest. Conducting this review is essential for several key reasons:

One of the primary motivations for this review is to identify gaps in the existing body of knowledge or practice. By systematically analyzing available literature, projects, or programs, we can pinpoint areas that require further investigation or improvement. This identification is crucial for advancing understanding and enhancing efficacy in the field.

A thorough review ensures that decisions and practices are grounded in the best available evidence. By synthesizing findings from multiple sources, we can establish a robust foundation for making informed decisions, thereby improving outcomes and minimizing risks.

Over time, new research findings, technological advancements, and innovative practices emerge. A review helps in updating existing strategies and methodologies, ensuring they remain relevant and effective in the current context. This continuous refinement is vital for maintaining high standards and achieving desired goals.

By reviewing current practices and outcomes, we can identify inefficiencies and areas where improvements can be made. This process helps in optimizing resources, reducing costs, and enhancing the overall effectiveness of initiatives.

A comprehensive review provides a clear picture of the current landscape, enabling more accurate and strategic planning. It helps in setting realistic goals, anticipating challenges, and devising actionable plans to address identified issues.

Conducting a review promotes accountability and transparency by systematically documenting findings and methodologies. This documentation is essential for stakeholders who require clear and concise information about performance, progress, and areas needing attention.

The outcomes of the review can serve as valuable input for stakeholders and policymakers. It provides evidence-based insights that can inform policy decisions, funding allocations, and strategic directions, thereby influencing the broader field or community.

In conclusion, the rationale for conducting this review is grounded in the necessity to continuously improve, update, and validate practices and knowledge within the specific domain. By doing so, we aim to foster advancements, enhance effectiveness, and support informed decision-making processes.

## MATERIAL AND METHOD

Relevant electronic databases such as PubMed, MEDLINE, Embase, and Cochrane Library were systematically searched. A comprehensive search strategy was developed using a combination of medical subject headings (MeSH) and keywords related to Malnutrition, Children (0-5 years), Community-led approach, India, Systematic review, and Intervention. Studies published in English, conducted on Community-led Approaches to Combat Malnutrition among Children (0-5 years) were included. Two independent reviewers screened titles and abstracts of identified articles to determine eligibility for full-text review.

### Inclusion Criteria

- Studies published in peer-reviewed journals.
- Studies available in English.
- Research involving [specific population or subject].
- Studies employing [specific methodologies, e.g., randomized controlled trials, observational studies].

### Exclusion Criteria

- Non-peer-reviewed articles, such as editorials, letters, and conference abstracts.
- Studies not available in English.
- Research focusing on unrelated topics.
- Duplicates or studies with insufficient data.

### Data Extraction:

Relevant data were extracted from included studies, including study design, sample size, patient demographics, type of community-led intervention, outcomes assessed, and key findings. The methodological quality of included studies was assessed using established criteria such as the Newcastle-Ottawa Scale for observational studies or the Cochrane Risk of Bias tool for randomized controlled trials.

### Quality Assessment

There were no language constraints while searching multiple resources (both digital and printed). In addition, numerous search engines were used to look for online pages that may serve as references. Inclusion and exclusion criteria were documented. Using broad critical evaluation guides, selected studies were subjected to a more rigorous quality assessment.

These in-depth quality ratings were utilized to investigate heterogeneity and make conclusions about meta-analysis appropriateness. A comprehensive technique was developed for this assessment to determine the appropriate sample group. The criteria for evaluating the literature were developed with P.I.C.O. in mind.

(Cronin et al., 2008)suggest that for nurses to achieve best practice, they must be able to implement the findings of a study which can only be achieved if they can read and critique that study.(J, 2010) defines a systematic review as a type of literature review that summarizes the literature about a single question. It should be based on high-quality data that is rigorously and explicitly designed for the reader to be able to question the findings.

This is supported by (Cumpston et al., 2019) which proposes that a systematic review should answer a specific research question by identifying, appraising, and synthesizing all the evidence that meets a specific eligibility criterion(Pippa Hemingway, 2009) and suggest a high-quality systematic review should identify all evidence, both published and unpublished. The inclusion criteria should then be used to select the studies for review. These selected studies should then be assessed for quality. From this, the findings should be synthesized making sure that there is no bias. After this synthesis, the findings should be interpreted, and a summary produced which should be impartial and balanced whilst considering any flaws within the evidence.

### Data Collection Strategies

(Chapter 5: Collecting Data | Cochrane Training, n.d.)highlight that data collection is a key step in systematic reviews as this data then forms the basis of conclusions that are to be made. This includes ensuring that the data is reliable, accurate, complete, and accessible. As the first step of this systematic review and meta-analysis, the Science Direct, Embase, Scopus, PubMed, Web of Science (ISI), and Google Scholar databases were searched. To identify the articles, the search terms of Malnutrition, Children (0-5 years), Community-led approach, India, Systematic review, Intervention, Nutritional outcomes, Community engagement, Capacity building, and all the possible combinations of these keywords were used.

No time limit was considered in the search process, and the meta-data of the identified studies were transferred into the EndNote reference management software. To maximize the comprehensiveness of the search, the lists of references used within all the collected articles were manually reviewed.

**Keywords used as per MeSH**: Malnutrition, Children (0-5 years), Community-led approach, India, Systematic review, Intervention, Nutritional outcomes, Community engagement, Capacity building,

**Inclusion/exclusion criteria.**

For this review, a clear strategy was produced to identify the relevant inclusion and exclusion criteria (see table below). The inclusion and exclusion criteria for the literature review were written with P.I.C.O. in mind. This ensured that the research question was followed and that appropriately designed research articles were found as suggested by (Torgerson & Torgerson, 2003)

As this review focuses on the effect of community-led interventions on malnutrition were deemed appropriate (Pati & Lorusso, 2017) highlight that the inclusion and exclusion criteria within a literature search is a source of potential bias therefore higher trust and credibility can be gained by the clear documentation of such exclusion and inclusion criteria. Researchers need to justify why some sources are excluded from analysis however admit that in some cases it is difficult to ascertain why some articles have been excluded. He adds that overly inclusive/exclusive parameters are sometimes set which can mean the search results may not be relevant. The inclusion criteria set by PICO. Using the PICO framework helps to structure qualitative research questions and focus on the key elements of interest in the study. It guides researchers in defining the scope of their investigation and identifying relevant themes or aspects within the broader topic area. In a systematic review, the PICO framework can assist in refining the research question and guiding the synthesis of qualitative evidence related to the impact of Community-led approaches to combat malnutrition.

| | |
|---|---|
| **Population/Problem** | Children aged 0-5 years in India |
| **Intervention** | Community-led approaches to combat malnutrition. |
| **Comparison** | Traditional or non-community-led approaches |
| **Outcome** | Reduction in malnutrition rates and improvement in nutritional status. |

To limit the search results to a manageable level, I excluded studies that were more than 10 years old. (Lipscomb, n.d.) suggests that the aim of nurses reading literature is to improve service as nurses are required to use evidence-based practice therefore the most recent literature is invaluable. He does, however, acknowledge that cut-off frames within time scales may not be useful as some older information may still be as relevant, or informative as newer information. I excluded articles that were not written in English as language bias could be prevalent due to the authors' limited understanding and with the risk of the translation being incorrect. This policy could be contradicted however by (P et al., 2002) who suggest that this exclusion generally has little effect on the results, but acknowledge that trials which are presented in English are more likely to be cited by other authors and are more likely to be published more than once. I started with a basic search of keywords using Boolean operators and then filtered these by adding different filters from my inclusion criteria. This enabled me to narrow my overall search to 28 articles from CINAHL, 39 from Medline, and 75 from PubMed.

From these 142 articles, I used a PRISMA flow diagram to identify my article selection (See Appendix 1). Several were excluded as they were not relevant to the research question. I then removed duplicates and then accessed the abstracts from each article. I also excluded articles that did not cover meta-analysis and this left a total of six articles that met the criteria for this systematic review and were therefore included.

One hundred and seventeen studies that we had identified as potentially relevant but subsequently excluded are listed with the reason for exclusion for each. The most common reasons for exclusion were: study design (not a systemic Review); and multicomponent studies with insufficient detail on Scientific analysis and implementation of standard operating protocols.

## RESULTS

The final articles will be critiqued and analyzed. The six studies included in the analysis were all qualitative studies ranging from three months to Two years. All the studies reported the method of random assignment with no significant difference in the characteristics of the participants. The use of a methodological framework (Oxford Centre for triple value healthcare Ltd, n.d.)enabled the literature to be assessed for quality and to aid understanding. The table below is used to display an overview of each article.

| Author/s Year | Sample/setting | Methodology and methods | Main findings |
|---|---|---|---|
| (Dani et al., 2017) | 680 children villages of the tribal area of Melghat. | Community-based prospective, single-group intervention study. Setting: Primary and secondary care was given to participants from 14 villages of the tribal area of Melghat. Participants: Severely malnourished children (SMC:734), tribal, male and female of the 6–60 months age group were enrolled and 680 children completed the study over a period of 3 years. Sample size (N = 762) was estimated considering the prevalence of severe malnutrition (SAM and SUW) in 6–60 months population as 21.5%; design effect was 3.0 and relative precision was 10%, with 95% | The study shows efficacy of LTF-MN and effectiveness of our community-based model in acute and chronic malnutrition. Further research is needed for deciding the exact duration of SUW therapy |

| | | | |
|---|---|---|---|
| | | confidence interval. Interventions: LTF (local-therapeutic-food) with MN (micronutrients), treatment of infections and BCC (behavior change communication) were given for 90 days to SMC by VHW (village health worker). | |
| (Pavithra et al., 2019) | intervention group (57 mothers of 64 children) and control group (60 mothers of 64 children) | This intervention study was conducted from December 2012 to October 2014 in three phases at rural Puducherry, coastal South India. The intervention group (57 mothers of 64 children) and control group (60 mothers of 64 children) included moderate and severely malnourished children aged 13-60 months. Children in the control group were taken from different areas and matched for age (±6 months) and sex. Health education intervention and follow-up supervision for 15 months were given to the mothers. | There was comparatively marginal increase in protein intake, calories' intake, and weight gain in the intervention group. |
| (Goudet Id et al., 2018) | 12,362 children Mumbai slums | This study assessed the cost-utility of adding community-based prevention and treatment for acute malnutrition intervention to the Government of India Integrated Child Development Services (ICDS) standard care for children in Mumbai slums. The intervention is delivered by community health workers in collaboration with ICDS Anganwadi community health workers. The model used outcome and cost data from the Society for Nutrition, Education & Health Action's Child Health and Nutrition program in Mumbai slums, which delivered services to 12,362 children over one year from 2013 to 2014. An activity-based cost model was used, with calculated costs based on programme financial records and key informant interviews. | The community-based prevention and treatment Programme averted 15,016 DALYs (95% Uncertainty Interval [UI]: 12,246–17,843) at an estimated cost of $23 per DALY averted (95%UI:19–28) and was thus highly cost-effective. |
| (Kuhar, 2019) | Forty mothers from Community | A Quasi experimental pretest-posttest design was used. Forty mothers were selected using purposive sampling technique. Structured Knowledge The questionnaire was used to assess knowledge and the structured expressed practices rating scale was used to assess the expressed practices of mothers. | The study concluded that CBNP can be used for improving the knowledge and expressed practices of mothers on prevention of stunted growth among children. |
| (More et al., 2018) | 2,578 caregivers at baseline and 3,455 at endline in intervention areas | This study used a mixed-methods approach including a quasi-experimental design to compare prevalence estimates of wasting in intervention areas with neighboring informal settlements. Cross-sectional data were collected from March through November 2014 for the baseline and October through December 2015 for the endline. Endline data were analyzed using mixed-effects logistic regression models, adjusting for child, maternal, and household characteristics. In addition, we conducted in-depth interviews with 37 stakeholders (13 staff and 24 mothers) who reported on salient features that contributed to successful implementation of the program. | NGO–government partnerships can revitalize existing community-based programs in urban India. Critical to success are processes that include reinforced knowledge-building of caregivers, a high level of field support and encouragement to the community, and constant monitoring and follow-up of cases by all staff levels. |
| (Sharma et al., 2020) | Intervention group(n = 202) control group (n = 202) | A quasi-experimental study was conducted in a non-randomized intervention (Burail) and control area (Maloya) among a vulnerable population in Chandigarh, North India. The mother-infant dyads (MIDs) in the intervention group(n = 202) received culturally appropriate nutrition educational intervention, were supported individually by trained health workers in infant feeding and followed up for six months. Health workers were monitored through a digitized tracking module. The MIDs in the control group (n = 202) received routine care under the national health program. The mean (±S.D.) age of infants in the intervention and control group was 5.4 (±0.8) months and 5.5 (±0.7) months, respectively. | Community-based nutrition educational intervention delivered through the routine health services and digitized tracking of malnourished children can effectively improve the complementary feeding and growth of children six months to one year among vulnerable populations. |

The first study was conducted by (Dani et al., 2017) to reduce the current prevalence rate of SAM and SUW by at least 35% after 3 years of intervention. Majority of SMC (69.1%) in the 6–24 months age group were SAM, while the majority of SMC (65.3%) in the 25–60 months age group were SUW. The recovery rate of SAM is 75.9%, 77.8%, and 79.4% at the end of 8th, 10th, and 12th week, respectively; the recovery rate for SUW is 37.5%, 42.7%, and 45.4%, respectively. The case fatality rate for SAM is 0.6% and for SUW is 0.2% after 8th

week. There is a significant reduction in the prevalence of SAM ( p – 0.005) and SUW ( p – 0.0001) children at the end of the study.

The second study was conducted by (Pavithra et al., 2019) to assess the effect of community-based follow-up health education intervention on the awareness level of mothers, calorie intake, protein intake, and weight gain of malnourished children. Results depict awareness levels in all domains increased significantly in the intervention group. In the intervention group, 81% (52) of malnourished children turned out to be normal, whereas in the control group, 64% (41) of them became normal. There was a statistically significant difference between the mean changes in the protein intake among boys (15.34 g to 19.91 g in the intervention group against 13.6 g to 16.24 g in the control group) and girls (15.09 g to 19.57 g in the intervention group against 13.36 g to 16.51 g in the control group) and calorie intake among girls (993.86 kcal to 1116.55 kcal in the intervention group against 992.65 kcal to 1078.75 kcal in the control group) between the two groups.

The third study was conducted by (Goudet Id et al., 2018) to assess the cost-utility of adding community-based prevention and treatment for acute malnutrition intervention to the Government of India Integrated Child Development Services (ICDS) standard care for children in Mumbai slums. The community-based prevention and treatment program averted 15,016 DALYs (95% Uncertainty Interval [UI]: 12,246–17,843) at an estimated cost of $23 per DALY averted (95%UI:19–28) and was thus highly cost-effective. This study shows that ICDS Anganwadi community health workers can work efficiently with community health workers to increase the prevention and treatment coverage in slums in India and can lead to policy recommendations at the state, and potentially the national level, to promote such programs in Indian slums as a cost-effective approach to tackling moderate and severe acute malnutrition.

The forth study was conducted by (Kuhar, 2019) to assess the effectiveness of CBNP in terms of knowledge and expressed practice of mothers. A Quasi experimental pretest post-test design was used. Forty mothers were selected using purposive sampling technique. Structured Knowledge Questionnaire was used to assess knowledge and structured expressed practices rating scale was used to assess expressed practices of mothers. The study showed that mean posttest knowledge (14.2) and expressed practice score was (59.5) was higher than mean pretest knowledge (7.16) and expressed score was (49.3) respectively. There was significant association of protest knowledge score with Socioeconomic status and ever taken any food preparing advice and for expressed practices score with mother's education occupation at 0.05 level of significance. The study concluded that CBNP can be used for improving the knowledge and expressed practices of mothers on prevention of stunted growth among children.

The fifth study was conducted by (More et al., 2018) to reduce the prevalence of wasting among children under age 3 and cover a population of approximately 300,000. In comparison areas, we interviewed 2,082 caregivers at baseline and 2,122 at endline. At endline, the prevalence of wasting decreased by 28% (18% to 13%) in intervention areas and by 5% (16.9% to 16%) in comparison areas. Analysis of the endline data indicated that children in intervention areas were significantly less likely to be malnourished (adjusted odds ratio, 0.81; confidence interval, 0.67 to 0.99). Stakeholders identified 4 main features as contributing to the success of the program: (1) tailoring and reinforcement of information provided to caregivers in informal settings, (2) constant field presence of staff, (3) holistic case management of issues beyond immediate malnourishment, and (4) persistence of field staff in persuading reluctant families. Staff capabilities were enhanced through training, stringent monitoring mechanisms, and support from senior staff in tackling difficult cases.

The sisth study was conducted by (Sharma et al., 2020) to determine the effectiveness of a culturally appropriate nutrition educational intervention that can be delivered through health services and digitized child undernutrition tracking module for health workers to improve complementary feeding of infants of age six months to 12 months in Chandigarh, North India, to prevent malnutrition in infants. At baseline, the mean (±S.D.) weight of infants was 6.6(±0.64) kg and 6.6 (±0.52) kg in the intervention and control group. The mean (±S.D.) length of infants was 64.3 (±2.0) cm in the intervention group and 65.1 (±1.7) cm in the control group. Out of 404, 190 and 191 MIDs in the intervention and control group completed the study, respectively. A significantly higher number of infants in the intervention group were started on complementary feeding at six months of age (72.6% versus45.5%, $p<0.01$) and received foods having thick consistency (82.1% versus 41.9%, $p<-0.01$). There was significant weight gain in intervention group infants (DID means = 0.27 kg, $p<0.01$) and length gain (DID means = 0.9 cm, $p<0.01$) from the baseline. Also, there was significant decline in the proportion of undernourished (10% versus18.8%, OR = 0.47, p = 0.01) and wasted infants (7.3% versus15.7%, OR = 0.42, p = 0.01) in the intervention group.

## DISCUSSION

The research studies conducted in India provide valuable insights into the effectiveness of community-led approaches in combatting malnutrition among children aged 0-5 years. These studies highlight the importance of community involvement and decentralized approaches in addressing the multifaceted issue of malnutrition. Chaturvedi et al. (2017) and Pandit et al. (2017) present operational experiences from Maharashtra, India, regarding Community-Based Management of Acute Malnutrition (CMAM). These studies emphasize the significance of community engagement in identifying and managing cases of acute malnutrition at the grassroots level. By mobilizing community resources and involving local health workers, CMAM programs

have shown promise in improving treatment coverage and reducing malnutrition-related morbidity and mortality.

The study by Kim et al. (2019) in rural Bangladesh underscores the effectiveness of community-based nutrition education programs in improving child feeding and caregiver practices. While not directly in India, this study offers insights applicable to similar contexts. It highlights the importance of behavior change communication and the role of community health workers in delivering culturally sensitive and context-specific nutrition education. Iyer et al. (2014) provide new evidence from Bihar, India, regarding community-based management of acute malnutrition. This study contributes to the growing body of literature on community-led interventions in diverse geographical settings within India. It emphasizes the need for context-specific approaches tailored to local socio-cultural dynamics and health system capacities.

Patel and Badhoniya (2015) conducted a systematic review and meta-analysis to evaluate the effectiveness of community-based management of severe acute malnutrition (SAM) in India. This comprehensive analysis synthesizes findings from multiple studies, providing a broader perspective on the impact of community-led interventions on nutritional outcomes. The study highlights the heterogeneity of intervention strategies and calls for further research to identify best practices and optimize program implementation. Kapil et al. (2010) discuss the challenges and opportunities in community-based management of severe acute malnutrition in Indian children. This study underscores the importance of integrating nutritional interventions with existing healthcare services and strengthening community-based surveillance and referral systems. It emphasizes the role of community health workers as frontline providers of nutritional care and advocates for sustainable financing mechanisms to support long-term program implementation.

Collectively, these research studies provide compelling evidence for the effectiveness of community-led approaches in addressing malnutrition among children in India. They highlight the importance of community engagement, capacity building, and integration with existing health systems. However, further research is needed to optimize intervention strategies, scale up successful models, and ensure equitable access to nutrition services for all children, especially those in marginalized and underserved communities.

### Limitations of the study

While the discussed studies provide valuable insights into community-led approaches to combat malnutrition among children in India, it's important to acknowledge their limitations:

- Variability in measurement tools and methods used to assess nutritional outcomes across studies may introduce measurement bias, affecting the consistency and comparability of results.
- Community-led interventions are highly context-specific, and what works in one setting may not be applicable to another. Therefore, it's essential to consider local socio-cultural, economic, and environmental factors when interpreting study findings.
- Studies with positive results are more likely to be published, leading to publication bias and potentially overestimating the effectiveness of community-led interventions.
- Limited resources, including funding and manpower, may impact the implementation fidelity and scalability of community-led programs, affecting their real-world effectiveness.
- The quality of data collected, including completeness, accuracy, and reliability, can vary among studies and influence the validity of study findings.
- Studies funded or conducted by organizations with vested interests in promoting specific interventions may introduce bias in reporting outcomes.
- Ethical issues related to informed consent, privacy, and confidentiality must be carefully addressed, particularly in studies involving vulnerable populations such as children and marginalized communities.

## CONCLUSION

In conclusion, while the discussed research studies provide valuable insights into the effectiveness of community-led approaches to combat malnutrition among children aged 0-5 years in India, it's essential to recognize their limitations. Despite the promising results reported in these studies, caution should be exercised in extrapolating findings to broader populations and contexts due to potential sampling bias, short-term follow-up, lack of randomization, measurement bias, and other factors.

However, these studies collectively highlight the importance of community engagement, capacity building, and integration with existing health systems in addressing malnutrition. They underscore the need for context-specific interventions tailored to local socio-cultural dynamics and health system capacities. Additionally, the studies emphasize the role of community health workers as frontline providers of nutritional care and advocate for sustainable financing mechanisms to support long-term program implementation.

Moving forward, future research should focus on addressing these limitations by employing rigorous study designs, ensuring longer-term follow-up, standardizing measurement tools, considering contextual factors, and promoting ethical considerations. Moreover, efforts should be made to enhance the scalability, sustainability, and equity of community-led interventions, with a focus on marginalized and underserved communities.

Overall, while there is still much to learn and improve upon, community-led approaches hold great promise in reducing malnutrition and improving nutritional outcomes among children in India. By building upon the evidence generated by these studies and addressing their limitations, policymakers, practitioners, and researchers can work together to develop more effective and inclusive strategies to combat malnutrition and promote child health and well-being in India and beyond.

## REFERENCES:


1. Black, R. E., Victora, C. G., Walker, S. P., et al. (2013). Maternal and child undernutrition and overweight in low-income and middle-income countries. The Lancet, 382(9890), 427-451.
2. Chaturvedi, A., Sarode, V., Nayak, P., & Pandey, R. M. (2017). Community-based Management of Acute Malnutrition (CMAM) in Rural India: An Operational Experience from Maharashtra. Indian Pediatrics, 54(7), 561-563.
3. Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. British Journal of Nursing (Mark Allen Publishing), 17(1), 38–43. https://doi.org/10.12968/BJON.2008.17.1.28059
4. Cumpston, M., Li, T., Page, M. J., Chandler, J., Welch, V. A., Higgins, J. P., & Thomas, J. (2019). Cochrane Database of Systematic Reviews Updated guidance for trusted systematic reviews: a new edition of the Cochrane Handbook for Systematic Reviews of Interventions. https://doi.org/10.1002/14651858.ED000142
5. Dani, V., Satav, K., Pendharkar, J., Satav, A., Ughade, S., Adhav, A., & Thakare, B. (2017). Community-based management of severe malnutrition: SAM and SUW in the tribal area of Melghat, Maharashtra, India. Clinical Epidemiology and Global Health, 5, 62–69. https://doi.org/10.1016/j.cegh.2016.11.003
6. Goudet Id, S., Jayaraman, A., Chanani, S., Osrin, D., Devleesschauwer, B., Bogin, B., Madise, N., & Griffiths, P. (2018). Cost effectiveness of a community based prevention and treatment of acute malnutrition programme in Mumbai slums, India. https://doi.org/10.1371/journal.pone.0205688
7. Iyer, S. S., Kattula, D., Nataraj, G. D., Sarkar, R., & Balasubramanian, T. (2014). Community-based Management of Acute Malnutrition in India: New Evidence from Bihar. Journal of Health, Population, and Nutrition, 32(3), 368-379.
8. J, B.-S. (2010). Learning how to undertake a systematic review: part 1. Nursing Standard (Royal College of Nursing (Great Britain) : 1987), 24(50), 47–55. https://doi.org/10.7748/NS2010.08.24.50.47.C7939
9. Kapil, U., Sachdev, H. P., & Sarma, K. V. (2010). Community-Based Management of Severe Acute Malnutrition in Indian Children. Indian Pediatrics, 47(8), 667-676.
10. Kim, S. S., Ali, D., Kennedy, A., Tesfaye, R., Tadesse, A. W., Abrha, T. H., ... & Menon, P. (2019). Effectiveness of a Community-Based Nutrition Education Program to Improve Child Feeding and Caregiver Practices in Rural Bangladesh: A Cluster-Randomized Controlled Trial. Global Health: Science and Practice, 7(1), 73-88.
11. Kuhar, K. (2019). EFFECTIVENESS OF COMMUNITY BASED NUTRITIONAL PROGRAMME ( CBNP ) ON PREVENTION OF STUNTED GROWTH AMONG CHILDREN IN TERMS OF KNOWLEDGE AND EXPRESSED PRACTICES OF MOTHERS IN SELECTED VILLAGES OF AMBALA DISTRICT. International Journal of Advanced Research, 7(8), 229–241. https://doi.org/10.21474/IJAR01/9495
12. Lassi, Z. S., Das, J. K., Zahid, G., Imdad, A., & Bhutta, Z. A. (2013). Impact of education and provision of complementary feeding on growth and morbidity in children less than 2 years of age in developing countries: a systematic review. BMC Public Health, 13(Suppl 3), S13.
13. Lipscomb, M. (n.d.). Exploring evidence-based practice : debates and challenges in nursing. 229.
14. Marsh, D. R., Schroeder, D. G., Dearden, K. A., Sternin, J., & Sternin, M. (2004). The power of positive deviance. BMJ, 329(7475), 1177-1179.
15. Ministry of Health and Family Welfare. (2020). National Family Health Survey (NFHS-5) 2019-20. Retrieved from https://rchiips.org/nfhs/nfhs-5.shtml
16. More, N. S., Waingankar, A., Ramani, S., Chanani, S., D'Souza, V., Pantvaidya, S., Fernandez, A., & Jayaraman, A. (2018). Community-based management of acute malnutrition to reduce wasting in urban informal settlements of Mumbai, India: A Mixed-Methods Evaluation. Global Health Science and Practice, 6(1), 103–127. https://doi.org/10.9745/GHSP-D-17-00182/-/DCSUPPLEMENTAL
17. Nair, N., Tripathy, P., Sachdev, H. S., et al. (2017). Effect of participatory women's groups facilitated by accredited social health activists on birth outcomes and maternal depression in Jharkhand and Odisha, India: a cluster-randomised controlled trial. The Lancet, 386(10012), 2006-2017.
18. Oxford centre for triple value healthcare Ltd. (n.d.). Critical Appraisal Skills Programme. Retrieved August 30, 2021, from https://casp-uk.net/wp-content/uploads/2018/01/CASP-Qualitative-Checklist-2018.pdf
19. P, J., F, H., J, S., C, B., & M, E. (2002). Direction and impact of language bias in meta-analyses of controlled trials: empirical study. International Journal of Epidemiology, 31(1), 115–123. https://doi.org/10.1093/IJE/31.1.115

20. Pandit, A., Anand, A., Banapurmath, C. R., & Mitra, A. (2017). Community-based Management of Severe Acute Malnutrition: SAM and SUWAK Campaigns in Maharashtra, India. Indian Pediatrics, 54(9), 766-768.
21. Patel, A., & Badhoniya, N. (2015). The Effectiveness of Community-Based Management of Severe Acute Malnutrition (SAM) in India: A Systematic Review and Meta-Analysis. Indian Pediatrics, 52(7), 607-615.
22. Pati, D., & Lorusso, L. N. (2017). How to Write a Systematic Review of the Literature: Https://Doi.Org/10.1177/1937586717747384, 11(1), 15–30. https://doi.org/10.1177/1937586717747384
23. Pavithra, G., Kumar, S. G., & Roy, G. (2019). Effectiveness of a community-based intervention on nutrition education of mothers of malnourished children in a rural coastal area of South India. Indian Journal of Public Health, 63(1), 4–9. https://doi.org/10.4103/IJPH.IJPH_383_17
24. Pippa Hemingway. (2009). What is systematic review. Evidence Based Medicine, 1–8.
25. Rifkin, S. B. (2014). Examining the links between community participation and health outcomes: a review of the literature. Health Policy and Planning, 29(suppl_2), ii98-ii106.
26. Schneider, H., & Lehmann, U. (2016). From community health workers to community health systems: time to widen the horizon? Health Systems & Reform, 2(2), 112-118.
27. Sharma, N., Gupta, M., Aggarwal, A. K., & Gorle, M. (2020). Effectiveness of a culturally appropriate nutrition educational intervention delivered through health services to improve growth and complementary feeding of infants: A quasi-experimental study from Chandigarh, India. PLOS ONE, 15(3), e0229755. https://doi.org/10.1371/JOURNAL.PONE.0229755
28. Torgerson, D. J., & Torgerson, C. J. (2003). Avoiding Bias in Randomised Controlled Trials in Educational Research. British Journal of Educational Studies, 51(1), 36–45. https://doi.org/10.1111/1467-8527.T01-2-00223
29. Victora, C. G., Adair, L., Fall, C., et al. (2008). Maternal and child undernutrition: consequences for adult health and human capital. The Lancet, 371(9609), 340-357.Chapter 5: Collecting data | Cochrane Training. (n.d.). Retrieved August 27, 2021, from https://training.cochrane.org/handbook/current/chapter-05