RESEARCH MONOGRAPH

CASE STUDY

SmileTrain-TMSS Collaborative Initiative
Changing the world One Smile at a Time

Promoting Cleft and Palate Patients through Medical Interventions

TMSS Health Research Foundation (THRF)

A wing of
TMSS Grand Health Sector

TMSS, Bogura, Bangladesh

January, 2026

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A Publication of

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TMSS Grand Health Sector. [TGHS]
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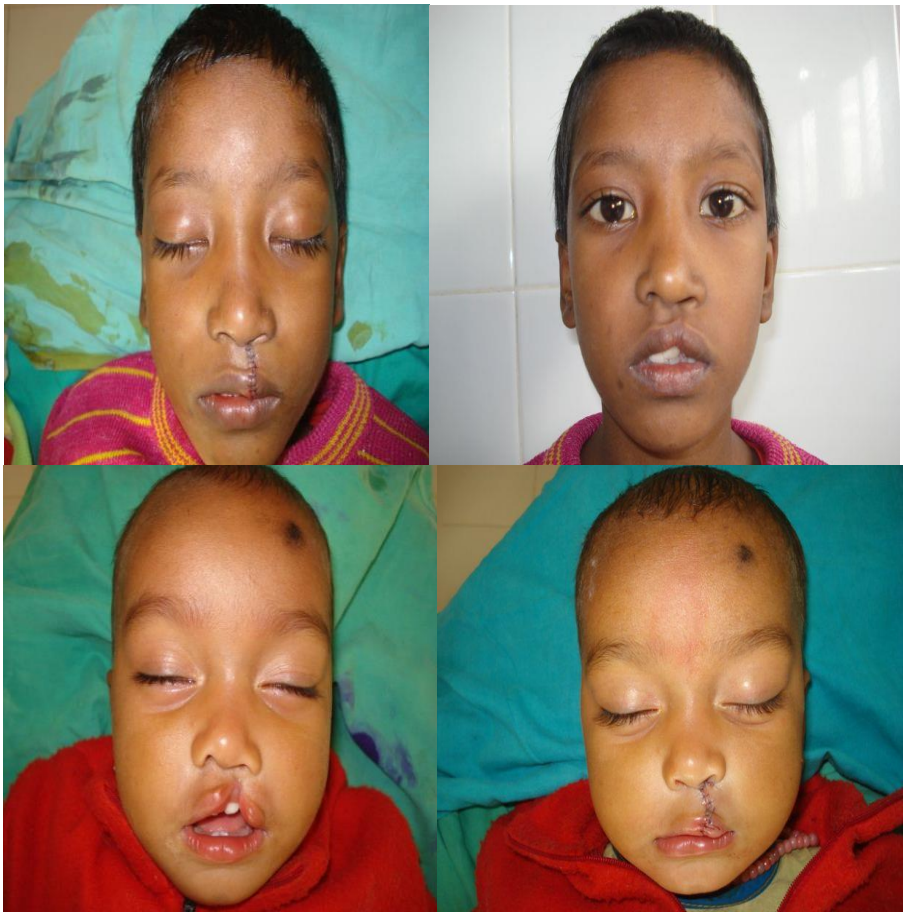

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Foreword

It is with great pleasure that the TMSS Health Research Foundation (THRF) presents this collection of case studies focusing solely on STRCP initiative, which addresses cleft lip and palate deformities among vulnerable populations in Bangladesh. As a newly established health research foundation, THRF seeks to document and disseminate evidence on impactful health interventions and this compilation reflects the significant contributions of the TMSS Health Sector in improving the lives of affected children and their families.

Within contemporary health research, case studies hold particular value for capturing the depth and complexity of human health experiences. In the context of cleft and palate care, they extend beyond surgical outcomes to illuminate the social, cultural and economic challenges faced by the patients and caregivers. Through real-life narratives and lived experiences, these case studies provide a nuanced understanding of how timely, comprehensive and patient-centered cleft services can transform lives and promote long-term well-being.

This volume centers exclusively on the STRCP initiative implemented by TMSS with the support of SmileTrain USA, which stands as a compelling example of effective, equitable, and community-responsive cleft care. The program demonstrates how early diagnosis, timely surgical intervention, and structured post-operative follow-up can restore not only facial function and speech but also dignity, self-esteem, and social inclusion for children born with cleft lip and palate. For families, these interventions alleviate psycho-social stress and reduce the long-term economic burden associated with untreated deformities.

Present case studies further highlight the importance of continuity of care within the STRCP framework, including counseling, referral, and rehabilitation support. By addressing both medical and psycho-social dimensions of cleft conditions, the initiative contributes to improved quality of life and enhanced developmental outcomes for affected children, particularly in resource-constrained and underserved regions of northern Bangladesh.

Collectively, these STRCP-focused case studies affirm the transformative potential of integrated and compassionate cleft care services. They reveal not only measurable clinical impacts but also broader social benefits, including increased community awareness, reduced stigma, and strengthened trust in health systems. The narratives underscore that effective cleft care is not merely a surgical intervention but a holistic process grounded in empathy, commitment, and social responsibility.

Through the STRCP initiative, TMSS continues to demonstrate a strong commitment to inclusive health care and social justice. These documented experiences offer valuable insights for clinicians, researchers, program implementers, and policymakers seeking to strengthen cleft care services in low-resource settings.

Finally, it is hoped that this volume will serve as a meaningful resource and inspire continued innovation, collaboration, and compassion in advancing comprehensive cleft care for all. And thanks to SmileTrain USA for their continuous support and cooperation.

Dr. Md. Matiur Rahman, MBBS, PhD.
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This study owes its completion to the generous guidance, support, and collaboration of many distinguished individuals and institutions. I express my deepest respect and heartfelt gratitude to Prof. Dr. Hosne-Ara Begum**,** *Ashoka Fellow, PHF, AKS*, and Chairman, TMS**S**, whose visionary leadership, compassionate philosophy, and unwavering commitment to social development have continually inspired this work. Her encouragement and guidance created an enabling environment that made this research possible.

My sincere appreciation extends to Dr. Md. Matiur Rahman, MBBS, PhD.**,** Deputy Executive Director-2 and Chief of Health Sector, whose constant support, intellectual insights, and dedicated supervision strengthened the quality and direction of this study. I am also profoundly grateful to the Coordinator TMSS STRCP Initiative for his cooperation, valuable inputs, and facilitation throughout the research process. Their professional commitment to serving the vulnerable population has been an invaluable foundation for this work.

I convey special thanks to the parents of all children and the honorable respondents, who generously shared their time, experiences, and perspectives. Their trust, openness, and lived realities form the heart of this research, and their contributions are acknowledged with deep respect.

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To all who have contributed directly or indirectly to this study, I extend my sincere thanks and appreciation. Your collective support has made this work not only possible but deeply fulfilling.

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ABBREVIATIONS

DAC – Development Assistance Committee
DED – Deputy Executive Director
IDI – In-Depth Interview
LMICs – Low- and Middle-Income Countries
NGO – Non-Governmental Organization
OECD – Organization for Economic Co-operation and Development
PHF – Public Health Foundation
RCH – *Rafatullah* Community Hospital
SDGs – Sustainable Development Goals
STRCP – Smile Train Rafatullah Community Hospital Cleft Project
TGHS – TMSS Grand Health Sector
THRF – TMSS Health Research Foundation
TMSS – *Thengamara Mohila Sabuj* Sangha
TMC – TMSS Medical College
UHC – Universal Health Coverage
WHO – World Health Organization

GLOSSARY

Case Study

An in-depth qualitative research approach that examines a phenomenon, program, or individual within its real-life context using multiple data sources.

Cleft Lip and Palate

Congenital facial anomalies characterized by incomplete formation of the upper lip and/or roof of the mouth, affecting feeding, speech, and social integration.

Community-Based Health Services

Health services delivered at community level to improve accessibility, early detection, referral, and continuity of care, particularly for underserved population.

Coherence (OECD-DAC)

The extent to which an intervention is consistent with other interventions, policies, and institutional frameworks at local, national, and international levels.

Effectiveness (OECD-DAC)

The degree to which an intervention achieves its intended objectives and produces expected results.

Efficiency (OECD-DAC)

A measure of how economically resources such as time, funds, and human capital are converted into outputs and outcomes.

Eye Mitro Model

A community eye care approach that trains local opticians to provide basic eye screening, referral, and affordable vision services in rural areas.

Impact (OECD-DAC)

The long-term, significant positive or negative changes—intended or unintended—produced by an intervention.

STRCP and Rehabilitation

Therapeutic services aims at restoring movement, function, and quality of life for individuals with physical impairments or disabilities.

Purposive Sampling

A non-probability sampling technique where participants are selected based on their relevance and experience related to the research objectives.

Relevance (OECD-DAC)

The extent to which an intervention addresses the priority needs of beneficiaries and aligns with national and global development goals.

Social Reintegration

The process through which individuals regain social acceptance, participation, and dignity following medical or rehabilitative intervention.

Sustainability (OECD-DAC)

The likelihood that the benefits of an intervention will continue after external funding or support has ended.

Universal Health Coverage (UHC)

A health system goal ensuring that all individuals receive needed health services without financial hardship.

EXECUTIVE SUMMARY

Introduction

TMSS, a leading non-governmental organization in Bangladesh, is recognized as one of the largest women's organizations in South Asia. As a women-driven institution, it prioritizes women's empowerment by placing women at the center of family and community development through the HEM model, addressing social exclusion, injustice, and unequal economic distribution. TMSS has established thousands of women's associations nationwide, providing support and opportunities for marginalized women facing multiple deprivations. Its multifaceted interventions have benefited millions of families by improving economic conditions, education, health awareness, and overall well-being. Moreover, TMSS has developed extensive capacity-building, educational, and health institutions and now functions as a social movement aligned with the Sustainable Development Goals under the principle of "no one left behind."

Regarding TMSS Grand Health Sector (TGHS)[1]; it is one of the largest health programs in Bangladesh, operating since the 1980s with a vision to serve marginalized populations, particularly in northern regions. It delivers doorstep primary health care and expands access through secondary and tertiary health institutions, including hospitals and a medical college. TGHS has institutionalized health care delivery by producing over 7,000 health professionals, including doctors, nurses, and health technologists. This study examines selected cases across TGHS programs to assess their impact on the lives of service recipients and contributions toward achieving SDG 3.
Ensuring equitable access to quality healthcare remains a persistent challenge in low- and middle-income countries, particularly for population affected by poverty, disability, geographic marginalization, and social stigma. In Bangladesh, despite notable progress in health indicators, structural inequities continue to limit access to essential and specialized health services for vulnerable groups, especially in rural and peri-urban contexts. In response to these challenges, TMSS Medical College and *Rafatullah* Community Hospital (TMC & RCH)[2], has been implementing a set of integrated health interventions aimed at addressing preventable disability, functional impairment, and avoidable social exclusion.

Partner organization SmileTrain USA[3] is a leading international nonprofit organization dedicated to providing free, high-quality cleft lip and palate surgery for children in low- and middle-income countries. It operates through a sustainable model that trains and supports local medical professionals rather than short-term missions. Beyond surgery, Smile Train invests in comprehensive cleft care, including nutrition, speech therapy, and psychosocial support. The organization emphasizes health system strengthening, safety standards, and long-term capacity building. Its rights-based approach aims to restore health, dignity, and social inclusion for affected children and families. TGHS has been operating STRC project in collaboration with SmileTrain, USA.

[1] For detail please visit, www.tmsshealth.com.
[2] TMSS Medical College and *Rafatullah* Community Hospital is called 'TMC & RCH'; but in some regard, we also use TMSS Hospital in few areas. But both bears the same meaning.
[3] For detail, please see, https://www.smiletrain.org./

Present study synthesizes evidence from qualitative case studies assessing the intervention of Smile Train *Rafatullah* Community Hospital Cleft Project (STRCP), this intervention collectively represents a people-centered, rights-based approach to healthcare delivery that integrates clinical treatment with rehabilitation, social reintegration, and community-level outreach. The analysis evaluates whether these interventions are doing the right things and doing them well, using internationally recognized evaluation criteria and policy benchmarks.

General and Specific Objectives

This study generates rigorous evidence on the outcomes of the TMSS-led STRCP, with particular attention to its impacts on cleft and palate patients' lives and the surrounding socio-cultural context. Besides, it critically examines the program's relevance, effectiveness, efficiency, impact, coherence, and sustainability.

Specific objectives

- To assess the effectiveness of STRCP in improving timely access to surgical care, rehabilitation, and follow-up services for cleft lip and palate patients, thereby enhancing survival, functional outcomes, and quality of life.
- To examine the impact of STRCP on reducing social stigma, discrimination, and psychosocial vulnerability among cleft patients and their families within community settings.
- To evaluate the sustainability and scalability of STRCP in restoring dignity, social inclusion, and long-term well-being of cleft patients, with implications for national health policy and inclusive development.

The methodological procedure was qualitative in nature. This study employed a qualitative case study design to capture in-depth, contextually grounded evidence of intervention outcomes. Information and Data were collected through in-depth interviews with service beneficiaries and caregivers, direct observation of service delivery processes, physical visits to service-takers' houses in rural areas, and review of institutional documents and service records. Purposive sampling was used to select beneficiaries from *Naogaon and Bogura* districts who took services from TMC & RCH, representing diverse age groups, genders, and economic study.

Triangulation across data sources were enhanced the credibility and trustworthiness of findings. Thematic analysis focused on clinical outcomes, functional independence, psycho-social well-being, accessibility, continuity of care, and perceived dignity and social inclusion. Rather than relying solely on biomedical indicators, the methodology emphasized human-centered impact pathways, capturing how integrated health services reshape individual life trajectories within constrained health system contexts.

On project introduction, it needs an overview of TMSS-led STRCP Initiative. STRCP has been implemented by TMSS in rural Bangladesh, serves as a transformative healthcare model addressing the multi-dimensional challenges of congenital cleft lip and palate deformities. This summary synthesizes the findings from five distinct case studies *Sadia Sultana Mayna, Zubayer, Sadia Afrin, Tabassum, and Rubaiya* to illustrate the impact of integrated surgical, psycho-social, and community-based interventions. By the end of 2025, the project has successfully benefited more than 10,000 children, restoring their physical function and social dignity.

When it has been seen the challenges of cleft and palate patients in Rural Bangladesh; it gives a deep understanding. Conducted **c**ase studies highlight deeply rooted structural, socio-cultural, and economic barriers that undermine the dignity of marginalized families and adversely affect children born with cleft lip and palate in rural Bangladesh. Social stigma and superstition remain pervasive, with cleft conditions often misinterpreted as curses or maternal wrongdoing, leading to discrimination, social exclusion, and emotional distress for both children and caregivers. Delayed

access to care is common due to limited health literacy, inadequate postnatal counseling, geographic isolation, and weak referral systems, resulting in missed opportunities for early intervention. Economic vulnerability further constrains care-seeking, as the costs of surgery, travel, and follow-up services deter families living in poverty. Consequently, untreated cleft conditions expose children to nutritional deficiencies, developmental delays, and long-term educational and social disadvantages and exclusion.

Based on TMSS STRCP initiative, many patients have been cured who suffered before with cleft and palate deformity. The TMSS-led STRCP adopts a comprehensive and integrated intervention model that extends beyond surgical correction to address the multidimensional needs of cleft lip and palate patients. Central to the initiative is the provision of free, high-quality surgical care, effectively reducing financial and structural barriers to treatment. These surgical services are complemented by a continuum of rehabilitative support, including structured speech therapy and targeted nutritional interventions, to ensure optimal functional and developmental outcomes. The model further embeds psycho-social care through counseling and family support mechanisms aimed at mitigating psychological distress, countering stigma, and restoring self-esteem and social inclusion. In addition, STRCP operationalizes community-based referral networks that utilize local social actors to identify affected children and facilitate timely linkage to specialized services. This community-embedded approach enhances outreach, strengthens referral efficiency, and promotes sustainable access to tertiary healthcare for marginalized rural populations.

When it is seen what the impact of the STRCP Project on Cleft & Palate Patients, it is evident that several successes with higher achievement, both physical and socio-cultural. STRCP has generated substantial positive outcomes for children born with cleft conditions, particularly girls from socioeconomically disadvantaged backgrounds. By ensuring free and timely surgical intervention, the project removes structural and financial barriers that disproportionately affect girls' access to specialized healthcare. Surgical correction improves feeding, speech, and facial appearance, which are critical for survival, nutrition, school participation, and social interaction. Case experiences of girls such as ***Sadia Mayna and Sadia Afrin*** illustrate how timely cleft surgery enhances confidence, communication ability and social acceptance. Following treatment, these girls were able to attend school regularly, interact with peers without fear of ridicule, and participate more confidently in family and community life. The intervention thus contributes not only to physical rehabilitation but also to psychosocial recovery, long-term empowerment, and gender equity. In other hand, ***Tabassum, Rubyat and Zubaer*** those are minor age also free from such sigma after successful operation of their facial deformity. As their parents, they are enjoying a very hopeful and happy live at present.

On financial and livelihood benefits, STRCP delivers significant financial relief to affected households by eliminating the high out-of-pocket costs associated with cleft surgery and related care. For poor families, the availability of free treatment prevents catastrophic health expenditure and reduces the need for distress coping strategies such as borrowing or asset selling. Early surgical correction enables children to attend school and later pursue productive livelihoods, thereby strengthening future economic potential. Families of beneficiaries such as ***Rubiya and Zubayer*** reported reduced caregiving burdens and increased capacity to engage in income-generating activities. At the household level, this contributes to improved financial stability, while at the community level, it reduces long-term dependency associated with untreated disability. Overall, STRCP enhances human capital formation and supports sustainable livelihood outcomes.

When it has searched how it Challenges social stigma and superstition, it is seen STRCP challenges these beliefs by reframing cleft conditions as treatable medical issues through visible surgical success and community engagement. As evidenced by beneficiaries such as ***Mayna, Sadia, Tabasum, Rubayat and Zubaer*** successful treatment enhances social acceptance, reduces discrimination, and promotes inclusive participation in family, school, and community life. Aspect of r**estoration of social dignity,** this study revealed significant information that created by STRCP. Restoration of social dignity is a core outcome of STRCP interventions, as surgical correction enhances facial appearance, speech, and functional ability, which are key elements of identity and social interaction. Beneficiaries like ***Mayna and Sadia reported*** that increased respect, self-confidence, and participation in education and community life following treatment. By addressing both physical impairment and social exclusion, STRCP reinforces dignity, inclusion, and equity at individual, family and community levels.

In the recommendation and policy briefing, the following section makes a few important arguments based on this study. In doing the job, it follows the OECD-DAC framework. According to the OECD method, STRCP-led health interventions has represented a paradigm shift in how congenital disabilities are managed in resource-constrained settings. This impact analysis demonstrates that by combining clinical excellence with people-centered care, the project has successfully addressed the profound physical, psychological, and social challenges faced by individuals such as Sadia Sultana Mayna, Zubayer, Rubaiya, Tabassum, ***and Sadia*****.** In the rural landscape of Bangladesh, children born with cleft lip and palate often fall victim to severe malnutrition, feeding difficulties and social isolation due to culturally rooted superstitions that label such deformities as "curses". The STRCP initiative disrupts these cycles of marginalization by providing free, comprehensive surgical corrections and essential follow-up care. By the conclusion of 2025, over 10,000 children have benefited from these services, moving from social invisibility to active participation in school and community life.

These interventions are deeply **relevant**, aligning with national priorities for Universal Health Coverage and disability inclusion while addressing the immediate lived realities of the poor. The **coherence** of the model is found in its ability to link hospital-based clinical services with community referral networks, ensuring that information reaches even the most remote households through neighbors, students, and local professionals**. Effectiveness** is evidenced by the restoration of speech clarity, facial integrity, and self-esteem, which directly facilitates educational reintegration and improves long-term prospects for marriage and employment. **Efficiency** is achieved through the strategic use of institutional platforms and task-shifting, which prevents catastrophic health expenditures for families who would otherwise find treatment unattainable. Besides, medical team did the job with higher professionalism. Ultimately, the **impact** of these interventions is multi-layered: it restores human dignity at the individual level, reduces caregiving burdens for families and dismantles harmful social stigmas at the community level. While sustainability is bolstered by strong institutional embedding within the TMSS Medical College and *Rafatullah* Community Hospital, the project faces ongoing challenges regarding donor reliance and the need for stronger integration into national health financing mechanisms.

Recommendations

Strengthening Early Diagnosis and Referral Pathways:

Strengthening early diagnosis and referral pathways is critical to reducing preventable suffering among children with cleft lip and palate. Institutionalizing standardized postnatal screening in rural clinics would enable timely identification and prevent complications such as feeding difficulties, speech delays, and social isolation. Community networks including neighbors, relatives, and local students play a vital role in linking families to care, and their formal recognition and training would improve referral efficiency. Integrating cleft awareness into routine antenatal and postnatal services would further reduce misinformation and promote early care-seeking.

Enhancing Holistic Care Models:

Achieving sustainable outcomes in cleft care requires an integrated service model that extends beyond surgical correction to address long-term functional and psychosocial needs. While surgery resolves the physical deformity, complementary interventions such as speech therapy and psychosocial counseling are essential for improving communication, self-esteem, and social integration. Targeted nutritional support is particularly critical for infants with cleft-related feeding difficulties, as undernutrition can delay surgical eligibility and increase health risks. Institutionalizing specialized nutritional programs would enhance surgical readiness, improve clinical outcomes, and strengthen overall child health and development.

Promoting Social Equity, Gender Sensitivity and Community Awareness

Cleft care interventions must be anchored in principles of social equity and gender sensitivity, particularly in rural and low-income settings where untreated cleft conditions disproportionately disadvantage girls in education, social acceptance, and future marital prospects. Gender-responsive outreach and sustained financial protection mechanisms are essential to ensure early identification, equitable access, and continuity of care without imposing economic hardship on families. Equally, community awareness and stigma reduction are critical for long-term impact, as public education and beneficiary narratives help reframe cleft as a treatable medical condition rather than a source of superstition or blame. Integrating cleft-related education into school curricula further promotes peer acceptance, reduces bullying, and supports the psychosocial well-being of affected children.

Policy Implications and scaling Impact

- Adoption of these recommendations would align Bangladesh's health system with the principles of Universal Health Coverage and child rights, demonstrating how integrated surgical care, social protection, and community engagement can shift life trajectories from marginalization to sustained inclusion.
- To enable national scaling and sustainability, cleft care should be formally embedded within the UHC benefit package with assured public financing, alongside standardized training of community facilitators.
- Strengthened early referral pathways, integration of rehabilitation into maternal and pediatric care, and institutionalized follow-up systems are essential to capture long-term social and functional outcomes.
- Strategic public–NGO partnerships, particularly with organizations such as TMSS, should be prioritized to advance equitable and inclusive health service delivery. TMSS STRCP model proves that when surgical intervention is combined with social protection and community engagement, it can effectively "shift life trajectories from marginalization to sustained inclusion".

Final Statement

The experiences of Sadia Sultana, Mayna, Zubayer, Sadia Afrin, Tabassum, and Rubaiya demonstrate that even a single, well-structured intervention can profoundly transform life trajectories. These cases underscore the imperative for policy frameworks to prioritize the scaling of integrated rural healthcare models that combine medical, psychosocial, and community-based support.

Moreover, it demonstrates that collaborative action can effectively empower individuals, generating sustained positive impacts across the life course. In this regard, the joint initiatives of SmileTrain USA and TMSS within the broader health sector exemplify a highly effective humanitarian partnership, delivering meaningful and transformative health outcomes through coordinated effort.

Chapter: 01

Introduction & Methodology

1.0. Introduction

1.1. TMSS: From NGO to a Catalyst of Social Movement

Thengamara Mohila Sabuj Sangha (TMSS), a non-governmental organization operating in Bangladesh, has evolved into one of the largest women-led organizations in South Asia. Founded and driven by women, TMSS places women at the center of family and community development, recognizing their pivotal role in social transformation and sustainable progress. Through this gender-centered development philosophy, the organization has contributed significantly to advancing women's empowerment and social inclusion.

TMSS has consistently applied the HEM (Health, Education and Microfinance) development model to achieve integrated and sustainable outcomes. This model addresses structural social exclusion, social injustice, and unequal economic distribution by combining economic empowerment, social mobilization, education, and health interventions. Through the formation of thousands of women's associations across the country, TMSS has created inclusive platforms for marginalized and socioeconomically deprived women to access support, build collective strength, and actively participate in development processes. These grassroots institutions enable women to move beyond vulnerability toward agency, resilience, and leadership.

Over time, TMSS interventions have benefited millions of families nationwide. The cumulative impacts include improved household economic conditions, increased access to education for children, enhanced health awareness, and measurable improvements in overall well-being.

Recognizing that sustainable development requires institutional capacity, TMSS has established a wide range of educational, training, and health institutions. These include Medical Colleges, Hospitals, Nursing Colleges, and allied health education centers, which collectively strengthen human capital and service delivery systems.

Through its scale, continuity, and people-centered approach, TMSS has transcended the conventional role of an NGO and emerged as a social movement advocating for equity, dignity, and social justice. Guided by the universal principle of "leaving no one behind," TMSS prioritizes population at the bottom of the socio-economic hierarchy and aligns its programs with the targets

and goals of the Sustainable Development Goals (SDGs), particularly those related to poverty reduction, establish gender equality, promote education, and ensure healthcare.

1.2. TMSS Grand Health Sector

The TMSS Grand Health Sector (TGHS) represents one of the organization's most extensive and long-standing programmatic pillars, with implementation dating back to the 1980s. The sector was established with a clear vision of serving marginalized population, particularly those with limited or no access to essential healthcare services in northern Bangladesh. TGHS adopts a continuum-of-care approach by delivering doorstep primary healthcare services while simultaneously expanding access to secondary and tertiary healthcare through institutional development.

TGHS has played a critical role in institutionalizing healthcare delivery by establishing hospitals, a medical college, nursing colleges, and other specialized health training institutes. Through these initiatives, the sector has contributed to the production of more than 7,000 health professionals, including physicians, nurses, health technologists, and allied healthcare workers. This workforce development not only strengthens community-level service provision but also supports national health system capacity.

By expanding access to quality healthcare and human resources for health, the TMSS Grand Health Sector provides a complementary platform that supports government efforts to achieve Sustainable Development Goal 3, which aims to ensure healthy lives and promote well-being for all at all ages.

1.3. Smile Train Project: Global Contributions to Cleft Lip and Palate Care

Introduction

Cleft lip and palate are among the most common congenital craniofacial anomalies worldwide, posing significant challenges to affected individuals, families, and health systems—particularly in low- and middle-income countries (LMICs). These conditions affect feeding, speech, hearing, facial appearance, and psychosocial well-being, often leading to lifelong stigma and social exclusion if left untreated. While surgical correction is highly effective, access to safe, timely, and affordable cleft care remains limited in many resource-constrained settings.

Smile Train, a United States–based international non-governmental organization founded in 1999, has emerged as a global leader in addressing this unmet need. Unlike short-term mission-based surgical models, Smile Train pioneered a sustainable, partner-centered approach that empowers local medical professionals and institutions to deliver comprehensive cleft care within their own health systems. Through funding, training, and capacity building, Smile Train supports free, safe, and high-quality cleft lip and palate treatment for children and adults across the globe. This paper

examines Smile Train's global contributions to cleft and palate improvement and highlights the specific impact of its project interventions in Bangladesh.

1.3.1. Global Contributions to Cleft and Palate Improvement

Globally, Smile Train has played a transformative role in expanding access to cleft care by supporting local health systems rather than replacing them. Operating in more than 70 countries, the organization partners with thousands of hospitals and medical professionals to provide comprehensive cleft services, including surgery, speech therapy, nutrition support, orthodontics, psychosocial counseling, and post-operative follow-up care. This integrated model recognizes that cleft conditions are not merely surgical issues but complex health and social challenges requiring multidisciplinary intervention.

One of Smile Train's most significant global contributions lies in its emphasis on sustainability and quality assurance. By investing in the training of surgeons, anesthetists, nurses, and allied health professionals, the organization strengthens national capacity for long-term cleft care. Standardized clinical protocols, outcome monitoring, and patient safety guidelines ensure that supported interventions meet international standards. This approach has led to measurable improvements in surgical outcomes, reduced complication rates, and enhanced continuity of care.

Beyond clinical services, Smile Train has contributed substantially to reducing stigma and increasing awareness surrounding cleft lip and palate. Through community outreach, advocacy, and partnerships with local organizations, the initiative promotes early identification, timely referral, and acceptance of individuals born with cleft conditions. Globally, millions of successful surgeries supported by Smile Train have not only restored facial function and appearance but also enabled children to eat, speak, attend school, and participate fully in society. These outcomes underscore the organization's broader contribution to advancing health equity and social inclusion.

1.4. Impact of the Smile Train Project in Bangladesh

Bangladesh has long faced a considerable burden of cleft lip and palate due to high population density, limited access to specialized surgical services, and socioeconomic barriers. In this context, the Smile Train project has made a profound contribution to strengthening cleft care services across the country, particularly in underserved and rural regions. Through partnerships with national and regional health institutions, Smile Train has supported the development of a structured, accessible, and cost-free cleft care system for vulnerable populations.

Project interventions in Bangladesh have enabled thousands of children to receive timely cleft lip and palate surgeries who would otherwise have remained untreated. By supporting local hospitals and surgeons, the initiative has reduced dependency on external surgical missions and improved

geographic coverage of services. Importantly, Smile Train's emphasis on early intervention has contributed to better functional outcomes, including improved speech development, nutrition, and psychosocial adjustment among affected children.

The impact of the project extends beyond surgery. In Bangladesh, Smile Train-supported programs have increasingly integrated speech therapy, nutritional counseling, and post-operative follow-up into routine cleft care. This comprehensive approach addresses the long-term needs of patients and enhances overall quality of life. Families benefit from reduced financial burden, increased health literacy, and renewed hope for their children's futures. At the community level, improved awareness has helped reduce stigma and encourage care-seeking behavior.

Furthermore, Smile Train's collaboration with Bangladeshi partner organizations has strengthened institutional capacity and contributed to health system resilience. Training opportunities, data-driven monitoring, and adherence to quality standards have enhanced professional competence and accountability within cleft care services. These efforts align with broader national and global goals of universal health coverage and equitable access to essential surgical care.

Conclusion

The Smile Train project represents a landmark model in global health intervention for cleft lip and palate care. Its sustainable, locally driven approach has significantly improved access to high-quality cleft services worldwide while strengthening health systems and professional capacity. Globally, Smile Train's contributions have transformed millions of lives by addressing not only the clinical dimensions of cleft conditions but also their social and psychosocial consequences.

In Bangladesh, the impact of Smile Train-supported interventions has been particularly notable. Through free, comprehensive, and decentralized cleft care services, the project has restored function, dignity, and opportunity for thousands of children and families. The Bangladeshi experience demonstrates how strategic partnerships, community engagement, and integrated care can effectively address congenital anomalies in resource-limited settings. As such, the Smile Train project offers valuable lessons for policymakers, practitioners, and global health stakeholders committed to advancing equitable surgical care and improving outcomes for children born with cleft lip and palate.

1.5. Global Scenario of Cleft and Palate Intervention: Smile Train USA

Since its founding in 1999, Smile Train, a U.S.–based international cleft care organization, has supported more than 2 million safe and high-quality cleft lip and palate surgeries around the world. This reflects the organization's long-term, locally sustainable model of empowering health professionals and partner hospitals in over 90 countries to provide free cleft care close to patients' homes rather than relying on short-term surgical missions.

Smile Train USA has supported over 2 million+ free cleft lip and palate surgeries worldwide through its sustainable model of training local health professionals in 95+ countries.

Bangladesh Impact: Smile Train supported programs have contributed to about 60,536 cleft surgeries in Bangladesh as of the latest multi-year data.

According to recent impact data, Smile Train consistently supports tens of thousands of surgeries annually through a global network of partner centers, surgeons, and comprehensive care teams, including speech therapy, nutrition, and follow-up services.

1.5.1. Bangladesh: Cleft and Palate Surgeries Completed

According to Smile Train's 25-year economic impact data, Bangladesh has had approximately *60,536* cleft lip and palate surgeries supported by Smile Train partners between 2001 and 2023.

Additional on-the-ground reports, such as media coverage and hospital records, also indicate that Smile Train's collaborative cleft programs in Bangladesh including projects with partner hospitals have conducted tens of thousands of free cleft surgeries since the early 2010s, with ongoing annual cases reported.

1.6. Study Context

The present study examines multiple cases across selected TMSS programs to assess the impact of these services on the lives of beneficiaries. Through an in-depth analysis of service delivery outcomes and lived experiences, the subsequent chapters present a comprehensive account of programmatic achievements and their contributions to individual, household, and community-level transformation.

1.6. Study Objectives and Research Questions

1.6.1. General and Specific Objectives

- This study generates rigorous evidence on the outcomes of the TMSS-led STRCP, with particular attention to its impacts on cleft and palate patients' lives and the surrounding socio-cultural context. Besides, it critically examines the program's relevance, effectiveness, efficiency, impact, coherence, and sustainability.

1.6.2. Specific objectives

• To assess the effectiveness of STRCP in improving timely access to surgical care, rehabilitation, and follow-up services for cleft lip and palate patients, thereby enhancing survival, functional outcomes, and quality of life.

• To examine the impact of STRCP on reducing social stigma, discrimination, and psychosocial vulnerability among cleft patients and their families within community settings.

• To evaluate the sustainability and scalability of STRCP in restoring dignity, social inclusion, and long-term well-being of cleft patients, with implications for national health policy and inclusive development.

1.6.3. Research Questions

- What are the clinical, psycho-social, and quality-of-life outcomes among minor-aged cleft lip and palate patients receiving surgical and rehabilitative care from STRCP Initiative?
- How it impacts on Children's lives in long term, especially girl child?
- How STRCP structurally improve health system at rural areas?
- How effective is the integrated service delivery approach of TMSS Medical College and Rafatullah Community Hospital (TMC&RCH) in improving healthcare accessibility, continuity of care, and patient satisfaction?

1.6.7. Rationale of the Study

The rationale of this study lies in the critical need to generate empirical, practice-based evidence on the functioning and effectiveness of integrated health and rehabilitation services in resource-limited, rural settings. Observational methods are particularly suited for capturing complex, real-world processes that are often inaccessible through surveys or clinical records alone (Yin, 2018). By focusing on Naogaon and Bogura districts, the study aimed to assess the impact of the services of STRCP intervention to the service-takers. The findings are intended to inform health system strengthening, improve program design, and support evidence-based policy decisions related to community-oriented and hospital-linked health service models.

2.0. Methodology of the Study

2.1. Study Design and Approach

This case study adopted a qualitative research design to generate an in-depth understanding of service delivery processes, beneficiary experiences, and outcomes of the Smile Train–supported Cleft and Palate Program (STRCP), alongside other integrated health interventions of TMSS. Qualitative inquiry was considered appropriate as it enables exploration of meanings, perceptions, and contextual realities that cannot be adequately captured through quantitative indicators alone. Prior to field implementation, relevant project documents, reports, and operational records were reviewed to contextualize the intervention and refine data collection tools. This preparatory phase ensured alignment between research objectives and field methods.

2.2. Rationale for Qualitative Case Study in Health Research

Qualitative research is a systematic and interpretive approach that emphasizes depth, context, and lived experiences of individuals and groups. Grounded in constructivist and interpretivist paradigms, it assumes that reality is socially constructed and knowledge is co-produced through interaction

between researchers and participants. Within health research, qualitative approaches are particularly valuable for understanding patient-centered outcomes, treatment experiences, service accessibility, and socio-cultural dimensions of illness and care.

The case study method allows for holistic examination of a bounded system—such as a health program or service delivery model—within its real-life context. In the present study, the STRCP and associated health services constituted a bounded system defined by location, time, and intervention scope. The design facilitated exploration of how and why observed outcomes emerged, rather than merely identifying whether outcomes occurred. This approach strengthened explanatory depth and contextual validity.

2.3. Theoretical Perspective of Case Study Method

Case study: A case study is defined as an intensive, in-depth analysis of a bounded system such as an individual, organization, program, or community situated within its natural context. The present study followed an interpretivist orientation, emphasizing participants' subjective experiences and meaning-making processes. Multiple sources of evidence including interviews, observations, and documents—were used to construct a comprehensive and triangulated understanding of program performance and impact.

Case studies may be intrinsic, instrumental, or collective in nature. This study was primarily instrumental, using the STRCP and related health services to illuminate broader issues of access, quality, and community-level impact of integrated health interventions in resource-constrained settings. The flexibility of the case study design enabled integration of diverse qualitative techniques suited to complex health systems research.

2.3.1. Data Collection Techniques

Multiple qualitative data collection techniques were employed to ensure depth, rigor and triangulation of findings.

2.3.2. In-Depth Interview (IDI)

In-depth interviews were the primary data collection method. This technique involved intensive, one-to-one interactions with participants to explore their experiences, perceptions, and outcomes in detail. Semi-structured interview guidelines were used to maintain consistency across interviews while allowing flexibility to probe emerging themes. For STRCP, parents of children with cleft lip and palate were interviewed to capture treatment experiences and perceived impacts

The interview process followed a systematic sequence: purposive selection of information-rich participants, development of an interview checklist aligned with study objectives, obtaining informed consent, conducting interviews in comfortable settings, audio recording with permission and verbatim transcription. Field notes were maintained to document non-verbal cues and contextual information. Thematic analysis was later applied to identify patterns and meanings within the data.

2.3.3. Pre-Arranged Interview Checklist

A pre-arranged checklist guided the in-depth interviews. This semi-structured tool ensured that key thematic domains such as service access, treatment experience, perceived outcomes, and recommendations were consistently explored across participants. The checklist enhanced methodological coherence, comparability of responses, and completeness of data while preserving flexibility for unanticipated insights.

2.4. Observation Technique

Observation was used to complement interview data and capture real-time behaviors, interactions, and environmental contexts during service delivery. Structured observations were conducted at service sites and community settings to document patient–provider interactions, workflow processes, and living conditions of beneficiaries. An observation protocol was developed based on study objectives and literature, and field notes were recorded systematically to minimize recall bias. Observational data enriched interpretation by linking reported experiences with actual practices.

2.5. Direct Participation Technique

The study also employed direct participation, involving the researcher's active engagement within natural service delivery settings. This approach enabled firsthand understanding of operational dynamics, staff–patient interactions, and contextual factors influencing service outcomes. Detailed field notes were recorded and later triangulated with interview and observational data to strengthen analytical depth and credibility.

2.6. Sampling Procedure

Purposive sampling was applied to select participants with direct experience of STRCP and related TMSS health services. This non-probability sampling technique allowed inclusion of information-rich cases most relevant to the research objectives. In total, five STRCP-related case studies were documented across *Bogura and Naogaon* districts, representing both male and female beneficiaries or caregivers.

2.6.1. Purposive Sampling

Purposive sampling is a non-probability sampling technique in which participants are deliberately selected based on their knowledge, experience, or relevance to the research objectives (Palinkas et al., 2015). This method enables researchers to focus on information-rich cases that provide in-depth insights into the phenomenon under study.

In the present case studies, participants were chosen for their direct involvement with TMSS and RCH health programs, ensuring that the information and evidence reflected relevant experiences and outcomes. Purposive sampling allowed for targeted data collection, enhancing the quality and depth of qualitative analysis.

Table: Number of Case Studies:

Sl.	Projects/Centers	Bogura	Naogaon	Male	Female	Total
01	STRCP	3	2	1	4	05

2.7. Data Analysis

Collected qualitative data were analyzed using thematic analysis. Interview transcripts were coded systematically to identify recurring themes and patterns. Observational and participation notes were reviewed to capture contextual and behavioral dimensions. Triangulation across interviews, observations, and document reviews enhanced the credibility and trustworthiness of findings by cross-verifying evidence from multiple sources.

2.7.1. Audio-recording: Recording was used with prior consent of the interviewees. It helps to collect accurate information that translated later on in script with narration. It also helps to checking the observational information and confirm accuracy of the data and information. For present study, it has a great contribution.

2.8. Ethical Considerations

Ethical principles were strictly maintained throughout the study. Informed consent was obtained from all participants prior to data collection. Participants were informed about the study objectives, voluntary nature of participation, and the confidentiality of information. Audio recording was conducted only with explicit permission, and data were used solely for research purposes.

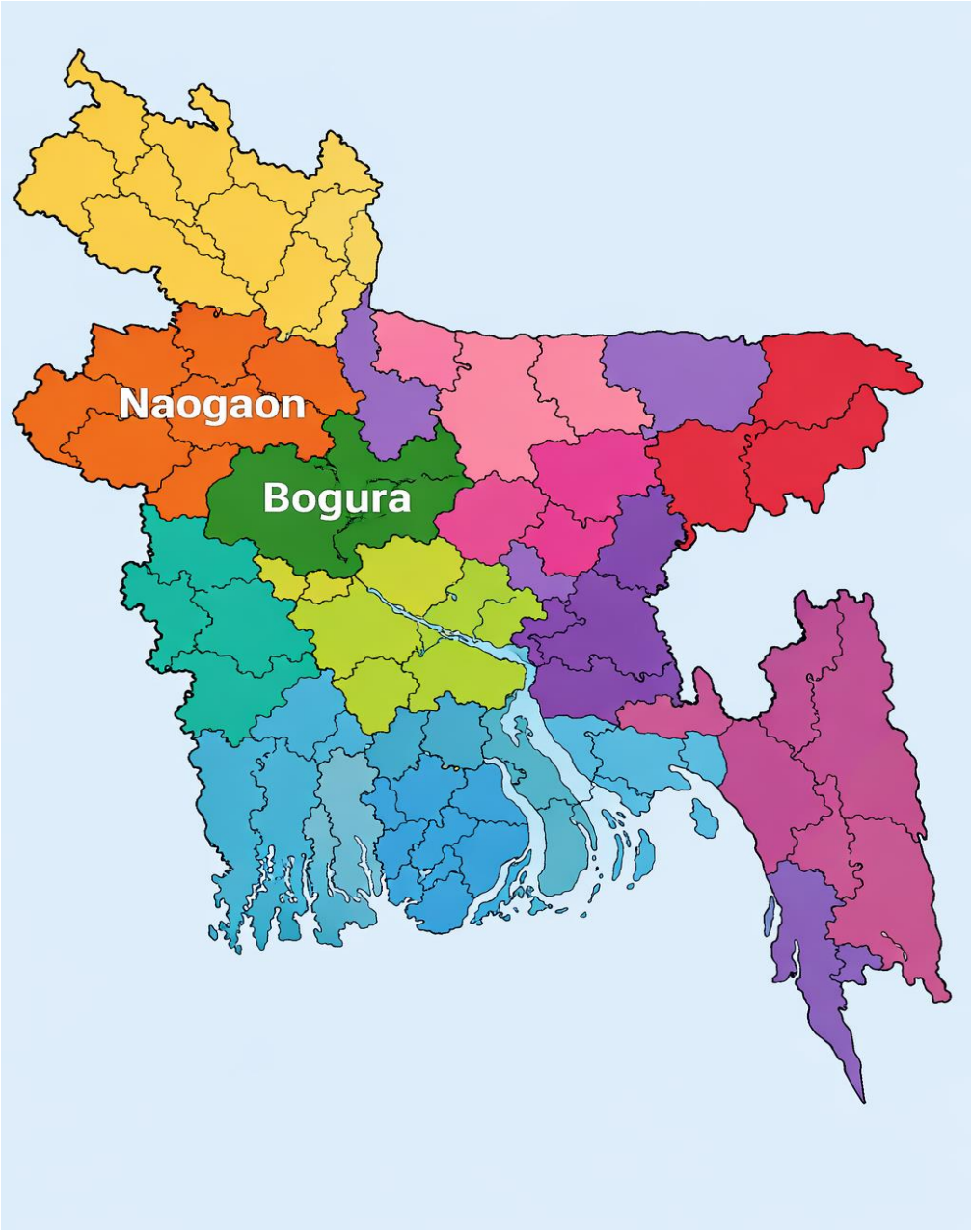
2.9. Evaluation Framework

The OECD-DAC evaluation criteria were used as an analytical lens to assess STRCP and related health services. These criteria included relevance, coherence, effectiveness, efficiency, impact, and sustainability. Application of this framework enabled systematic assessment of program alignment with beneficiary needs, achievement of objectives, resource utilization, broader social and health impacts, and prospects for continuity.

2.10. Study Area: Naogaon and Bogura Districts

The study was conducted in the districts of Naogaon and Bogura, located in the northwestern region of Bangladesh. These districts are characterized by a predominantly rural population, limited health infrastructure in remote areas, and a high demand for affordable specialized health services. Naogaon is known for its dispersed rural settlements and transportation constraints, which influence healthcare access and service utilization. Bogura, by contrast, serves as a regional hub for tertiary-level medical and rehabilitative services, including medical college hospitals and specialized community health programs. The selection of these areas was purposive, based on the presence of integrated service delivery models and the relevance of these locations to the study objectives.

MAP-01: Study Districts identified *Noagaon* and *Bogura* Districts



2.11. Limitations of the Study

Despite its methodological strengths, the study was subject to several limitations. The reliance on observational data may have introduced observer bias, as the presence of the researchers could influence participant behavior. The ***limited geographical focus*** on only two districts restricted the generalizability of the findings to other regions. ***Time constraints*** may have reduced the opportunity to observe long-term outcomes and seasonal variations in service utilization. For toddler and children who were the ***service-takers of cleft and palate deformity under STRCP***; did not capable to express their own experience due to age-limit; but researchers were bound to rely of their parents. And in some regards, their attendants also can ***be biased in providing information*** of service outcome and impacts of treatment.

In the present study, the case study method was adopted to examine the STRCP intervention as a bounded system, focusing on how cleft and palate services are delivered, experienced, and perceived by beneficiaries and how it impacts of their lives both in person and their families.

5.0. Conceptual Framework for Present Case Studies

5.0. Theoretical Perspective:

A conceptual framework in case study research provides a structured analytic lens through which a phenomenon is systematically examined. It functions as a logical map that links theoretical constructs, contextual variables, and empirical observations into a coherent structure that guides data collection, analysis, and interpretation (Miles, Huberman, & Saldaña, 2014). In case study methodology, the framework serves not merely as a visual or procedural aid but as an epistemological foundation that clarifies the researcher's assumptions about reality, knowledge production, and the relationships among key variables (Maxwell, 2013).

5.1. Definition of Conceptual Framework

A conceptual framework is a structured representation of the key concepts, variables, and their presumed relationships that guide a research study (Miles, Huberman, & Saldaña, 2014). It provides a theoretical lens through which the phenomenon under investigation can be understood, analyzed, and interpreted. In health program research, a conceptual framework helps clarify how interventions are expected to influence outcomes and the pathways through which change occurs. It also informs data collection, analysis, and interpretation by linking empirical evidence with theoretical constructs. By articulating these relationships, the framework enhances the coherence and accuracy of the study.

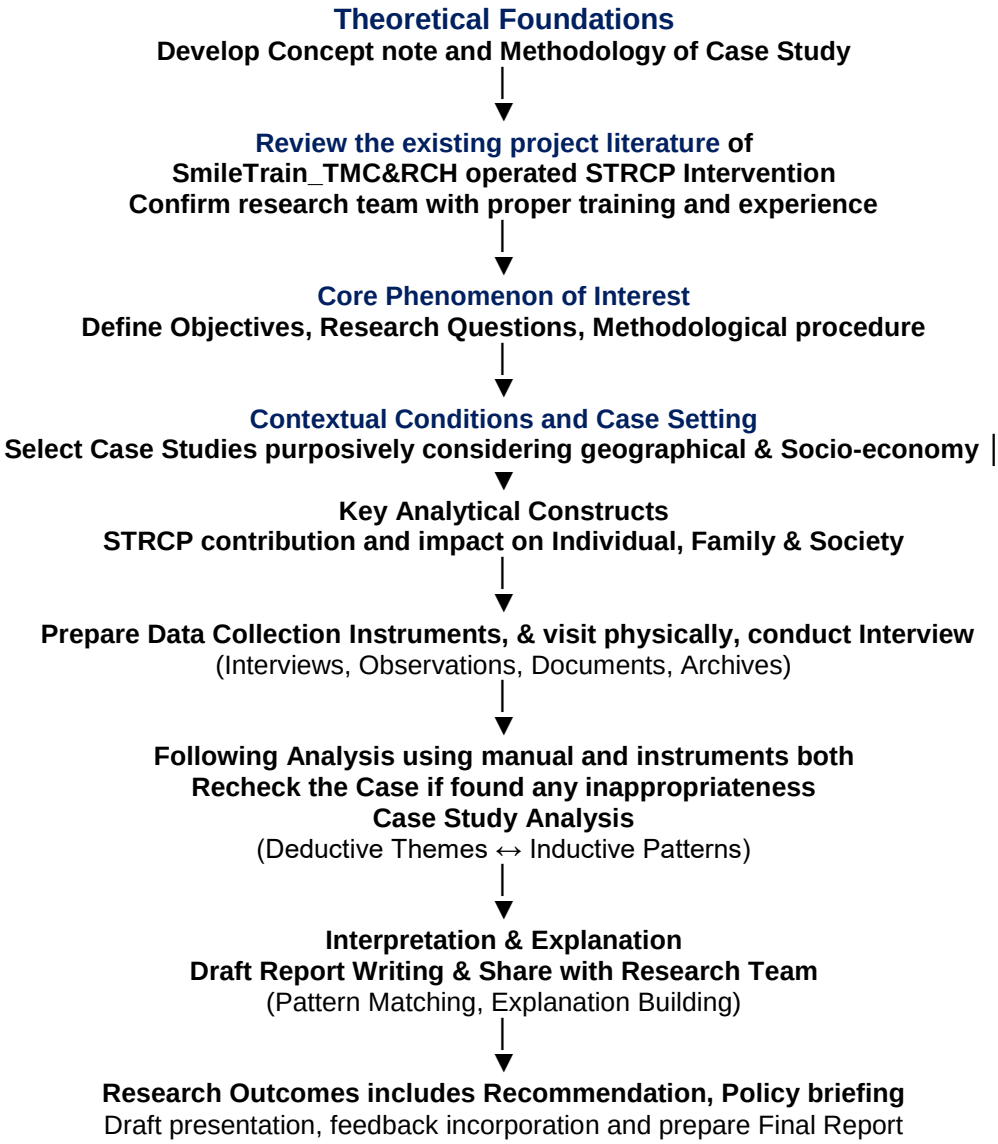
5.1.1. Followed the Pathways of Conceptual Framework

Present case study followed Yin's Framework. In case study research, the according to the Yin, 'conceptual framework' is typically derived from an integration of existing theories, prior empirical findings, and contextual knowledge relevant to the research problem (Yin, 2018). This integration allows the researcher to identify core concepts, define their boundaries, and establish presumed relationships among them. The framework thus ensures internal coherence by aligning research questions, data sources, and analytic strategies within a unified methodological logic (Creswell & Poth, 2018). It also enhances the methodological rigor of the study by offering a transparent pathway through which analytical decisions are made and justified.

The development of a conceptual framework for case studies generally follows a sequential process**. For this study, it followed the sequences; first**, the researchers identified the central phenomenon and contextual conditions that define the case and methodological procedure; **Second,** key constructs were extracted from established theories and literature. **Third,** also these were organized into individual, organizational, socio-economic and cultural conditions. **Finally,** the collected data was analyzed, writing reports with recommendation and policy indication. This layered structure enabled the researchers to account for the complexity and contextualized embeddedness that are hallmarks of this study.

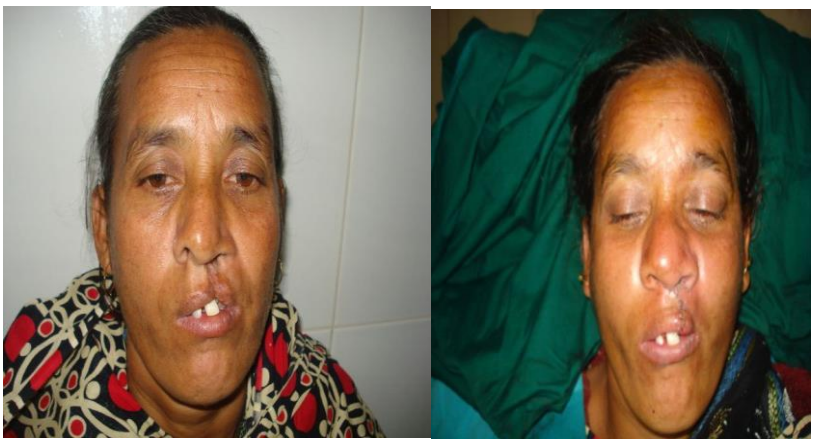
For better understanding, it put projects here the conceptual structure that followed by the study team for present case study.

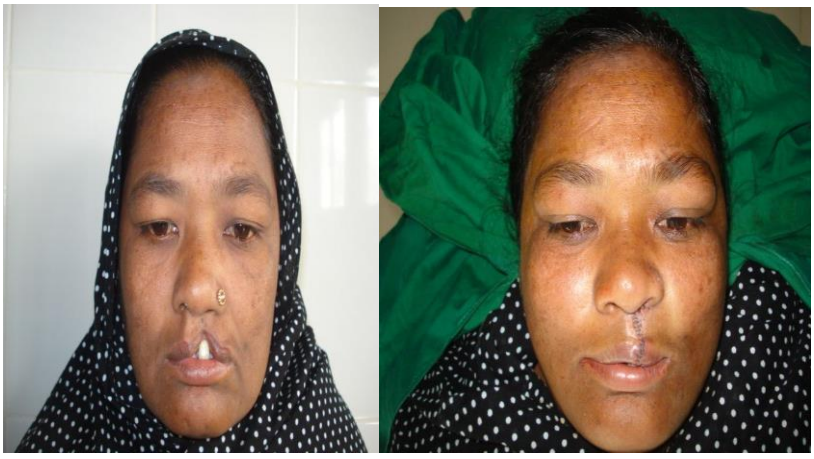
Conceptual Framework of Present Case Study

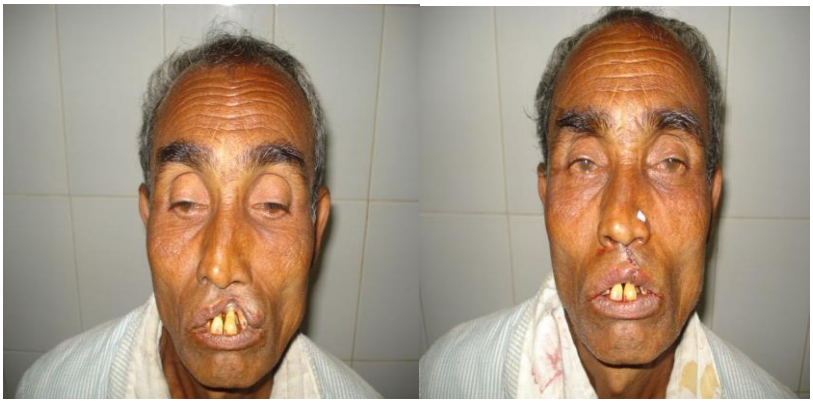


In conclusion, mentioned conceptual framework served as an essential methodological component of the case study. It ensured theoretical alignment, guided systematic data collection and analysis, and enhanced the credibility and transparency of findings. By explicitly mapping the interconnections among theory, context and empirical evidence, the framework strengthened the methodological consistency and analytical depth of the study, making it a cornerstone of high-quality qualitative inquiry.

Cases of Smile Train & RCH Project (STRCP)







Few successful cases of STRCP

Smile Train Rafatullah Community Hospital Cleft Project [STRCP]

1. Introduction

TMSS, with the financial and technical support of Smile Train, USA, has been implementing the "Smile Train RCH Cleft Project" through TMSS Medical College & Rafatullah Community Hospital (TMC & RCH) since 01 July 2010, to restore normalcy in the lives of economically disadvantaged children born with cleft lip and/or palate through free reconstructive surgery and social reintegration. To achieve the project's aims and objectives, TMSS Medical College & Rafatullah Community Hospital has consistently arranged and delivered comprehensive reconstructive surgical services at no cost, while simultaneously sustaining structured educational and capacity-building programs in reconstructive surgery for physicians and allied medical professionals. Following the successful implementation of the first, second, third, and fourth project phases, Smile Train Inc., USA, renewed the institutional agreement for the fifth phase, covering the period from 01 January 2017 to 31 December 2019, thereby ensuring continuity, sustainability, and institutional strengthening of cleft care services.

Vision

A world free from the burden of cleft lip and palate conditions, where every child can live a healthy, dignified, and socially integrated life.

Mission

To address the unmet surgical and psycho-social needs of children born with cleft lip and palate through specialized, accessible, and high-quality medical interventions.

Goal

To provide comprehensive and equitable medical services to children and patients born with cleft lip and palate, with special emphasis on underserved and impoverished communities.

Objective

The project aims to provide timely and effective surgical treatment for children born with cleft lip and palate. It seeks to prevent long-term physical complications and psycho-social consequences through reconstructive surgery and structured rehabilitation. The project further strives to enhance social and functional productivity and to protect affected children from lifelong stigma, isolation, and marginalization.

Services

The project delivers fully subsidized cleft surgery services, structured speech therapy interventions, and free cleft-related technical training for doctors and medical professionals to strengthen national capacity in reconstructive healthcare.

Target Beneficiaries:

The direct beneficiaries include children born with cleft lip and palate as well as individuals living with cleft-related physical disabilities, particularly from socio-economically disadvantaged backgrounds.

Operational Area

The project operates across all geographic regions of Bangladesh, ensuring nationwide coverage and equitable access to specialized cleft care services.

Impact: This project has played a critical role in reducing social discrimination and promoting social inclusion by enabling affected children to return to formal education and participate fully in community life. The increasing school enrollment of previously marginalized children and the reduction of discriminatory practices within the education sector reflect the project's broader contribution to social justice, human dignity, and equitable health care access.

Table: STRCP Achievement: At A Glance

Name of Phase	Numbers of Cleft & Palate surgery
1 Phase: January-2010-December-2010	424
2 Phase: January-2011-December2012	1542
3 Phase: January-2013-December-2014	1720
4 Phase :January-2015-December-2016	1805
5 Phase :January-2017-December-2019	1592
6 Phase: January-2020-December-2024	1033
Total	**8116**

Source: Souvenir-2024: Celebrating 10 thousand Successful Cleft Surgery, TMSS Health Sector, May 2024, p-21

Conclusion: By 2025, the STRC Project has successfully completed over 10,000 cleft lip and palate surgeries, representing one of the highest achievements among all STRCP partner organizations. This remarkable accomplishment has generated a profound and lasting impact on the lives of individuals born with cleft and palate deformities, significantly improving their health, functionality, and social inclusion. In northern Bangladesh, TMSS has implemented the project with exceptional effectiveness, demonstrating a high level of institutional capacity, service quality, and programmatic excellence.

Photograph-Studies Cases*:* Tabassum, Rubaya, Moyna and Zubayer

Note: Sadia Afrin disagreed to projected her photograph and Researchers honored her consent and followed Research Ethic strictly.

Chapter: 2

Case Study:01

Transformative Impact of Cleft Lip and Palate Surgery: A Case of *Sadia Sultana Mayna* in Rural Bangladesh

Abstract

This case study explores the lived experience of a young woman named *Sadia Sultana Mayna* born with cleft lip and palate in rural Bangladesh and examines the transformative role of surgical intervention and psycho-social support in reshaping her life. The study highlights the challenges of stigma, superstition, delayed access to healthcare and the psychological burden experienced by the individual and her family. It also examines how structured, community-based health interventions contributed to restoring physical function, speech, self-esteem, and social participation. The findings illustrate that timely, compassionate, and inclusive healthcare can significantly improve quality of life, promote human dignity, and support long-term social integration. This case contributes to a broader understanding of patient-centered care, rights-based health services, and the importance of awareness in reducing health-related discrimination.

Keywords: Cleft lip, Cleft palate, Social stigma, Rural healthcare, Adolescents, Psycho-social impact, Surgical intervention, Bangladesh

Photograph: Sadia Sultana Mayna with her son, father, mother and broher

Introduction

Cleft lip and palate are among the most common congenital anomalies worldwide and often lead to significant physical, psychological, and social consequences when left untreated. In low- and middle-income countries, limited access to surgical services, lack of awareness, and strong cultural beliefs frequently delay treatment and exacerbate stigma. This case study presents the life story of Sadia Sultana Mayna, a young woman from rural Bangladesh, focusing on the impact of cleft surgery and structured healthcare intervention on her personal development, education, family life, and social inclusion.

Background

Sadia Sultana Mayna was born in a rural village of *Kalai Dakkhin Mir Para under* Dupchachiya Upazila, Bogura District, Bangladesh, into a low-income household. From birth, she faced severe challenges due to cleft lip and palate, including feeding difficulties, unclear speech, and visible facial differences. Community misconceptions linked her condition to superstition and moral blame, resulting in social isolation and emotional distress for both Mayna and her family. Despite these barriers, her parents demonstrated resilience and maintained emotional support, which played a critical role in her survival and adaptation.

Childhood of Loneliness, Social Stigma, and Silent Struggle

Mayna's childhood was deeply shaped by social stigma and culturally rooted superstitions surrounding cleft lip and palate in rural Bangladesh. Community members attributed her condition to maternal wrongdoing and supernatural events, leading to blame, labeling, and social exclusion. Although she experienced acceptance within school environments, her unclear speech and visible facial difference exposed her to persistent ridicule and isolation in the wider community. These experiences generated profound emotional distress and social withdrawal, further compounded by her father's initial grief and difficulty in acceptance. In contrast, her immediate family provided consistent emotional protection and dignity, serving as a critical source of resilience and psycho-social stability.

Intervention and Treatment

The turning point in Mayna's life occurred when her family was connected to structured cleft care services through a community referral network. She received comprehensive cleft lip and palate surgeries under a structured healthcare project that emphasized not only surgical correction but also psycho-social care, dignity and family counseling. The medical team provided empathetic,

patient-centered care; which improved both her physical condition and trust in formal healthcare services.

First Medical Consultation and Institutional Referral

At the age of two, *Mayna* was taken to Faridpur Hospital following the advice of a close acquaintance, marking her family's first engagement with formal medical care. During this visit, her father encountered numerous children presenting with similar or more complex with craniofacial anomalies, which significantly altered his perception of the condition and restored his sense of hope by recognizing that cleft lip and palate are medically recognized and treatable conditions. Several years later, in 2021, Mayna underwent comprehensive cleft lip and palate corrective surgeries under the STRCP Project implemented by TMSS, representing a critical milestone in her treatment journey.

Turning Point: Linkage with TMSS STRCP Services

A pivotal moment occurred when a neighboring community member acted as a key facilitator who informed the family about the services of the TMSS STRCP program. Acting on this information, her father, Saidur Rahman, visited the TMSS Hospital and held a consultation with the STRCP Coordinator, Mr. Noman Khan. In his professional capacity, the coordinator organized the necessary clinical assessments, confirmed the eligibility, and facilitated the complete treatment process. Subsequently, Mayna's parents brought her to the hospital and successfully completed all prescribed surgical and clinical protocols.

Mayna later recalled that the medical team demonstrated a high standard of professional competence combined with exceptional empathy and respect. Her mother and extended family expressed profound astonishment upon witnessing the significant improvement in Mayna's facial structure. Following the successful palate surgery, her speech clarity and overall facial functionality showed marked and sustained improvement, indicating a positive long-term therapeutic outcome.

Dreams Never Ended

Mayna's family expressed deep gratitude to the TMSS STRCP authorities for their sustained support, which enabled her to overcome the physical pain and social stigma that had shaped her early life. The persistent efforts of her parents stand as a model of resilience and parental advocacy for families facing similar challenges. Overcoming structural, social, and psychological barriers reinforced the principle that transformative change is attainable through determination and access to care. Currently, Mayna envisions a future grounded in self-reliance, aspiring to enhance her tailoring skills to strengthen her economic contribution and personal autonomy. As a committed mother, she seeks to ensure that her child grows up in an environment free from discrimination and prejudice. She also aspires to pursue continued speech therapy and follow-up care, while

encouraging other affected families to seek timely treatment through appropriate institutional support.

Impact of STRCP on Mayna's Life

The STRCP-supported cleft lip and palate intervention produced a transformative effect on Mayna's physical, psychological and social well-being. Surgical correction significantly improved her facial function and speech clarity, leading to enhanced self-esteem and a marked reduction in anxiety, depression and social withdrawal.

Improved communication fostered greater classroom participation, academic engagement and strengthened peer relationships. The decline in stigma facilitated healthier social interactions and expanded her social networks. Increased social acceptance positively influenced her prospects for marriage and long-term family life. Improved functional outcomes broadened opportunities for vocational training, skill development and sustainable employment.

From a human rights perspective, the intervention affirmed her rights to health, dignity**,** education and active social participation. The process fostered empowerment through strengthened self-agency, decision-making capacity, and personal resilience. Furthermore, the intervention supported her mainstream integration into society by weakening structural and cultural barriers. Overall, the project shifted her life trajectory from marginalization to sustained inclusion, restoring dignity and social recognition for both Mayna and her family.

Psycho-social and Educational Impact

Following surgery, Mayna experienced significant improvement in her psychological well-being. Her self-esteem was increased, social anxiety reduced, and communication abilities improved. These changes positively influenced her school attendance, classroom participation, and peer relationships. The reduction in stigma enabled her to re-engage with her community and develop aspirations for further skill development, particularly in tailoring and income-generating activities.

Human Rights and Social Inclusion Dimensions

From a human rights perspective, access to free or affordable cleft care affirmed Mayna's right to health, dignity and equal participation in society. The surgical intervention functioned as a mechanism of empowerment, enabling her to exercise autonomy, form social relationships and plan for her future. Mainstreaming into community life was strengthened as social barriers weakened and discriminatory attitudes declined.

Mayna shared this with her own statement,

'TMSS treated my family with respect and kindness' and gave me honor, not only treatment."

Gender Aspects

As a daughter, it is difficult to lead a normal life with facial deformity. STRCP contributes to a girl in such a way that she feels as a 'human being' than before. In Bangladesh; specially in rural settings, people with cleft and palate deformity are a curse. But this project shapes *Moyna* as a woman with dignity and honor.

New Beginning: Marriage and New Life

Mayna continued her education until Class 10 before getting married. Today she lives in Mostofapur, close to her parent's village. Her in-laws accept her warmly, never commenting negatively about her facial and speech impairment. Now she is a mother of a two-year-old son, whom she cares with immense love. Now *Mayna* is living with a happy life with her husband and other in-laws members.

Future Outlook and Sustainability

Mayna's post-surgical life reflects broader future dimensions, including improved prospects for marriage, motherhood and stable occupation. She aspires to expand her tailoring skills and seeks further speech therapy, demonstrating long-term engagement with self-development. Her case highlights the importance of follow-up services, community awareness, and sustainable healthcare systems in ensuring long-term outcomes.

Key Lessons Revealed

This case demonstrates that social stigma can cause deeper harm than physical deformity when left unaddressed. Parental support, community sensitization, and compassionate healthcare delivery are essential in overcoming social exclusion. Early referral, structured treatment pathways and rights-based healthcare approaches are critical for reducing long-term disability and marginalization.

Conclusion

The journey of Sadia Sultana Mayna illustrates the transformative power of timely surgical intervention combined with respectful and holistic healthcare. Her life trajectory shifted from marginalization to inclusion, demonstrating the potential of integrated health systems to restore dignity, social integration, and human potential. This case underscores the necessity of expanding access to cleft care and strengthening community awareness to ensure that

'no child is left behind due to preventable conditions'.

Case Study-02

TMSS Transforms Zubayer's Life: A Story of Stolen Childhood

Abstract

Children born with cleft lip and palate in low-resource settings often experience compounded health, social, and psychological challenges due to poverty, limited awareness and lack of access to specialized health care. This case study explores the life of Zubayer, a rural Bangladeshi child born with a cleft palate deformity, whose early childhood was marked by malnutrition, social exclusion and communication barriers. The study documents his lived experiences before and after surgical and therapeutic intervention provided by the TMSS STRCP initiative. Findings reveal that timely surgery combined with sustained speech therapy and family-centered support significantly improved his physical health, speech clarity, self-esteem, and school engagement. The case illustrates how integrated, community-oriented healthcare programs can disrupt cycles of stigma and disability and promote long-term social inclusion.

Key Words

Cleft palate, Childhood disability, Rural healthcare, Social stigma, Speech therapy, Stolen childhood, Bangladesh

Photograph: Zubayer, a poverty-stricken school boy; after surgery

Introduction

Zubayer is a seven-year-old child from *Goyerpara village in Naogaon district*, Bangladesh, born into a family living below the poverty line. His father, a landless farmer and part-time brickfield laborer, earns an irregular daily income that limits the family's access to basic healthcare and sanitation. The geographical isolation of his village and lack of health literacy further compounded the barriers to seeking timely treatment. Evidence suggests that children with untreated cleft conditions in rural, low-income settings face heightened risks of malnutrition, delayed speech development, and social marginalization (Mossey & Little, 2018). Zubayer's case reflects these broader structural vulnerabilities common in marginalized population.

Zubayer was born with a cleft palate, but the condition remained undiagnosed immediately after birth due to inadequate medical counselling. His mother later recalled,

"We always wanted the best for our son, but we did not know where to go or whom to ask. We just prayed that one day someone would show us the way."

This statement reflects the deep sense of helplessness often reported by parents navigating health systems with limited information and resources (UNICEF, 2019).

Birth Surrounded with Medical and Social Uncertainty

Zubayer's birth occurred under medically fragile conditions. His mother was married at a very young age and experienced severe complications during delivery, ultimately requiring a surgical intervention. Due to insufficient postnatal counselling, the family remained unaware of the cleft condition, interpreting his continuous crying and feeding difficulties as temporary problems. His father stated that he believed "time will fix everything," a perception commonly observed in communities where congenital conditions are misunderstood and normalized through cultural beliefs (World Health Organization, 2020). The absence of early diagnosis led to years of untreated symptoms, increasing both physical and psychological burdens.

Childhood Shaped by Stigma and Silent Suffering

As Zubayer grew older, his speech impairment became more prominent and feeding remained difficult. These functional challenges translated into social consequences as peers avoided interaction and gradually excluded him from play and group activities. Research shows that children with visible or auditory differences often face bullying and social rejection, leading to low self-esteem and emotional distress (Goffman, 1963; Peterson-Falzone, Hardin-Jones, & Karnell, 2010). Within the family, emotional pain was evident, but limited knowledge restricted their capacity to seek help. His childhood became marked by isolation, silence, and restrained participation in everyday social life.

TMSS STRCP Intervention and Medical Transformation

A critical turning point emerged when a family member informed Zubayer's parents about the cleft care services offered by TMSS Medical College and Rafatullah Community Hospital through the STRCP initiative. At a young age, Zubayer received free corrective cleft surgery, marking the beginning of his physical and psycho-social recovery. Global research confirms that surgical repair of cleft palate significantly improves feeding efficiency, speech potential, and overall quality of life when combined with follow-up care (Mossey & Little, 2018).

Postoperative assessments identified persistent articulation difficulties, particularly with certain consonant sounds in Bengali. In response, the program provided structured speech therapy guidance and home-based practice materials. His father shared, "We followed every instruction the doctors were given; seeing him speak clearly for the first time brought tears to our eyes." This parental testimony demonstrates the importance of caregiver engagement in rehabilitation and child development (Peterson-Falzone et al., 2010) also.

Educational Reintegration and Psycho-social Recovery

Following medical and therapeutic intervention, Zubayer's reintegration into social and educational life became evident. He began participating actively in classroom activities, confidently reciting rhymes, and responding to teachers' questions. He also attended religious education alongside formal schooling, achieving strong academic performance. As UNICEF, studies consistently demonstrate that improvements in speech clarity and facial function directly enhance peer acceptance and academic participation (UNICEF, 2019).

A teacher commented, "Zubayer is one of our most attentive students. His confidence inspires the whole class." This external validation highlights the transformation of identity from a marginalized child to a role model within the classroom environment, reflecting broader shifts in community attitudes toward disability.

Community-Level Change and Future Aspirations

Zubayer's recovery extended beyond individual transformation to influence community perceptions. Families who had previously viewed cleft conditions through the lens of stigma began to recognize the medical nature of the condition and the effectiveness of timely intervention. He now speaks openly about his aspirations to continue his education and become "someone who helps others," mirroring trends observed in resilience research where supported children develop strong prosocial motivations (Masten, 2014).

Lessons Learned

This case underscores the critical role of early diagnosis, family engagement, and free access to specialized care in altering life trajectories for children born with craniofacial differences. It illustrates how social stigma, when unaddressed, can be as disabling as the physical condition itself. The case further demonstrates that speech therapy practiced consistently at home significantly accelerates functional recovery, aligning with established rehabilitation frameworks (Peterson-Falzone et al., 2010; World Health Organization, 2020).

Impact of the TMSS STRCP Project

The STRCP initiative functioned as a catalyst for multi-dimensional change in Zubayer's life. It eliminated financial barriers to care, delivered technically competent surgical intervention, and created a continuum of support through counselling and speech therapy. As a result, Zubayer transitioned from social invisibility to active participation in school and community life. The broader impact extended to community awareness, promoting early health-seeking behavior and reducing culturally rooted misconceptions regarding cleft conditions. Similar models of integrated rural healthcare have been recognized as foundational in addressing childhood disability and reducing long-term inequities (UNICEF, 2019; World Health Organization, 2020).

Conclusion

Zubayer's story demonstrates how compassionate, accessible healthcare can restore not only physical function but also childhood itself. His journey from isolation to confidence evidences the power of timely surgical and rehabilitative care in marginalized contexts. The TMSS STRCP initiative exemplifies how targeted health interventions can address both biomedical and social dimensions of disability. As articulated by a member of the study team,

"Children like Zubayer remind us why our work matters. A simple intervention can change an entire future."

This case reinforces the imperative to expand equitable access to specialized pediatric healthcare services across rural communities.

Case Study-03

From Exclusion to Empowerment: Story of Sadia and TMSS STRC Project

Abstract

Cleft lip and palate are among the most common congenital anomalies globally and pose significant medical, psycho-social and social challenges for affected children, particularly in low-resource settings. This case study explores the life trajectory of Sadia, an adolescent girl from rural Bangladesh, who was born with severe cleft deformities and faced stigmatization, social exclusion and repeated medical complications throughout childhood. Drawing on field interviews and narrative evidence, the study highlights the resilience of her mother, the structural barriers to treatment and the life-changing impact of the TMSS Smile Train–supported Cleft Project (STRCP). The case illustrates how timely surgery, psycho-social care, community awareness and accessible health services can restore dignity, functional ability and social belonging. The narrative further demonstrates how gender norms, poverty and rural healthcare inequities interact with congenital anomalies. Ultimately, Sadia's experience exemplifies how integrated cleft-care initiatives can promote empowerment, reduce stigma and transform life trajectories.

Key Words: Cleft lip, Cleft palate, Stigma, Psycho-social impact, TMSS STRCP, Rural healthcare, Bangladesh.

Sadia disagreed to project any photograph for this study.
And Researchers honored her opinion considering research ethics.

Introduction

Sadia Afrin, a 19-year-old girl from the village of *Andul Bari (Koer Para),* ward number-06 of Sariakandi Upazila under Bogura District. She, was born with a severe congenital cleft involving a fully open lip, palate and mandible. Such multi-segment cleft deformities are medically complex and increase vulnerability to feeding problems, infections, malnutrition and delayed speech. Her parents, particularly her mother, described the early postnatal period as emotionally devastating due to intense community stigma rooted in superstition and misconceptions. Neighbors and relatives framed the child's deformity as a "curse" or a consequence of parental wrongdoing a common social narrative documented in rural South Asian contexts.

Despite social pressure to abandon the newborn, Sadia's mother chose to care for her alone, demonstrating remarkable resilience. The family environment moderately stable with access to sanitation, electricity and a supportive maternal household played a crucial role in sustaining Sadia's initial care.

Birth Surrounded with Pain and Misunderstanding

Sadia's mother recalled the shock of seeing her daughter's open cleft deformities and the hostile reactions from relatives. The stigma surrounding visible congenital deformities reinforces existing structural inequalities and produces deep emotional trauma for parents (Strauss et al., 2007). The mother endured social isolation and judgment but consistently rejected suggestions to abandon her child. Her unwavering commitment underscores the importance of maternal agency in navigating disability-related adversity.

Childhood of Loneliness, Social Stigma and Silent Struggle

Sadia's early childhood involved chronic exclusion. Children avoided her due to her appearance and she experienced persistent isolation during play and schooling. It is supported also with Lorot-Menzies commented that 'the absence of peer acceptance shaped her shyness and limited her communication abilities, reflecting how social stigma can exacerbate developmental challenges in cleft-affected children' (Lorot-Menzies et al., 2012). The psychological consequences withdrawal, low self-esteem and fear of social interaction are well-documented outcomes for untreated or late-treated cleft conditions.

Medication and Surgical Journey

Sadia underwent her first surgery at age two, but post-operative infection caused the repair to collapse an outcome not uncommon in severe, unintegrated cleft cases (Sell et al., 2015). Subsequent attempts in Dhaka partially corrected her lip but failed to address the palate and mandible. Her mother's persistent search for treatment visiting hospitals, participating in medical camps and connecting with NGOs highlights systemic gaps in rural referral pathways.

A turning point occurred in 2017 when she learned about the STRCP. Comprehensive assessment at TMSS Medical College & *Rafatullah* Community Hospital marked a new phase of coordinated care. Sadia underwent her third surgery in 2017 and a fourth surgery in 2022, leading to significant improvement in facial structure, speech clarity and psycho-social confidence. Surgical correction during adolescence is known to dramatically improve functional and emotional outcomes.

New Beginnings: Education, Social Acceptance and Future Outlook

Despite early social barriers, Sadia completed her Alim (Grade Twelve) education. Her in-laws and husband support her continued learning an encouraging deviation from normative gender expectations in rural settings. Their acceptance validates the transformative power of surgical correction combined with supportive social environments. Sadia now aspires to pursue vocational training, indicating improved self-efficacy and agency.

Impact of the TMSS STRC Project

TMSS STRCP initiative has generated profound and sustainable transformation in the lives of children with cleft conditions and their families who previously perceived their situations as hopeless. Through the provision of free surgical interventions, continuous therapeutic support, and compassionate guidance, the program has restored not only functional abilities such as speech and facial integrity but also dignity, social acceptance and inclusion. Parents who once experienced fear, stigma and helplessness now report improved confidence, academic engagement and emotional well-being among their children. By expanding access to essential healthcare services and strengthening community awareness, the initiative has shifted social attitudes, empowered families through knowledge and created enabling pathways for children's emotional, social, and educational development. Sadia's case illustrates how early clinical intervention combined with social protection reduces stigma, strengthens family resilience, alleviates economic burden, and fosters community-level empowerment, resulting in long-term protection from social exclusion and enhanced opportunities for marginalized rural girls

Sadia's case exemplifies how equity-oriented health interventions can counter structural vulnerabilities and create opportunities for marginalized population.

Networking Changes Sadia's Life

The family's access to treatment was enabled by a newspaper report about the STRCP program. This reflects the crucial role of information networks in bridging gaps between rural households and specialized health services. TMSS's transportation support and free services further reduced structural barriers, consistent with evidence that logistical support increases health-seeking behavior among low-income families.

Evidence of Inspiration & Empowerment

Sadia's transformation now inspires other families dealing with cleft conditions. Her story demonstrates that cleft anomalies are treatable and that stigma is socially constructed not inherent to the condition. Such narratives play a pivotal role in reshaping community perceptions and increasing timely referral to treatment facilities.

Lessons Learned: Breaking the Chain

Sadia's experience offers critical insights into the comprehensive care required for children with cleft conditions. Her journey demonstrates that community awareness is fundamental to dismantling harmful myths and misconceptions that often lead to social isolation, delayed care-seeking behavior, and entrenched stigma. The case further underscores that emotional and psychological support from close family members is as essential as surgical intervention in achieving positive health and social outcomes.

Moreover, the experience highlights that resilience and persistence are indispensable in navigating complex healthcare pathways. Sadia's mother serves as a compelling example of maternal advocacy, as she consistently sought medical attention by visiting multiple healthcare facilities and refusing to relinquish hope despite repeated obstacles. Her determination ultimately contributed to successful access to appropriate treatment, illustrating how sustained effort can overcome systemic and social barriers.

Beyond the clinical outcomes, Sadia's story reveals the transformative power of maternal strength in challenging stigma and asserting a child's right to health and dignity. The case also demonstrates the pivotal role of organizations such as TMSS in supporting marginalized families through comprehensive financial, medical, and psycho-social assistance. Such institutional support functions as a critical safety net, enabling access to life-changing care and fostering hope for an improved future.

Conclusion

Sadia's life demonstrates the profound impact of integrated cleft care, compassionate institutions and determined family support. Her journey from exclusion to empowerment illustrates how comprehensive healthcare, combined with social acceptance, can transform the lives of children born with disabilities. Her story stands as compelling evidence that every child—regardless of deformity deserves dignity, opportunity and hope.

Case Study-4

TMSS STRCP Initiative: Guiding *Tabassum* to a Bright and Smiling Future

Abstract:

Tabassum's case illustrates the transformative impact of the TMSS STRC Project in addressing congenital cleft lip and palate conditions among marginalized children in rural Bangladesh. Born into a low-income family with limited awareness and resources, she suffered early nutritional, developmental and psycho-social challenges. Timely referral, comprehensive counseling and free surgical intervention under the STRCP initiative enabled rapid recovery and improved quality of life. The project's integrated medical, psycho-social and family-centered approach reduced stigma, strengthened parental hope and enhanced future developmental prospects. This case underscores the importance of accessible cleft-care services for vulnerable population. The study highlights how targeted health interventions can reduce social exclusion and support a girl child's long-term well-being.

Keywords: Cleft lip and palate; Child health; Psycho-social impact; Community-based intervention; Rural healthcare; TMSS STRC Project; Congenital deformity.

Photograph: Tabassum with her Grandmother & with Research Team members (right)

Introduction

Congenital cleft lip and palate remain significant public health concerns in low- and middle-income countries, where early diagnosis and timely surgical management are often hindered by financial limitations, low awareness and restricted access to specialized care. This case study examines the experience of Tabassum, a three and four-month year old girl from rural Bangladesh, whose condition posed severe medical, nutritional and psycho-social challenges. Her journey from vulnerability to recovery demonstrates the profound influence of the TMSS Smile Train Supported Cleft Project (STRCP) on child well-being, family resilience and social reintegration.

Background

Tabassum is a 3-year-4-month-old girl who presents as healthy and cheerful. She was born in Dogachi village of Santahar, located in the Bogura District of Bangladesh. Her family is considered middle-class within the rural context, characterized by limited parental education, small land ownership, and residence in a combination of brick-built and tin-shed housing structures. Her mother, an adolescent girl who completed education up to class eight, was married at the age of 14. Her father, currently 30 years old, is an energetic individual with limited formal education, having discontinued his studies before completing secondary education. The village is entirely surrounded by agricultural fields and is situated approximately a 30-minute drive from Santahar town and more than one and half hour from TMC&RCH.

Tabassum is the first child of her parents and has been brought up within a joint family, which includes her grandmother and her paternal aunt. At present, her father resides in Saudi Arabia—located in West Asia—where he is employed as a migrant worker.

Delivered with a cleft lip and missing oral structures essential for feeding and speech, she faced immediate nutritional difficulties, recurrent crying and inadequate weight gain. Her family was emotionally distressed and uninformed; struggled to identify appropriate treatment options. Social stigma, misconceptions and financial insecurity further compounded their anxiety. The father's migration abroad brought some economic relief, yet decision-making remained challenging for the young mother and extended family.

Toddlerhood Surrounded with Psychological Pressure

The family's initial response was marked by fear, confusion and helplessness. Tabassum's feeding complications like milk passing through her nose and constant crying intensified parental distress. As her mother,

'after birth, when Tabassum was fed milk then passing the milk through her nose and cried continuously'.

Limited awareness regarding cleft-care led to uncertainty about the child's survival, development and social acceptance. Her malnutrition (weight fluctuating between 7–7.5 kg) increased the perceived medical risks. The mother's emotional testimony reflects the psychological suffering common among the Caregivers of children with congenital deformities in resource-poor settings.

Girlhood of Loneliness, Social Stigma and Silent Struggle

Tabassum's early years were shaped by facial defect, impaired speech development and subtle social exclusion. Community members viewed her as "different," reinforcing familial isolation and fear of future discrimination. Persistent stigma in rural contexts often limits social interaction, educational opportunities and emotional well-being of affected children. For Tabassum's family, this period was one of silent struggle, marked by uncertainty and limited guidance.

Her mother expressed her filling to the study team with tears,

'Then we did not know exactly what needed to be done for my daughter's well-being, and how possible to overcome the problem'.

Turning Point: Communication with TMSS STRC Project Authority

A transformative shift occurred when a neighbor, *Akhi*, a TMSS student, informed the family about the STRCP services at TMSS Medical College & Rafatullah Community Hospital (TMC&RCH). Tabassum's parent visited the hospital and took decision for operation. Upon consultation, the medical team identified low weight as a clinical concern but, after evaluation, decided to perform surgery with full financial coverage, including hospitalization and transportation. The surgical procedure was successful, followed by effective post-operative care involving nutritional support (Malta juice, feeder intake) and antibiotics. The mother's relief and gratitude reflect the critical importance of accessible, compassionate and no-cost surgical interventions for vulnerable families.

Now her mother concluded with a smile,

'thanks to TMSS and STRCP for their outstanding contribution to my daughter'.

Tabassum's mother and her family members repeatedly expressed their gratefulness to TMSS and Smile Train with utmost feeling.

New Beginning with Dignity and Bright Future

Following surgery, Tabassum experienced remarkable improvement in feeding, speech and emotional expression. She now interacts, plays and smiles confidently, mirroring peers without deformities. The family's transformation from hopelessness to optimism illustrates the psycho-social power of early corrective surgery. Their renewed confidence also contributes to community awareness, encouraging other families to seek timely treatment.

Impact of TMSS STRC Project

The TMSS STRCP initiative operates as a comprehensive cleft care initiative offering free surgical and post-operative support to children with congenital deformities in Bangladesh. To end of 2025, more than 11,000 children have been benefited, enabling them to lead healthy lives free from stigma, malnutrition and developmental delays. Tabassum's case exemplifies several core impact of multifaceted areas.

On **Medical impact,** this project ensures safe, timely surgeries that prevent long-term complications related to feeding, speech, dental development and child growth (Mossey & Modell, 2012). Regarding **Psycho-social impact, e**arly correction enhances self-esteem, reduces family anxiety and minimizes social stigma particularly crucial for girls in patriarchal settings (Hunt et al., 2019). When it is seen g**ender and social protection, i**n contexts where female appearance significantly influences social acceptance and marriage prospects, cleft-care support contributes to long-term dignity, social belonging and future opportunities.

In addition, on economic context, free treatment removes financial barriers for low-income families, preventing catastrophic health expenditures and supporting equitable access to care (Peters et al., 2008). And c**ommunity empowerment; this** project creates awareness, builds referral networks and strengthens community engagement, demonstrating how connectivity can change outcomes for marginalized children. **When it considers the lifetime contribution f**or rural children like Tabassum, Rubayat, and Zubayer, STRCP offers a life-long transformation, protecting them from future exclusion, educational barriers and psycho-social distress.

Connectivity and Networking Can Change Any Life

This case highlights the critical role of interpersonal communication, community linkage and local networking in enabling access to health services. Without the neighbor's information and guidance, Tabassum's family might have remained unaware of treatment possibilities. Effective community networks thus function as catalysts for change, bridging geographic and informational gaps.

Lessons Learned

Tabassum's story emphasizes the importance of early awareness, family involvement and medical flexibility in successful cleft-care management. It demonstrates that timely diagnosis, accessible services and compassionate clinical judgment can overcome socio-economic challenges. The importance of strong family support, post-operative care and community awareness emerges as key lessons for improving cleft outcomes in resource-poor settings.

Conclusion

Tabassum's journey from fear and stigma to recovery and it shows how coordinated healthcare, community referral and donor-supported surgical services can profoundly transform a girl child's life. Through the TMSS STRCP initiative, she now enjoys a healthy childhood, restored dignity and a promising future. Her smile symbolizes the far-reaching impact of accessible cleft-care on families and communities in rural Bangladesh.

Tabassum's smile today is more than just a healed cleft,

"it is a symbol of hope, possibility and a brighter tomorrow."

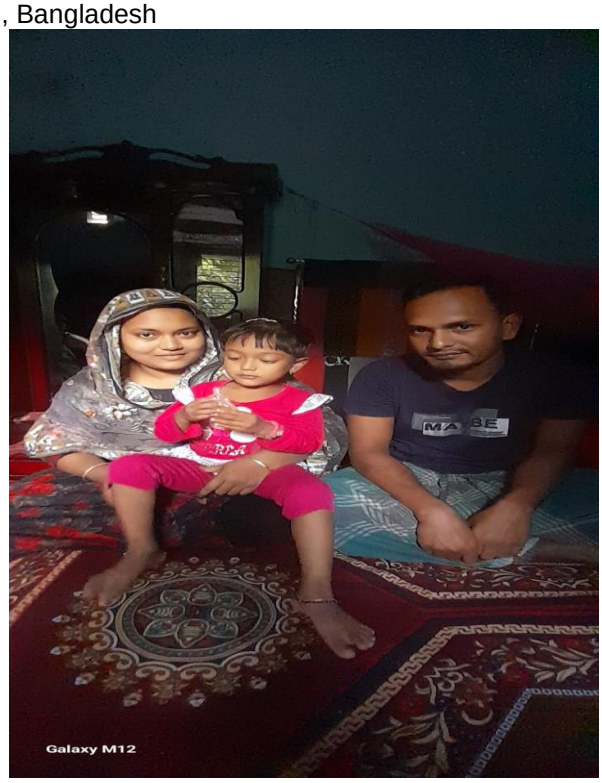
Case Study-5

From Adversity to Recovery: Rubaiya's Pathway to Healing and Hope

Abstract

This case study examines the lived experiences of a rural child *Rubaiya*, born with cleft palate and the multi-dimensional impact of timely surgical intervention supported by a community-based referral system. Drawing on qualitative narrative data, the study highlights how structural barriers including poverty, limited maternal healthcare access, and geographic isolation shaped delayed diagnosis and treatment. The findings illustrate the critical role of informal and formal referral pathways in connecting marginalized families to specialized services. Post-surgical outcomes demonstrate significant improvements in physical functioning, psycho-social well-being and family resilience. The study further documents shifts in community attitudes, reflecting a reduction in stigma and increased acceptance following visible recovery. The STRCP initiative emerges as an effective low-cost model for delivering equitable surgical care in resource-constrained settings. The case contributes evidence to broader discourses on universal health coverage and child rights in low-and middle-income contexts. Overall, the study underscores the importance of integrated community and institutional partnerships in addressing congenital anomalies. This case offers practical lessons for strengthening referral networks and expanding access to essential pediatric surgical services. Finally, it creates aware inside society that challenges social stigma and superstitions related to cleft deformity.

Key Words: Cleft palate, Community-based, Rural health, Pediatric surgery, Social stigma, Health equity, STRCP, Bangladesh



Photograph: Rubaya with her Parent

Introduction

In the rural setting of Adam Durgapur, Naogaon District, the early life of Umme Rubaiya illustrates the complex interaction between structural vulnerability and familial resilience. At four years and six months of age, she is described as an active and affectionate child who was born with a cleft palate, a congenital condition that significantly influenced her early developmental trajectory and imposed substantial emotional and practical challenges on her family.

Her father, Delowar Hossain, aged 30 years, is a college-educated small-scale farmer, while her mother, Moni Khatun, aged 20 years, is a homemaker who completed formal education up to the Junior School Certificate level (Grade 8). Although the family demonstrated a strong commitment to education and child wellbeing, access to essential maternal healthcare services during pregnancy was limited. Moni Khatun was unable to utilize regular antenatal and postnatal care due to structural constraints, including geographic distance from health facilities, limited health awareness and inadequate service availability in rural areas.

Her interaction with formal healthcare services was therefore largely restricted to a single visit to a community clinic during the final stage of pregnancy. This pattern reflects persistent inequalities in maternal and child healthcare access in remote Bangladeshi contexts and underscores the broader systemic challenges faced by rural families in obtaining timely and comprehensive health services.

Birth Surrounded with Discomfort and Uncertainty

At the time of Rubaiya's birth, her parents immediately observed the presence of a cleft palate deformity, a condition for which they possessed limited knowledge and preparation. The absence of prior medical counseling or access to accurate health information resulted in significant emotional distress, uncertainty and confusion. These experiences were further intensified by prevailing community misconceptions, where congenital conditions are frequently misunderstood, thereby exacerbating fear, stigma and psychological vulnerability during the early period of Rubaiya's life.

Faced Challenges, Struggle and United Effort

Rubaiya's early life was characterized by challenges commonly observed in remote rural communities. Due to the absence of adequate antenatal and postnatal healthcare services, her cleft palate remained undetected prior to birth, leaving her family unprepared for the subsequent medical complications. Limited access to specialized healthcare services further increased uncertainty and hindered timely identification of appropriate treatment options. Her parents experienced

considerable emotional distress and confusion while attempting to manage her condition, a burden intensified by financial constraints that rendered surgical and medical interventions seemingly unattainable. In addition, persistent concern about potential social stigma, did not have community support, contributed to psychological strain. These cumulative obstacles shaped a silent struggle that influenced Rubaiya's early development and required substantial resilience from her family. Although surrounded by well-intentioned neighbors, subtle misunderstandings and social curiosity occasionally fostered feelings of isolation. Feeding and routine daily activities were physically challenging for *Rubaiya* and her parents endured constant anxiety and a profound sense of solitude in their efforts. Nevertheless, their parental commitment remained steadfast, grounded in the belief that their daughter deserved the opportunity for recovery, even in the absence of clear pathways to obtain appropriate care.

Turning Point through STRCP: A Life-Changing Referral Pathway

A critical turning point emerged through an unforeseen yet profoundly impactful professional linkage. In a state of acute uncertainty and desperation, Deloyar sought guidance from a trusted former classmate who was practicing as a medical professional and possessed prior knowledge of TMSS Medical College Hospital. Recognizing the severity of the family's situation, the physician promptly facilitated a referral to the STRCP initiative at TMC&RCH, a specialized initiative dedicated to the comprehensive management of cleft lip and palate conditions. This singular act of referral functioned as a pivotal catalyst in the family's trajectory, representing a tangible source of renewed hope and the first structured pathway toward accessible, life-altering care.

Rubaiya's Father expressed his feeling as,

"We did not know where to go. But my friend showed us the light that we searched for."

Intervention: Restoring Hope and Dignity

Following the formal referral, the family attended TMSS Medical College Hospital and Rafatullah Community Hospital (TMC&RCH), where *Rubaiya* underwent comprehensive clinical assessment and was immediately enrolled for corrective surgery under the STRCP initiative. The cleft palate repair was successfully performed, with the total direct cost to the family limited to a nominal contribution of 250 Bangladeshi Taka, reflecting the projects strong commitment to financial accessibility and equity in care.

Post-operatively, Rubaiya required only routine pharmacological management, including *Cephradine and Paracetamol*-based analgesic syrup and demonstrated satisfactory recovery without major complications. Beyond the bio-medical outcomes, the intervention produced profound psycho-social benefits, alleviating familial distress and restoring a sense of dignity, security and social participation. The successful surgical and supportive care not only improved

Rubaiya's physical functioning but also re-established her family's capacity to envision a positive life trajectory and renewed aspirations for her educational and social development.

Evidence from global cleft care literature demonstrates that timely, low-cost surgical interventions for cleft lip and palate substantially improve quality of life, psycho-social well-being, and long-term functional outcomes, particularly in resource-constrained contexts (Mossey & Little, 2009). This case story also supports the global report.

Moni Khatun, Rubaiya's Mother said,

"We never imagined treatment would be possible for us. TMSS offered new life of our daughter. And we really grateful to TMSS and STRCP ".

New Beginning, Restored Dignity and a Promising Future

Following corrective surgery, Rubaiya exhibited marked functional and psycho-social improvements. Her nutritional intake improved substantially, and early speech development became observable, accompanied by a progressive increase in positive affect and self-expression. On an observation, WHO reported that These clinical gains were mirrored by significant changes in family outlook, as her parents began to anticipate her educational participation and long-term social integration with renewed confidence. The removal of functional barriers enabled them to conceptualize a future for their child that was previously perceived as unattainable.

Reframing Community:

At the community level, *Rubaiya*'s recovery was met with acceptance and affection, reflecting a shift in local attitudes toward children born with congenital deformities. Her visible improvement in health and growing self-confidence served as a source of motivation for other families, encouraging timely care-seeking behavior and reducing fear and hesitation associated with surgical intervention. The emotional relief and gratitude expressed by extended family members further underscore the broader social impact of accessible, community-embedded healthcare services provided by TMSS through the STRCP initiative.

This is also supported by another research where mentioned, 'these outcomes are consistent with existing evidence indicating that successful cleft palate repair significantly enhances quality of life, psycho-social well-being, and social participation among affected children in low-resource settings (World Health Organization, 2016)'.

Key Lessons Learned

Rubaiya's journey offers several meaningful lessons for families and communities alike. Her story shows the importance of ante-natal and post-natal care, which could help identify complications early and prepare families for timely intervention. It also highlights how awareness of available community health services can open vital pathways to treatment for children in need. The role of referral networks such as supportive friends, relatives and local doctors proved essential in guiding her family to the right channel for treatment. Access to affordable treatment through the STRCP Project demonstrated how life-changing medical care can be when it is made accessible to low-income families. Finally, her experience underscores the power of community support in reducing stigma, encouraging acceptance and fostering a positive environment where children like Rubaiya can grow with dignity and confidence.

Impact of TMSS STRCP Initiative

The STRCP Project brought a transformative change to Rubaiya's life and the lives of her family members. Through the surgery, her physical abilities especially eating and speaking were restored, allowing her to grow and interact more comfortably. This improvement strengthened her confidence and emotional well-being, releasing the heavy stress her parents had carried since her birth. The project also eased their financial burden, making specialized treatment accessible at a cost they could manage.

Breaking the Prejudices and Stigma

Beyond the family, the intervention created a ripple effect in the community, increasing awareness about cleft deformity surgery and reducing lingering prejudices. Villagers, already known for their unity, continued to embrace Rubaiya with warmth and acceptance. Her recovery has inspired other families in the village to seek timely medical care for their children and they break the silence, and overcome the uncertainty.

Conclusion

Rubaiya's trajectory from initial uncertainty and fear to recovery and renewed optimism illustrates the transformative potential of coordinated community support, compassionate clinical care, and timely medical intervention in improving child health outcomes. Through the STRCP initiative, she not only regained essential physical functions, but also restored a sense of dignity, self-worth, and future opportunity. Her experience serves as a compelling illustration that structural barriers such as poverty and geographic isolation should not preclude any child from accessing life-altering healthcare and achieving their full developmental potential. And if opportunity can be opened, as girl, now she is enjoying freedom with honor.

Chapter: 03

Synthesis of Studied Case Studies

Introduction

Cleft lip and palate are among the most common congenital anomalies worldwide and represent a significant public health and social challenge in low- and middle-income countries. When left untreated, these conditions result in feeding difficulties, speech impairment, recurrent infections, malnutrition, psychological distress, and profound social stigma. In rural Bangladesh, limited access to specialized surgical services, entrenched cultural misconceptions, poverty, and weak referral systems frequently delay treatment, transforming a surgically correctable condition into a lifelong source of marginalization.

Since July 2010, TMSS, with financial and technical support from Smile Train, USA, has been implementing the Smile Train RCH Cleft Project (STRCP) through TMSS Medical College & Rafatullah Community Hospital (TMC & RCH). The project aims to restore physical functionality, dignity, and social inclusion among economically disadvantaged children born with cleft lip and/or palate by providing free reconstructive surgery, post-operative care, speech therapy, and psycho-social support. Over successive phases, the project has evolved into a sustainable, institutionally embedded model that also emphasizes capacity building of local surgeons and allied health professionals. This paper examines the STRCP through selected case narratives to demonstrate its clinical effectiveness, psycho-social significance, and policy relevance for equitable cleft-care delivery in Bangladesh.

Case-Specific Explanation

The STRCP adopts an integrated, hospital-based and community-oriented service delivery approach. Patient identification occurs through outreach activities, informal community networks, referrals from local health providers, and awareness generated by treated cases. Once identified, patients undergo standardized clinical assessment followed by reconstructive surgery, post-operative monitoring, speech therapy guidance, and long-term follow-up.

The case of Sadia Sultana Mayna illustrates the multidimensional challenges faced by individuals born with cleft conditions in rural settings. Born into a low-income household, Mayna experienced feeding difficulties, unclear speech, and visible facial differences that exposed her to stigma rooted in superstition and moral blame. Despite emotional resilience within her immediate family, community-level exclusion shaped her childhood and adolescence. Her linkage to TMSS STRCP services marked a turning point, enabling comprehensive cleft lip and palate surgeries, improved

speech clarity, and restored facial function. Beyond physical recovery, the intervention rebuilt her self-esteem, social confidence, and future aspirations.

Similarly, the cases of Zubayer, Tabassum, and Rubaiya reflect early-life vulnerability compounded by poverty, lack of awareness, and delayed diagnosis. In each case, timely referral to STRCP services enabled free surgical correction, structured post-operative care, and family-centered counseling. These interventions not only improved feeding, speech, and growth outcomes but also altered family perceptions, reduced fear and stigma, and strengthened trust in formal healthcare systems. Collectively, the cases demonstrate that cleft care must be understood not merely as a surgical intervention but as a holistic process addressing medical, psychological, and social dimensions.

Impact

The impact of the STRCP project is evident at individual, family, community, and system levels. At the individual level, surgical correction restored essential physical functions, including feeding, speech, and facial integrity, leading to improved nutrition, communication, and daily functioning. Psychologically, beneficiaries experienced increased self-esteem, reduced anxiety, and renewed social participation. Educational reintegration was particularly notable, as children previously excluded or withdrawn began attending school regularly and engaging confidently with peers.

At the family level, the removal of financial barriers to care prevented catastrophic health expenditures and alleviated prolonged emotional distress. Parents reported renewed hope, strengthened resilience, and increased agency in advocating for their children's rights to health and dignity. Community-level impacts included a visible reduction in stigma and harmful misconceptions surrounding cleft conditions. Successful treatment outcomes functioned as powerful social proof, encouraging early care-seeking behavior and reshaping local narratives around congenital anomalies.

From a health-system perspective, the project strengthened institutional capacity in reconstructive surgery and speech therapy through continuous professional training. With more than 10,000 successful surgeries conducted between 2010 and 2025, the STRCP demonstrates both scale and sustainability, positioning TMC & RCH as a trusted national referral center for cleft care.

Policy Guidelines

Evidence from the STRCP experience suggests several policy directions. First, cleft lip and palate care should be formally integrated into national child health and surgical care strategies, ensuring early referral and continuity of care. Second, free or highly subsidized cleft surgery is essential to achieve equity, particularly for rural and impoverished families. Third, capacity-building models

that prioritize training of local surgeons and allied professionals should be expanded to ensure long-term sustainability.

Additionally, community awareness and information dissemination must be strengthened to counter superstition and stigma. Linking cleft care with speech therapy, psycho-social counseling, and educational reintegration is critical for holistic outcomes. Finally, partnerships between government, NGOs, and international donors should be institutionalized to replicate and scale successful models like STRCP across underserved regions.

Conclusion

The Smile Train RCH Cleft Project implemented by TMSS represents a transformative, rights-based approach to addressing cleft lip and palate in Bangladesh. Through free, high-quality surgical care combined with psycho-social support, community engagement, and professional capacity building, the project has restored dignity, functionality, and social inclusion for thousands of children and families. The case narratives demonstrate that timely and compassionate healthcare can shift life trajectories from marginalization to empowerment. Expanding and institutionalizing such integrated cleft-care models is essential to ensure that no child is left behind due to preventable and treatable congenital conditions.

Impact of STRCP Project

STRCP has generated substantial positive outcomes for children born with cleft conditions, particularly girls from socioeconomically disadvantaged backgrounds. By ensuring free and timely surgical intervention, the project removes structural and financial barriers that disproportionately affect girls' access to specialized healthcare. Surgical correction improves feeding, speech, and facial appearance, which are critical for survival, nutrition, school participation, and social interaction.

Case experiences of girls such as ***Sadia Mayna, Rubiya, Sadia and Tabasum*** illustrate how timely cleft surgery enhances confidence, communication ability and social acceptance. Following treatment, these girls were able to attend school regularly, interact with peers without fear of ridicule, and participate more confidently in family and community life. The intervention thus contributes not only to physical rehabilitation but also to psychosocial recovery, long-term empowerment, and gender equity.

Financial and Livelihood Benefits

STRCP delivers significant financial relief to affected households by eliminating the high out-of-pocket costs associated with cleft surgery and related care. For poor families, the availability of free treatment prevents catastrophic health expenditure and reduces the need for distress coping strategies such as borrowing or asset sales.

Early surgical correction enables children to attend school and later pursue productive livelihoods, thereby strengthening future economic potential. Families of beneficiaries such as *Rubiya and Zubayer* reported reduced caregiving burdens and increased capacity to engage in income-generating activities. At the household level, this contributes to improved financial stability, while at the community level, it reduces long-term dependency associated with untreated disability. Overall, STRCP enhances human capital formation and supports sustainable livelihood outcomes.

Challenging Social Stigma and Superstition

In many communities, cleft lip and palate have historically been associated with superstition, misfortune or moral wrongdoing, resulting in stigma and social exclusion. STRCP plays a critical role in challenging these beliefs by reframing cleft conditions as treatable medical issues. Visible surgical success and community-level engagement help normalize the condition and encourage early care-seeking behavior.

Experiences of beneficiaries such as *Sadia and Tabasum* demonstrate how successful treatment transforms social perceptions. After surgery, families reported greater acceptance within neighborhoods, schools, and extended kinship networks. Children who were previously hidden or marginalized became visible participants in social life. Through these processes, STRCP contributes to dismantling harmful beliefs, reducing discrimination, and promoting inclusive community attitudes.

Restoration of Social Dignity

Restoration of social dignity is a central outcome of STRCP interventions. Surgical correction improves facial symmetry, speech clarity, and functional ability elements that are fundamental to identity, self-worth, and interpersonal communication. Improved physical appearance reduces ridicule and discrimination, allowing children to engage confidently in education and social activities.

Both girls and boys, including *Mayna and Zubayer*, reported feeling more respected and valued after treatment. Families also experienced renewed social acceptance and relief from shame or social withdrawal. By addressing both physical impairment and social exclusion, STRCP restores dignity at individual, family and community levels, reinforcing inclusion and equity within underserved populations.

Benefits for Bangladeshi Children with Cleft and Palate Deformities

Bangladeshi children affected by cleft lip and palate have benefited significantly from STRCP through accessible, high-quality surgical care. Early intervention has improved feeding, speech development, and facial function; enabling children to participate fully in schooling and peer interactions. Post-operative counseling and follow-up further support emotional well-being and self-esteem.

Children such as ***Rubaya, Tabassum, and Zubayer*** demonstrated improved confidence and social engagement following surgery. Families reported increased trust in health services and greater willingness to seek care. Collectively, these outcomes highlight STRCP's contribution to restore health, dignity and long-term opportunities for children in marginalized communities.

Impact on Girls' Lives within In-Law Families: Status, Dignity, and Social Integration

Girls born with cleft lip and palate often face compounded disadvantages related to marriage, social status and acceptance within in-law families. In Bangladesh, untreated cleft conditions can negatively affect *marriage prospects and lead to diminished status after marriage due to persistent social bias.* ***Sadia Sultana Mayna and Sadia Afrin*** were benefitted through this project who got married and their in-laws are behaving good with them where they are feeling dignified.

STRCP interventions significantly improve girls' social acceptability by restoring facial appearance, speech and functional ability. Experiences of ***Mayna and Sadia Afrin*** illustrate how post-surgical outcomes enhanced respect, dignity, and confidence within marital households. Improved self-esteem enabled these women to participate more actively in household decision-making and community life. By reducing visible stigma and reshaping social perceptions, STRCP supports social integration, equitable treatment and long-term psychosocial well-being of women in their in-law families and broader society.

Recommendation, Conclusion and Policy Briefing

The following executive summary and policy analysis, synthesized through the lens of five comprehensive case studies and the OECD-DAC framework, illustrates the transformative power of the TMSS-Smile Train Supported Cleft Project (STRCP) and integrated health interventions in rural Bangladesh.

A Narrative of Transformation

The TMSS-led health interventions, most notably the STRCP, represent a paradigm shift in how congenital disabilities are managed in resource-constrained settings. This impact analysis demonstrates that by combining clinical excellence with people-centered care, the project has successfully addressed the profound physical, psychological and social challenges faced by individuals like *Sadia Sultana Mayna, Zubayer, and Rubaiya*. In the rural landscape of Bangladesh, children born with cleft lip and palate often fall victim to severe malnutrition, feeding difficulties and social isolation due to culturally rooted superstitions that label such deformities as "curses". The STRCP initiative disrupts these cycles of marginalization by providing free, comprehensive surgical corrections and essential follow-up care. By the conclusion of 2025, over 11,000 children have benefited from these services, moving from social invisibility to active participation in school and community life.

These interventions are deeply **relevant**, aligning with national priorities for Universal Health Coverage and disability inclusion while addressing the immediate lived realities of the poor. The **coherence** of the model is found in its ability to link hospital-based clinical services with community referral networks, ensuring that information reaches even the most remote households through neighbors, students, and local professionals**. Effectiveness** is evidenced by the restoration of speech clarity, facial integrity, and self-esteem, which directly facilitates educational reintegration and improves long-term prospects for marriage and employment. **Efficiency** is achieved through the strategic use of institutional platforms and task-shifting, which prevents catastrophic health expenditures for families who would otherwise find treatment unattainable. Ultimately, the **impact** of these interventions is multi-layered: it restores human dignity at the individual level, reduces caregiving burdens for families and dismantles harmful social stigmas at the community level. While sustainability is bolstered by strong institutional embedding within the TMSS Medical College and *Rafatullah* Community Hospital, the project faces ongoing challenges regarding donor reliance and the need for stronger integration into national health financing mechanisms.

Policy Briefing: Scaling Impact

To ensure the long-term sustainability and national scaling of these successes, a series of strategic policy actions are recommended. First, cleft and palate care must be formally integrated into the national Universal Health Coverage benefit package to ensure predictable public financing. The success of community-based models like the STRCP highlights the need for standardized training and certification of community facilitators within the primary healthcare system. Strengthening early referral mechanisms is critical; this can be achieved by integrating rehabilitation services into routine clinical pathways for pediatrics and maternal care, ensuring that no child remains undiagnosed due to a lack of counseling at birth.

Furthermore, follow-up and monitoring systems should be institutionalized to track long-term qualitative indicators such as social inclusion, functional independence, and dignity alongside traditional clinical metrics. Policy should also prioritize public-NGO partnerships, recognizing organizations like TMSS as essential contributors to equitable health delivery. By linking surgical outcomes with livelihood support such as the tailoring aspirations expressed by Sadia Sultana Mayna, Zubayer and Rubaiya; the government can enhance the developmental impact of healthcare. These steps will move the healthcare system toward a model that not only repairs physical deformities but also actively promotes the human rights and socio-economic empowerment of the most vulnerable.

In conclusion, the TMSS health interventions serve as a beacon of hope, proving that "doing the right things in the right way" through compassionate, integrated care can transform lives and strengthen the entire health system of Bangladesh.

Policy Briefing

Policy Context

Congenital anomalies like cleft lip and palate represent a significant public health concern in low- and middle-income countries. While surgically treatable, the intersection of poverty, gender, and rurality often creates "structural vulnerabilities" that prevent children from accessing such care.

Recommendations

Strengthening Early Diagnosis and Referral Pathways

Strengthening early diagnosis and referral pathways is essential for reducing preventable suffering among children born with cleft lip and palate. Standardized postnatal screening within rural community clinics should be institutionalized to ensure that cleft conditions are identified immediately after birth. Early diagnosis prevents prolonged periods of untreated disability, which often result in feeding complications, delayed speech development, and social isolation. In addition, informal community networks—such as neighbors, relatives, and local students—have demonstrated a critical role in connecting affected families to care. Formal recognition and basic training of these community facilitators would enhance referral efficiency and establish a reliable bridge between rural households and specialized cleft services. Furthermore, integrating cleft care awareness into routine antenatal and postnatal care services would prepare families for potential congenital conditions, reduce fear and misinformation, and promote timely care-seeking behavior from the earliest stages of life.

Enhancing Holistic Care Models

Achieving sustainable outcomes in cleft care requires a holistic service model that extends beyond surgical correction alone. While surgery addresses the physical deformity, long-term functional recovery depends on complementary interventions such as speech therapy and psychosocial counseling. These services are critical for improving communication skills, self-esteem, and social participation, particularly for children entering school. Additionally, targeted nutritional support is vital for infants with cleft-related feeding difficulties, as poor nutritional status often delays surgical eligibility and increases health risks. Establishing specialized nutritional programs would ensure that children achieve the necessary weight and strength for safe surgery, thereby improving surgical success rates and overall child health outcomes.

Promoting Social Equity and Gender Sensitivity

Cleft care interventions must be grounded in principles of social equity and gender sensitivity, particularly within rural and low-income contexts. Facial appearance plays a disproportionate role in determining social acceptance, educational participation, and marriage prospects for girls, placing them at heightened risk of lifelong marginalization when cleft conditions remain untreated. Gender-sensitive outreach strategies are therefore essential to ensure that girls are identified early, prioritized for care, and supported throughout the treatment process. Equally important is the continuation and expansion of financial protection mechanisms that provide surgery, hospitalization, and transportation at no cost to families. Such measures prevent catastrophic health expenditures and ensure that poverty does not become a barrier to accessing life-altering care.

Community Awareness and Stigma Reduction

Community awareness and stigma reduction are central to the long-term effectiveness of cleft care programs. Public education initiatives that highlight successful treatment outcomes and real-life narratives from STRCP beneficiaries can play a powerful role in dismantling deeply rooted superstitions that associate cleft conditions with curses, wrongdoing, or parental fault. Normalizing cleft as a treatable medical condition encourages early care-seeking and fosters compassion at the community level. In parallel, incorporating education on congenital conditions into school curricula can promote peer acceptance and reduce bullying. By equipping teachers and students with accurate knowledge, schools can become inclusive environments that support the psychosocial development of children affected by cleft lip and palate.

Policy Implications

Adopting these recommendations would align Bangladesh’s healthcare strategy with the principles of Universal Health Coverage (UHC) and Child Rights. The TMSS STRCP model proves that when surgical intervention is combined with social protection and community engagement, it can effectively "shift life trajectories from marginalization to sustained inclusion".

Final Statement

The experiences of Sadia Sultana, Mayna, Zubayer, Sadia Afrin, Tabassum, and Rubaiya demonstrate that even a single, well-structured intervention can profoundly transform life trajectories. These cases underscore the imperative for policy frameworks to prioritize the scaling of integrated rural healthcare models that combine medical, psychosocial, and community-based support.

Moreover, it demonstrates that collaborative action can effectively empower individuals, generating sustained positive impacts across the life course. In this regard, the joint initiatives of SmileTrain USA and TMSS within the broader health sector exemplify a highly effective humanitarian partnership, delivering meaningful and transformative health outcomes through coordinated effort.

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