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Corona Virus Disease (COVID-19) Pandemic

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“If you value the life of the elderly in this country, please do Social Distancing”

Ramanan Laxminarayan

The planet earth is under lockdown with its 7.8 billion people practically brought down to their knees by one of the smallest living creatures. The virus, which probably originated in bats but passed on to people via an as yet unrecognized intermediary animal species, is believed to have started infecting people in Wuhan, China, in late November or early December 2019. Since then, the virus has raced around the globe. A cluster of cases of pneumonia of unknown cause was reported to WHO on 31 December 2019. The cause of the outbreak was identified as SARS-CoV-2, a new virus closely related to bat. Coronavirus is believed to have originated in horseshoe bats that had previously not been identified in humans; and the disease was later renamed as COVID-19 by WHO on 7 January 2020. Corona viruses (CoV) are zoonotic i.e. they transmit disease between animals and humans and in the past, they have caused outbreaks of Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). Several known corona-viruses are circulating in animals that have fortunately not yet infected humans.

COVID-19 could have evolved to its current pathogenic state through natural selection in a non-human host and then jumped to humans with the source being linked to the Huanan Seafood Wholesale Market. Bats were the most likely reservoir as the virus is very similar to a bat corona-virus. No cases of direct bat-human transmission have been documented, however, suggesting that an intermediate host was likely involved between bats and humans. The humans once infected could transmit it to others. Alternatively, a non-pathogenic version of the virus jumped from an animal host to humans and then evolved to its current pathogenic state within the human population. Though difficult to say at this stage what was the mode, if it was the first, then chances of future outbreaks remain as the virus is still in the animal reservoir.

Human to human transmission was confirmed on 23 January 2020 when WHO declared the outbreak a public health emergency of international concern, raising it to very high on 28 February 2020 and COVID-19 a pandemic on 11 March 2020. However, unverified reports suggested that the first person contracting the disease could be on 17 November 2019 and a person diagnosed with symptoms on 1 December 2019 which had no connection with the sea food market cluster and a few cases came to the fore in Dec 2019. The first case of human transmission was in early January 2020. On 19th March 2020, the cases of COVID-19 surpassed 200,000 globally. It took over three months to reach the first 100,000 confirmed cases and just 12 days to reach the next 100,000. The third 100,000 took only three days. By the morning of 22 March 2020, there were 308594 cases with 13069 deaths globally while India had 332 cases and 5 deaths. Most of the western countries like Italy, France, Spain, US and West Asian like Iran were on the same trajectory and the cases doubling in 2-3 days. In India, they were doubling in a week. Hong Kong and Singapore had limited the spread while South Korea and Japan had slowed it. Some fear that COVID-19 could follow a similar path.
to that of the 1918–1919 flu pandemic, in which the second and third waves caused most of the fatalities. However, as COVID-19 is a new disease, future trajectory may only be estimated. Droplets of COVID-19 remain air-borne after someone sneezes or coughs; and those particles can travel short distance and infect people close by. The droplets can become suspended in air as an aerosol for at least three hours. The virus-infused droplets can also fall on surfaces and infect people who touch those surfaces for as long as nine days at room temperature. High temperature and high relative humidity may significantly reduce the spread of COVID-19.

Covering mouth and nose when coughing and sneezing, washing hands, avoiding close contact with people with respiratory illness, maintaining distance — at least six feet reduces the spread of infection. People suspected to be infected should monitor and self-isolate themselves. Social distancing is advocated and the elderly should maintain distance from the young.

The time between exposure and symptom onset is typically around five days but may range from one to fourteen days. The majority of the cases are mild. Fever, cough, and shortness of breath are the common symptoms. Complications may include pneumonia and respiratory failure, septic shock, and/or multiple organ dysfunction or failure necessitating intubation and assisted ventilation in an intensive care unit. The early death cases of COVID-19 outbreak occurred primarily in elderly people, possibly due to a weak immune system that permits faster progression of viral infection. There is no vaccine or specific anti-viral treatment; treatment is symptomatic and supportive therapy.

China adopted the mode of suppression to control the epidemic. Suppression requires more extreme measures so as to reverse the pandemic by reducing the basic reproduction number to less than one. Wuhan was placed under effective quarantine on January 23 as air and rail departures were suspended. China on 19 March 2020 marked a major milestone in its battle against the corona virus pandemic as it recorded zero domestic infections for the first time since the outbreak emerged; and on 16 March 2020, for the first time since the beginning of the outbreak, infections and deaths outside China surpassed those within China. Suppression requires meticulous surveillance as there is a possibility of recurrence.

Part of managing an infectious disease outbreak is trying to decrease the epidemic peak, known as flattening the epidemic curve. This decreases the risk of health services being overwhelmed and provides more time for vaccines and treatments to be developed. Optimal mitigation policies reduce peak healthcare demand by 2/3rd and deaths by half. Containing imported cases, containment by identifying and isolating cases are very crucial. This helps the health systems not being overwhelmed and mortality coming down to less than one per cent. These measures reduce the peak ICU admissions which are especially important for countries like India which has 2.4 ICU beds per 100000 population. Social distancing, effective governance and quality of health care are also equally important. Countries adopted a variety of measures aimed at limiting the spread of the virus. South Korea introduced mass screening, localized quarantines, and issuing alerts on the movements of affected individuals. Singapore provided financial support for those infected who quarantine themselves, and imposed large fines for those who failed to do so. Both the countries have flattened the curve with the cases doubling in more than a week in Singapore and around a week in South Korea.

India has taken urgent steps to strengthen community surveillance, quarantine facilities, isolation wards, and ensure availability of adequate personal protective equipment (PPE), trained manpower and rapid response teams for management of COVID-19. The first case in
India occurred on 30 January 2020. By 21 March 2020, the cases were doubling in about a week. Community transmission has not yet started. If we can increase this rate of doubling to about 18-20 days we will flatten the epidemic curve and prevent a situation which overwhelms the health system and takes a heavy toll. The average age in India is 28; one of the lowest in the world will be a favourable factor. Surveillance will be needed for may be a year and mitigation efforts continued. Clusters may come up off and on and if efficiently managed and hopefully we will be following the path of Singapore, and we’ll win the war against COVID-19.

References

Sustainable Development of Health in India: A Review of the Need for a Durable Local Collaborative Governance for Strengthening the Health System

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Abstract

The significant achievement in public health in India during the past few decades is visualized by a decrease in demographic indicators for health like IMR, MMR, TFR and doubling of life expectancy. But grading people’s health and the health care system across the states visage a kind of disagreement of an emerging disconnect between the complexity and iniquitous nature of problems as well as the competence to address it meaningfully. The health outcomes still remain depleted when the country is compared with other countries with similar economic stages of development. Health policies and programmes highlight the need of governance in health for distribution of responsibilities and resources, maintaining accountability between centre and state, strengthening institutional mechanism for consultative decision-making and coordinated implementation to achieve it. Thus, the objective of this paper is to explore the level of collaboration within and between various players for health based on the survey of literature of the last one decade. Content analysis of various literatures available in the areas was done for deeper understanding of multi-sectoral collaboration at all stages for health emphasizing the local governance. Identify the strength, weakness and disparity which need to be addressed for improving and suggest evidence-based strategies for the sustainable development of health in India. There has been a general improvement in the provision of health care infrastructure, human resource development but more pro-action was needed considering the country’s failure to achieve many of the targets, and the status of health of the people still stays way below the world average. This raises questions about the strategic implementation mechanism at different stages of the programmes focusing on removing the regional and gender disparities. Studies have shown that various socio-economic factors influence people in reaching out to health care facilities in the rural areas particularly by the most vulnerable sections of the population; and it needs to be addressed specifically. Considering the diversifying nature of the problem, its quantum and differential stage of development between regions; calls for local-specific strategies and programmes with very pro-active community participation. Without active involvement of the communities, achievement of primary health target is going to be very difficult. Therefore, it visualizes the strengthening of local collaborative governance for strengthening the health system by capacity building of the local self-governance. This, in turn, will enhance their role at different levels of health governance, in addressing the social determinants of health,
making community-based planning and mandatory monitoring in order to place people at the centre of the health system and development process for effective monitoring of services and accountability in the management and delivery of healthcare services.

**Key words:** Sustainable development, Collaborative governance, Health system, Socio-economic factors, Poverty.

**Introduction**

Health is a vital component for the well-being with quality of life and a crucial indicator to meet the criteria of human development. However, in India, the achievement of optimum health status is interlinked with other social and distal determinants of life. There has been a significant achievement in public health in the country during the past few decades, often visualized by improvement in demographic indicators for health like IMR, MMR, TFR and increasing life expectancy. But, grading peoples’ health and the health care system across the states features division between the complexity and inequitable nature of problems, lack of means and the competence to address it meaningfully across geographical, social, gender, income and educational strata in different states. The health outcomes always remain low when the country is compared with other countries with similar economic stages of development. This is due to the coexistence of high prevalence of preventable diseases, reproductive and child health problem, nutritional deficiencies, chronic diseases, accidents, violence and injuries, disabilities, unbalanced health care services lacking equity and affordability, lack of public accountability, poor access to health information, lack of synergy between health research outcome and its application for development, low government expenditure on public health though enhanced recently, and large quantum of out of pocket expenses for health by the individuals which is again pushing the families into more poverty.

The country’s development initiatives commenced upshot in the economic growth for the past two decades. But this economic development does not seem to shape substantial improvement in the peoples’ health, rather fail to synergise proportionate investments in health gain bringing equality and equity among all the segments of the population across states and below level. At one extreme where best possible health care are provided to those who can afford to pay for the services including to the people from other countries under medical tourism; on the other extreme, even the basic or essential service and technologies are unaffordable or lacking for a large proportion of people who are poor. India ranks 130 among the 189 countries in the latest Human Development Index (HDI) report. Ranking of India’s quality of life is 49 out of 66 with Quality of Life Index (QLI) of 121.61, health care ratio is 68.04, and the Cost of Living Index (CLI) is 23.81 (Human Development report 2019).

Further, National Health policy (2017) and NHM (2017) visualize to attain universal access to equitable, affordable and quality health care services by creating a fully functional, decentralized and community owned system with greater inter-sectoral coordination so that wider social determinants affecting health are also equally addressed. Amongst the pool of strategies designed, it emphasises weightage on decentralized planning with autonomy for local action, inter-sectoral district health plan including drinking water, sanitation, hygiene, nutrition; capacity building of Panchayati Raj Institutions, capacity building for preventive health care at all levels, Health plan for each village through VHNSC, risk pulling and social health insurance, promoting the non-profit sector and PPP, and mainstreaming AYUSH and local health traditions.
Objectives

The objectives of this paper were to:

- explore the level of collaboration within and between various players for optimum health;
- deepen understanding of current level of inter-sectoral and multi-sectoral collaboration for health at the local level;
- identify the strength, weakness and disparity which need to be addressed for improving the sustainable development of health in India; and
- suggest evidence-based strategies.

Methodology

The literatures used in this article are from relevant secondary data sources like published journal articles, government reports, reference papers, etc. published in the decade at the national and international level. Data particularly focusing on India and developing countries were selected and downloaded from google.com, pubmed, etc. for review. Further, the content analysis of various literatures available in the areas was done based on eight broad thematic areas which is mentioned in the findings.

Findings

Multi-level Governance, Convergence of Sectoral Programmes and Collaborations for Health within the Local Health Systems

Over the years, lots of research initiatives have been undertaken to understand the dynamics of inter-sectoral and multi-sectoral collaboration in the country. PHC governance in Nigeria illustrates how the multi-level governance framework offers a people-centric lens on the governance in low- and middle-income countries (LMICs)\(^1\). This Nigerian study focuses on relations among health system actors within and between the levels of governance. The study demonstrated the potential impact of health system actors functioning at different levels of governance on PHC delivery, and how governance failure at one level can be assuaged by governance at another level.

Schneider et al. in their study found collaborations, coordinated action in the community health system (Zambia), partnership between governmental, non-governmental and academic actors (India), joint planning and delivery across political and sectoral boundaries (Sweden and South Africa)\(^2\). In this study, four countries’ cases were presented and analyzed using a common framework of collaborative governance focusing on the dynamics of the collaboration itself. This collaboration covered principled engagement, collective motivation and joint capacity. The four cases, despite their differences, illustrated the considerable challenges and the specific dynamics involved in developing collaborative action in local health systems. These included the co-construction of solutions (and in some instances, the problem itself) through engagement, the value of trust, both interpersonal and institutional as a condition for collaborative arrangements and the role of openly accessible information in building shared understanding. Eventually, collaborative action takes time; and difficulty needs to be anticipated. If discovery, joint learning and developing shared perspectives are presented as goals in themselves, these may offset internal and external expectations of collaborations.
Kim et al.\textsuperscript{3} reported that convergence of sectoral programmes is significant for scaling up essential maternal and child health, and nutrition interventions. These interventions are implemented by two government programmes designed to work together i.e. Integrated Child Development Services (ICDS) and National Rural Health Mission (NRHM). But it was found that there is limited understanding of the nature and extent of coordination in place which was needed at the various administrative levels. Examining how inter-sectoral convergence and the factors influencing convergence in policy in nutrition programming is operationalized between ICDS and NRHM from the state to village levels in Odisha. It was observed that there was close collaboration at the state level in developing guidelines, planning, and reviewing programmes facilitated by a shared motivation and recognized leadership for coordination. However, the health department was perceived to drive the agenda but different priorities and little data sharing presented challenges. At the district level, there was joint planning and review meetings, trainings, and data sharing but poor participation in the inter-sectoral meetings and limited supervision. While the block level is the hub for planning and supervision, cooperation is limited by the lack of guidelines for coordination, heavy workload, inadequate resources, and poor communication. Strong collaboration can be materialized by close interpersonal communication and mutual understanding of roles and responsibilities. The study suggested that congruent or shared priorities and regularity of actions between sectors across all levels will improve the quality of coordination, clarity of roles and leadership, and accountability. As convergence is a means to achieve effective coverage and delivery of services for improved maternal and child health and nutrition, focus should be on delivering all the essential services to the mother-child dyads through mechanisms that facilitate a continuum of care approach, rather than sectorally-driven, service-specific delivery processes.

A study by Bossert and Mitchell\textsuperscript{4} demonstrated that decentralization is a varied experience, with some district-level officials making greater use of decision space than others; and that those who do so, also tend to have more capacity to make decisions and are held more accountable to elected local officials for such choices. These findings suggest that decentralization policy should focus on synergies among dimensions of decentralization to encourage more use of de jure decision space, work towards more uniform institutional capacity, and encourage greater accountability to local elected officials.

**Health Research, Information and Communication Technologies for Local Health System Reform**

A study on Global research partnerships in advancing public health in India\textsuperscript{5} reported that Collaborative research is integral to medicine. Multi-national and multi-institutional research partnerships produce advances in medicine and public health that have a significant societal impact. Developing nations can gain from such collaborative partnerships in achieving progress in sustainable development goals. However, it is important that the research agenda is relevant to the region where studies are conducted. Funding of research by the national government and regional organisations will ensure that the research is appropriate for the region, and ethically rigorous.

Ward et al.\textsuperscript{6} examined the extent to which provisions of international health research guidance promote capacity building and equitable partnerships in global health research. The evaluation found that governance of collaborative research partnerships, and in particular capacity building, in resource-constrained settings were limited but had improved with the implementation
guidance of the International Ethical Guidelines for Health-related Research Involving Humans by the Council for International Organizations of Medical Sciences (CIOMS, 2016). However, more clarity was needed in national legislation, industry and ethics guidelines, and regulatory provisions to address the structural inequities and power imbalances inherent in international health research partnerships. Further, ethical partnership governance was not supported by the principal industry ethics guidelines. It concluded that governance should stipulate the minimal requirements for creating an equitable environment of inclusion, mutual learning, transparency and accountability. Procedurally, this should be supported by (i) shared research agenda setting with local leadership, (ii) capacity assessments and (iii) construction of a memorandum of understanding (MoU). Moreover, the requirement of capacity building needs to be coordinated amongst partners to support good collaborative practice and deliver on the public health goals of the research enterprise; improving local conditions of health and reducing global health inequality. It suggested greater commitment, and support should be given to co-ordinate, strengthen and enforce local laws requiring equitable research partnerships and health system strengthening.

Borgström reported that transformation towards sustainable development was about findings new ways of thinking, organising and doing to navigate wicked challenges such as climate change and urbanization. Such challenges call for new governance modes that match the complexity of the systems where multi-level governance and collaborative approaches have been suggested to contribute to such transformative capacity building and decentralized governance of the Stockholm region. Such a collaboration hosts a great potential in supporting city wide transformation which was hampered by disconnect between actors, levels and sectors, and the short-term funding structure. The suggested interventions highlight the tension between enabling collaborations while safeguarding a high local diversity of initiatives and flexibility to ensure sustained space for innovation and learning.

Cash-Gibson et al. reported that the effective triangulation of S-N-S partnerships can be of high value in building sustainable research capacity in LMICs. If designed appropriately, these multicultural, multi-institutional, and multi-disciplinary collaborations can enable southern and northern academics to contextualize global research according to their national realities.

Scott et al. reported that by re-framing the conflict as organizational, they were able to create opportunities for the staff to understand their context and participate in negotiating principles for communication and collaborative work. The result reduced conflict between the staff in the two organizations, leading to improved implementation of programme and support. The study suggested that strengthening relationships among those working at the local level by building collaborative norms and values is an important part of local health system governance for improved service delivery by multiple actors.

Nyström et al. reported that collaborative approaches were important in the study of complex phenomena. Collaborative approaches were achieved by designing action research or by involving practitioners from several levels of the healthcare system in various parts of the research process. Study showed that allocated time, arenas for interactions, skills in project management and communication are needed during research collaboration to ensure support, build trust and understanding with involved practitioners at several levels in the healthcare system. For researchers, dealing with this complexity takes time and energy from the scientific process. For practitioners, this puts demands on understanding a research process and how it fits with the on-going organisational agendas and activities, and allocating time. Some of the
identified factors may be overlooked by funders and stakeholders when designing, performing and evaluating interdisciplinary, collaborative and partnership research.

Study carried out by Scott and Gilson\textsuperscript{11} reported that Central governance is shaped by the information and knowledge generated, and used at the lower system levels. Formal health information is generated in the district-based HIS; therefore, attracts management attention across the levels of the health system in terms of design, funding and implementation. Hence, strengthening the local level managers' ability to create enabling environments is an important leverage point in local decision-making which in turn, translates national policies and priorities including equity goals into appropriate service delivery practices. Ramaswamy et al.\textsuperscript{12} reported the need for multi-country partnerships to achieve sustainable outcomes in global health but only a few literature describes how this could be achieved in practice. A strong leadership, support and engagement of stakeholders, co-creation of solutions with partners, and involvement of partners in the delivery of solutions are all required for successful and sustained partnerships.

Chandrasekhar and Ghosh\textsuperscript{13} reported that information and communication technologies (ICTs) can improve the delivery of health and disaster management services in poor and remote locations. It can increase the transparency and efficiency of governance, and would improve the availability and delivery of public health services. Educating health professionals in the possible uses of ICTs, and providing them with access and ‘connectivity’ would give dividends and also reduce the digital divide.

Surveillance Mechanisms for Health and New Emerging Diseases (Antimicrobial Resistance)

Dahal et al.\textsuperscript{14} reported that most of the ‘One Health’ activities in South Asia are determined by donor preferences. Bangladesh and India did considerable work in advancing ‘One Health’ with limited support from the government agencies. Weak surveillance mechanisms, uncertain cost-effectiveness of One Health compared with the existing approach, human resources and laboratory capacity are some of the factors hindering the implementation of the One Health concept. Implementation of One Health is growing in the South Asian region with limited or no government acceptance. To institutionalize it, there is a need for leadership, government support and funding.

A study by Kumar et al.\textsuperscript{15} reported that Antimicrobial Resistance accounts for the greatest threat to the health system. The most appropriate path to mitigate this menace was a collaborative, multidisciplinary approach combining antimicrobial stewardship with infection prevention. Sustainable efforts to overcome this global problem would require awareness, learning and coordination at various levels in the health system. Government policies, national guidelines, collaborative functioning in research, online training modules, and media has an important role in combating the threat. A multipronged approach involving the infection control specialist as well as various cadres of health-care providers including pharmacists, nurses and community-level health workers are needed. All health-care professionals prescribing antibiotics take responsibility and understand the adverse consequences of inappropriate and suboptimal antibiotic usage. Certain countries in the world have already in place the antimicrobial stewardship programme with multi-disciplinary approach. India needs to have a strengthened anti-microbial stewardship programme involving all cadres of health-care providers. Brucellosis control will be challenging in India but with collaboration it could be possible to address these priority areas\textsuperscript{16}.
Strengthening Government Management Capacity

Health Facility Management Strengthening Programme was quite successful in strengthening the local health governance in the health facilities. The level of community engagement in governance improved i.e. an increase in the number of effective HFOMC meetings, expansion of the inclusion of dalit/women members in the decision-making process, facilitation of resource mobilization, and community accountability, increase in health facility opening days. Furthermore, health services became more inclusive as there is an increase in the availability of technical staff, supervision and monitoring, and display of the citizen charter. Functioning of HFOMCs is largely dependent on the process of selecting members, the staff and community›s support, and a sense of volunteerism and team spirit among the members. Correspondingly, to ensure the effective participation of dalit/woman members, the educational and livelihood empowerment of the members is very necessary. Furthermore, capacity building and giving authority to HFOMCs should go hand-in-hand. Local governance of health facilities was fostered through the local people›s active engagement in HFOMCs and capacity building of the HFOMC members.

A study on Strengthening Government Management Capacity to Scale up HIV Prevention Programmes through the Use of Technical Support Units in Karnataka State reported that scaling up HIV prevention programmes among key populations (female sex workers and men who have sex with men) has been a central strategy of the Government of India. However, state governments have lacked the technical and managerial capacity to oversee and scale up interventions or to absorb donor-funded programmes. In response, the national government contracted Technical Support Units (TSUs), teams with expertise from the private and non-governmental sectors, to collaborate with and assist state governments. In 2008, a TSU was established in Karnataka, one of six Indian states with the highest HIV prevalence in the country where monitoring showed that its prevention programmes were reaching only five per cent of the key populations. The TSU provided support to the state in five key areas: assisting in strategic planning, rolling out a comprehensive monitoring and evaluation system, providing supportive supervision to intervention units, facilitating training, and assisting with information, education, and communication activities. This collaborative management model helped to increase capacity of the state, enabling it to take over funding and oversight of HIV prevention programmes previously funded through donors. With the combined efforts of the TSU and the state government, the number of intervention units statewide increased from 40 to 126 between 2009 and 2013. Monthly contacts with female sex workers and homosexuals increased. There were also increases in the proportion of both populations who visited HIV testing and counseling centers, and sexually transmitted infection clinics and also changes in sexual behaviours among the key populations were also documented. The Karnataka experience suggests that TSUs can help governments enhance managerial and technical resources, and leverage funds more effectively. With careful management of the working and reporting relationships between the TSU and the state government, this additional capacity can pave the way for the government to improve and scale up programs and to absorb previously donor-funded programmes.

Community participation, Social accountability & Decision making within local health system for Health:

A study has reported that community participation is a complex process which is strongly
influenced by the context in which it occurs, and social factors such as power relations must be carefully considered. Further, it stated that there is a need for more robustly designed studies to improve the theorization of community participation, and to draw out a better understanding of how tangible and intangible elements such as power, influence community participation and its outcomes.

George et al. tried to explore the extent, nature and quality of community participation in health systems intervention research in LMICs. The study highlights that despite positive examples, community participation in health systems interventions was variable, with few being truly community-directed. It suggested that future research should more thoroughly engage with community participation theory, recognize the power relations inherent in community participation, and be more realistic as to how much community can participate and cognizant of who decides that. Another study reports that in order to realize the benefits of this approach it is vital to provide adequate investment in the ‘people’ component of health systems and understand the multi-level factors that influence their participation.

A study has reported on accountability mechanisms for implementing a health financing option through the case of the basic health care provision fund (BHCPF) in Nigeria. The study reports that the Nigerian National Health Act proposes a radical shift in health financing in Nigeria through the establishment of a fund i.e. Basic Health Care Provision Fund (BHCPF). The strategies for accountability encompass planning mechanisms, strong and transparent monitoring and supervision systems, and systematic reporting at different levels of the health care system. Further, it highlighted that non-state actors, particularly communities, must be empowered and engaged as instruments for ensuring external accountability at lower levels of implementation. New accountability strategies such as result-based or performance-based financing could be very valuable. The key challenges to accountability identified are- trust, transparency and corruption in the health system, political interference at higher levels of government, poor data management, lack of political commitment from the State in relation to release of funds for health activities, poor motivation, mentorship, monitoring and supervision, weak financial management and accountability systems, and weak capacity to implement the suggested accountability mechanisms due to political interference.

A Tanzanian study reported that almost all the stakeholders viewed Accountability for Reasonableness as an important and feasible approach for improving priority-setting and health service delivery in their context. However, a few aspects of Accountability for Reasonableness were seen as too difficult to implement, given the socio-political conditions and traditions in Tanzania. The highlights of the study are budget ceilings and guidelines, low level of public awareness, unreliable and untimely funding, as well as the limited capacity of the district to generate local resources as the major contextual factors which hampered the full implementation of the framework. The study suggested that Accountability for Reasonableness framework could be an important tool for improving priority-setting processes in the contexts of poor-resource settings. However, the full implementation of Accountability for Reasonableness would require a proper capacity-building plan, involving all relevant stakeholders, particularly members of the community as public accountability is the ultimate aim, and it is the community that will live with the consequences of priority-setting decisions.

A study in Gujarat on how social accountability contributes to better maternal health outcomes with government and civil society actors, showed an improved interaction between communities and the health system led to better access to and use of maternal health services. However, the
influence of social accountability found to be limited to the local/district level and also was lack of capacity and ownership of the government structures.

A study by Panda and Thakur\textsuperscript{24} reported that the robustness of a health system in achieving the desirable outcomes depends upon the width and depth of ‘decision space’ at the local level. However, lack of consensus on an acceptable framework followed by notion of ‘trust’, ‘convenience’ and ‘mutual benefits’ to explain, define and measure components of governance in health is significant in determining its quantum and quality. Further, for the ‘continuum of health services’ model, the challenge often lies in identifying variables of performance (fiscal allocation, autonomy at local level, perception of key stakeholders, service delivery outputs, etc.). Compartmentalizing the local decision making and its effect on health system performance revealed that there is scanty evidence about innovations attributable to decentralization and limited evaluative study on the subject. It is also difficult to quantify characteristics of governance at institutional, system and individual levels except through proxy means. There is a need to sensitize the governments and academia about how best more objective evaluation of ‘shared governance’ can be undertaken focusing on context-specific evidence; and its effect on the entire spectrum of health system placing due emphasis on efficiency, community participation, human resource management and quality of services to benefit policy making.

**Administrative Decentralization, Local Self-Governance and Leadership for Health**

**Rogi Kalyan Samiti (RKS)**

George et al.\textsuperscript{25} reports that more focus is placed on strong local leadership but no attention is given to conflict resolution strategies and skills. More access to information and opportunities to develop skills were crucial for community participation, critical thinking, problem solving and ownership. There are many quantitative scales for measuring community capability but health systems research engaged with community participation rarely made use of these tools or the concepts informing community. Thus, strengthening community capability becomes critical for ensuring community participation which leads to genuine empowerment.

A study of the functioning of the local self governance in health reports that poor knowledge/expectation of RKS members was weakening the decision making process at peripheral decision making health units (DMHUs)\textsuperscript{26}. Thus, a locally-monitored and time-bound capacity building plan to improve their knowledge, understanding and expertise in the areas of governance and management practices is required. Further, specific eligibility criteria based on experience and qualification may be fixed for RKS membership. Additional research focusing on identifying the differences underlying individual and systemic factors between Priority District (PD) and Non-Priority District (NPD) needs to be initiated.

According to Kwamie et al.\textsuperscript{27}, administrative decentralization followed by incomplete political and fiscal decentralization has ensured that the balance of power remained at national level with strong vertical accountabilities and dependence of the district on national level. Thus, it demonstrates that the expression of decentralization does not always mirror the actual implementation, and neither it empowers the lower level authorities. A study conducted in the Philippines in 2019\textsuperscript{28} reported that at institutional levels, these desired capacities should include having a multi-stakeholder approach, generating revenues from local sources,
partnering with the private sector and facilitating cooperation between local health facilities. On the other hand, adjustments in accountability should focus on the various mechanisms that can be enforced by the central level not only to build the desired capacities and augment the inadequacies at local levels but also to incentivize success; and regulate failure by the local governments in performing the functions transferred to them. The study concluded that to optimize decentralization in the health sector, widening decision spaces for local decision-makers must be accompanied by the corresponding adjustments in capacities, and accountability for promoting good decision-making at lower levels. Further, analyzing the health system for its synergy is useful for exploring concrete policy adjustments in the Philippines as well as in other settings.

A study conducted in 2016 reported that Rogi Kalyan Samiti (RKS) was established at every health unit as the local decision making institution to improve the efficiency and quality of services. However, understanding on quality improvement strategies was found to be very poor among the health workers. Customized capacity building measures at the district and sub-district levels could be critical to equip the peripheral health units to achieve the universal health coverage goals. Work environment, systemic factors and accountability must be addressed on priority for retention of the health workforce. The presumption to link between efficient local decision making, perception of health workers about efficiency of health units and the health status of population needs intense analysis.

Adsul and Kar have reported that RKS has yet to bring out quality component to the health services being provided through facilities by bridging the structural and managerial weakness in the system. The progress of the RKS needs to be enhanced by giving due priority to the critical areas. Furthermore, the results should emphasize an urgent need for devising strategies and actions to overcome significant systemic constraints, if any, emerged.

Rawat et al. reported that the main functions performed by the RKS included infrastructural strengthening of the CHCs, improvement in basic facilities, ensuring provision of emergency medical care, free medicines, basic laboratory and radiological investigation, transport facilities and hospital waste management. The flow of the central grant was found to be smooth. However, the expenditure is below the mark in the absence of predefined protocols and most of the community members were not aware of the existence, objectives and the activities of RKS. The innovations applied by the best performing districts need to be incorporated in the national guidelines. Additionally, targeted capacity building activities for the district health managers may improve their decision-making abilities which will contribute to improve health system performance.

Resource Management (Manpower and Finance)

Singh et al. have reported that the decision on expenditure of untied funds of CHCs and PHCs was taken in the meeting of Rogi Kalyan Samiti (RKS) but the members from other sectors such as PRI, education, revenue department, etc. usually did not attend the meeting. Most of the Medical Officers-in-charges (MOICs) were unaware of the availability of untied fund. About 50 per cent of the ANMs stated that they were unable to expend the money due to non co-operation of the Pradhan. In majority of the cases, the decision on the utilization of untied fund was taken by the ANM herself instead of VHSC meeting. The study suggested regular updating and orientation to the service providers about the untied fund and its efficient
utilization, strict monitoring of utilization of the untied fund at each and every level are needed.

Sheikh et al.\textsuperscript{33} have reported that proper deployment or posting and transfer (P&T) of health workers- placing the right people in the right positions at the right time is vital for fostering communities’ faith in the government health services and fixing the role of the health system as a principal social institution. P&T is an unsettled issue in many low and middle-income countries which requires strong political commitment for improving the public sector services coupled with new thinking and research for inter-disciplinary collaboration and implementation. This can further strengthen other areas in HRH and health systems. Further, innovative social science and management theorizing, iterative, and locally-driven interventions that focus on establishing transparent professional norms and building the credibility of government administration, including the health services, are likely the way forward.

Seshadri et al.\textsuperscript{34} reported that Karnataka had devolution of all 29 functions prescribed by the 73rd Amendment by the late 1990s. An evaluation of the impact of decentralization in the health sector found virtually no change in the health system performance. No improvement was also found on access to health services in terms of availability of health personnel or in various health indicators such as IMR or MMR. However, there has been a conscious effort under the National Rural Health Mission (NRHM) to promote decentralization of funds, functions to the lower levels of government. Overall, the data indicate substantial gap between the NRHM guidelines on decentralization and the actual implementation. Thus, there is a need for capacity building at all levels of the health system to fully empower the functionaries, particularly at the district level, in order to translate the benefits of decentralization into reality.

**Using community-based evidence for Health reform:**

A study has been conducted on using community-based evidence for decentralized health planning in Maharasthra\textsuperscript{35}. A project on capacity building for decentralized health planning was implemented in selected districts of Maharashtra, India during 2010-‘13. This process developed on the platform of officially supported community-based monitoring and planning, a process for community feedback and participation towards health system change. The evaluation of the project included in-depth interviews of various participants and analysis of change in local health planning processes. The study revealed positive changes in intervention areas, increase in capacity of key stakeholders leading to preparation of evidence-based innovative planning proposals, significant community-oriented changes in utilization of health facility funds, and inclusion of community-based proposals in village, health facility-based block and district plans. Further, transparency related to planning increased along with responsiveness of health providers to community suggestions. The key lesson was that active facilitation of decentralized health planning and influencing the health system to expand participation is essential to ensure changes in planning. Further, capacity building of diverse stakeholders in the local health planning and advocacy to enable participation of community in the planning process is essential. This combination of strategies emphasizes on the framework of ‘empowered participatory governance’ which combines a degree of ‘countervailing power’ and acceptance of participation by the system for new forms of governance to emerge.

**Discussion**

The health policy and programmes highlight the need of governance in health for distribution
of responsibility and accountability between the centre and the state. These policies recommend equity, sensitive resource allocation, strengthening the institutional mechanism for consultative decision-making as well as coordinated implementation as mechanisms to achieve it. It visualizes strengthening Panchayati Raj Institutions to enhance their role at different levels of health governance including social determinant of health making community-based monitoring and planning mandatory. Thus, it places people at the centre of the health system and development process for effective monitoring of quality of services and for better accountability in management and delivery of healthcare services. It focuses to increase both horizontal and vertical accountability of the health system by providing a greater role and participation of local bodies, encouraging community monitoring and programme evaluation along with ensuring grievance redressal systems effective. The policy recognizes the essential of Sustainable Development Goals by highlighting the quantitative indicators with target-specific goals linked to the ongoing national efforts as well as the global strategic directions. Intervention to address malnutrition and micro-nutrient deficiencies calls for synergetic actions from departments like Women and Child Development, Education, WASH, Agricultural and Food and Civil Supplies with MoHFW in the role of convener to monitor and ensure effective integration of both nutrition-sensitive and nutrition-specific interventions for coordinated optimal outcomes.

The current review projected various challenges and dynamics involved in developing collaborative action in the local health systems. These involve finding out solutions of problems through engagement, building trust both interpersonal and institutional for collaborative arrangements and making information accessible in building shared understanding. Eventually, collaborative action takes time, and difficulty needs to be anticipated. Under the convergence of sectoral programmes for health, the health department was perceived to drive the agenda but different priorities and lack of data sharing poses challenges. Additionally, the members from other sectors such as PRI, education, revenue department etc. usually did not actively participate in the meeting highlighting the lack of willingness to coordinate at the local level. Further, the sub-district level and below level are the junctions for planning and supervision but face challenges due to lack of clear guidelines for coordination, cooperation, heavy workload, lack of resources and communication. It requires more synergies among the various dimensions to work towards more uniform institutional capacity, encouraging greater accountability to local governance. There is a need to congregate health research with local issues for suggesting evidence-based solution. Moreover, the capacity building needs to be coordinated amongst partners to support good collaborative research practice and deliver on the public health goals of the research activity initiated for improving local conditions for optimum health and reducing the health inequality.

Innovation of new dimensions of service provisions like people-centric integrated models of services, community-based delivery, community accountability, quality improvement, and e-health technologies have been conceptualized as a practical solution to hit the millstone. However, these reforms to revamp the health system are often characterized with inarticulate state in organizational fragmentations and functioning. It resulted in variety of forces impacting the health system and proliferation of donor aid and vertical health programme particularly during the period of Millennium Development Goals. The latest Public Health management reforms, the splitting of consumer and provider functions, decentralization, growth of profit and nonprofit health sector, the exiting institutional norms and incentives in the health systems are to compete rather than collaborate. Hitherto, addressing these complex health needs requires
new and better coordination between levels and players within the health system as well as between the health and other sectors especially at local level.

To ensure active community participation, educational and livelihood empowerment of the community is very necessary. Local governance of health facilities needs to be promoted through the local people’s active engagement in the health programme. It requires capacity building of the local health professionals and community members for strengthening the local government management capacity for health. Ensuring quality of community participation in health is vital to provide adequate investment in the ‘people’, accountability of health systems and understand the multi-level factors that influence their full participation. Overall, there is a substantial gap between the NRHM/NHM guidelines on decentralization and the actual implementation. Thus, there is a need for capacity building at all levels of the health system to fully empower the functionaries, particularly at the district and below levels. These reforms will translate the benefits of decentralization into reality and strengthen the local governance for health system strengthening.

Conclusion

There has been an overall improvement in the provision of health care infrastructure, human resource development but more pro-action was needed considering the country’s failure to achieve many of the targets. The status of health of the people still stays way below the world average. This raises questions about the strategic implementation mechanism at different stages of the programmes on removing the regional and gender disparities. The diversifying nature of the problem, quantum and differential stages of development between regions call for local-specific strategies. Programmes must enhance pro-active community participation. Without active involvement of the communities, achievement of primary health target is going to be very difficult. Therefore, it visualizes strengthening local collaborative governance for health system strengthening by capacity building of the local self-governance institutions like Panchayati Raj Institutions to enhance their role at different levels of health governance. This will address issues such as the social determinants of health, community-based planning and monitoring in order to place people at the centre of the health system and development process. For effective monitoring of quality of services and better accountability in management of healthcare services, active involvement of local bodies is a must. Further, the study concludes that harmonious or shared priorities and regularity of actions between sectors across all levels will likely to improve the quality of coordination. Focus on leadership and accountability is imperative to achieve these goals. Without active involvement of communities achievement of primary health target is going to be very difficult.

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भारत में स्वास्थ्य के क्षेत्र में सत्ता विकास: स्वास्थ्य प्रणाली को सुधार करने हेतु एक स्थानीय सघन्यात्मक शासन की आवश्यकता की समीक्षा

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सारांश

पिछले कुछ दशकों में भारत में जन स्वास्थ्य में महत्वपूर्ण उपलब्धि के स्वास्थ्य के जनसाधारणीय संकेतों का रूपांतरण के रूप में आईआईएमए, एनआईएसएफकेडबु, टीटीएफएस में कमी और जीवन प्रदाय दोभाग हो जाने के रूप में देखा जाना है। इसके लिए स्वास्थ्य तथा धर्म दर्शावती प्रणाली की ग्रेडिंग में समय कालों की जीतलता और विपरित स्थिति के बीच उससे तकनीकी तथा उसका साधारण दंग से समाधान करने के लक्ष्य में राज्यों के बीच उत्तराधिकारिकता का धारण किया जाना। जब देश की गति-विकास की समस्या आत्मनिर्भरता और परिवर्तन स्थिति के बीच उससे हांगकाएं तथा उसका साधारण दंग से समाधान करने के लक्ष्य में राज्यों के बीच उत्तराधिकारिकता का धारण किया जाना।

स्वास्थ्य, नीतियों और कार्यक्रमों में उत्तराधिकारिकता और सामाजिक आत्मनिर्भरता के लिए क्रियान्वयन का समय उत्तराधिकारिकता का हमारे साथ में शासन की आवश्यकता पर बल दिया गया है। इस प्रकार इस शीर्ष-पत्र का उद्देश्य पिछले एक दशक में साहित्य संबंधम पर आधारित स्वास्थ्य के विनिमय मान्यताओं के बीच एक सहयोगपूर्ण वातावरण स्थापित करना है। स्वास्थ्य पर बल दिया के लिए स्वास्थ्य शासन सभी चरणों पर बदल-क्षेत्रीय सहयोग की गहरी समझ स्थापित करने हेतु विभिन्न क्षेत्रों में उपलब्ध साहित्य का अंतर्वित विकसित किया गया।

बारत में स्वास्थ्य के क्षेत्र में सत्ता विकास के लिए समन्वय, आश्वस्त और अनुमति का महत्वपूर्ण नज़र रखा जाना चाहिए। स्वास्थ्य दर्शावती अवसरपत्र, मानव सशक्तिकरण विकास के प्रवर्तन में सामाजिक सुधार हुआ है। इसके अनेक साधनों की प्रतिक्रिया में अवसरपत्र तथा देश में स्वास्थ्य स्थिति में अपनी विवेचना से उत्तरदायित्व को देखते हुए अधिक साधारण कार्यवाही एवं प्राधिकृति की आवश्यकता है। इससे क्रियावादी और उच्चीकृत विभागों को दूर करने पर क्रियार्थी कार्यक्रमों के विनिमय स्थानपरिवर्तन संबंधी कार्यवाही दृष्टि से प्राधिकृति उत्तरदायित्व होता है। अंतर्गतीय रूप से पता चला है कि विनिमय सामाजिक-आत्मनिर्भर, कार्यक्रमों में स्वास्थ्य दर्शावती सुविधाओं तथा पहुँच नोंद योजनाओं के प्रवर्तन किया जाता है। इससे इस विषय पर समान्तर चरणों के साथ-साथ असुरक्षित और अनेक क्षेत्रों के बीच सभी कार्यक्रमों को सुनिश्चित करने हेतु समन्वय दर्शावती अवसरपत्र, मानव सशक्तिकरण विकास के प्रवर्तन में सामाजिक सुधार हुआ है। इसके अनेक साधनों की प्रतिक्रिया में अवसरपत्र तथा देश में स्वास्थ्य स्थिति में अपनी विवेचना से उत्तरदायित्व को देखते हुए अधिक साधारण कार्यवाही एवं प्राधिकृति की आवश्यकता है। यह सभी विकास की एक आत्मनिर्भर, उच्चीकृत विभागों के एक आत्मनिर्भर आवश्यकता है।
Awareness and Utilization of ANC Services among Women of Urban Slum in Delhi: An Observational Study

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Abstract

Under the National Health Mission (NHM), both supply side and demand side interventions are implemented to improve the accessibility and utilization of RCH services by the urban and rural population. These interventions have contributed in improving utilization of RCH services. However, awareness and utilization of RCH services which include birth preparedness and complication among the slum dwellers remains a cause of concern. This study aims to find out the awareness and utilization pattern of RCH services which include birth preparedness and complication readiness (BPACR). The study finding revealed that 80 per cent of the respondents knew BPACR is awareness of the transport, out of pocket expenditure, birth companion and health facility. There was no awareness about blood donor. Among the study population, 90.3 per cent got ANC registration in which 82.9 per cent in government hospitals and 7.6 per cent in private hospitals. Similarly, 33 per cent got ANC registration in the first trimester and 48 per cent in the second trimester, 90.3 per cent mother got two T.T. injections, 68.6 per cent of mothers got regular iron and folic acid tablets, and 1.2 per cent of the mothers had undergone four or more USGs. The study finding reveals that awareness level on antenatal care in the study area was 90.5 per cent. The most important indicators which need to be focused for reducing the maternal and infant mortality are pregnant women receiving full ANC, institutional delivery and PNC. Specific intervention programme needs to be planned and conducted to improve the maternal health practices and eventually improve the health status.

Key words: Awareness of RCH services, Utilization of RCH Services, Birth preparedness and complication readiness (BPACR).

Introduction

In India, maternal mortality ratio (MMR) has remained at a higher level for a long time. It was reported that among the Indian women, the national average MMR is 122 per 100,000 live births\(^1\) (SRS2015-17) which is very high as compared to the international scenario. Promotion of maternal and child health concerns must be addressed through antenatal care (ANC) and postnatal care (PNC). ANC refers to pregnancy-related health care that includes a basic professional care of minimum four ANC visits which is recommended to monitor signs of complications, detect and treat pre-existing and concurrent problems, provide advice and counseling on preventive care, diet during pregnancy, delivery care, PNC and related issues. Slums have been recognized as neglected areas characterized by deteriorated housing, overcrowded, poor environmental management with wide spectrum of adverse health conditions such as under nutrition, delivery-related complications, post-partum morbidity, and limited access to health care services. In Delhi, one in every five lives in slums. A study by Hazariika revealed that 74 per cent of non-slum women receive three or more ANC check-ups as compared to only 55 per cent in slum women\(^2\).
Reproductive and Child Health (RCH) programme is a comprehensive sector-wide flagship programme under the umbrella of the Government of India’s (GOI) National Health Mission (NHM) to deliver the RCH targets for reduction of maternal and infant mortality and total fertility rates. The Government of India, in accordance with the recommendation of ICPD Cairo Conference, initiated the RCH programme aimed at providing integrated health and family welfare services. During 1997-98, the Government of India launched the RCH Programme by integrating the Child Survival and Safe Motherhood (CSSM) programme with other Reproductive and Child Health (RCH) services. The main aim of the RCH programme was to reduce infant, child and maternal mortality rates. Second phase of the RCH programme was launched on 1 April 2005. The Government of India launched the National Rural Health Mission (NRHM) in April 2005 which sought to provide accessible, affordable and quality health care to the rural population, especially the vulnerable sections. Prior to the start of RCH services, in 1990, some RCH indicators at the global level were: IMR-63, MMR-380, TFR-3.5 while in India, IMR was 80, MMR-437 and TFR-3.8. Thus, RCH indicators improved in India after the implementation of RCH services. Under the NHM/NRHM, both supply side and demand side interventions are implemented to improve awareness, accessibility and utilization of RCH services by the urban and rural population. These interventions have contributed in improving the utilization of RCH services. However, utilization of RCH services and adverse health outcomes among the slum population remains a cause of concern. This is evident from the available data which indicates lower awareness and utilization of services like ANC, institutional delivery and immunization services in the slum population.

Every pregnancy is a joyful moment for all mothers who dream of a safe pregnancy and a healthy baby. However, every pregnant woman faces the risk of sudden, unpredictable complications that could lead to death or injury to herself or to her infant. Birth preparedness and complication readiness (BPACR) is a strategy that encourages pregnant women, their families, and communities to effectively plan for births and deal with emergencies, if any. It is a key component of globally accepted safe motherhood programme. This study aims at finding out the awareness and utilization pattern of RCH services which include birth preparedness and complication readiness.

**Methodology**

The present research work is a descriptive and cross-sectional type of study done in three selected slums of Delhi. Data were collected over a period of three months from October to December 2018. The sample size consisted of 421 women living in slums having child of aged 0 - 6 months. The sample size was calculated as 381 considering a recent study by Devasenapathy et al. where they found 46 per cent of women got themselves registered during the first trimester. Considering 10 per cent non-responsive, a total sample of 421 mothers were interviewed during the data collection.

Probability sample was used for selection of slums as this is the only sampling method that allows drawing valid conclusion about population. A Multi-stage random sampling design was used to select the mothers from the selected slums in Delhi as this is the most feasible approach for a large population. Out of the total 11 Districts in Delhi, in the first stage, 25 per cent i.e. three districts were randomly selected for this study. In the second stage, from each selected district, list of slums published by the Delhi Government was compiled and from the list, one slum of approximately 5000 population was randomly selected from the three selected districts. Two
remaining slums were also selected using the same process. The selected slums for the study were Rangpuri Pahari from West Delhi, Kusumpur Pahari from South Delhi and Govindpuri from South-East Delhi. In the third stage, from each selected slum, list of households having recently delivered mothers (within 6 months) was prepared. From that list, households were randomly selected for the interview of mothers regarding awareness and utilization of selected RCH services. Thus, the study covered 421 mothers from three different slums of Delhi by using the inclusion criteria of mother who delivered the baby within six months and exclusion criteria of mothers who were severely ill. Primary data were collected using the interview schedules developed for mothers using USAID tool which was first pre-tested in a different slum of Delhi; and based on the finding of pre-testing, the tool was modified appropriately. USAID tool was used during the RCH services evaluation in Uttar Pradesh. Data collected from mothers were analyzed using descriptive and analytical techniques with the help of the statistical software- SPSS version 20.

Findings

The finding of the study shows that among the 421 mothers, 92 per cent belonged to Hindu religion, and 91 per cent of them belonged to schedule caste. It was found that 36 per cent of the mothers were just literate, 27 per cent had education up to primary level, nearly one-third (33 %) of them were educated up to primary school, and almost same (34 %) were educated up to junior high school level. The age distribution of mother shows that only 1.9 per cent was aged less than 19 years whereas 54.9 per cent were in the age group of 25 to 29 years (Figure 1).

![Figure 1: Age Distribution of Mothers](image)

In the present study population, most of the mothers (97.4 %) were housewives and most of them (65.8 %) worked as unskilled workers (Figure 2).
The distribution of monthly family income shows that most of the families (56.5%) had a monthly income between Rs. 3000/- and 8000/- while only 10.9 per cent had an income of more than Rs. 12000/- per month.

Awareness level of the present study population about RCH services reveals that most of them (98.8%) were aware of the pregnancy test kits, 90.5 per cent was aware of ANC registration, 89.3 per cent was aware of IFA tablets and 95.9 per cent was aware of the importance of colostrum for the newborn (Table 1).

Table 1
Awareness of Selected RCH Services

<table>
<thead>
<tr>
<th>Awareness of RCH Services</th>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy Kit</td>
<td>Yes</td>
<td>416</td>
<td>98.8</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>05</td>
<td>1.2</td>
</tr>
<tr>
<td>ANC Registration</td>
<td>Yes</td>
<td>381</td>
<td>90.5</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>40</td>
<td>9.5</td>
</tr>
<tr>
<td>Iron and Folic Acid Tablets</td>
<td>Yes</td>
<td>376</td>
<td>89.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>45</td>
<td>10.7</td>
</tr>
<tr>
<td>Domestic Responsibility during Delivery</td>
<td>Yes</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Colostrum</td>
<td>Yes</td>
<td>404</td>
<td>95.96</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>17</td>
<td>4.04</td>
</tr>
</tbody>
</table>

Data presented in Table 2 show that all mothers were aware of the health facility, mode of transportation, birth companion; and saved money for delivery to pay for expenses whereas none of them was aware of blood donors. Awareness of birth preparedness and complication readiness (BPACR) score of the study population was found to be 80 per cent.
### Table 2

**Awareness of Birth Preparedness and Complication Readiness (BPACR)**

<table>
<thead>
<tr>
<th>Awareness about BPACR</th>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Facility</td>
<td>Yes</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Identified mode of transportation during</td>
<td>Yes</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Blood Donor during Delivery</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Birth Companion during Delivery</td>
<td>Yes</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Saved money to pay for Expenses</td>
<td>Yes</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The utilization pattern of selected RCH services in the study population revealed that 90.5 per cent of the mothers registered for ANC (82.9 % in government hospitals and 7.6 % in private hospitals), 33 per cent mothers got registered for ANC in the first trimester and 48 per cent in the second trimester, 90.3 per cent of the mothers had taken two T.T. injections, 68.6 per cent of the mothers received regular iron and folic acid tablets and 1.2 per cent of them had four or more USG investigations (Table 3).
### Table 3
**Utilization Pattern of Selected RCH Services**

<table>
<thead>
<tr>
<th>Utilization of RCH services</th>
<th>Category of utilization</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmation of Pregnancy</td>
<td>Did not test</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>With purchased kit</td>
<td>281</td>
<td>66.7</td>
</tr>
<tr>
<td></td>
<td>By private doctor</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>By government staffs</td>
<td>131</td>
<td>31.1</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Place of ANC registration</td>
<td>Not registered</td>
<td>40</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td>Private hospital</td>
<td>32</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Government hospital</td>
<td>349</td>
<td>82.9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Trimester of ANC registration</td>
<td>No Registration</td>
<td>40</td>
<td>9.50</td>
</tr>
<tr>
<td></td>
<td>First trimester</td>
<td>126</td>
<td>29.94</td>
</tr>
<tr>
<td></td>
<td>Second trimester</td>
<td>183</td>
<td>43.46</td>
</tr>
<tr>
<td></td>
<td>Third trimester</td>
<td>72</td>
<td>17.10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Number of ANC</td>
<td>No ANC done</td>
<td>40</td>
<td>9.51</td>
</tr>
<tr>
<td></td>
<td>1 time</td>
<td>44</td>
<td>10.45</td>
</tr>
<tr>
<td></td>
<td>2 to 5 times</td>
<td>219</td>
<td>52.00</td>
</tr>
<tr>
<td></td>
<td>6 to 8 times</td>
<td>91</td>
<td>21.62</td>
</tr>
<tr>
<td></td>
<td>9 to 10 times</td>
<td>27</td>
<td>6.42</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Use of Iron and Folic Acid Tablet</td>
<td>Yes</td>
<td>289</td>
<td>68.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>132</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>T.T. inj. taken during pregnancy</td>
<td>≤ 1 T.T.</td>
<td>41</td>
<td>9.7</td>
</tr>
<tr>
<td></td>
<td>2 T.T.</td>
<td>381</td>
<td>90.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>USG done during ANC</td>
<td>No USG</td>
<td>63</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>1 USG</td>
<td>154</td>
<td>36.6</td>
</tr>
<tr>
<td></td>
<td>2 USG</td>
<td>123</td>
<td>29.2</td>
</tr>
<tr>
<td></td>
<td>3 USG</td>
<td>76</td>
<td>18.1</td>
</tr>
<tr>
<td></td>
<td>≥ 4 USG</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Transport used during delivery</td>
<td>Own vehicle</td>
<td>4</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>Private vehicle</td>
<td>269</td>
<td>76.9</td>
</tr>
<tr>
<td></td>
<td>Government vehicle</td>
<td>77</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>350</td>
<td>100</td>
</tr>
<tr>
<td>Place of delivery</td>
<td>At home by non-SBA</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>At home by SBA</td>
<td>66</td>
<td>15.7</td>
</tr>
<tr>
<td></td>
<td>Government hospital</td>
<td>312</td>
<td>74.1</td>
</tr>
<tr>
<td></td>
<td>Private hospital</td>
<td>38</td>
<td>9.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
<tr>
<td>Food during stay in hospital</td>
<td>Yes</td>
<td>302</td>
<td>86.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>48</td>
<td>13.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>350</td>
<td>100</td>
</tr>
<tr>
<td>Scheduled vaccination completed</td>
<td>Yes</td>
<td>335</td>
<td>79.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>86</td>
<td>20.4</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>421</td>
<td>100</td>
</tr>
</tbody>
</table>
Discussion

The present study was conducted to assess the awareness on RCH services including birth preparedness and complication readiness among women in some urban slums of Delhi. The present study finding shows that from the 421 women, 90.5 per cent were aware of the maternal health services which is in consistent with study findings of an earlier study that showed 91.7 per cent of women were aware of the maternal health services. Another study by Shukla Mukesh et al. also shows similar findings. A study by Rose N. M. Mpembeni et al. has reported that only one-third (34.4 %) of the studied women were aware of maternal health services which is opposite to the findings of the current study. This may be due to the study population of the present study where the slums are situated in the national capital. In the present study, awareness of iron and folic acid tablet among the study population was 89.3 per cent which is similar to the study findings of F. F. Alreshidi et al. who found the awareness level at 80.1 per cent. The present study finding shows that 95.96 per cent of the women were aware of colostrum which is in consistent with the findings of an earlier study where 92 per cent of the women were aware that breast milk and colostrum is the ideal food for the new born. In the present study, all mothers were aware of the domestic responsibilities during delivery. A study by V Kamineni et al. also reports that 73 per cent of the respondent women made arrangements for delivery.

In the present study, all of the mothers were aware of transport, out of pocket expenditure, birth companion and health facilities but no one was aware of blood donor needed during delivery in case of an emergency. A study by V. Kamineni et al. showed that 71.5 per cent of the women were prepared for the birth while 90.2 per cent of them had identified a place for delivery, 83 per cent had saved money, and 83.5 per cent were aware of purchasing materials needed for delivery. A similar study by M. Gebre et al. reports that 43.6 per cent of the respondent mothers identified a health facility for delivery and/or for obstetric emergencies, more than half (54.1%) of the families had saved money for incurring costs towards delivery and emergency, if needed. only three per cent had identified a potential blood donor in case of emergency. No respondent in the current study was aware of her blood group or had made any arrangement of blood donors in comparison to other studies conducted in India, Nepal, Ethiopia and Nigeria. This may be due to the reason that most women think pregnancy is a normal condition and a critical situation such as blood transfusion is unlikely to occur during pregnancy or labour.

As per the current study findings, nearly 72 per cent of the mothers used to go to the nearby private doctors who were conveniently available, in case they felt sick; and only 10.5 per cent went to the nearby government health facility. A similar finding is reported by Madhura et al. who found that nearly 56 per cent of the sick people in the slums go to private doctors. The present study shows that 83 per cent of the mothers got themselves registered in government hospitals for ANC and 7.6 per cent of them got registered in private hospitals which are in consistent with the finding of a study by S. Gupta in which 90 per cent of the mothers got themselves registered in government hospitals for ANC. The present study shows that 33 per cent of the mothers registered during first trimester, 48 per cent of them registered themselves for ANC during the second trimester, and 18.9 per cent of mothers got registered during third trimester which is in consistence with the study findings of Bayou YT et al. who found that 50.3 per cent of the women had started the first antenatal visit in the first trimester. In the current study, 90.3 per cent of the respondent mothers got two TT injections and only 9.7 per cent of
the mothers either got one TT or no TT injections which is in consistence with the findings of Dadi L.S. et al. The present study finding shows that 74 per cent of the mothers delivered in government hospitals, 9 per cent in private hospitals, and about 17 per cent had delivered at home which is in consistence with the findings of a study by Divya V. Pai et al. who reported that majority (86.1%) of the mothers had institutional deliveries.

Conclusion and Recommendations

This descriptive and cross-sectional type of study was done to find out the awareness and utilization pattern of selected RCH services including birth preparedness and complication readiness among women having child aged 0 – 6 months. From this study findings, it can be concluded that awareness level of antenatal care (ANC) and postnatal (PNC) in the study area was more or less same amongst the slum women. The most important indicators which need to be taken care of for reducing the maternal and infant mortality rate are ANC, institutional delivery and PNC. The study findings show that most of them went to private doctors when they fell sick. All the mothers had RCH facility nearby their respective houses but those were providing only OPD services. There is a need of 24x7 facilities nearby the slums. Findings of this study suggest that 89.3 per cent of the mothers were aware of the benefits of iron and folic acid tablets. Among the mothers who had not taken regular iron and folic acid tablets; most of them felt that it was not necessary. So, there is a need to explain in detail about the consequences of such as the potential complication of not taking the tablets especially when mothers are anemic. It is felt that mothers need to be explained on how to counter the side-effects of taking iron tablet. The present study shows that only 1.2 per cent of the mothers had undergone four or more USG which indicates that government should extend the USG facility in government dispensaries for the nearby slum populace.

It is recommended that periodical reorientation trainings of ASHAs and Anganwadi workers may be encouraged to improve their service delivery on reproductive health. Workshops for slum women on reproductive and child health should be enforced effectively by educating them with the involvement of their parents/family. It is, therefore, realized that while there is a need to set up specific education programmes for the slum women, there is also a necessity to develop forms of education that will sensitize people towards gender discrimination and will raise their acceptance of women’s promotion.

Limitations of the Study

Although the current findings provide important insights into the role ANC, institutional delivery and PNC in reducing the maternal and infant mortality rate, there are several limitations related to the current study design. One limitation is that the data were collected solely from the selective urban slums of Delhi which are not representative of the country as a whole. So, the study results cannot be generalized for all the urban slums in India. It is also possible that biases related to self-reported data, including recall bias, may have affected the reliability of reports of RCH services receipt and utilization. The potential for such bias could have been reduced as the recall period from delivery to data collection was about 15 months or little less. Finally, the current analyses involve cross-sectional data; thus, causality cannot be inferred.


राष्ट्रीय स्वास्थ्य मिशन के अंतर्गत, शहरी और ग्रामीण जनसंख्या के लिए प्रजनन शिशु स्वास्थ्य सेवाओं की पहुंच तथा उपयोगिता में सुधार के लिए आपूर्ति प्रक्रिया के तत्व एवं क्षेत्रों के हस्तक्षेप से निर्माणित दिया गया है। इन प्राथमिक ने प्रजनन शिशु स्वास्थ्य सेवाओं की उपयोगिता में सुधार लाने में बहुत योगदान दिया है। तथापि भी बुरुआ-ाश्रयिक भाषा में प्रसार-पूर्व तैयारियों और समावेश जोड़ीलोटिक के बारे में जागरूकता और उपयोगिता जिता का विषय बना हुआ है। इस अवयव का उद्देश्य प्रजनन शिशु स्वास्थ्य सेवाओं के बारे में जागरूकता तथा उपयोगिता का पता लगाना है जिसमें शिशु जनम सांबंधी तैयारियों और जोड़ीलोटिक के लिए तैयारी शामिल है। अवयव सांबंधी निकायों से पहले बनाई 80 प्रतिशत प्राप्ती अवमहत्ता है कि बी.पी.ए.सी.आर. में परिवहन के प्रति जागरूकता, जब खंड, जनम के समय सहयोगी और स्वास्थ्य सुचिक्रिया विभाग है। राक दाता के बारे में उन्हें कोई जानकारी नहीं थी। अवयवस्त लोगों के अनुसार, एप्सी में 90.3 प्रतिशत लोगों का पंजीकरण हुआ, जिसमें 82.9 प्रतिशत सरकारी अपतत्त्वों में और 7.6 प्रतिशत निजी अपतत्त्वों में हुआ। इसी प्रकार, 33 प्रतिशत माता-पिता ने अपना एप्सी पंजीकरण प्रथम तिमाही में कराया तथा 48 प्रतिशत माताओं को अपना एप्सी पंजीकरण दूसरी तिमाही में कराया, 90.3 प्रतिशत माताओं को कर दी थी। इसे इंजेक्शन लगाए गए, 68.6 प्रतिशत माताओं को नियमित रूप से आयरन तथा फॉलिक एसिड की गोलियां दी गई तथा 12 प्रतिशत माताओं की चार या अधिक बार अन्नटासाइड जांच कराई गई। अवयव क्षेत्र में प्रसारपूर्व देखभाल के बारे में जागरूकता का स्तर 90.5 प्रतिशत था। अवयव का एक महत्वपूर्ण सांबंध, माता-पिता तथा नवजात शिशुओं की मूल्यांकन में कमी लाने तथा गर्भवती महिलाओं को प्रसारपूर्व पूर्वों प्राप्त होना है, सस्तानागत प्रसार करने और प्रसारोत्तर सेवाओं पर अधिक बल देने की आवश्यकता है मातृत्व स्वास्थ्य में सुधार लाने हेतु और अंततः स्वास्थ्य हीयि में सुधार लाने हेतु विशिष्ट हस्तक्षेप कार्यक्रम की योजना बनाने और आयोजित करने की आवश्यकता है।

प्रमुख शब्द: प्रजनन शिशु स्वास्थ्य सेवाओं के संबंध में जागरूकता, प्रजनन शिशु स्वास्थ्य सेवाओं का उपयोग, जनन तैयारियों और जोड़ीलोटिक हेतु तैयारी (बी.पी.ए.सी.आर).
Evaluation of Training Facilities of Institutes Conducting Training of Nurses under Central Sector Scheme

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Abstract

Training of nurses is one of the sub-components of the scheme under the central scheme of development of nursing services. The scheme is intended to conduct short-term courses of 7-day duration to improve the quality of nursing in three different dimensions like service, education and administration. As no study has been undertaken to assess the quality in terms of facilities, guidelines, planning and conduct of training; the MoHFW desired NIHFW to conduct a rapid assessment study to assess the training facilities available, determine adherence to the guidelines and to address the bottlenecks and solutions in the implementation of the scheme.

The MoHFW-funded study used a descriptive cross-sectional design. Nine training institutes of eight states- Delhi, Gujarat, Tamil Nadu, Puducherry, HP, Manipur, West Bengal and Jharkhand were selected randomly and data were collected with the help of a questionnaire and checklist. The data related to physical facility showed availability of separate class rooms, adequate AV Aids and other facilities as needed in all most all the institutions for conduction of training courses. All the nine institutions conducted courses for 7 days on the topics given in the guideline without a learning need assessment. Four out of the nine institutions prepared introductory documents showing the details of the course, with six sessions a day. Resource persons were chosen based on their qualification, expertise, availability, and external resource persons were given only one or two sessions a day. Six institutions deputed full time coordinators while three institutions deputed part time coordinators. Participants were nominated by all the institutions, and utilization certificate was submitted by seven institutions. Reducing the duration to 4-5 days was suggested by all the institutions due to the inability to spare nurses for seven days continuously. The scheme is implemented effectively by all the institutions and found to be useful. It was reported that shortage of nurses in service leads to difficulty in sparing nurses for seven days.

Key words: Training, Central Scheme, Resource persons, Participants, Nomination.

Introduction

Technology and modern life style have transformed the health profile of the Indian population. Based on their health profile, health needs are also fast changing. Government of India recognized the significance and role of nurses for achieving the Sustainable Development Goals (SDG) as nursing professionals constitute two-third of the workforce in the Indian healthcare set up. At all levels of health care, they play an important role in the delivery of quality health care to the people. In order to meet their changing health needs and to ensure universal health coverage, National Health Policy has emphasized the need for a well-trained health workforce with appropriate skill mix.
Lack of facility for nurses to update their knowledge and skill were reported in the high power committee report. No substantial improvement is reported in the status due to lack of fund for nurses except their salary. No state has a scheme or provision for the nurses to undergo short-term courses while being in service to keep their knowledge up-dated. Facilities are available in the states to undergo higher education. However, sparing the nurses for one to two years is beyond the scope of their freedom. Therefore, nursing fraternity was devoid of scope for enhancement of their competency beyond their level of basic preparation.

The need for training of nurses in various dimensions of health care services has been recognized by the Government of India and initiated a Central Sector Scheme of Development of Nursing with cent per cent funding during the ninth plan period onwards. Training of Nurses is one of the sub-components of the scheme. The central ministry sanctioned fund to the institutions or to the authorities concerned for conducting short-term courses with stipulated guidelines.

Since the inception, for the sub-component of Development of Nursing, the MoHFW provided financial support to various state Government institutions. The short-term courses are conducted in various nursing specialties, clinical nursing practice areas, education technology and nursing administration for training clinical nurses, nurse educators and nurse managers respectively. The scheme of training of nurses rolled down in the 9th plan period with time-to-time financial modifications. However, no evaluation was done on other aspects like facilities available, conduct of training, materials and methods used, and challenges and problems in implementing the scheme. Hence, the MoHFW entrusted NIHFW to conduct a rapid assessment to evaluate this sub-scheme of training of nurses implemented in the states under the scheme of Development of Nursing Services.

**Objectives of the Study**

The objectives of this study were to:

1. assess the training facilities available in various training institutions funded by the MoHFW for conducting training of nurses;
2. determine the extent to which the training institutes have adhered to the guidelines issued by the centre; and
3. find out the bottlenecks and suggestions for improvement in implementing the scheme.

**Review of Literature**

Success for achieving the national health objectives depend upon the effective delivery of health care services. Provision of quality health care services depends largely on the nature of education, training and appropriate orientation of all categories of health personnel. Among all the health professions, nursing constitutes majority (two-third) of the health work force in India. Nurses play multiple roles in the health care delivery to achieve the health targets. To take up multiple roles and responsibilities, nursing personnel need to be properly trained and supported during their pre-service and in-service period. Well-trained nurses can contribute towards strengthening systems to work efficiently in interdisciplinary teams. They can effectively participate and influence policies related to nursing at local, state and national levels. This has been reiterated in the report of Task Force (Planning Commission), National Task Force...
Continuing education (CE) is stated as important and vital for quality improvement in the health care. Janice Gaspard reported that the need for CE was rated as the highest priority. However, it is essential to assess the need for effectiveness of training. The study evidence suggested that nurses need training in communication skills, management, clinical skills, and research methods. FICCI report (2016) recognised the contributions, and suggested a number of strategies including strengthening nursing education and service, policy reforms, etc. The report illustrate various roles played by nurses such as providing nursing care, transition and continuity, coordination and integration, physical comfort, emotional support, patient safety, shared decision making, involvement of family and friends; and the need to strengthen the nursing cadre.

The National Task Force for strategic frame work for Nursing has suggested incorporating community nursing components and standard practices in nursing and midwifery. The sub-scheme Training of Nurses was started to strengthen the nursing services, education and administration under the central sector scheme of Development of Nursing in the identified areas of different Nursing Specialty for staff nurses, Educational Technology for teachers of schools and colleges of nursing and Management Techniques for nursing administrators. Each training programme is of seven days for thirty candidates. The funding pattern per training programme was Rs. 75000/- for 10-day duration for 30 participants during the X Plan period which was then revised to Rs. 1,65,300/ per course for 7-day duration for 30 participants in the 11th Plan period. A total of 149 courses were conducted during the XI plan period to train 4470 Nursing personnel in various areas. Under this Scheme of Training of Nurses, funds were released directly to the agency (i.e. State Govt., Central Govt. Hospitals, State Nursing Council and TNAI) through approved financial portal.

Methodology

The MoHFW-funded study adopted a descriptive cross-sectional design. Proportionate Random Sampling technique was used to select the nine training institutions as given in Table 1. Data were collected by using a structured questionnaire. Content validity was established by the experts. The questionnaire contains 67 items covering areas like general information of the institution, details on infrastructure of the training institutes/organisation, conduction of courses, financial details, and challenges faced while implementing the scheme. The investigators visited the institutions during the period December 2019 – January 2020. Institution Heads were interrogated. This included Principals of Government Colleges of Nursing; Registrars of State Nursing Councils; Nursing Superintendents; and In-Service Education Coordinators.
Table 1
Institutions Selected for Assessment of Training of Nurses

<table>
<thead>
<tr>
<th>State</th>
<th>Names of Institutes</th>
<th>No. of Courses</th>
<th>Amount Sancioned (Rs.)</th>
<th>Year of Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jharkhand</td>
<td>College of Nursing, RIMS, Ranchi</td>
<td>1</td>
<td>1,65,300</td>
<td>2017-18</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>Tamil Nadu Nurses and Midwives Council, Chennai</td>
<td>4</td>
<td>6,61,200</td>
<td>2017-18</td>
</tr>
<tr>
<td>Manipur</td>
<td>Manipur Nursing Council, Medical Directorate, Lemphal</td>
<td>5</td>
<td>8,26,500</td>
<td>2016-17</td>
</tr>
<tr>
<td>Himachal Pradesh</td>
<td>H.P. Nurses Registration Council, Shimla</td>
<td>5</td>
<td>8,26,500</td>
<td>2016-17</td>
</tr>
<tr>
<td>West Bengal</td>
<td>Govt. College of Nursing, R.G Kar Medical College &amp; Hospital, Kolkata</td>
<td>5</td>
<td>8,26,500</td>
<td>2016-17</td>
</tr>
<tr>
<td>Gujarat</td>
<td>Gujarat Nursing Council, Ahmedabad, Gujarat</td>
<td>5</td>
<td>8,26,500</td>
<td>2016-17</td>
</tr>
<tr>
<td>Puducherry</td>
<td>MTPG and Research Institute of Health Sciences, Govt of Puducherry</td>
<td>4</td>
<td>6,61,200</td>
<td>2016-17</td>
</tr>
<tr>
<td>Delhi</td>
<td>Safdarjung Hospital, New Delhi</td>
<td>4</td>
<td>6,61,200</td>
<td>2017-18</td>
</tr>
<tr>
<td>Delhi</td>
<td>Lady Hardinge Medical College and Suchita Kripalni Kalawati Saran Hospital, New Delhi</td>
<td>12</td>
<td>19,83,600</td>
<td>2018-19</td>
</tr>
</tbody>
</table>

**Findings**

The nine institutes included in the study were one each from the states of Gujarat, Jharkhand, Manipur, Tamil Nadu, West Bengal, Himachal Pradesh, Puducherry, and two from Delhi. Out of the nine institutions, five were government nursing training institutions and four were state nursing councils.

**Conduct of Training Courses:** It was found that five of the nine organisations including nursing councils and training institutions conducted the training at their associated institutions located in the same premises whereas two organisations (TN and Gujarat Nursing Councils) conducted the training in different institutions under them which were located in other districts. Two organisations in Delhi conducted the training in the classrooms allotted by the organisation for CNE. The class rooms where the trainings were conducted, were equipped with adequate AV Aids such as LCD with Over Head Projectors (OHP), whiteboard / blackboard, models, flipcharts, electricity back-up, drinking water, washroom/toilet etc. It was seen that electricity back-up problem existed in Jharkhand. Working lunch and snacks were being provided to all the training participants.

**Course Details:** Eight organisations adopted 7-day duration course as per the guideline whereas one organisation in Delhi was found conducting the course of 3-4 day duration with break and rotation to prevent shortage of staff in the clinical area. Five organisations had fixed six
sessions per day, three had kept five to seven sessions a day, and one organisation had five
sessions per day. All organisations maintained attendance of participants. It was observed that
need assessment was not done by any organisation but topics were selected as per the MoHFW
guideline.

With regard to preparation for training is concerned, institutes of Tamil Nadu, West Bengal,
Himachal Pradesh and Delhi prepared introductory documents of the training courses
containing objectives, content areas, programme schedule and teaching methods. Institutes
of Gujarat, Jharkhand, Manipur, and Puducherry prepared only programme schedules with
content areas and resource persons. Attendance was maintained by all the institutions twice a
day. In Jharkhand and Manipur, the titles of the courses were not easy to comprehend because
all the 30 topics as suggested by the funding agency were included in the training courses.
The title of the course in Manipur and Jharkhand was Development of Nursing Services
under Central Sector Scheme. Jharkhand, Manipur and Gujarat did not provide written course
materials and training kits to the participants at the start of the training while the rest provided
course materials.

Although lecture method with PPT presentation was the most used methods, group works
and demonstrations and other AV aids like, charts, models, etc. were also utilised during the
training programmes by all institutions. All the institutions are in receipt of the guidelines
regarding utilisation of the fund. However, two institutions expressed that the amount allocated
for the stationary is not sufficient to provide quality materials.

**Resource persons:** Findings indicated that the resource persons in all the institutions were
chosen on the basis of qualification, expertise and availability. Total number of sessions planned
for a day was six out of which one to two sessions were taken by external resource persons while
three to six sessions were taken by internal resource persons. None of the training institutions
faced any difficulty in arranging external resource persons. Coordinators were deputed on
part time basis in three institutions whereas six institutions had fulltime coordinators for the
trainings. Except West Bengal, coordinators did not receive any orientation for conducting the
training courses.

**Participants of the Training:** Participants for the training were nominated on the basis of
designation and areas of work in all the states while availability also taken into consideration
in the state of Gujarat. Official information was given one week prior to the training courses
in Gujarat, Jharkhand, West Bengal and Himachal Pradesh while the intimation was sent 3-4
weeks prior to the trainings in states of Manipur, Tamil Nadu, Puducherry and Delhi. Pre-test
and post-test knowledge assessment forms were administered to the participants in all the states
except Manipur. It was observed that the records of the participants who attended the training
were maintained in all the institutions. Feedback about the training was taken by all the training
institutes, and is utilized for planning of future trainings for further improvements in the states
except Jharkhand where it was used for only writing the report. The certificate of attendance
was given to all the participants who attended the training for the complete duration of 7 days.

**Adequacy of Fund:** Adequacy of fund is related to the honorarium for resource persons and
coordinators, TA and DA to the participants, refreshment and other aspects for which the fund
is utilized. All the states except Jharkhand and Delhi stated that the funding given for stationery
was sufficient to meet the quality of training materials. The state of Delhi expressed that the
fund was insufficient for stationery as the expenditure included banner, souvenir and printing of training materials, etc. There is provision for the coordinator deputed for the training to get honorarium of Rs.1000/- per day. For taking sessions, external resource persons receive the honorarium of Rs.1000/- per session and internal resource persons receive Rs.600/- per session. Out of total 8 states selected, five states- Manipur, Tamil Nadu, West Bengal, Himachal Pradesh and Delhi found it difficult to arrange external resource persons for the amount given in the guidelines of training. At the end of the training course, participants were given Travelling Allowance of Rs.500/- per head for 7 days and Dearness Allowance of Rs.300/- per head per day for 7 days.

**Status of Utilisation Certificate and Statement of Expenditure:** Table 2 shows that all institutions have submitted the utilisation certificate except Gujarat and Manipur.

### Table 2

**Details on Fund Received, UC and SOE (in Rs.)**

<table>
<thead>
<tr>
<th>State</th>
<th>Year of fund received</th>
<th>Amount Received</th>
<th>Amount Spent</th>
<th>No. of trainings conducted</th>
<th>Amount Unspent</th>
<th>UC/SoE submitted (N-NO, Y-YES)</th>
<th>Unspent amount returned to MoHFW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>2017-18</td>
<td>8,26,500/-</td>
<td>73796/-</td>
<td>5</td>
<td>59936/-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>2017-18</td>
<td>165300/-</td>
<td>158215/-</td>
<td>1</td>
<td>7085/-</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Manipur</td>
<td>2016-17</td>
<td>8,26,500/-</td>
<td>8,26,500/-</td>
<td>5</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2017-18</td>
<td>6,61,200/-</td>
<td>8,26,500/-</td>
<td>4</td>
<td>-</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>2018-19</td>
<td>11,57,100/-</td>
<td>6,61,200/-</td>
<td>-</td>
<td>- 11,57,100</td>
<td>N</td>
<td>-</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>2015-16</td>
<td>8,26,500/-</td>
<td>7,88,923</td>
<td>5</td>
<td>52,069</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>2016-17</td>
<td>6,61,200/-</td>
<td>7,88,923</td>
<td>5</td>
<td>37,577</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>2017-18</td>
<td>7,74,431</td>
<td>6,31,908</td>
<td>4</td>
<td>34,714</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>West Bengal</td>
<td>2016-17</td>
<td>8,26,500/-</td>
<td>8,26,500/-</td>
<td>5</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2017-18</td>
<td>8,26,500/-</td>
<td>8,26,500/-</td>
<td>5</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td>HP</td>
<td>2017-18</td>
<td>8,26,500/-</td>
<td>8,26,500/-</td>
<td>5</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td>Puducherry</td>
<td>2013-14</td>
<td>6,61,200/-</td>
<td>6,61,200</td>
<td>4</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2016-17</td>
<td>14,87200/-</td>
<td>14,87,200</td>
<td>9</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2017-18</td>
<td>8,26,500/-</td>
<td>8,26,500/-</td>
<td>5</td>
<td>-</td>
<td>Y</td>
<td>-</td>
</tr>
<tr>
<td>LHMC, Delhi</td>
<td>2016-17</td>
<td>8,26,500/-</td>
<td>815100/-</td>
<td>5</td>
<td>11400/-</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>2018-19</td>
<td>1983600/-</td>
<td>1983600/-</td>
<td>12</td>
<td>50332/-</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Safdarjung, Delhi</td>
<td>2016-17</td>
<td>495900/-</td>
<td>495900/-</td>
<td>4</td>
<td>16403/-</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>2017-18</td>
<td>661200/-</td>
<td>661200</td>
<td>8</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

All the institutions have maintained separate files for each course containing copies of the proposals submitted to the MoHFW, copies of the sanction letter, copies of the written communications with the district hospitals/ health facilities for nomination, programme schedule with objectives, sessions, venue, duration, participants’ attendance, copies of the UC and SOE, registration forms, feedback porforma, etc.
Challenges Faced by the Institutions during Training: Almost all the training institutions expressed inadequate fund for remuneration for resource persons, refreshment to the participants, course materials and TA/DA to the participants. Another challenge was getting nomination for training which was found to be due to shortage of nurses and long duration of training courses.

Suggestions

The institutions advocated for the below given suggestions:
- An increase in honorarium, TA/DA for the participants, travel allowance for external resource persons, an increased amount for stationeries (training kit and course materials, banner, posters, etc), and inclusion of lunch and snacks.
- Reduction in the duration of training course from the existing seven days to five days as the hospital administrations find it difficult to spare the nurses for trainings due to shortage of nurses in the clinical areas.
- MoHFW Guidelines to be made more specific and clear especially in selection of topic and conduction of training (teaching methodology).

Conclusion

The study attempted to comprehend the implementation of one of the components of Central Sector Scheme of Development of Nursing i.e. Training of Nurses. The scheme was formulated during the 9th five-year plan period considering the insensitive approach towards the State Government nursing training institutes. The scheme is well utilized by the states. A number of nursing personnel are benefitted from the scheme. However, the scheme needs time to time review and modifications.

Acknowledgement: The authors thank the Union Ministry of Health and Family Welfare for funding this evaluation study. They are also grateful to Dr. Nipun Vinaya, Joint Secretary, MoHFW, for his kind support.

Reference

केंद्रीय क्षेत्र योजना के अंतर्गत नस्लों के लिए प्रशिक्षण संचालित करने वाले संस्थाओं की 
प्रशिक्षण सुविधाओं का मूल्यांकन

* नंदीनी सुबैया एवं सी.एन. भर्मव **

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सारांश

नस्लों का प्रशिक्षण नसिंग सेवाओं के विकास संबंधी केंद्रीय योजना के अंतर्गत निम्नित होना 
योजना के उज-पटक में से एक है। यह योजना नसिंग सेवाओं की गुणवत्ता के तीन संबंध आयामों जैसे 
सेवा, शिक्षा तथा प्रशासन की गुणवत्ता को अधिक बेहतर बनाने के लिए 07-दिवसीय अन्वेष 
के अनुप्राणित पात्रत्वों का संचालन करने के लिए अभित्व है। चूँकि सुविधाओं, दिशानिर्देशों, 
नियोजन तथा प्रशिक्षण के संरचना फ़ाइल पर गुणवत्ता का आकलन करने के लिए कोई अध्ययन 
यह नहीं दिखा गया है। इसलिए स्वास्थ्य एवं परिवार कल्याण मंत्रालय द्वारा सार्वजनिक एवं परिवार 
कल्याण संस्थान से योजना के विवरण प्रशिक्षण सुविधाओं, दिशानिर्देशों का अनुप्राणित 
संचालन करने और योजना को निर्माणित करने में कठिनाइयों तथा उनका समाधान का पता लगाने 
के बारे में एक तत्काल आकलन अध्ययन संचालित करने के लिए आयाम किया गया।

उक्त अध्ययन में विवरणात्मक क्रॉस-अनुभागीय डिजाइन का उपयोग किया गया। अध्ययन के अंतर्गत 
आठ राज्यों नागम--दिल्ली, गुजरात, तमिलनाडु, पुडुचेरी, हिमाचल प्रदेश, मणिपुर, पश्चिम बंगाल और 
झारखंड का वाक्यिक आधार पर चयन किया गया था और एक प्रस्तावी तथा वेक्सेस्ट की 
संबंधता से आने एक एक दिन किया गया। मौलिक सुविधा से संबंधित आंकड़ों में अलग क्रांति के कसोटी 
उपलब्धता बिशेष श्रेणी--दुर्घ्य (एच.वी) उपकरणों एवं अन्य सुविधाओं जो कि प्रशिक्षण पात्रत्वों के 
संचालन के लिए भी अधिक महत्वसंबंधी होते हैं, उपलब्ध पाई गई सभी नी संस्थाओं में 
दिशानिर्देशों में दिये गए विवरण पर 7 दिनों के लिए बिना प्रशिक्षण आवश्यकता आकलन के पात्रत्व 
संचालित किया गया। नी में से चार संस्थाओं ने पात्रत्व के एक दिन में 4 दिनों के सहित 
पात्रत्व संबंधी विवरण शामिल करके एक प्रस्तावी तैयार किया गया। सौतें व्यक्तियों का 
चयन उनकी शैक्षिक योग्यता, विभेदा पंजीकरण, उपलब्धता के आधार पर किया गया था, तथा इसके 
साथ सौतें व्यक्तियों को एक दिन में केवल एक अध्ययन दो सत्र दिये गए थे। 3 दिनों 
एक दिन में दिये गए विवरण ने पात्रत्व के एक दिन में 7 दिनों के सहित 
पात्रत्व संबंधी विवरण शामिल करके एक प्रस्तावी तैयार किया गया। तथा साथ संस्थाओं 
द्वारा उपयोगिता प्रमाण पत्र प्रस्तुत किया था। सभी संस्थाओं द्वारा लगातार सात दिनों की अवधि के 
लिए नस्लें को कार्यकुल करने की अनुमति या योग्यता दिया हुआ पात्रत्व की अवधि 
4--5 दिन के बीच 
तक करने के लिए सुझाव दिया गया था। उक्त योजना का सभी संस्थाओं द्वारा प्रभावी ठंड से गाना 
किया गया है कि संसाधनीय नस्लों की कमी होने के कारण नस्लों को सात दिनों के लिए छोड़ने में 
कठिनाई होती है।

प्रमुख शब्द: प्रशिक्षण, केंद्रीय योजना, सौतें व्यक्ति, प्रतिभागी, नामांकन।
Psychological Well Being and Physical Health of Spouses of Deployed Army Personnel: Rank Differentials

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Abstract

One of the very less talked about and less explored section of women in India are the spouses of the Armed Forces Personnel whose overall well-being is majorly influenced by their husbands’ (military personnel) job due to situations like deployments, relocations, separations, dangerous operations, postings in operational areas, frequent postings, etc. These situations and conditions trigger depression, anxiety, decreased marital satisfaction and stress among the wives of the military personnel which may even lead to somatization. Spouses of military personnel are the ‘Silent Ranks’ that stand behind, and nurture the soldiers of our country. Therefore, they are regarded as an unseen gateway to protect the nation’s security and its pride. So, it is very necessary on the part of the spouses to be psychologically sound and physically healthy in order to support the soldiers mentally, emotionally and physically; and to feel proud to be the part of the military life. The present paper elicits the psychological well-being and physical well-being of the spouses of the Indian military personnel. This study presents a comparative analysis between the spouses of different ranks as ranks decide the perks and privileges which could directly and indirectly influence the psychological well-being of army wives. The present study was carried out on 150 respondents consisting of 50 officers’ spouses, 50 Junior Commissioned Officers’ (JCOs’) spouses and 50 ORs’ spouses in Suratgrah military station Rajasthan. Psychological well-being scale developed by Sisodia and Chaudhary was used to assess psychological wellbeing of the respondents and physical well-being scale (self-developed with the help of health record cards issued by the Army) was used to assess the physical health. Percentages and F test were used to used to analyze the data. It was found that there were statistically non-significant differences in the psychological well-being of the wives of the army personnel. However, significant differences in physical well-being across different ranks were reported amongst the spouses of the Indian Army personnel.

Key words: Physical well-being, Psychological well-being, Officers’ spouses, JCO, OR.
Introduction

Jawaharlal Nehru said “You can tell the condition of a Nation by looking at the status of its Women.” Status of the women symbolizes not only their independence, autonomy, and financial status but also reflects their overall quality of life. The Indian society has lots of societal barriers that lead to lack of autonomy, lack of decision-making, decreased self-concept and lack of satisfaction in the lives of most of the Indian women which impact their mental health, physical health and psychological well-being. Therefore, women still fall in the vulnerable group and still a lot needs to be done to uplift the status of women in India. A very less talked about and a less explored section of women in India are the spouses of Indian Military Personnel whose overall well-being is majorly influenced by their husbands’ (military personnel) job. Spouses of military personnel are the ‘Silent Ranks’ who stand behind and nurture the soldiers of our country. They are, therefore, regarded as an unseen gateway to protect the nation’s security and its pride.

An armed force is an organization where the process of deployment of soldiers or military personnel occurs very frequently. The soldiers are frequently deployed in active field/operational areas, high altitude areas or routine transfers because of which the families have to live in separation for short or long durations. This influences them emotionally, psychologically and mentally leading to stress responses such as anger, irritability, sleeplessness and anxiety, and significant levels of distress.

Although deployments are an integral part of military services, there are potential negative effects caused by this separation. For instance, the length and location of these deployments make communication between couples sporadic, difficult terrains put limitations to contact one another due to the lack of communication. Additionally, separations create changes within the family dynamics and add stress to an already stressful situation. Therefore, it is very necessary on the part of the spouses to be in good state of psychological well-being and physically healthy in order to support the soldier and his family mentally, emotionally and physically sound.

Deployment cycle is categorized into different stages- the pre-deployment, deployment, reunion and post-deployment phases; and each presents unique circumstances and challenges. The deployment experiences can be summarized with five stressors: worrying, waiting, going it alone, putting double duty and loneliness. During the pre-deployment phase, service members and their families may suffer anxiety in anticipation of the deployment. Service members’ need to focus on the logistics of the upcoming deployment can result in spouses experiencing them as “physically present while psychologically absent.” The deployment phase covers the period when the service member is physically absent from the family. During this period, spouses and children frequently undergo a period of emotional disorganization and destabilization.

In particular, the service member’s spouse may experience multiple stressors related to the shift in family dynamics and roles including loneliness, role overload, role shifts, financial concerns, changes in community support, and increased parenting demands. These stressors are intensified with fear for the safety of the deployed service member. The reunion phase during which the service member and family prepare for the service member’s return home, is frequently characterized by both excitement and apprehension. Returning service members are challenged by the adjustment to civilian life, and the service member’s family must again undergo a shift in family dynamics in a household where roles have inevitably changed.

Working through these issues represents the main challenge of the post-deployment phase. Family roles and routines must be renegotiated and redefined in the post-deployment phase and spouses, service members, and their children alike may feel uncertain of their respective
positions in this reconfigured system. Thus, the sense of loneliness and isolation many spouses experience during deployment can extend into the post-deployment phase.

Physical health is important for the overall well-being and is the most visible dimension of health. Other dimensions are social, intellectual, emotional, spiritual and environmental health. Health and wellness play a vital role in encouraging individuals to engage with a wide range of activities that could contribute to the development and growth of individuals at every stage of life. Thus, health and wellness also provides internal and external resources to individuals involved and develop a healthy life\textsuperscript{11}. Therefore, if physical health is jeopardized, then it is ultimately going to hamper the overall well-being of the individual and ultimately its impact is seen in the society.

Wives of deployed troops discovered a spectrum of symptoms and diagnoses such as depression, anxiety, insomnia, adjustment disorder, nervousness, headaches, dysphoria and changes in eating habits\textsuperscript{12-14}. Mental health of the spouses of combat veterans have high levels of distress, poorer physical and psychological health over a lifetime, and greater social isolation than partners of non-combat veterans who feel “As if they were on the verge of a nervous breakdown\textsuperscript{15}.”

Socio-economic status and easy availability and accessibility of material and non-material resources are one of the important socio-demographic factors impacting physical health and psychological well-being of the spouses of military personnel. As per hierarchy, the soldiers are broadly divided into three categories i.e. Commissioned Officers, Junior Commissioned Officers (JCOs) and Other Ranks (ORs). In the organizational hierarchy, the top position holders are Commissioned Officers followed by JCOs and ORs. The perks and privileges are also given according to the soldier’s ranks.

The spouses having a sound financial, material and non-material resources would be in a better position to cope up with the situation of husband’s deployment to fields. But in a socio-economically stressful environment with limited resources, it would be harder to manage everything all alone leading to anxiety, depression, and stress that lead to poor mental and physical state of the wife as well as her family members. Therefore, differences in the levels of psychological well-being and physical health could be seen among the wives of the personnel belonging to different ranks i.e. Other Ranks (ORs), Junior Commissioned Officers (JCOs) and Army Officers who not only have differences in salary structure but also in privileges and perks they get as per their ranks.

It is correctly said, “Inside a healthy body, lives a healthy mind.” Therefore, it is imperative to study the states of well-being and the condition that influence the psychological and physical well-being of the Indian Military soldiers’ spouses. The wives praise their husbands for going on their missions and defending the country while refraining from expressing their true opinions so as to not diminish their husbands’ moral and are silently serving the armed forces by supporting their husbands who are soldiers of our country. Military wives are a vital part of military members’ lives, and therefore, further exploration into the significance of the impact of frequent deployments on military families is necessary.

Objectives

The objectives of this study are to

1. assess the differences in psychological well-being among the spouses of deployed military personnel across different ranks; and
2. assess the differences in physical health among the spouses of deployed military personnel across different ranks.

There is a difference in psychological well-being and physical health of the spouses of different ranked deployed personnel of military forces.

Methodology

Location: The study was carried out in Suratgrah Military Station, Rajasthan, on the spouses of Indian military personnel belonging to five regiments (two Armoured Regiments, two Infantry Regiments and one Armed Supply Core Regiment). The sample comprised of 300 respondents out of which 150 (50 Officers’ spouses, 50 JCOs’ spouses and 50 ORs’ spouses) were deployed and 150 (50 Officers’ spouses, 50 JCOs’ spouses and 50 ORs’ spouses) were non-deployed.

Tools of Data Collection

Psychological Well-being of the respondents was assessed using psychological well-being scale developed by Sisodia and Choudhary. Five dimensions of psychological well being are Satisfaction, Efficiency, Sociability, Mental Health and Interpersonal relationships.

Physical health was assessed using the health cards of the respondents and a self developed and pre-tested physical health scale. Four dimensions of physical health i.e. nutritional status, clinical signs and symptoms status, general physical health status, and lifestyle were taken to categorize the respondents across different levels of physical health.

Statistical Analysis: Mean, standard deviation and F test were used to find the association of psychological and physical wellbeing with rank.

Findings and Discussion

Differences (Mean scores ± SD) in the Dimensions of Psychological Well-being among the Spouses of Deployed Military Personnel of Different Ranks

As described in Table 1 and Figure 1, the various dimensions of psychological well-being i.e. life-satisfaction, efficiency, sociability, mental health and interrelationship were compared between officers’ spouses, JCOs’ spouses and ORs’ spouses whose husbands were ‘deployed’. The results of the F-ratio indicate ‘rank’-wise differences among the spouses of deployed military personnel were significant only in two dimensions i.e. efficiency and sociability whereas rest all the dimensions including the overall psychological well-being were non-significant across all the three ranks. The data further reveals that the mean score of ‘life satisfaction’ among officers’ spouse was ‘22.16’ which is comparatively more than the mean scores of JCOs’ (17.50) and ORs’ (20.50) spouses but the difference is non-significant. ‘Efficiency’ and ‘sociability’ were found to show significant differences with (F=6.39; p<0.01) and (F=4.01; p<0.05). Mean score of ‘Efficiency’ was also found to be greater among the officers as compared to JCOs’ (25.96) and ORs (19.96). Higher mean score of ‘Deployed’ officers’ spouses could possibly be because of the getting higher resources (time, money, labour, etc.) to officers’ spouses even during deployment phases of their husbands. It was observed that spouses of Officers are more educated in comparison to others and are financially independent by engaging in full time or work from home jobs making them more efficient. However, the mean scores of ‘Sociability’ of
JCOs’ was greater (35.30) than officers’ wives (28.44). The explanation of this difference could probably be because the spouses of JCOs’ mostly stay at home. Thus, they get ample time to make friendships and acquaintances with the fellow spouses and have a larger social circle that increases their sociability quotient. On the other hand, ORs’ spouses are lesser sociability. By and large, the respondents felt that the hierarchical “class system” created by the military made it difficult to cross boundaries and form friendships.

Table 1
Differences (Mean scores ± SD) in the Dimensions of Psychological Well-being among the Spouses of Deployed Military Personnel of Different Ranks

<table>
<thead>
<tr>
<th></th>
<th>Officers (n=50)</th>
<th>JCOs (n=50)</th>
<th>ORs (n=50)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>22.16</td>
<td>15.65</td>
<td>17.50</td>
<td>11.96</td>
</tr>
<tr>
<td>Efficiency</td>
<td>28.84</td>
<td>11.92</td>
<td>25.96</td>
<td>14.20</td>
</tr>
<tr>
<td>Sociability</td>
<td>28.44</td>
<td>12.88</td>
<td>35.30</td>
<td>12.16</td>
</tr>
<tr>
<td>Mental Health</td>
<td>22.6</td>
<td>15.15</td>
<td>23.88</td>
<td>15.22</td>
</tr>
<tr>
<td>Interpersonal Relation</td>
<td>31.16</td>
<td>12.91</td>
<td>31.30</td>
<td>15.01</td>
</tr>
<tr>
<td>Total PWB Score</td>
<td>133.2</td>
<td>65.50</td>
<td>133.9</td>
<td>56.97</td>
</tr>
</tbody>
</table>

*P <.05%, **P< 0.01%

Figure 1
Differences (Mean scores) in the Dimensions of Psychological Well-being among the Spouses of Deployed Military Personnel of Different Ranks

‘Mental health’ was found to be higher in the score among JCOs’ (23.88) than officers’ (22.6) and ORs’ spouses(18.52) though the differences were non-significant. Similarly, ‘Interpersonal relationship’ showed almost equal values among spouses of all the three ranks with non-significant differences. The mean scores were 31.16 of officers’ spouses, 31.30 of JCOs’ spouses and 32.38 of ORs’ spouses. The findings also reveal the overall differences of ‘Psychological
well-being’ of spouses of personnel of different ranks. It revealed that ‘Rank’-wise differences in ‘Total psychological well-being’ were found to be non-significant. Though the individual mean scores differ as the mean score of ‘Total psychological well-being’ of JCOs’ (133.94) and officers’ (133.20) spouses were almost at par with each other and mean scores of ORs’ spouse (124.22) were comparatively less than their counterpart ranks. The non-significant differences among all the categories of ranks reveal that deployment phase treats deployed soldiers’ spouses in the same manner irrespective of the ranks of their spouses. Deployment is the common phase among wives irrespective of the rank and the trauma associated with deployment of husband impose similar kind of impact irrespective of the ‘Rank’ differences. Related research has shown that social support from friends contributes to heightened psychological well-being among military spouses and can buffer the effects of life stressors on spouses’ depression.

As military spouses are frequently stationed far from their families of origin, establishing a “sense of community” wherever they are, can fulfill the needs for connection and belonging. However, wives of ORs’ spouses need an attention as the mean score of overall psychological well being which is quiet less as compared to officers’ and JCOs’ wives. Apart from all the challenges faced by spouses during deployment like separation and fear of husbands wellbeing, these challenges are compounded as the issue of military rank adds another layer to social barriers for military spouses in lower ranks. It was apparent from the focus group sessions that spouses of officers and spouses of enlisted soldiers rarely commingle, and additional research is needed to understand the extent to which these divisions are “necessary” based on the military hierarchy, or whether tensions could be alleviated by interventions that address stereotypes.

### Differences (Mean scores ± SD) in the Dimensions of Physical Health among the Spouses of Deployed Indian Military Personnel of Different Ranks

Table 2 and Figure 2 reveal the ‘Rank’-wise differences of ‘physical health’ among the spouses of ‘deployed’ Indian military personnel. Significant ‘Rank’-wise differences were found with regard to ‘nutritional status’, ‘status of clinical signs’, ‘lifestyle’ and ‘total physical health’ but Rank-wise differences were not significant among the spouses of different ranks as far as their ‘general physical health is concerned. The mean score of ‘nutritional status’ was higher among spouses of ORs (13.60) which was above than the mean score of officers’ spouses (12.00) and mean score of JCOs’ spouses (8.70) with a significant difference (F=4.17; p=0.05). Thus, it can be interpreted that ‘nutritional status’ of spouses of ORs’ and officers’ spouses are almost equally better than JCOs’ spouses because the spouses of JCOs’ had higher cases of malnutrition in the form of ‘overweight’ and ‘obesity’ as compared to officers’ and ORs’ spouses. It was observed that the ‘Rank’-wise differences in ‘nutritional status’ were non-significant among these respondents. Similarly, it was found that ‘status of clinical signs’ had a differences between ranks (F=4.22; p=0.01) with highest mean score among officers’ spouses (14.12) followed by JCOs’ spouses (12.80) and ORs’ wives (9.36). ‘General physical health’ mean scores of officers’ wives (11.10) and JCOs’ wives (11.90) were higher as compared to ORs’ spouses (12.70). It was also found that the ‘lifestyle’ mean score of officers’ spouses were also significantly higher (17.50) followed by ORs’ spouses (17.50) and ORs’ spouses (16.20) and the least average score was of JCOs’ spouses (11.40) with significant difference of F=4.92; p=0.05. ‘Total physical health’ of the spouses of the ‘Deployed’ military personnel also showed significant ‘Rank’-wise differences (F=3.73; p=0.01) with higher mean scores among officers’ wives (54.72) as compared to the mean scores of ORs’ spouses (48.86) and JCOs’ spouses (48.60). ‘This could be explained by the fact that most of the JCOs’ spouses are in middle adulthood phase of life as JCOs are senior officers commissioned after serving
in an OR for several years. Hence, the wives of JCOs face related physical problems which account for the differences with the spouses other two ‘Ranks.’ As they are over indulged in family welfare and other regiment related priorities, they get minimum time to set health as a priority. This is in line with study conducted by Mailey et al.\textsuperscript{19} who stated that spouses have too many other things on their plate; so, that health behaviours like physical activity, healthy eating, and social connection did not feel like a priority. At times, feelings of depression and loneliness due to their spouse’s absence suppressed their appetites and further exacerbated these motivational struggles. This provides evidence that military spouses are scarcely engaging in health behaviours.

Table 2
Differences (Mean scores ± SD) in the Dimensions of Physical Health among the Spouses of Deployed Indian Military Personnel of Different Ranks

<table>
<thead>
<tr>
<th>Dimensions of Physical Health</th>
<th>Officers (n=50)</th>
<th>JCOs (n=50)</th>
<th>ORs (n=50)</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutritional Status</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>12.00</td>
<td>10.79</td>
<td>8.70</td>
<td>3.15</td>
</tr>
<tr>
<td>Status of clinical signs</td>
<td>14.12</td>
<td>7.44</td>
<td>12.80</td>
<td>5.53</td>
</tr>
<tr>
<td>General Physical Health</td>
<td>11.10</td>
<td>8.10</td>
<td>11.90</td>
<td>5.01</td>
</tr>
<tr>
<td>Lifestyle</td>
<td>17.50</td>
<td>9.75</td>
<td>11.40</td>
<td>6.96</td>
</tr>
<tr>
<td>Total Physical Health</td>
<td>54.72</td>
<td>30.4</td>
<td>48.60</td>
<td>20.65</td>
</tr>
</tbody>
</table>

\*P <.05%, **P< 0.01%

Figure 2
Differences (Mean scores) in the Dimensions of Physical Health among the Spouses of Deployed Indian Military Personnel of Different Ranks
Conclusion

‘Rank-wise’ differences in ‘Psychological well-being’ among spouses of ‘Deployed’ military personnel was non-significant though ‘Efficiency’ and ‘Sociability’ had significant ‘Rank-wise’ differences. Though ‘Total psychological well-being’ mean scores of officers’ wives was the highest followed by JCOs’ spouses whereas it was the least for ORs’ spouses. Among spouses of ‘Deployed’ military personnel, there was significant ‘Rank-wise differences’ in total Physical health, Nutritional status, clinical signs, symptoms status and Lifestyle. ‘Total physical health’ mean scores were the ‘highest’ among officers’ spouses followed by JCOs’ and ORs’ spouses.

The data reveal that the trend is similar in psychological well-being as well as physical where officers’ spouses showed the highest levels whereas the lowest levels were seen among ORs’ spouses. This reflects the fact that armed wives welfare association (AWWA) should concentrate more on the welfare and betterment of the spouses of ORs’ and separate counseling cells should be made to offer help and support especially during the phase of deployment when the husbands are away on field areas. The study findings indicate that due to lower mean scores of physical health among JCOs spouses, they should be sensitized about better lifestyle and nutritional related knowledge so that their physical health status could be uplifted. To achieve this, frequent lectures and nutrition consultation camps inside cantonment are required to be done from time to time and interventions should be designed to teach them coping strategies to deal with deployment effectively.

References

सारांश
भारत में महिलाओं के बारे में सबसे कम बात की जाती है तथा कम शिक्त की जाती है। यह देश के सारे भाग बनते हैं जिनका स्वास्थ्य उनके पत्नियों (सेना कार्यक्रमों) की कार्य संबंधी स्थितियों जैसे—तैनाती, त्यागात्मक, अस्तित्व होने, खराब मरी और आपसी हार्दिक, आपराजेय क्षेत्रों में तैनाती, लगातार तैनाती बदलने आदि के कारण अधिकांश भारतीयों रहता है। इन उपरोक्त परिस्थितियों का सेना सेना कार्यक्रमों की कुछ पत्नियों के बीच उद्धारण, उद्धंश, जीवन में कम होती है वैचारिक संतुष्टि तथा गांविक कला पर प्राथमिक प्रभाव पड़ता है। इस तरह, उन्हें सोमेंट बीजेशन विकार की स्थिति भी आ जाती है। सेना कार्यक्रमों की पत्नियों उनके पारंपरिक में उनके साथ खड़ी रहने वाले मुख्य पद (आइलेट रैंक) की मात्रता होती है तथा हमारे रैंक के रैंकों का पालन—पोषण करती है। इसलिए, इनका रास्ता की सुरक्षा की खा करने वाले एक अद्वैत द्वार के रूप में रक्षा करता है तथा इन पर गौरब किया जाता है। अत: उनकी पत्नियों के लिए यह अर्थ है कि यह उनकी पत्नियों रूप से तथा शारीरिक रूप से भूमिका से सच्चता के तरीके में हमारे सेना कार्यक्रमों को मानिस भावना तथा शारीरिक रूप से सच्चता व सम्बन्ध प्राप्त कर सके। और रैंक जीवन का एक अभिनंदन होना है वाले गौरव अनुभव कर सके। प्रस्तुत लेख में भारतीय सेना कार्यक्रमों की पत्नियों के मनोवैज्ञानिक स्वास्थ्य एवं शारीरिक स्वास्थ्य की स्थिति पर प्रभाव पड़ता गया है। इस अध्ययन में विश्लेषण रैंकों की पत्नियों के बारे में विश्लेषणात्मक अध्ययन प्रस्तुत किया गया है, चूंकि रैंकों के क्रमांक शीघ्र होकर तथा उपलब्ध होने वाली सुधारित नहीं होती है और इससे सेना कार्यक्रमों की पत्नियों का मनोवैज्ञानिक स्वास्थ्य प्रत्यक्ष अथवा अप्रत्यक्ष रूप से प्रभावित होता है। प्रस्तुत अध्ययन सूचना के रूप में वेबसाइट राजस्थान में 50 जेसीओं, अधिकारियों की पत्नियों तथा 50 कारनर्ट कमीशन अधिकारियों की पत्नियों तथा 50 आराम की पत्नियों रूप से 150 उत्तरदाताओं को शामिल करके संगठित किया गया था। मनोवैज्ञानिक स्वास्थ्य केंद्र को सिस्टेमिक एवं चैनिक द्वारा विशेषता किया गया, जिससे उत्तरदाताओं के मनोवैज्ञानिक स्वास्थ्य तथा शारीरिक स्वास्थ्य केंद्र में से गैर महत्त्वपूर्ण विभेदक उपस्थित हैं। किन्तु भारतीय सेना कार्यक्रमों के विविध रैंकों की पत्नियों के शारीरिक स्वास्थ्य में महत्त्वपूर्ण विभेदक का नहीं है।

प्रमुख शब्द: शारीरिक स्वास्थ्य, मनोवैज्ञानिक स्वास्थ्य, अधिकारियों की पत्नियां, जेसीओं, ओ.आर
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