DOI: https://doi.org/10.3329/bjnm.v28i1.79548

Roadmap to Clinical Leadership in Nuclear Medicine: Potential Advantages and Theoretical Viewpoints

Zeenat Jabin

Director, Institute of Nuclear Medicine & Allied Sciences (INMAS), Suhrawardy
Editor, Bangladesh Journal of Nuclear Medicine
Treasurer, Society of Nuclear Medicine, Bangladesh

Correspondence Address: Professor Dr. Zeenat Jabin, Director, INMAS, Suhrawardy, ShSMCH campus, Sher-e-Banglanagar, Dhaka.
Email: zeenatjabin@baec.gov.bd

'A function of knowing yourself, having a vision that is well communicated, building trust among colleagues, and taking effective action to realize your own potential' is defined as leadership (1). Healthcare professionals' effective leadership is crucial in modern settings to improve healthcare quality, which includes the Nuclear Medicine (NM) sector as well. For quality improvement, focusing on performance, value, and teamwork to improve outcomes is essential to overcome the barriers of diagnostic and therapeutic services of NM. Successful leaders must acknowledge this and overcome ingrained working practices and cultures that support this structure.

NM professionals and clinicians, like the rest of the allied health field, face significant challenges. To address present and future difficulties, it's crucial to evaluate elements that impact socio-cultural changes and religious beliefs, provide safe and quality care, and optimize resource utilization. So, the whole NM team must adopt inclusive, collective leadership styles to overcome the hurdles and practice a team spirit to sustain the quality improvement. High-caliber leadership is very important to achieve these rational goals with vision and motivate people to engage in the change, setting the direction and creating a credible message. Leadership is widely recognized as a factor that impacts organizational performance. In the 21st century, especially in this post-COVID pandemic period, health systems faced various challenges in balancing social determinants with medical care and developing manpower with academic liaison and ethical practices. Electronic and social media sometimes put significant negative impacts on the background.

The advancement of the advanced practice career track for Nuclear Medicine (NM) physicians and scientists has become a highly exciting career opportunity. In my institute, I officially receive calls and queries about NM training and education programs, and particularly newly graduated physicians express enthusiasm for the positive growth of the NM profession and keep a footprint in this field. The question arises about the specific tasks and responsibilities of NM physicians and scientists in developing a new pathway. Additional clinical skills in nuclear cardiology or PET-CT are crucial for the upgraded work facilities, which may not be available in all the NM establishments. Advanced NM imaging might be disrupted by trained personnel shortages, particularly in the peripheral areas of Bangladesh. The workforce faces issues such as worker shortages, ineffective resource allocation, and stress from workload and burnout.

Clinical leadership involves enhancing the roles and values of all individuals in the service, not just those within their own organization. A successful NM leader should be an internalized individual and have professional qualities, motivating them to improve service delivery, which is the key to the acceptance and adoption of advanced practices in imaging and theranostics.

Healthcare personnel can now access a variety of leadership training. Options include self-directed courses, fully paid fellowship programs, and large-scale change management projects. The Medical Leadership Competency Framework encourages doctors to build effective leadership skills (2).

Theoretical perspectives include: a) **Leading with care:** involves understanding team needs and behaviors, providing mutual support, and fostering a caring environment beyond the team's area; b) **Confidence and trust:** Involving the team members, fostering trust, and promoting creative participation. c) **New Ideas and skill development:** Collecting diverse knowledge and generating innovative ideas. Create and provide opportunities for individuals and teams to develop their capabilities, thereby enhancing their overall long-term skills. d) **Influencing for outcomes:** While adhering to national medical rules, taking personal risks, and making courageous challenges for the universal benefit of the service and subject e) **Multidisciplinary approach:** Collaborating with others, adapting to their needs, and establishing long-term commitments. f) **Connectivity:** The process involves evaluating and sourcing information from various sources while also promoting creativity and innovative thinking to create new ideas. g) **Accountability:** Clear expectations, continuous improvement challenges, and a mindset for innovative change with accountability are essential for success (3).

Most NM leaders above 50 in Bangladesh never received formal leadership training, though they have traditionally been based on conferred authority, serving mostly as department chairs. Sometimes complex challenges are faced that require an adaptive response. Typically, present medical education produces solo practitioners, but modern management requires teams with hierarchical training, evaluations based on individual performance, and members who prioritize the workforce's needs and behaviors, allowing them to lead the process of change. They acknowledge and deal with resistance to change, and quality improvement initiatives are more likely to succeed if they feel ownership of the task.

The Society of Nuclear Medicine, Bangladesh (SNMB), was established in 1993 to coordinate work in the field of NM, focusing on the diagnostic, therapeutic, and investigational use of radionuclides and nuclear techniques (4). With around 125 active members, the organization aims to improve communication, disseminate information, and uphold the interests of society members in their field while serving humanity. The members actively participate in the national and international conferences, Fellow of the Asian Nuclear Medicine Board (FANMB) exams arranged every year, and various activities yearlong. The Asian Regional Cooperative Council for Nuclear Medicine (ARCCNM) has established the Asian Nuclear Medicine Board (ANMB) to address the diverse practices and training in NM in Asia. However, the global initiatives of NM are usually organized by the International Atomic Energy Agency (IAEA) and other eminent NM societies like the Asia Oceania Federation of Nuclear Medicine and Biology (AOFNMB), the Australian and New Zealand Society of Nuclear Medicine (AZSNM), the Canadian Association of Nuclear Medicine (CANM), the Chinese Society of Nuclear Medicine, EANM, the Japanese Society of Nuclear Medicine (JSNM), the Korean Society of Nuclear Medicine (KSNM), the Society of Nuclear Medicine, India, SNMMI, and more (5).

In recent past, it was observed that male medical doctors and scientists are underrepresented in nuclear medicine and accounting for very less percentage of current residents, new appointments and trainees. Factors affecting men's interest in NM specialties may reflect a less chance to achieve financial benefits of a clinician and avoiding radiation related works. Strategies to overcome this include overcoming the misperception about radiation and providing a good overview of the scope of practice and amount of patient interaction within NM subspecialties, allied subjects and promoting diversity in leadership. In this context, I must mention that Women in Nuclear Medicine committee was established in 2014, which aims to advance women in NM by providing a supportive community, hosting special events, contributing to policy statements, showcasing research, and honoring their contributions (6). Another platform named Women in Nuclear Global (WiNMI), a non-profit organization founded in Vienna in 1992, advocates for environmental sustainability, diversity, and gender equality in nuclear energy and radiation applications. WiNMI aims to create a multidisciplinary group to strengthen capacity building in NM, promote women's

involvement, and enhance the attractiveness of nuclear health sectors for the next generation (7).

It is worth recognizing the Society of Nuclear Medicine Technologists, Bangladesh (SNMTB), which advocates, stewards, and facilitates the contributions of NM technologists to the achievement of optimal NM services and upgrades their learning facilities within the present infrastructure and works side by side and hands-on with SNMB.

Leadership development in NM should be encouraged at all levels, involving investment in opportunities and training. Identifying leadership styles, characteristics, and behaviors that suit the profession or individual NM workers is crucial for ensuring continued success in leadership development. **'Leadership can happen at anytime, anywhere and in any function'.**

REFERENCES

1. Pickett, M., 2007. Advanced practice in nuclear medicine: a pathway to clinical leadership. Journal of Nuclear Medicine Technology, 35(2), pp.13A-14A.
2. O'Sullivan, H. and McKimm, J., 2011. Medical leadership and the medical student. British Journal of Hospital Medicine, 72(6), pp.346-349.
3. NHS, L., 2013. Healthcare leadership model: The nine dimensions of leadership behaviour v. 1.0.
4. Hasan, M., 2014. Present, past and future of nuclear medicine in Bangladesh. Bangladesh Journal of Nuclear Medicine, 17(1), pp.08-09.
5. https://humanhealth.iaea.org/HHW/NuclearMedicine/Conferences/IPET2015/Presentations/Tuesday/06_Plenary_Session_5__M1/02_Leadership_initiative_in_nuclear_medicine_final.pdf
6. https://snmmi.org/Web/About/About-SNMMI/Committees/Committee-on-Women-in-Nuclear-Medicine/Default.aspx
7. https://win-global.org/about-win/