



SAINT PAUL'S HOSPITAL MILLENNIUM MEDICAL COLLEGE

Investigating Perspective Of Senior Faculty Members And Chief Residents About The Process Of Fostering Leadership Skill Among Trainees In Residency Program Of Saint Paul's Hospital Millennium Medical College During Period Spanning September To November Of 2023 GC.

Thesis submitted to the department of Internal Medicine of St. Paul's Hospital Millennium Medical College for partial fulfillment of specialty certificate of internal medicine.

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Addis Ababa, Ethiopia

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A handwritten signature in blue ink, appearing to be 'Abdu Adem Yesufe', written on a light-colored background.

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Abstract

Background: Leadership is a contested concept being considered as different things to different people. It is conceptualized differently according to the preoccupations of the time, socio-political system in which leadership is exercised and differences in cultural norms and values. Leadership theories have also evolved over time with development of newer leadership approaches which suit better into medical system (1, 2)

Clinical leadership refers to the engagement and guiding role of physicians in health system improvement. It includes exercising leadership in professional medical care as well as leading the system (3). Health care systems today are very complex, operating best through constructive interconnections and interrelationships among many stakeholders. Hence, harnessing the leadership potential of health care professionals is a more effective method for creating new dynamics in the sector (4). Most of the proponents of physician leadership development advocate beginning leadership training as early as possible. Assessment and feedback regarding leadership competency of medical trainees must be provided throughout the education and training of health professionals (2, 5).

Objective: To explore the process cultivating leadership competency among trainees in residency training program of Saint Paul's Hospital Millennium Medical College from the perspective of senior faculty members and Chief residents between September and November of 2023 GC.

Method: Qualitative study design was used by gathering data through in-depth interview and focus-group discussion from senior faculty members and chief residents. The data is coded and categorized. Subsequently, it was inductively analyzed to identify the main thematic area raised during the discussion. Then the finding is discussed under the main themes of the study

Result: The study has revealed that leadership is one of the core competencies listed in the national harmonized curriculum which is being implemented at SPHMMC program. And the process of its implementation is characterized by the presence of several practical exposures which can facilitate development of leadership skill among trainees. Leadership skill is also among parameters used to evaluate residents during the training. But the evaluation system lacks objective methods to assess development in leadership skills. Moreover, the program lacks clear plan and strategy regarding the process of fostering leadership of trainees. Furthermore, the program's efficiency in fostering leadership competency of trainees is affected by various environmental factors. Factors like institutional culture, diversity and community enjoyment yield positive effect while others like the culture of medical education of the country and attitude gap among seniors and residents have negative repercussion. Overall, development of leadership skill among the trainees is dependent on an individual's motivation and effort.

Conclusion: overall, the residency training program of SPHHMC has practical opportunities from the process of training as well as events hosted by the hospital. But it lacks providing theoretical knowledge. Moreover, the process is affected by multiple factors.

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List of Abbreviations and acronyms

CRLW: Chief Residents' Leadership Workshop

DHIS: District Health Information System Two

EHSTP: Ethiopian Health Sector Transformation Plan

FACCT: Focal academic and clinical coordinator team

L&M: Leadership and Management

LMG: leadership, management and governance

NHS: National Health Service

QI: Quality improvement

SPHMMC: Saint Paul's Hospital Millennium Medical College

WBL: work-based learning

WHO: world health organization

Chapter one

1. Introduction

1.1. Background

Leadership is a contested concept being considered as different things to different people. Its definition and characteristics have evolved over a period of time with different theories and philosophies. Defining and putting the single summary of the global understanding on leadership is difficult. A common starting point to define leadership is comparing the practices of a management and a leadership. According to this approach, Leadership is about setting direction, influencing others and managing change; whereas, management is marshaling and organizing resources and maintaining stability. But this definition puts these two tasks as separate despite the fact that most leaders practice leadership in a position where they are assigned as managers. Hence, leadership is defined according to the context and theory used in a given set up (1, 2)

Leadership theory is conceptualized differently according to time, socio-political system and cultural setting in which it is exercised. It has evolved from the Great Man theory, focusing on personality traits linked to masculinity to newer, merit based and learned models (1, 2). The newer theories like Transformational Leadership style which is characterized by a leader working in dynamic fashion to empower and release human potential to meet organizational goals are among the accepted models in the health sector. It has also proved to be an enduring model and incorporated into many public sector frameworks such as the UK's NHS Leadership Qualities Framework (1, 6). Dispersed Leadership approach is another theory proven to be effective in the health system because it involves all members in leadership roles as emergent leaders that pre-specified personnel (1, 6, 7).

Clinical leadership refers to the engagement and guiding role of physicians in health system improvement. It includes an active role of doctors in activities for healthcare improvement in addition to their immediate clinical duties and responsibilities (1, 6, 8). At least three different types of clinical leaders have been identified: institutional leaders (e.g., CEOs), service leaders (e.g., department chairs or research directors), and frontline leaders (case team coordinator and clinical care team leaders) (9). Medical professionals have a significant role to play in all of these

three leadership positions according to Ethiopia's hospital management guideline. (*Guideline for The Management of Federal Hospitals in Ethiopia, 2015, accessed from e-library.moh.gov.et, on February 5 2023 GC*)

Health care systems today are very complex, operating through constructive interconnections and interrelationships among many stakeholders. And the delivery of care also occurs in a continuum that spans across multiple disciplines which requires complex coordination of care by using clinical teams (8). Studies have been done and suggested that physicians are the ideal leaders for health care in the 21st century as they are exposed to an environment that is rich in opportunities to build leadership skills. (1, 3, 10). Moreover, medical professionals as a leader of the sector influence its outcomes positively due to their knowledge of the core business of health services and better awareness of what patient care involves. This positive impact has also been demonstrated in studies which measured hard outcomes like mortality which was found to be lower in institutions where physicians are leading the system (11, 12). As a result, the role of physicians as leaders of the health system is viewed as increasingly important globally and scholars studying in the area suggest that physicians can and ought to be trained to be part of solving the complex problems of medical systems (1, 13). Ethiopia has also planned a health sector transformation plan (HSTP) which requires effective healthcare leadership. Despite the fact that healthcare leadership was one of the pillars of excellence, lack of strong leadership in the health sector was the main challenge to realize HSTP in Ethiopia (14).

With the increasing advocacy and acceptance of the role of clinicians as leaders and managers of health care globally, the main area of discussion has become on how and when to foster clinical leadership skills among medical professionals (1). The proponents of physician leadership development advocate beginning this training as early as possible. Just as leadership operates at all levels, leadership development, assessment and feedback should be provided throughout the education and training of health professionals (15). Accordingly, countries have included leadership skills among core competencies to be attained during postgraduate medical training and have shifted from the dominance of technocratic expertise to the foregrounding of “nontechnical skills”. Among them is the Graduate Medical Education council of the USA and UK's graduate training program. (3, 6)

Making leadership development an explicit goal of medical training may help trainees to realize and accept that having a leadership role along with clinical skill and knowledge is both necessary and complementary. It then leads to a shift in mindset which is an important marker of trainees' readiness to become clinician leaders. Hence, leadership development of residents should be an essential part of improving health, reducing its variation and doing so in an affordable way (3, 4, 6, 9, 15, 16).

Ethiopia's national residency program has also shifted to a harmonized curriculum since 2018 GC to be implemented in all residency training programs. And leadership is among the core competencies listed to be achieved through the training. (*Accessed from <https://e-library.moh.gov.et> on Feb 14 2023*). SPHMMC, has also been one of the nation's large resident training institutions and is currently implementing the harmonized curriculum. SPHMMC has long been known to give emphasis for leadership skill during training and evaluation of its residents. Evaluation system of residents used in the college also has included parameters which are important leadership qualities like communication, interpersonal skill, professionalism, and system-based learning. (*See residents evaluation format*)

1.2. Statement of the problem

The universal challenges facing healthcare today including providing access, quality, and managing cost underscore the need for effective leadership (15). Gaps in leadership are listed among the major contributors for failure of health systems from achieving their goals both globally and nationally. (14, 17). The benefit of leadership skills is not only limited to managers of hospitals but also for routine clinical practice of physicians. The current clinical climate is shifting towards treatment of most disease entities through an interdisciplinary approach which requires team work and team leadership skills of the practitioners. Moreover, physicians need leadership skills to communicate and influence patients and their families to lead the process of treating chronic illness which need a bio-psycho-social model of approach (13, 16). Hence, working to build leadership skills of health system managers and practitioners should be given emphasis in order to improve health care delivery. This has been demonstrated in a study conducted to assess the impact of such interventions on improvement of health system quality (18).

Despite growing evidence supporting the link between leadership and improved clinical outcomes, a significant frontline “leadership gap” exists in health care. This has been identified across both globally as well as nationally and in institutions of different structure (9, 14, 16, 19). Such leadership gaps exacerbate the existing problems in the health system. This effect has been apparent in the World Health Organization’s report which showed that, the health care systems in developing countries are not achieving their primary purpose with gap in leadership gap being among factors contributing for that (9, 17).

Similarly, a significant leadership gap exists in Ethiopia’s health system. For example, an investigation was conducted to evaluate leadership, management and governance practice in 250 public hospitals registered and reported via the DHIS2 in 2018 and 2019 GC. The study found that leadership, governance and management practices were below the minimum standard in all assessed variables (20). Similar findings were reported from another study that assessed health care leadership effectiveness in public health institutions of Addis Ababa, Ethiopia in April of 2021. This study showed that less than half, 46.8% (95% CI: 43.4 -- 50.2) of healthcare

managers exercised effective healthcare leadership, particularly with respect to creation of vision, implementation of their vision and developing of followership (14).

Residents comprise the majority of working manpower in teaching hospitals and have a large impact on the quality of service provided by the institutions. They also rotate frequently to different units of hospitals and satellite sites of the hospital due to the nature of their training. Therefore, the residents require specific soft skills to navigate the dynamic work environment and team effectively. These skills include proficient communication and a grasp of team formation stages and dynamics (15). Furthermore, as they approach the final year of the training, residents will be expected to lead case teams, rounds and duty team activities and coach their juniors. All of these tasks require important leadership skills like team leadership, communication, mentorship and feedback giving in addition to their scientific knowledge (3, 6, 21). As a result, health education should invest on developing physicians with the ability to treat and effectively lead the system (21).

Even though there is already strong evidence about the benefit of fostering leadership skill among medical trainees, the level of focus is getting far behind the evolutions in clinical medicine and changing socio-cultural dynamics of society (13). This was evident in the result from a systematic review that assessed health leadership education in medical education programs of Canada. The review revealed that 60.4% of the programs addressed leadership in its traditional concept and have not embraced the new and more health-system friendly models of leadership (7). Even though there is no study which assessed formal leadership education in residency training institutions in Ethiopia, indirect evidence suggested that there is a huge gap in mentorship and coaching following leaders in the health system of our country (14).

It is apparent that the health education system has poor emphasis on leadership skill development among trainees and that has resulted in a leadership gap in the sector with all its negative consequences. In addition to lack of emphasis, shortage of time which limits the ability to provide leadership education on top of the already overbooked schedules of medical education poses yet another challenge. As a result, most medical schools and residency programs provide trainees with little or no structured leadership and management training. For example, a survey of 177 medical residents in the USA in 2012 revealed that 85% reported a need for management

training in negotiation, practice partnerships, knowledge of the healthcare system, and career planning (9).

In a system that desperately needs sound physician leadership at all levels, and which relies so heavily on the educational process to produce positive outcomes, it is no longer acceptable for residency programs to ignore the importance of structured leadership development (9). Nonetheless, the practitioners are left to learn leadership skills by themselves after they are in position to lead and more than few physician leaders consider themselves as “accidental leaders”. But studies are warning the medical education community that the role of physicians in the shaping of its future may be in jeopardy if it does not devote more time to developing leaders from within its ranks (4, 9, 16). Hence, a given medical education and residency training program should be assessed in regard to its work in cultivating leadership skill of trainees. Such evaluations must be the integral part of the curriculum development and revision.

1.3. Rationale of the study

As it has been demonstrated in several studies, effective leadership in the health system is necessary at all levels of care and it has transcending impact from individual patient care to organizational and national health system goal achievement. As a result, medical schools should consider cultivating leadership skills of trainees as one of priority areas and should assess their work in that regard as one of the key educational quality indicators.

This is especially important for SPHMMC as it is working with the aim of being a prestigious academic and research center in east Africa by creating holistically equipped clinicians. Having served for a decade as a residency training center, SPHMMC is in the right time to evaluate its program in terms of creating competent health system leaders. Nevertheless, according to researcher's best knowledge, no such study has been conducted so far. Hence, this study will be the first in its kind and will fill the information gap in the area and will be used by the college and stakeholders to evaluate the residency program's effectiveness. It will also provide a baseline information for future larger scale studies in this area.

2. Objective

2.1. General objective

- Investigating perspective of senior faculty members and chief residents about the process of fostering leadership skill among trainees in residency program of Saint Paul's Hospital Millennium Medical College during period of September to November Of 2023 Gc

2.2. Specific objectives

- To explore the perspectives of senior faculty members about the process of building leadership skill of trainees at SPHMC's residency training program.
- To investigate the process of cultivating leadership skill of trainees at SPHMMC's residency training program from perspective and experience of Chief residents

3. Study question

What is the perception of the senior faculty members leading the academic activity and chief residents regarding the process of cultivating leadership skill among trainees at SPHMMC's residency training program?

Chapter two

1. Literature review

Although many residency programs now offer leadership and management training to residents interested in hospital administration and executive leadership, few clinical training programs provide formally structured, evidence-based leadership and management training for all residents. (9). One of such approach was reported by James K et al. It was a five-year experience of Chief Residents' Leadership Workshop (CRLW) which involved a two-day leadership training with focus on the seven leadership competencies with subsequent continued E-learning at Cleveland Clinic Lerner College of Medicine, USA. And its impact was assessed by using pre and post-test. The pre-test showed that all of the trainees had no previous leadership experience and had low level of familiarity with leadership concepts as they described it "slightly" or "somewhat familiar". At the completion of the workshop, the residents were re-evaluated by post-test which showed that the overall familiarity as well as individual familiarity of the chief residents with leadership concepts was higher as compared to the pre-test. Moreover, many of the participants indicated very specific action plans for applying these skills afterward. In addition to the post-test, they used Kirkpatrick's educational impact staging to objectively measured change due to the intervention. And most of the participants have showed change at least at level of reaction, which is level one. (15).

Jeffrey E et al, reported their experience of leadership training provided to neurosurgery residents at University of Iowa. It was a two-year program with One session per month. The topics included leadership styles, conflict management, effective feedback, team building, team leadership, motivation, and moving from peer to leader. The 1-hour sessions were highly interactive and thought-provoking. The final part of the training given emphases on providing the residents with an opportunity to discover their personal approach in leading others with extensive self-reflection exercise, interactive lecturing, and discussion on the applicability of the topic to residents. The impact of this program was demonstrated by A statistical comparison using a retrospective pretest technique which indicated that the program had a statistically significant impact on the residents' attitudes and understanding of important concepts in leadership. Additionally, departments are required to demonstrate resident competency in the core areas of

professionalism and interpersonal and communication skills. After implementation of the program: Anecdotal remarks from faculty also indicated an improvement in leadership skills and behaviors. Comments from the residents suggest that they feel better prepared for leadership with more tools in their leadership toolbox (3).

Hemmer et al also reported about a program of leadership and management designed and delivered to pathology residents and fellows of Mayo clinic, Rochester, Minnesota. It was designed with the goal of creating residents and fellows who can function as medical directors of laboratories immediately on graduation in settings such as academic medical centers and community hospitals. The major areas covered include: leadership and management, interpersonal skill (team building, negotiation tactics, and conflict resolution strategies), informatic skill and event management. The annual course consisted of 6 sessions, and each session was 1 to 2 days long (average, 10 hours per session). Trainees have considerably improved their understanding of L&M by completing the course. It was demonstrated by a statistically significant difference in the mean value of their pre-test and post-test score. And also, many of the previous trainees have given unsolicited feedback about the value of the L&M training they received as senior residents and fellows. Many have assumed leadership positions as laboratory directors immediately after training and stated that they would not have been prepared for their responsibilities without a formal L&M course (4).

Solange et al reviewed 24 published literatures reviewing different approaches used to develop clinical leadership of practitioner in 2018. The review showed that most interventions used work-based learning as preferred educational approach. Work-based learning (WBL) has been shown to promote practical learning and to help practitioners relate new knowledge to their work environment. Among approaches of WBL, action learning, mentorship and coaching were frequently used for fostering leadership skill among junior professionals. And the interventions were mostly offered as multiple contact sessions of varying duration, ranging from a few days to several months. Such WBL approach to foster leadership skill has been effectively utilized in some postgraduate programs of doctors as multiple contact sessions. The interventions were assessed in different parameters and were found to bring improvement in personal development (self-awareness, time management, confidence), enhanced leadership knowledge and skill and

improved clinical knowledge and skill. This correlated to improved focus on patient care, improved patient outcomes and betterment of service delivery (22).

Chapter three

1. Method and material

1.1. Study setting and period

The study was conducted at St. Paul's Hospital Millennium Medical College (SPHMMC) which is located in Addis Ababa, Ethiopia. SPHMMC is a tertiary teaching hospital established in 2007 as a medical college. Currently, the college has postgraduate programs in 19 specialties with 847 actively enrolled residents. The list of programs and number of residents detailed in [Table 1, next page]. Since the launching of the national harmonized curriculum in 2018, there has been a gradual transition of departments towards applying it. Since 2022/2023 academic year, all the programs are implementing the national harmonized curriculum. This study was conducted between September and December 2023 GC.

1.2. Study design

Qualitative study design was used to explore the perspective of study participants on the research question.

1.3. Population

1.3.1. Source population:

The source population for this study comprises two groups. The first group was made up senior faculty members who are currently or have previously led the academic activity of departments giving residency training. The second pool was from chief residents.

1.3.2. Study population

The study was conducted among participants who were selected purposefully by the principal investigators with aim of getting detailed information for in-depth interview and focus group discussion.

Table 1: Number of residents who are currently enrolled in each department

No	Name of department	Total number of residents
1	Anesthesiology, critical care and pain medicine	73
2	Dermatology venerology	29
3	Emergency and critical care medicine	64
4	Otolaryngology-head and neck surgery	18
5	Forensic medicine and toxicology	15
6	General surgery	59
7	Obstetrics and gynecology	114
8	Internal medicine	131
9	Maxillofacial surgery	16
10	Ophthalmology	36
11	Orthopedics	56
12	Pathology	20
13	Pediatrics	82
14	Pediatric surgery	15
15	Neurological surgery	19
16	Radiology	81
17	Urological surgery	19
18	Family medicine	42
19	Psychiatry	31
	Total	847

1.4. Sample size determination and sampling technique

Purposeful selection of study participants was done with the target of getting detailed information on the research question. Data collection was conducted side by side with data transcription and analysis, and it was continued until data saturation was attained. Data saturation was declared when there was no new coding or theme with the incoming data. A total of 20 participants were included in the in-depth interview and 5 individuals were included in focus group discussion.

1.5. Operational definition

- **Senior Faculty Members:** Senior academic staffs of the hospital who are currently in the position of leading the residency training program of their department or have served in such a position previously. It can be the current or the previous department head, academic vice of the department or post graduate program coordinator.
- **Chief residents:** Residents who are assigned in the department to coordinate and lead resident learning activities by the virtue of their academic performance and management skill.

1.6. Data collection tool, methods and procedures

The data collection was conducted by individuals who were recruited based on their experience on qualitative data collection. The data collectors were given a day-long training to orient them about the purpose and nature of the study and update in principles of qualitative data collection before starting the work.

The data collection was carried out between October and November of 2023GC. It was done at SPHMMC and AABET hospital, a branch of SPHMMC. The in-depth interviews were conducted in offices of the participants and the FGD was conducted in the morning meeting room of the internal medicine department with five chief residents. The data was collected by the recruited collectors under supervision of the principal investigator.

The interview and FGD guides were developed by the investigator based on the objective of the study and questions used in similar studies done in other setups. They were then pre-tested for their ability to address the research question. The pre-test was conducted at Black Lion hospital which has a comparable environment to SPHMMC. It was done in the month of September, one month before the research data collection was started. The discussion with respondents of the pre-test was used to modify the questions based on their ability to lead to discussion on the research question. The guides have semi-structured form with open ended questions and probes to trigger discussion regarding the research question. The discussion guides were organized in two parts with the initial part providing an introduction about the research and the second part having questions to guide detailed discussion regarding the research question. The medium of discussion was mostly in Amharic with some of the respondents preferred to speak in English.

1.7. Data quality control and analysis

To ensure quality of collected information, the interview and FGD guides were pre-tested and modified accordingly. Data collectors were also selected based on their experience on data collection of qualitative research and were given update training for one day.

The information was gathered via audio recording the interviews following informed consent from the study participants. Verbatim transcription was done on the records. The Amharic transcripts were then translated into English. The data collection was going parallel with transcription and analysis of already collected data. Hence, the information obtained in each interview was being assessed for completeness and its ability to guide discussion regarding the research question. Based on that, some of the questions were modified and the order of questions was also modified based on flow of ideas observed during the first few interviews.

After each interview, the transcripts were assessed for completeness and subjected to content analysis by thoroughly reading it line by line. Coding of the data during analysis was done manually. The process of content analysis and identifying new code from each transcript was continued until data saturation was attained. After the data was coded, the main themes of

research were identified by inductively analyzing the codes. Then the information in the transcripts were categorized under the main themes. Further analysis of the data identified sub-themes under each of the main theme. Subsequently, the information obtained from the study was grouped in to the respective sub-themes for discussion.

1.8. Ethical considerations

The study was launched after approval of the proposal by the college's research directorate and provision of ethical clearance. During the data collection process, all participants were given necessary detail regarding the objective of the study. The participants were specifically informed that audio recording will be done during the interview and FGD and provided consent for that. The transcription was done by giving the alphabet for each participant to ensure its anonymity. The audio record management was discussed with the participants of the study and it was decided to be deleted after the research is completed and published.

1.9. Dissemination of results

The result of this study will be formally reported and submitted to the department of internal medicine and public health department. After its approval in the departments, it will be submitted to the academic management office of the college to be used as baseline data. In addition, it will be published in peer reviewed journals to be used at national and international level.

Chapter four

1. Result

1.1. Sample characteristics

A total of 20 participants were involved in the study. Ten senior faculty members: three department heads, four academic vises of departments, two seniors who served as department head and one senior working as clinical service coordinator. All of the senior faculty members have participated in in-depth interviews. In addition, ten chief residents were included, five of them in in-depth interviews and five of them were included in focus group discussion. In addition, document review of the national harmonized curriculum was done to support the input from the respondents.

1.2. Themes of the study

The study was conducted with the aim of exploring the perspective of the senior faculty members and Chief residents regarding effectiveness of the residency training program in building leadership skill among the trainees. It was conducted through in-depth interview and focus group discussion with chief residents and senior faculty members who are actively leading the academic activity of their department and those who have served in the role previously.

The national harmonized curriculum has been implemented in all the departments in a range of one to three years. Some of the departments are in the transition process implementing both the old and the harmonized curriculum. Possible effect of curriculum transition on evaluation of the program as whole was assessed by document review and discussion with the senior faculty members. According to the seniors, Saint Paul's initial curriculum was a major contributor during development of the national harmonized curriculum. Hence, the two curriculums are not significantly different other than re-arrangement of some major attachments. As result, they have

confirmed that there is no marked difference regarding fostering leadership skill of the residents since the introduction of the national harmonized curriculum.

“... Even though we are in curriculum transition, I can say there hasn’t been significant change regarding the program design, delivery, intended learning outcome and evaluation system in my experience. We just have some attachments added and others shuffled between first year and second year. But the evaluation form we are using now is what we have been using previously ...” [Faculty]

“... As a college, we were the major contributors for the harmonization process of surgical residency training. So, it was almost the reflection of our initial curriculum and no major change has happened since harmonized curriculum is implemented...” [Faculty]

The analysis of interview and focus group discussion which was done to explore perspective of the respondents regarding how leadership skill building is carried out at SPHMMC’s residency training program showed two major themes. These themes are: Effect of training process related factors on development of leadership skill of the trainees and Effect of environmental factors on development of leadership skill of the trainees. There were multiple sub-themes identified under each of the two major themes. Thematic frame work below shows summary of the main identified themes and their relation.

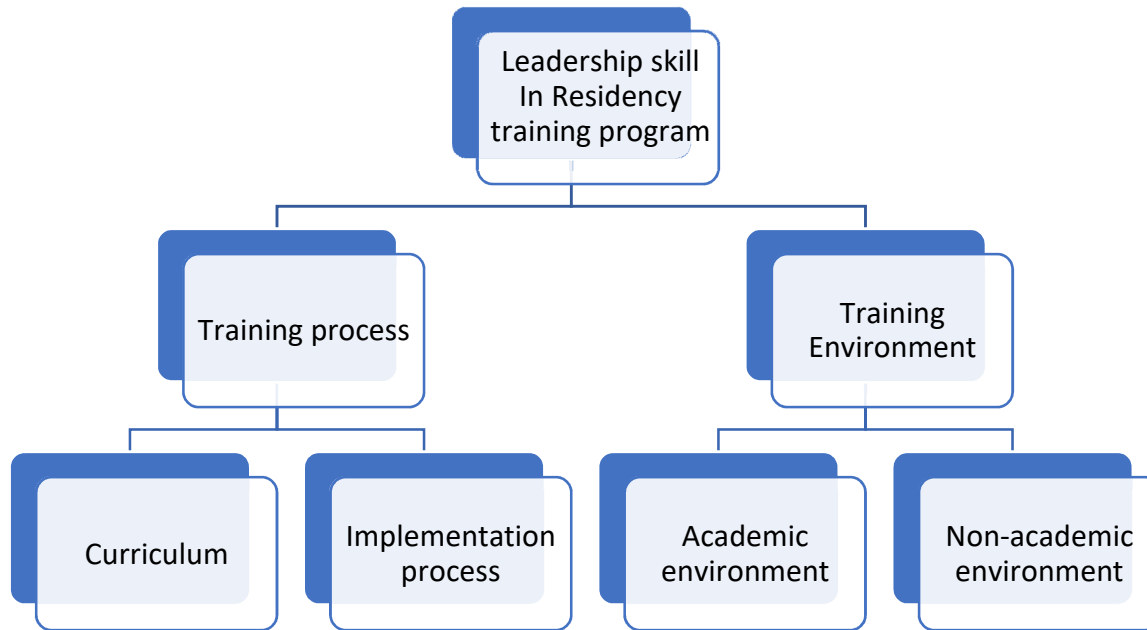


Figure 1: *The main themes of the study*

1.2.1. Leadership skill cultivation during the residency training process

1.2.1.1. Curriculum

Document review of the national harmonized curriculum was done to assess its emphasis on building leadership skills among the trainees. It has uniformly listed leadership among the core competencies for residency training programs of all departments. But it doesn't provide specific methodologies to be used to build leadership skills among the trainees and how to evaluate them. The curriculum mentions that leadership skills like communication and team coordination should be part of evaluation of the residents. But there is no specific grading system it puts; hence these evaluations are prone to individual bias.

1.2.1.2. Process of curriculum implementation/ Training

The process of practical implementation of the residency program has multiple steps with each having a significant impact on the effectiveness of equipping the residents in all listed core competencies including leadership skill. This study found that, the process of building leadership

skill of trainees in this program is influenced by the entire process of curriculum implementation. This starts from degree of emphasis given to the subject matter, degree of preparation made for its implementation, the process of its implementation and evaluation.

i. Will and Preparation

The first factor that is raised as an important determinant is the presence of will to work on leadership skills of the residents at college and department level. It was apparent from the interview and group discussion that leadership skill of the trainees is not among areas where the departments give due attention. The opinion of the senior faculty members regarding attention of the department on building leadership skill of the trainees has revealed that leadership is rather considered as adjuvant skill than core competency. Hence, it is not among the primary qualities they work to achieve. And the participants say that leadership skill is not among issues the departments give priority due to a lot of challenges that require attention and need urgent solutions before talking about leadership. Inadequate attention given to developing leadership skills of the trainees makes the program less effective in the investment. The participants have also forwarded their opinion on its negative impact on the process of building professionals with leadership skills.

“.... Talking about our leadership skill at this point is a luxury for me. We are struggling to get adequate clinical knowledge and skill first. This is like talking about something the department is not worried at all is no...t” [Chief resident]

“...We have to note that, building leadership skill is not our primary goal in residency training program. It is rather the adjuvant objective so that we can build surgeons who have good leadership capacity...” [Faculty]

In addition to lack of attention, there is also a gap in developing specific plans and methodologies on how to build leadership skills of the trainees. The senior faculty members have mentioned that leadership is rather acquired indirectly through the day-to-day exposure of the residents than through intentional and methodology guided process. Most of the approaches the

department uses to improve clinical knowledge and skill of the participants have the additional benefit of improving certain leadership skills. Hence, leadership skill building is hidden within the process of developing clinical knowledge and skill of the residents. Otherwise, there is no specific approach developed and designed towards fostering leadership skill as one of the intended learning outcomes during residency training and this has a negative impact on the effectiveness of the program.

“... You know, we have specific methodologies on how to develop clinical knowledge and skill but we lack such approach to build their leadership skill. We don’t have plans which are specifically focused on building leadership skill per se in our department...” [Faculty]

“... We mostly apply approaches which are primarily meant to provide clinical knowledge and skill with additional benefit of building leadership skill. If you see leading rounds, duty team activity, presenting seminars and teaching undergraduate student, all of these have primary goal of developing clinical knowledge and skill. But they can also improve leadership skill of the residents. And I think this is how it should be....” [Faculty]

ii. The process of delivery

In the process of actual training, leadership skill building is discussed in two ways: Developing theoretical leadership concepts and using the day-to-day work environment to build leadership skills.

Having the basic understanding about leadership skills theoretically and its relation to the profession is an essential component in developing the skills. The participants of the study raised the benefit of having theoretical discussion on leadership as something crucial to consolidate the exposures they have on day-to-day work. But there is little or no discussion and training on theoretical leadership concepts during residency. And its absence is raised as a major gap which limits the ability of residents to properly utilize their exposures to develop strong leadership skills. The chief residents also mentioned that, even though there are practical opportunities, the theoretical knowledge is foundational and its absence makes the learning process less potent to make them competent leaders.

“...One of our seniors delivered a one-hour lecture on leadership by his own initiative. It was very good initiative and was stimulating. But it was one time event and I don’t think it has brought significant change on us...” [Chief resident]

“...Even though we know the things superficially, it is difficult to consolidate and bring to practice without having understanding of the basics of leadership. So, training on leadership with theoretical evidences is important in order to build measurable competency in leadership....” [Chief resident]

Practical opportunities to develop leadership skills are available in different forms. It includes the day-to-day clinical activity of the residents. Basically, the nature of medical work is done in a team with the most senior member in the team taking a leadership role. So, the senior residents have to lead clinical activity in absence of the seniors and during duty hours. In addition to that, the residents are responsible to coach and supervise junior residents and interns in their team. In some departments, they are involved in teaching undergraduate students. Such exposures are very good ground to practice leadership skills and improve progressively.

Some of the departments have also started engaging residents’ other initiatives like quality improvement team, SBFR implementation and focal academic and clinical coordinator team of each ward. Exposure to such team improves their ability to facilitate discussion, identify and develop plans to solve certain problems in the workplace. Hence, it improves development of leadership skills among the trainees.

“...Final year residents are given more responsibility as they are approaching to the end of the training. They are responsible to clinical activity of each ward and they have the right to give feedback to their juniors to the level of taking corrective measures for malpractices. So, I can say they have middle managerial role in running the wards under our supervision....” [Faculty]

“...According to our SOP, the residents are part of the focal academic and clinical coordinator team. The second-year residents are expected to coordinate care provider

team and facilitating the education of undergraduate students...” [Faculty]

Yet, the process is described as passive learning from the environment. Mostly the residents develop some skills in response to challenges they face at work. According to the residents, it is more of a reactive process than being proactive as they are not initially oriented and informed how to solve certain problems before they face them. Moreover, there is no strategy from the side of departments on how to use these opportunities to build leadership skills of the residents. And also, these opportunities are not uniform to all the residents. Residents who are active and have good communication get noticed by the department and given certain roles. But these exposures are not intentionally distributed to residents so that they can exercise leadership role. As a result, even though there are practical opportunities which can be used to develop leadership skills of the trainees, the effectiveness of utilizing these exposures is negatively affected by lack of intentional approaches and strategies.

“... Some of the changes they acquire are not part of the visible teaching but they are passively acquired as they stay in the environment. If you see the resident, they become more responsible in wards, bolder in leading clinical teams and making decisions when they stay long with us. But we cannot say that all residents are getting uniform exposure to leadership skill development opportunities...” [Faculty]

“...There are opportunities to exercise leadership while doing residency, but the department is not intentionally using them. For instance, they can use morning discussion time to ask what leadership related challenges we have faced during duty hours just like they ask our clinical experience and give us some suggestions so that we solve similar problems with better skill in the future. But there is no such thing...” [FGD participant]

Moreover, the opportunities and challenges the work environment provides don't always have a positive impact on the leadership skill of the trainees. There are residents who rather develop

certain negative characteristics due to repetitive conflict, difficulty to work with colleagues and poor feedback system. Lack of intentional and organized approach on helping the residents use the opportunities at work place to develop their leadership skill makes the outcome of the exposure have both positive and negative effect.

“...After getting in to repeated quarrel I have learned more of how to manipulate and hide myself from any conflict....” [Chief resident]

“...The progression is not always in positive direction as they learn passively from their environment acquiring both the positive and negative component....” [Faculty]

The other practical opportunity to build leadership skills of the trainees is through giving the residents a chance to work as representatives and chief residents. Being a chief resident has a lot of tasks which require leadership skills like: communication, team leadership and understanding team members, maintaining friendship-leadership balance and managing difficult group members. The chief resident office coordinates all of the academic and clinical activity of the residents and is supposed to cover gaps created during emergency situations. Carrying out these responsibilities along with the academic life requires additional skill through training, support and mentorship. Moreover, the process of selection of Chief residents should be based on the interest of the candidates to develop themselves through the process. But according to the experience of the chief residents, the election process is not usually considerate of their baseline leadership skill as well as their interest. Most of them were informed that they were elected as chief residents after the decision was already made. And also, subsequent training, support and mentorship on how to run the office is generally not provided. As a result, most of the residents reported that they have gone through a lot of challenges due to lack of basic leadership skills like communication skill, feedback giving skill, problem identification and stakeholder management skill and understanding how to handle individuals and team. Hence, the program is not effectively utilizing the process of fostering leadership skill through giving the residents a chance to lead their academic activity.

“...I have never considered myself as a leader and never prepared for such role. Then I received the new by phone call and informed to collect the letter from the department. I was

actually in ambivalence to accept or reject the role...” [Chief resident]

“...When I started working as chief resident, there was no formal training, mentorship or support from anybody which helped me to run the office. Yet I was expected to take huge responsibility of coordinating academic and clinical activity of all the residents. It was really overwhelming initially...” [Chief resident]

“...At the start of my work as chief resident, was on fire: planning to change this and that. I had a lot of ideas in mind which I thought can improve the learning environment and our interaction with seniors. But reality was different. When I faced tons of obstacles trying to solve some of very simple problems, I was discouraged to attempt solving anything and I started to do what is mandatory and save my energy...” [Chief resident]

iii. Evaluation of leadership skill of the residents

As one of the core competencies, leadership skill is among parameter to be weighted during evaluation of the residents. The progressive assessment system of residents includes skills like communication, professionalism and interpersonal skill along with clinical knowledge, practice based learning and patient care. Different department give different weight for these parameters. In some departments, there are both direct and indirect methods to assess development of leadership skill of the trainees like evaluating the senior residents based on how well junior residents in their team perform. Presence of leadership skill as one parameter of evaluation has positive effect on development of the skills among the trainees as they will be intentional and work on themselves.

“...They always tell us that our performance is evaluated by how well our team works as whole than how much scientific knowledge we have. The seniors will not be satisfied if we are excellent for ourselves alone without helping the juniors in our team...” [FGD participant]

Nonetheless, the evaluation system lacks objectivity on how to assess development of leadership skills of the residents. The parameters are there but they are judged by the evaluating seniors subjectively and are prone to bias due to several factors including personal encounters and conflicts with the seniors. Hence, the evaluation system is not clear and objective enough. As a result, it is difficult for the residents to target improvement based on the evaluation result. So, the benefit of having an evaluation system that considers leadership as an important parameter is counterbalanced by lack of objectivity of its measurement.

“...Evaluation of our leadership skill is biased. If a resident has conflict with some senior at work place due to whatever reason, that will be taken as poor communication skill and professionalism. The evaluation doesn't really weight all the leadership skills...” [FGD participant]

“...Some of leadership skills like interpersonal skill and professionalism are included on our resident evaluation format as important parameters. But the evaluating seniors usually make their evaluation grossly than putting specific comment on the parameters listed in the format. So, we don't know how these residents are doing for real in terms of the individual parameters....” [Faculty]

1.2.2. Training Environment

1.2.2.1. Academic environment

i. Nature of the profession

Being in the medical profession has a lot of factors that facilitate having leadership skills. First of all, medical care by itself is a team work with treating physicians being the leader of the team. So, it creates an opportunity to exercise leadership skills. Furthermore, patient care involves interaction with multiple concerned bodies including the patient, family and multiple specialty and subspecialty units involved in patient care. This requires the primary care physician have good communication and team mobilization skills. In addition, the individual practice of medical care by itself has a lot of reflective and self-evaluation processes which are essential qualities of a good leader. Hence, practicing the medical profession cannot be done with medical knowledge alone and forces the practitioners to develop leadership skills. The participants of this study have also elaborated the unbreakable bond between medical practice and leadership skill by raising different examples.

“...For example, if a patient sustains sudden cardiac arrest, the most senior resident in the team will be in position to lead the CPR. As you know, CPR is time sensitive process with complex tasks executed by team. So, the responsible resident should mobilize team, divide task and get into the work in a glimpse of an eye and should follow the process vigilantly in give feedback on spot. At the same time, the leader should be analyzing the given information and making decision on what to give for the patient. The outcome being death or life puts everyone in tension but the team leader has to be calm and follow every step meticulously. Someone cannot do this just because he/she knows the science, there should be more....” [Chief resident]

“...An operating surgeon is by default leader of the OR team and has to do the surgery while leading the team and evaluating the procedure. The old surgeons call it ‘out of body experience. Basically, it is doing the job and evaluation yourself simultaneously. And that is what a great leader does...” [Chief resident]

ii. The Culture of Medical education in the country

The culture in the medical education system of this country is mentioned as a negative factor hindering development of leadership skills of the trainees. It starts from graduate class where the students spend the majority of their time on studying the vast and hard to memorize basic science. Then it continues during the clinical year when the students are intimidated for not knowing enough on rounds and bed sides. The communication culture is characterized by strict vertical hierarchy with the seniors having ultimate power. So, there is a fear-based relationship between seniors and juniors which creates reservation to express themselves. This trend is also visible during residency training. The chief residents have also reflected such challenges when they engage in conversation with seniors to carry out some of their responsibilities. In addition to being an obstacle to developing leadership skills, the residents and students who pass through such an environment get to learn the culture reflect it in their work place.

“...As you know, our medical education is characterized by an autocratic relationship between seniors and juniors with limited communication. So, the trainees passing through the system passively acquire this nature and the vicious cycle has continued for so long...”
[Faculty]

“...It is also important to recognize the impact of our teaching culture on the way our residents get shaped. For instance, our teaching and coaching system is full of negative and harsh feedbacks which can sometimes be breaking the residents instead of sharpening them...” [Faculty]

“...And when there is concern or objection from resident’s side, presenting it to the department is very challenging because they are not happy to hear anything different from their decision...” [Chief resident]

iii. Attitude of the seniors and residents regarding need of leadership skills

Gap in attitude among both the seniors and the residents regarding the necessity of leadership skill development among trainees has been reported. According to the participants of the research, there is a tendency to overlook the benefit of leadership skill development among seniors. As a result, a large number of seniors don't make attempts to discuss leadership and don't give it weight during evaluation. Similar tendency is also reported from the resident's side. Even though there are ample practical opportunities to develop leadership skills, not all residents are utilizing it equally. Moreover, developing leadership skill requires more commitment and closer communication between seniors and the residents which is lacking according to the respondent. This gap in attitude is mentioned as one of major hinderances in the process of cultivating leadership skill among trainees in the program.

“...Attitude gap is present on both sides: there are more than a few seniors who believe clinical knowledge is all what the residents need and ought to get in the training...”
[Faculty]

“...The senior faculty members will reflect their experience of residency on the trainees. And I don't think it is reasonable to demand something from seniors which they were not offered first...” [Faculty]

“...In our department, the residents are expected to have a reflective portfolio about their day-to-day experience at the workplace. But the residents usually write the whole thing on the deadline of its submission and mostly for the sake of completion of the requirement. It looks like the residents are not convinced about the benefit of such approaches...” [Chief resident]

2.2.2. Non-Academic environment

i. Institutional factor

Participants have raised that there are certain peculiarities in Saint Paul's hospital as an institution which makes it different from other institutions which have a positive impact on building leadership skills of the residents training in the college. One of the factors mentioned is marked diversity in the college due to the large number of trainees from different cultural backgrounds. There are also professionals who come to the college from other parts of the world due to the number of international collaborations the college has. As a result, there is potential to learn from different individuals. Furthermore, the emphasis the hospital gives for multi-disciplinary care is mentioned as an opportunity for the residents to express themselves and take initiative to mobilize different teams in their patient care. Saint Paul Hospital has strong connections to the community through outreach programs and satellite sites and this gives the residents an opportunity to practice leadership skills as they are main working forces during such events. Overall, the participants presented being in Saint Paul's hospital as a positive factor that facilitates growth of leadership skill of the trainees.

"...I have done my residency at different institution and I can testify that there is really good working as well as teaching culture in this hospital. The seniors are more approachable and there is relatively free communication between seniors and resident..." [Faculty].

"...Our hospital has a lot resources and opportunities to build leadership skill of the trainees including training platforms, enough man power to have mentorship and coaching. The community outreach events and satellite sites are also supported by the residents and they are good platform for them to improve themselves in leadership as well as clinical skills..." [Faculty]

ii. Work environment and culture

Lack mutual respect among different teams at work places creating an environment where people try to present perfectly and not take the risk of being wrong is mentioned as main hinderance to cultivate leadership skill of the trainees in SPHMMC. According to the participants, the interaction among different care providing team members is not as professional as it should be and there is a tendency of disrespecting the residents. As a result, the residents face difficulty when taking leadership roles during duty hours. Moreover, the respondents have raised challenges related to lack of clear organizational SOP and job description to guide them on leading care providing team.

“...The culture in the working environment is something which can be stated as a challenge. There is a tendency of disrespect and pushing each other among different groups at work place. So, everyone takes corners and is not happy to be the first person to take risks. Such environment is not conducive to build new culture and develop leadership skill of our residents...” [Faculty]

iii. Societal value and norm

The participants of this study raised our societal value system as an important factor affecting the process of building leadership competency of the trainees. Our societal norm celebrating shyness is mentioned as a hindering factor especially for the trainees coming from the countryside. And also, saying “no” is not encouraged and it is rather societally sound to say ‘I will try’. As a result, leaders face challenges which force them to say no. As one segment of the society, this program also manifests the same way. Among the challenges most raised by most of the chief residents was fear of being considered as rude when they have to disapprove certain requests from their friends. Hence, this cultural barrier is an important factor which negatively affects building leadership competency of the residents.

“...We should also remember the effect of our societal culture on fostering leadership skill among the young generation. It discourages speaking in public and other important qualities of

good leadership. I also notice this in our communication within care providing teams...”
[Faculty]

How the outcome of process of cultivating leadership among trainees?

All the participants of this study agree that there is a trend toward improvement in leadership skills as they become familiar with the environment and improve in scientific knowledge. But has marked heterogeneity and the change reflects primarily effort of individuals than effectiveness of the program. Due to lack of organized and clear methodology of delivery and evaluation for leadership skill, the process is passive and characterized by acquisition of both positive as well as negative characters from the environment. According to observation of the participants, leadership skill development of the residents depends on baseline understanding and motivation of the trainees; those who has experience and motivation utilize the opportunities to develop themselves but the that is not the case for all the residents

“...I think we have learned something, right? But it was the hard way....” [FGD participant]

“...They do improve as they progress in the academic year. I have witnessed residents who have emerged as very good clinical leaders in their respective wards. But how did they acquire these skills? Only God knows, otherwise we didn’t give them enough milieu to grow in...” [Faculty]

“...My observation on fellow residents is also the same. There are residents who get really good as they proceed in residency and there are others who get worse in several parameters like communication and coaching...” [Chief Resident]

The participants also reported that lack specific criteria or standard target in cultivating leadership skills of the trainees makes their opinion purely subjective. Even though they described what they perceive about the process they are in, they couldn’t give objective comment and tell whether the practice in the college is to the standard or not.

The diagram below depicts a summary of how different factors influence each other and how each of them affect the process of fostering leadership among trainees in SPHMMC residency program.

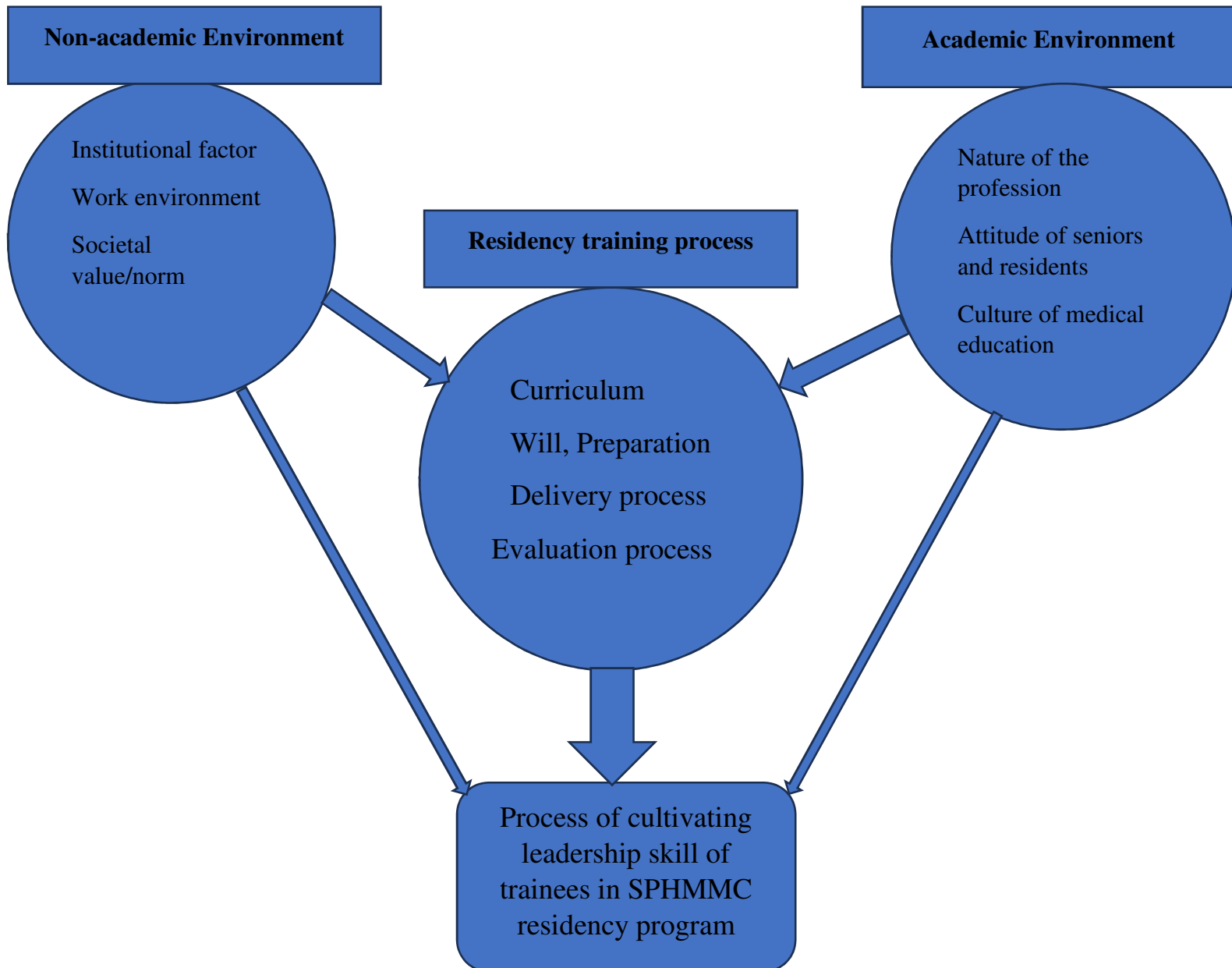


Figure 2: Diagrammatic representation of relationship between the thematic areas

Discussion

This study was conducted to investigate the process of cultivating leadership skill among trainees at SPHMMC's residency training program from perspective of senior faculty members who have experience of leading the academic activity and chief residents. The study has found that leadership skill building is among core competencies to be acquired during residency training programs according to the national harmonized curriculum which is being implemented in the college. The process of residents training is also characterized by a number of practical exposures which facilitates development of leadership skill. Moreover, leadership skill is among parameters graded during progressive assessment of the residents. And effectiveness of the program in cultivating leadership skill among trainees is affected by complex interaction of the process of residency training with academic and non-academic environmental factors. The process of fostering leadership skill among the trainees is not strongly supported by a planned and strategic approach which makes learning depend individual's effort and attitude.

Inclusion of leadership skill as core competency in the national harmonized curriculum and resident evaluation system is a major positive step towards building leadership skill among the trainees. As it has been observed to result in cultural transformation in medical education from technocratic to more non-technical skill focused system in the USA and the UK's post-graduate training programs (3, 6). But, SPHMMC's residency training program lacks clear method of measuring how the residents are developing in terms of their leadership skill. As one of the core competencies, leadership skill should have a proper evaluation approach. Lack of that has made the evaluation system is prone to biases. This can be improved by using models which can provide objective evaluation for learning outcome. One of such models is Kirkpatrick educational impact stage which was used in the Chief Residents' Leadership Workshop (CRLW) of the USA to assess improvement in attitude and behavioral of the trainees after the workshop (15). Using such objective evaluation system will help the program set clearly measurable goal and evaluate its efficiency based on that. Moreover, it will help the residents to have clear direction on what to target to get out of the practical learning opportunities,

Presence of multiple practical exposures which can develop leadership skills of the residents in their routine clinical practice is a good opportunity to implement Work-based learning (WBL) model which has been shown to promote practical learning and help practitioners relate new knowledge to their work environment (22). This work-based learning model uses exposures in the workplace to reflect on them and acquire lessons on leadership. Mentorship and coaching are mostly used methodologies in guiding reflective learning from day-to-day experiences at work place. But lack of such an organized and supportive system on how to use the practical exposures to build leadership skill among the trainees has resulted in non-uniformity in exposure as well as outcome among the trainees of SPHMMC in this study. As it was stated by some of the respondents that they have rather developed adverse behaviors like being more withdrawn due to significant challenges they have faced due to lack of leadership skills to handle them. Hence, effectiveness of utilizing the practical exposures to build leadership skill depends on presence and type of models used and strength of support system like coaching and mentorship which are lacking in the case of SPHMMC's program.

Lack of awareness on theoretical leadership concepts is the major gap raised by the participants which hinders their ability to utilize the practical exposures to build leadership skill. The Chief residents who were interviewed during the study reported lack of familiarity leadership concept during residency training as well as specifically running the chief office. Similar pattern of lack of familiarity on leadership concepts and theories was observed among residents in the USA on a survey among medical residents in the USA in 2012 (9). Due to that, several strategies have been tried to incorporate these concepts into residency training programs. Among them was the Chief Residents' Leadership Workshop (CRLW) which involved a two-day leadership training with focus on the seven leadership competencies with subsequent continued E-learning at Cleveland Clinic Lerner College of Medicine, USA. This approach has been effective in creating awareness and bringing behavioral change as the post-test after completion of the workshop revealed better familiarity and development of specific action plans on how to exercise leadership skills on their day-to-day work (15). Similarly, leadership training provided to neurosurgery residents at University of Iowa with emphasis on topics like leadership styles, conflict management, effective feedback, team building, team leadership, motivation, and moving from peer to leader had a

statistically significant impact on the residents' attitudes and understanding of important concepts in leadership (3).

Hence, having a platform where the theoretical leadership concepts are important support for the residency training program on its work of equipping residents with leadership skill. And short of that is found as a major hindrance.

In addition to factors which are directly related to the training process, this study has identified academic environment related factors which affect the process of building leadership competence among the trainees. One of the factors is the culture in the medical education system of the country which is characterized by absolute vertical hierarchy and fear-based relationship between seniors and their trainees. This decreases effectiveness of the program by reducing freedom of interaction between the trainers and trainees which is essential for mentorship and learning through experience. Moreover, attitude of both seniors and residents regarding benefit and need of leadership skill for residents is found to be a major obstacle in utilizing different opportunities the training process provides to build leadership skill.

Environmental factors which are not directly academic are also found to have influence on the training program in building leadership skills among the trainees. Such factors as institutional culture, diversity and close engagement with community were mentioned as factors that favors fostering leadership skill among trainees by expanding spectrum of exposure. However, any positive effect that resulted from these factors is found to be counterbalanced by poor communication and lack of mutual-respect in the work environment. The work environment is described as a hindrance for resident's ability to express themselves and learn through experience. Similarly, our societal norm which discourages free expression of thoughts and assertiveness to say no is mentioned as factor that negatively affects the process fostering young professionals with good leadership qualities. Hence, bring these factors in to attention when designing and implementing approaches to train leadership skills is important in order to be effective.

3. Conclusion

The study has found that leadership skill building is among core competencies of residency training programs according to the national harmonized curriculum. The residency training program of SPHMMC is implementing the harmonized curriculum and has adopted leadership skill as core competency. And the process of residency training is characterized by number of practical exposures which can facilitate development of leadership skill of trainees. But the process of cultivating leadership skills among the trainees is not all-inclusive and uniform. There is no clearly developed strategy on delivery as well as evaluation of leadership skill among trainees. As a result, development of leadership skill of the individual trainees depends on personal effort and attitude of senior who teaches them. Furthermore, the process of building leadership during residency training is influenced by academic environment and non-academic environment of the college. Some of the factors influence it positively while others are mentioned as hinderance. Because of the nature of delivery process and influence of the environmental factors, leadership skill development among trainees is not uniform and measurable.

4. Limitations of the study

One of the limitations of this study is its confinement to single institution which can limit its applicability to other residency training programs. Moreover, this study showed an overall description of SPHMMC's program despite the fact that there is possibility of significant difference on the outcome among different departments.

5. Recommendations

- SPHMMC post-graduate training coordination office: There should be awareness creation for the senior faculty members about the need of leadership skill among the residents.
- To school of medicine and residency training departments: The curriculum should be clear on which competencies of leadership are necessary during residency training. It should also clearly state what kind of approach has to be used to cultivate those skills. There should be structured approach to utilize the practical exposures to develop leadership skill of the trainees. Finally, there should be objective and standardized evaluation system to assess the trainees based on their acquisition of leadership skills.
- To residents: There should be personal motivation to use the opportunities that develop leadership skills during their day-to-day work experience as well as events hosted by the hospital like community outreach programs.
- For future researchers: To do more detailed study including alumni of the college to assess effectiveness of the program in building leadership skills of the trainees.

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Annex1

English version of the data collection tool

1. FGD of Chief resident

Introduction statement:

This is a guideline for focus-group discussion (FGD) which is to be conducted in order to assess the perspective of chief residents regarding effectiveness of SPHMMC's residency training program in building leadership competency among the trainees.

The purpose of this study is to generate evidence by conducting in-depth interview and focus group discussion with stakeholders who are actively involved in a process of training and leadership position currently.

The discussion is expected to take 60-90 minutes. And the information collected from this discussion will also help to triangulate with data collected from individual interview. But it will be used only for study purpose with full confidentiality and it doesn't include any specific identity of the participants.

There is no direct financial benefit for taking part of this discussion. But this data will be of invaluable benefit in generating baseline information based on which interventions can be planned to improve the residency program of the college.

1. Name (s) of surveyor(s):	
2. Date of FGD:	
3. FGD location:	
4. Number of people attending the FGD:	1. Female 2. Male

5. Type of FGD:	1. Chief residents
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Questions to Guide FGD of Chief resident

1. Describe your experience at the start of your current role in this position

Probes: Did you have interest for this position?

Did you compete for it?

Did you have leadership related educational background?

Answer:

-
2. How do you see leadership component in your current position?

Probe: Does being chief resident require leadership skill?

Give me examples on leadership role you play as chief resident

Answer:

-
3. Are there challenges you have faced at start of your role as chief resident?

Probes: Challenges related to your lack of skill to run the office

Challenges related to preparing and convincing yourself to the position

Answer:

-
4. How do you describe the contribution of the residency training in equipping you for this role?
-

Probe: How do you see the process of orientation in preparing you to develop leadership skill?

Tell me if there are opportunities in process of residency training which cab building leadership skill?

How do you see the effect of including leadership skill as evaluation parameter?

Are there trainings or mentorship programs which have supported you to run this office?

Answer:

-
5. What do you suggest for the department to increase its effectiveness of building leadership skills among the trainees?

2. Senior Faculty members in management position

Introduction statement:

I am Dr Bethlehem Admassu, final year internal medicine resident at SPHMMC. I am conducting research to explore the perspective of Senior management staffs and chief residents regarding the effectiveness of our college's residency training program on developing leadership competency among the trainees.

For this study, I have planned to collect data by conducting interview with Senior hospital staffs currently working as managers in academic office of the college and from chief residents by asking about their experience and perspective about the issue.

Because of your position, you are one of the key informants with whom the discussion is planned to be done. The information you provide will be transcribed in word format, directly and used as input to conduct thematic analysis. It will be used to this research purpose only and any dissemination of this information will be according to your consent.

This interview is expected to take 30-45 minutes and if you are willing, it will be recorded for transcription. The record will be handled confidentially and used only for the research purpose.

There is no payment you will get for involving in this interview but the information you give will be invaluable to assess the status of our college.

Do you agree?

Signature-----

Date-----

Information about the respondent

1. Educational background
2. Current position in the college
3. Year of experience in this position

About their perspective on the residency training program of the department

1. Which curriculum are you using in your department for resident training?

Probes:

When did you adopt the national harmonized curriculum?

How did it change the intended learning outcomes and evaluation system as department?

Have you made any modification at department level?

2. How do you describe the process of cultivating leadership skill trainees in this residency program of your department overall?

Probes: Input, process, evaluation

3. Is there any specific approach you use to improve leadership skill of your trainees? If any tell me about them.

Probes: Are there any approaches which are directed to leadership skill?

Are there approaches which have indirect/additional benefit of leadership skill development?

4. What are the challenges and opportunities you have as department in building leadership skills among your trainees?
5. How do you see the progression of residents from first year to final year in terms of non-academic skills?

Probes: skills like team leadership,

communication skill, mentoring

Coaching and mentoring their juniors

6. From your experience in current position, what do you suggest for the department to increase its effectiveness of building these skills among the trainees?

Chief resident

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Do you agree?

Signature-----

Date-----

Information about the respondent

1. Duration of experience in this position

Experience and perspective on leadership

2. Describe your experience at the start of your current role in this position

Probes: Did you have interest for this position?

Did you compete for it?

Did you have additional training to the formal academic background?

3. How do you see leadership component in your current position?

Probe: Does being chief resident require leadership role?

How do you describe the leadership role you have as chief resident?

4. What are specific challenges you have faced at the beginning of this role?

Probe: Challenges related to freedom to exercising leadership role:

Challenges related to Skill gap,

5. How do you see your ability to handle this role over time and what are important skills you have acquired?

Probe: tell me contribution of your role as chief resident in building your leadership skills

6. How do you describe the contribution of the residency training in equipping you for this role?

Probes: How do you see the process of orientation in preparing you to develop leadership skill?

Tell me if there are opportunities in process of residency training which can building leadership skill?

How do you see the effect of including leadership skill as evaluation parameter?

Are there trainings or mentorship programs which have supported you to run this office?

7. What do you suggest for the department to increase its effectiveness of building leadership skills among the trainees?