Formal Faculty Mentorship at Aga Khan University Medical College and AKU-SONAM: A Comprehensive Triangulation Approach for Improved Outcomes

Rehana Rehman, Khola Noreen, Saira Khalid, Tazeen Saeed Ali, Rahila Ali* , Quratulain Javaid

[1]Department of Biological &; Biomedical sciences,Aga Khan University, Karachi. Pakistan.
[2]Community Medicine Department Rawalpindi Medical University, Rawalpindi, Pakistan
[3]College of Nursing Armed Forces Postgraduate,Medical Institute (AFPGMI), Rawalpindi. Pakistan.
[4]School of nursing and Midwifery,Aga Khan University, Karachi. Pakistan.
[5]Department for Educational Development,Aga Khan University, Karachi. Pakistan.
[6]Department of Anatomy,Bahria University Health Sciences, Campus, Karachi. Pakistan.

ARTICLE INFO

ABSTRACT

Objective: To obtain a comprehensive understanding of the mentorship programs in Aga Khan University Medical College (AKU-MC) and Aga Khan University School of Nursing and Midwifery (AKU-SONAM) by the framework of Program Inputs, activities, followed by triangulation of results. **Design:** Exploratory study **Setting:** AKU-MC and AKU-SONAM**Participants:** mentors, mentees, administrators, and leadership from both entities of the university.Data collection comprised of in-depth interviews (IDIs) focus group discussions (FGDs with administrators and leadership **Primary outcome:** Comprehensive understanding of the mentorship programs in AKU-MC and AKU-SONAM by the framework of Program Inputs, activities, followed by triangulation of results. Data collection comprised of in-depth interviews (IDIs) focus group discussions (FGDs). Triangulation was applied at the level of entities in i) data collection methods; FGD, and document review, ii) participants; mentors, mentees, administrators and leadership, iii) response from investigators; researcher and supervisory team to enhance the rigor of the study. **Results:** All the participants from both entities agreed that mentorship programs transferred knowledge and skills, enhanced relationships and facilitated networking. A work-driven and Dyad mentorship model was accredited by mentors, mentees, at AKU-MC and AKU-SONAM respectively. Mentorship committees from both entities oversaw mentor and mentee enrolments, matching, and monitoring of activities The constancy of mentor-mentee meeting frequency, and lack of a structured feedback mechanism were identified as challenges. The significance of recognition, rewards, opportunities for higher qualifications and institutional recognition was suggested by all participants. All Mentors and mentees recommended departmental collaborations and networking for meaningful outcomes.**Conclusion:** The exploration of context of both mentorship programs revealed that financial and logistic resources of both programs need to be amplified. Mentees were given a choice for selection of mentors for pairing however monitoring of activities may be overcome by selecting appropriate mentors and mentees, practical matching for work relationships, and monitoring successful outcome.

Corresponding author

Email id:

INTRODUCTION

There is a need of faculty mentorship to develop the academic professionals and faculty mentors [1]. Mentoring offers distinctive advantages to mentors, mentees, and the organization; boosting the research productivity ,scholarly activities and increasing faculty retention [2][3]. The mentorship program at AKU-School of Nursing and Midwifery (AKU-SONAM) was inaugurated in 2002 for guidance and supervision of freshly employed nursing faculty in education, research, administration and professional leadership. The program was managed by the mentorship committee at AKU-SONAM aimed to create a supportive and encouraging environment and positive relationship between the junior and senior faculty members. All the appointed faculty was enrolled in the program and paired with the senior nurses in respective fields of education, research and administration (data in publication).

Faculty Mentorship Forum (FMF) at AKU Medical College (AKU-MC) was initiated in 2019 to provide mentorship opportunities to junior and new faculty for their professional growth and development[4][5].

The Karcher framework aims to assess the mentoring programs with reference to its input, structure, and outcomes. Inputs signify all the constituents in the mentoring programs like mentors, mentees, program operators, documents and list of trainings etc. Activities represent the tangible expressions of the content discussed, encompassing developmental and instrumental activities, along with various relationship styles. Outcomes refer to the behaviors, attitudes, skills, or products that emerge as a result of these activities.[6]. Constraints in this context denote the processes or resources that can either facilitate or impede the effectiveness of program activities in attaining desired outcomes. The incorporation of acknowledged constraints into research models has revealed correlations among socioeconomic status, mentor training, mentee risk level, and assorted variables. This has underscored distinctions in the efficacy of activities specific to the program. [6].

The objective of the study is to analyse mentorship programs at AKU (AKU-MC and AKU-SONAM) by the framework of input, activities and outcomes of mentoring programs for faculty development and triangulate the acquired data for a meaningful outcome.

MATERIALS AND METHODS

It was an exploratory study conducted in 2021 after ethical approval from 'the Aga Khan University, Karachi: (2021-6127-17832)'. Purposive sampling technique was used to invite mentors, mentees, administrators, and leadership from both AKU-MC and AKU-SONAM. Faculty members who have acted as mentors for at least one year in any faculty mentorship program with at least two sessions with mentees qualified for the study. Senior instructors and Assistant Professors of faculty mentorship programs who had participated as a minimum for two feedback sessions with mentors were included as mentees. Administrators: chairs, co-chairs, and coordinators of the mentoring program (at least one-year experience in the mentorship programs) were also part of the study. Deans of entities represented the leadership (2 from AKU-MC and 1 from AKU-SONAM). Faculty members who were unwilling to participate or were not available on the interview dates were excluded from the study. A total of 17 individuals from AKU-MC (6 administrators, 2 leaders, 4 mentors, and 5 mentees) and 7 from AKU-SONAM (2 administrators, 1 leader, 2 mentors, and 2 mentees) were recruited as participants. We conducted eleven in-depth interviews (IDIs) with administrators and leadership, (8-AKU-MC and 3 at AKU-SONAM), 6 focus group discussions (FGDs); 4 at AKU-MC, [2 for mentors (2 participants) and 2 for mentees (with 2 and 3 participants)]. Two Focus Group Discussions (FGDs) were carried out at AKU-SONAM, one involving mentors and another involving mentees, each session comprising two participants. As qualitative studies typically prioritize in-depth insights over generalizability, data collection was concluded when responses became repetitive. Data was analyzed by manual method and with the help of NVivo software. The codes were merged, to form sub-categories categories and themes represented in Figure 1
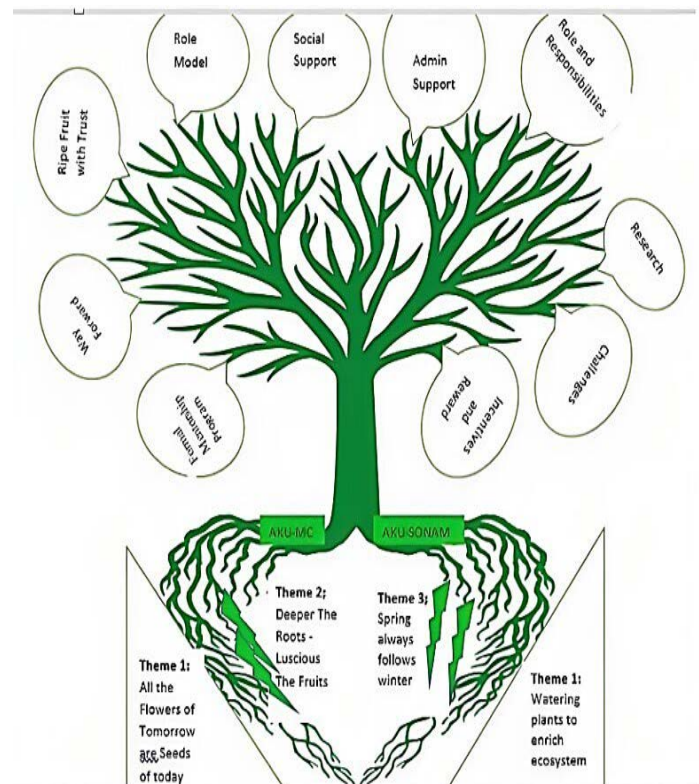

Figure 1: Themes AKU MC and AKU SONAM

During data analysis, triangulation was done at different levels; data collection methods; IDI, FGD and document review. The results of IDI and FGD from both entities were triangulated with documented guidelines, expectation and program goals, minutes of meetings, manuals of the program, emails of correspondence with mentors and mentees, criteria for mentor-mentee matching and checklists of each entity individually. The findings from the interviews were also compared with the document review of questions asked from mentors and mentees; "Pre-intervention Probe Forms" [5]. In addition to that triangulation of study participants; leadership, administrators, mentors, and mentees, investigator triangulation (researcher with both supervisors) and triangulation of entities was implemented to bolster and reinforce the overall validity of the study, credibility and generate a more in-depth understanding of a research problem, to add to the rigor of the study.

This stratification of categories in themes of both entities was on the basis of derived themes Figure 2:
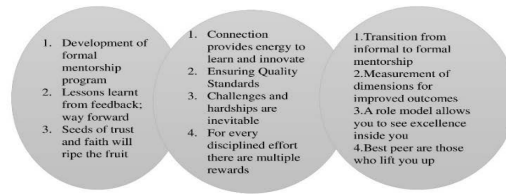

Figure 2: Comparison of categories in both entities

RESULTS

We followed the conceptual model of mentorship [6] after triangulation of data obtained from different entities, study participants, data sources and understanding of researchers observations.
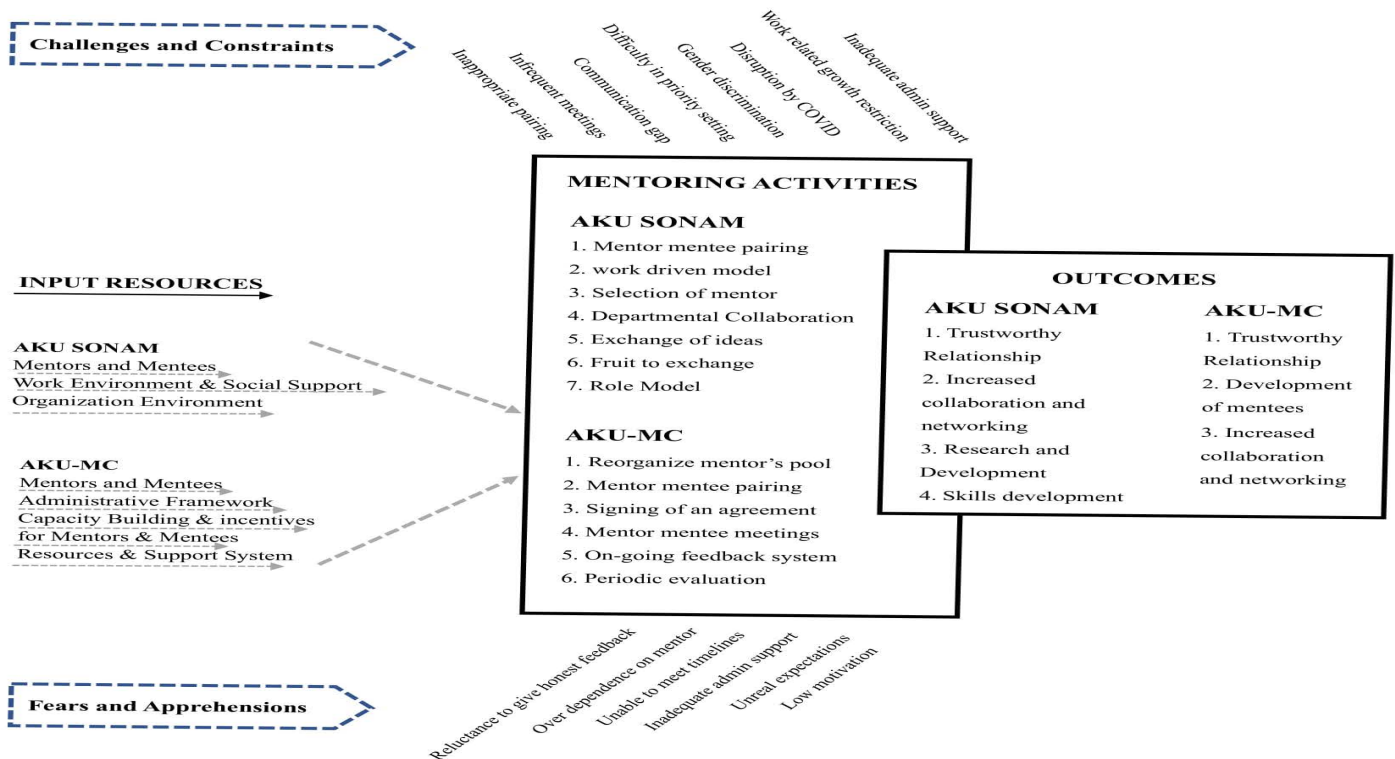

Figure 3: Conceptual model of Mentorship

The results are categorized under three main headings: Program Inputs, activities and outcomes. The verbatims of participants with reference to the frame

Table 1: Participants Verbatim with reference to the Framework.

Table 1: Triangulation of illustrative quotes from study participants; mentors, mentees, administrators from both entities	
AKU SONAM	AKU-MC
1. Input	
Mentor and Mentee responsibility	
Mentor "As a long time, mentor, I believe that mentees should take ownership of their learning and growth. While collaboration is important, mentees take a crucial role in seeking support for career development. I appreciate mentees who take initiative in this two-way learning process facilitated by the mentorship committee".	Administrator "The list of mentors is reviewed every two years; some programs use a website for student-faculty matches. If mentees are dissatisfied, they have the option to request a change." (IDI-03, administrator). "The research office is trying to enhance research literacy with support of mentors, mentees, and alumni. The office provides mentorship and guidance to all faculty members through the senior leadership forum".
Selection of Mentors	
Administrator "The mentorship committee at SONAM has developed a faculty mentor pool with the consent of mentors. The list is available with the administrators and mentees can choose mentors from their specialty (research, teaching, or clinicals). After selection, mentees have a four to six-week probationary period to establish rapport, learn details, and understand policies."	
Organizational environment and social support	
Leadership In informal mentoring social support from peers and faculty played an important role. When I joined, I wasn't assigned a formal mentor, however the senior faculty provided full support. I acknowledge the social support from peers. and AKU-SONAM gives significant emphasis on support and informal guidance considerable work has been done in the past".	Administrator "The mentorship program is still in formative stage and hasn't yet assumed its full potential With The emphasis that there should be no forced mentor/mentee pairing Instead It should be voluntary. Forced marriages are usually not considered to be very successful. Moreover, the younger faculty should also be invited to be part of mentorship program". Mentee "I think a good mentee should make efforts to stay in touch with their mentor especially when the mentor is extremely busy and not available on emails. A mentee's role, is crucial to for sustainability of mentor mentee relationship".
Structured Feedback	
Administrator "The performance in clinical and academics is currently being assessed in a semi structured way. To have structured feedback, the guidelines, flow, or process should be available in writing."	Mentor Its success is evident when the mentee acknowledges and feels a sense of accomplishment, especially when proud of their achievements. That's in my mind a success because this is a bunch of intangibles. As a mentor, I oversee many students, and the administration facilitates our connection through email. We have periodic meetings, and feedback forms are sent for our input every quarter or six months. Feedback is taken from both. I feel pretty much connected with the committee as they listen to your experiences of the mentoring program"

2. Mentoring Activities	
Mentoring Model	
Mentor "Keeping in mind the protected time required for mentor mentee meetings, we propose a work driven mentorship model. In this, space sharing replaces the need of formal meetings or feedback facilitating collaborative working, co-ordination, and continuous feedback. I think this is a more sustainable solution	We used to do the pairing. But if anyone is unhappy or unsatisfied with it, (this was not until the third year) they can request to change their mentors. So, we used to do it. Ideally, there should be an ability for students to select mentors. Match and pair old and senior faculties.
Mentor mentee Matching	
Leadership "We maintain a mentor list with eligibility criteria, requiring more than 2 years of experience and an associate professor or senior level position, pairing considers specialty and after 4-6 weeks of probation period we have informal feedback from the mentees which is verified by the preceptors/mentors as they reflect on their experiences. This guides both mentors and mentees in the right direction and fosters a connection with the relevant entity".	"Literature supports formal pairing with choice which is what we follow as well. We have had a mentor's pool on the AKU website for a year. When mentees agree we ask them to select three mentors from the pool. Then we pair the mentees with the mentors".
Role Model	
Administrator "The importance of role modelling is a difficult question. Strong role modelling of the mentor is very important as the mentee is learning and replicating the actions of the mentor. The behavior of mentor is very important. Role modelling is more important in mentoring a faculty since you are preparing someone, who in turn will take a leadership role"	Mentor "I remember my mentor would never leave the lecture hall before erasing the whiteboard / chalkboard for the next person. This small gesture sets a path. There is so much to learn from role modelling for young students".
Mentorship to Seniors	
Leadership "At present the committee is dedicated to work for the novice but it should be facilitated for senior faculty as well. We warmly welcome new faculty, give them a checklist but what about those who are already seniors. I think that we need to look at how to develop some good mentorship programs for the senior level"	Mentorship of senior faculty by international mentors is next in line.
Exchange of ideas	
Leadership "Being AKU graduates, we have good resources of internal mentors however we need external mentors for to get a broader perspective The status is the research mentorship in Queen Elizabeth scholarship program …Similarly, for the past 15 years we have research mentorship with external collaborators. I have learnt from my mentors that every faculty, at every level, should have a mentor which can be internal or external. For example, I have mentorship from academicians, educationist, and researcher separately. This is how we can get mentorship components as per our need from different avenues".	
Mentor "If we can have an exchange of mentors, between SONAM, medical college, DED and IED which is likely to happen in future we can select a mentor from another entity as per our needs. At this time, I am sharing a bigger picture which can fulfil our goal and make a big dream come true."	
Rewards, Recognition, Motivation & Appreciation	

Mentee	Mentor
"Appreciation may include incentives, higher education opportunities, performance appraisals, international workshop participation, leadership roles, and mentorship awards. Leadership: "dissemination of successful mentorship achievements through departmental and university newsletters should be encouraged". Mentor "Another step is the introduction of the mentorship award will recognize work in this capacity"	"The mentorship program extends beyond seeking guidance for academic promotion; it serves as a platform for mentors to groom faculty through role modeling. Incentives and administrative support should be provided for both mentors and mentees. "Administrator recognition can include a letter of appreciation, annual evaluation, recognition for outstanding job and promotions. Mentor "Mentorship is a two-way process, and it is a win-win situation for both mentors and mentees" Administrator "The program can gain recognition by organizing awareness sessions, disseminating success stories, recognizing mentors in faculty assemblies Support group can help in coordination of activities. There should be university culture of awards and recognition" Mentor "Breakfast/ tea meetings of new and old mentors at regular intervals can provide a forum to share experiences. so that new mentors may learn the traits of a previous role model"

3. Outcome

Trustworthy Relationship

Mentor	
"Monetary label should not be associated with mentorship, as it may attract people for wrong reasons. A trustworthy relationship will promote personal and professional development. The essence is a trusted mentor-mentee relationship which cannot be weighed with finance. (FGD-02 P-01)	

Research and Development

Administrator	Mentor
"Research mentorship hasn't begun, but we have a research forum promoting literacy with different leads focusing on themes like maternal and new-born health, adolescent health, mental health, and geriatric palliative care, so that people align themselves within the respective theme. I am hiring an alumni to dedicate 20% of her time to research." Mentorship is provided through the senior leadership forum in the research office.	"I think workshops and formal training opportunities should be introduced for capacity building program of mentors and mentees"

Collaboration and Networking

Administrative mentor	
"Mentorship should not be limited to a particular entity or a task So,	
I think that we should have collaboration of AKU-SONAM with AKU-MC, department for educational development (DED) and the Institute of Educational Development (IED) at AKU. We can formulate a mentorship committee with representatives from each entity who meet at regular intervals. and brief one another on recent advancements done to uplift the program".	Mentor "I mentor many students and administration facilitates our connection via emails. After the initial meeting, we have regular quarterly or six-monthly meetings. The administration regularly seeks our feedback to understand our experiences with the mentorship program".

	Mentor "It is the responsibility of administration to formalize the liaison and documentation of the process. Request for a desk and office bearer has been proposed"

Skill Development	
Mentor Without defined outcome measures, assessing mentee improvements after a 4–6-week probation period has been challenging. Currently, there is no formal tool to evaluate the learning process or gauge individual mentee progress".	

4. Fears and Apprehension	

Time Management	
Administrator Everybody has his plate full, and involved in multiple tasks, hence, it is difficult to find dedicated time for mentor mentee meetings. I think my biggest challenge was also time commitment. A solution to overcome is to have mentor mentee pairing in such a way that they are doing multiple things together thus learning simultaneously.	Mentor "Student's and faculty's time didn't match because sometimes if faculties are available, students would get busy with their exams"

Poor Administrative Support	
Administrator "Currently, the mentorship committee lacks secretarial and administrative support. Committee members handle all documents, meeting updates, and tasks. Reporting for assigned duties is directed to the dean, who oversees details and resource management".	Mentor "It is the responsibility of administration to formalize the liaison and documentation of the process. Request for a desk and office bearer has been proposed".

Poor Resources	
Administrator, "Fiscal resources are as important as human resources. For efficient running of the program financial resources are essential".	**Leader and Administrator** "A planned mentorship program for new faculty and assistant professors couldn't be implemented due to a lack of administrative support. As of June 2019, the committee's name was changed to Faculty Mentorship Forum Mentor "Many young faculty members face difficulty in interacting with senior faculty members. The culture of face-to-face communication has to be revived instead of emails or WhatsApp messages. A solution to improve the communication gap is participation in departmental and coffee meetings." **Mentor** "The first year of my mentorship, I had two mentees. I could not meet one mentee for the whole year who later went for further training. I had three fruitful meetings with the second mentee".

Work Related Growth Restrictions	
Mentee "Despite working in the same space, I struggle to form a strong relationship with my busy mentor, making our interactions more formal. Limited availability impedes my progress, and while I learn new things, certain aspects are restricted. Informal meetings and discussions over tea could enhance achievement of my goals."	

Gender Discrimination	

Mentee	
"Gender discrimination is a significant challenge, especially for males who find it difficult to practice simulations with female students. There's discomfort with female mentors in clinical examinations, given nursing's predominantly female orientation, the few male nurses may have a distinct psychology in terms of work and management".	

In relation to input/resources, administrators acknowledged the evolution and advancement of both programs with the aim of effectively transferring knowledge and skills from mentors to mentees. The interviews with SONAM leadership underscored the significance of social support, which effectively enhanced relationships between senior and junior faculty and facilitated networking. The leadership of SONAM also highlighted the significance of work driven mentorship model whereas the existence of Dyad model was mentioned by mentors, mentees and administrators of AKU-MC.

As far as **mentoring activities** were concerned though the process of recruitment of mentors and mentees, pairing and was looked after by the mentorship committee and forum in both entities yet the mentors and mentees both were given the liberty to choose the mentors. The data collected from IDIs and FGDs from both entities revealed the effectiveness of role modelling to promote learning.

The data obtained from **each group** of study participants - leadership, administrators, senior members of mentorship forum/committee, mentors and mentees unanimously appraised the build-up of a **trustworthy relationship** as an **outcome** of the mentorship programs. Mentors and mentees of both entities highlighted departmental collaborations, networking and exchange of ideas for development and meaningful outcome.

The regularity and consistency of mentor-mentee meetings, along with a structured feedback mechanism to monitor compliance, was emphasized. Participants at all levels underscored the significance of rewards in the form of financial incentives, opportunities for higher education, and recognition at institutional levels.

In each group, participants recognized the necessity to enhance the current feedback system for improved quality. Leadership and administrators emphasized the importance of detailed documentation of the mentoring process to facilitate the adoption of measures for program evaluation. Mentors and mentees alike acknowledged the need for such measures. All participants expressed support for the implementation of orientation sessions, training sessions, and workshops for both mentors and mentees. While discussing the performance of male nurses, mentees at AKU-SONAM shared instances of gender discrimination, a finding not reported by the mentees and mentors at AKU-MC.

DISCUSSION

A connection between mentors and mentees within a supportive environment fosters a culture of care encouragement and productivity. In such an environment, mentors engage in open communication with mentees and invest time to build their confidence which ultimately enhances the proficiency of the mentees and their career growth [7] [8] [9] [10]. Both mentors and mentees from both entities stated the importance of safe environments while providing specific supportive feedback to mentees to cope with stressors of life and achieve their goals. The significance of role modelling in promoting specific aspects or behaviour was acknowledged on the basis of data gathered from IDIs conducted in AKU-SONAM. This observation is further supported by existing literature [11]. Mentees response in FGDs also recognized the need to learn from experiences of role models.

The document review and IDIs from administrators of AKU-MC highlighted that the mentor's pool comprised of individuals from diverse backgrounds, qualifications, training, experiences and competencies who volunteered to provide their guidance and support. The mentor's pool was available on FMF website, mentees could approach this pool and make choice of three mentors in rank order after which pairing was done with the mentor who consented to take the mentee. See Figure 4.
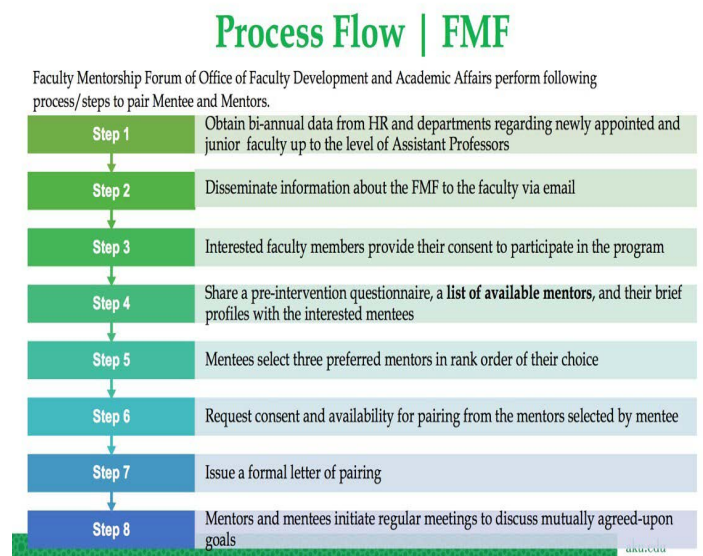

Figure 4: Process Flow Faculty Mentorship Forum

The existence of a strong mentor's pool was acknowledged to be a significant factor in the success of FMF by leadership and administrators of AKU-MC. The selection of mentors in AKU-SONAM was however done after consideration of mentees interest in teaching, research or administration by the mentorship committee.

Inappropriate pairing is a barrier to the professional development and growth of mentees. Mentor mentee pairing was described as one of the challenges by both the programs. Poor alignment of expectations between mentors and mentees, including the mentees' overdependence and emotional support can be a challenge in the mentoring relationship. However the relationship is successful when pairing process is personalised for individual mentees [12].Mismatched mentor-mentee relationships can occur even with those mentors who are considered excellent and compassionate or in cases when mentors and mentees both are but somehow failed to match [1]. Mentees in cases of non-compatibility receive non-specific or non-actionable advice, which can hinder their development and progress and in those cases pairings can be adjusted as needed. [13].Similarly mentors and mentees from AKU-MC expressed their reservation that pairing was carried out without considering their needs and areas of competence [14].

Among other factors cited in literature, frequent meetings have a pivotal role in building effective mentee mentor relation. Mentor, mentees and administrators from both entities emphasized the necessity of planned, systematic meetings. The existing meeting structure at AKU-MC comprises an initial introductory meeting, subsequent quarterly sessions for progress assessment, and a concluding annual meeting. This framework provides a platform for mentors, mentees, and leadership to engage in the exchange of experiences, discuss challenges, and share insights. Despite the formal meetings being scheduled in the AKU-MC mentorship plan, the COVID-19 situation prevented them from being utilized effectively on a regular basis. Regular mentor mentee meetings were the biggest challenge notified in IDIs and FGDs. Similar findings are reported in previous studies mentioning difficulty in finding mentors and lack of formal meetings as barrier in building effective mentee mentor relationship. [15]

In AKU-SONAM a "Work Driven Mentorship model' was practiced in which mentees were provided with desks situated alongside their mentors in the same office space. This physical proximity facilitated ongoing supervision through regular connections and informal meetings [16]. All the participants from both entities acknowledged that the programs offered an opportunity to improve relationships between mentors and mentees and facilitated their networking in work practices. The focus of mentorship programs is often on supporting early- and mid-career faculty, however senior members can also benefit from guidance and support from mentors as was mentioned by administrators in SONAM mentorship

program [17] [18]. The work experience of registered nurses was deemed a crucial aspect of participation in the mentoring program at AKU-SONAM. The results are aligned with an international comparison of competence of registered nurses in Europe and Japan emphasizing the need of formal training of nurses to establish mentorship in higher education and clinical practice [19]. Socialization decreases stress, hence improves mental as well as physical health of an individual, reduces the burnout and enhances engagement at work place to accomplish their personal and professional developmental goals [18 20 21 22]. Leadership of AKU-SONAM emphasized on social support from peers in the success of mentorship program/

The importance of mentorship program is documented in the literature [23].This learning depends on mentees readiness as well as determination for timely submission of tasks [24]. The role of mentors was recognized by both entities as supported by literature [25]. A qualitative study supports the empowerment of mentees to acquire the skills and aptitudes from their mentors, which echoes with discussion with mentors during FGDs [26]. Furthermore, the mentees from AKU-SONAM emphasized the crucial role of mentor's guidance and supervision in exchange of ideas for research and collaboration [27 28].

Mentorship represents a professional relationship where it is important for the mentee to consistently respect and acknowledge the mentor's guidance in establishing boundaries to prevent personal or informal encroachment. It is important that mentors motivate the mentees to make them independent to avoid overdependence of mentees [29]The study recognized an overdependence of mentees in both the entities. Another study suggested that a successful mentee should maintain contact with the mentor even after the formal mentorship relationship has concluded, as a way of expressing ongoing gratitude. [30].

Mentoring practices need an intricate connotation of not only the mentor and mentee, but also the working environment [31] which is provided by the logistic support in the mentoring programs [3 32 33]Lorelli</author><author>White, Deborah</author><author>Benzies, Karen</author><author>Rosenau, Patricia</author></authors></contributors><titles><title>Factors that impact implementation of mentorship programs in nursing academia: A sequential-explanatory mixed methods study</title><secondary-title>Journal of Nursing education and Practice</secondary-title></titles><periodical><full-title>Journal of Nursing education and Practice</full-title></periodical><pages>1-11</pages><volume>7</volume><number>10</number><dates><year>2017</year></dates><urls></urls></record></Cite></EndNote>. Mentees in both entities were not pleased with the administrative support and facilitation for scheduling of meetings. Human and financial resources are fundamental prerequisites that guarantee the triumphant implementation

of any program, resulting in mutually beneficial outcomes. Inadequacies in resources have an impact on the execution of different facets of the program. [34]. Adequate support and resources for both entities were not deemed to be satisfactory by the words of administrators and mentors during the IDIs and FGDs.

A successful mentorship program requires open and honest communication involving all stakeholders involved in mentoring program. Effective communication can help in developing communication and collaboration in mentoring. Numerous factors can be responsible for hindrances in effective communication including unavailability, lack of protected time for effective mentoring, and geographical separation due to increased distance between mentee and mentor[35].

Communication gap is a limiting factor in establishing effective mentee mentor relationship. Several factors which contribute to building effective relationship include experience, age, level of hierarchy and area of work. A recent study focusing on leaders' five factors model personality traits highlighted building a mentorship network and establishing formal mentee-mentor networking influences mentor-mentee relationship**.** In our study mentors expected mentees to take initiative while mentees were reluctant to share their problems. Regular rapport-building meetings were considered an effective solution to address the issue [36]

The current study's findings have highlighted growth restriction as a significant obstacle. The mentees of AKU-SONAM have documented this, believing that the work-related mentorship approach hinders their capacity to thrive. In contrast, literature has supported the evidence that mentors with high aspirations have more influential role in inspiring their mentees[37] while mentees from AKU-SONAM find it difficult to work with senior and more experienced mentors

The participants in both AKU-MC and AKU-SONAM have reported certain administrative issues in the successful implementation of the mentoring program. Literature has also cited certain administrative issues like lack of protected time in schedule, financial constraints, setting clear code of conduct for mentoring program [3]. COVID-19 was another catastrophic condition which further posed administrative challenges as in our study results showed that AKU-MC administration was unable to organize workshops and meetings as per planned schedule due to COVID-19 situation [38]

Certain ethical concerns like overdependence on a mentor or mentee can destabilize the effectiveness and long term sustainability of the mentee-mentor relationship. Result of recent systematic review has highlighted certain ethical issues like breaches in professionalism, lack of motivation, commitment, mutual collaboration, failure to acknowledge contributions of mentees, sociocultural differences, gender biases, personality conflicts, over-dependence on mentor, minimal quality interaction and generation gap due to age difference between mentee and mentor [39].

The voluntary commitment for successful mentoring was identified by mentors in both settings. They exhibited an innate drive to utilize their full potential and eagerness to share their knowledge, skills, and experiences to provide support and help their mentees as supported by literature [40] [41]. They recognized that reward of mentorship was deep-rooted with inner satisfaction and contentment [42]. With the concept of diversity, equity, and inclusion (DEI) tin medical education, efforts toward gender equity have emphasized the need for more women faculty and physicians [43].

All participants identified that there were no working documents available to gauge feedback system and its compliance. Leadership and administrators recommended the necessity for comprehensive documentation of the mentoring process and the adoption of measures to evaluate the outcomes. Both mentors and mentees also recognized the importance of these measures. Additionally, all participants expressed support for the implementation of orientation sessions, training sessions, and workshops for mentors and mentees. They recognized the importance of regular mentor mentee meetings for feedback and its compliance.

Limitations: The study's findings may be limited in terms of generalizability, as they are based on data collected from specific entities (AKU-MC and AKU-SONAM). The results may not truly replicate the proficiencies and issues of mentorship programs in other institutions or settings. Moreover, the element of selection bias could impact the overall representation of experiences within the study. Our findings also did not follow distal outcomes of mentoring programs, such as the retention of faculty members.

Author Contribution

Competing interest None declared

Patient and Public Involvement Patients were not involved in study , public was involved as mentors, mentees, administrators, and leadership from both entities of the university

CONCLUSION

The triangulation results revealed that mentorship programs in both entities improved the relationships between mentors and mentees and fostered networking in work practices. Pairing mentors and mentees though acknowledged as a critical factor in the success of mentorship programs, but challenges, such as inappropriate pairing and mismatched expectations were recognized. The study recommends personalized and flexible approaches to mentor-mentee pairing, considering individual needs and areas of competence. Frequent meetings were identified as pivotal for building effective mentor-mentee relationships. Adequate administrative support, logistical facilitation, and the availability of resources are identified as critical factors for the effective implementation of mentorship programs, yet both AKU-MC and AKU-SONAM face challenges in these areas.

RECOMMENDATION

The study calls for a more formalized and documented feedback system, along with measures to evaluate mentoring outcomes. Orientation sessions, training, and workshops for mentors and mentees resource distribution, program management, and monitoring are recommended to enhance the effectiveness of mentorship programs.

REFERENCES:

Bagnoli, L., & Estache, A. (2022). Mentoring Migrants for Labor Market Integration: Policy Insights from a Survey of Mentoring Theory and Practice. *The World Bank Research Observer, 37*(1), 39-72.

Brady, B., Dolan, P., & Canavan, J. (2017). 'He told me to calm down and all that': A qualitative study of forms of social support in youth mentoring relationships. *Child & Family Social Work, 22*(1), 266-274.

Bredella, M. A., Alvarez, C., O'Shaughnessy, S. A., Lavigne, S. D., Brink, J. A., & Thrall, J. H. (2021). Radiology mentoring program for early career faculty—implementation and outcomes. *Journal of the American College of Radiology, 18*(3), 451-456.

Busby, K. R., Draucker, C. B., & Reising, D. L. (2022). Exploring mentoring and nurse faculty: An integrative review. *Journal of Professional Nursing, 38*, 26-39.

Chopra, V., Woods, M. D., & Saint, S. (2016). The four golden rules of effective menteeship. *Bmj, 354*.

Christensen, H. R., & Bognar, E. S. (2023). Mentors and role models: the role female medical educators serve for female medical students. *Medical Science Educator, 33*(2), 517-522.

Clarke, A. J., Burgess, A., van Diggele, C., & Mellis, C. (2019). The role of reverse mentoring in medical education: current insights. *Advances in medical education and practice, 10*, 693.

Cooke, M., van Eps, M. A., Creedy, D. K., & Walker, R. (2006). Mentor evaluation of a year-long mentorship program: A quality improvement initiative. *Collegian, 13*(2), 26-30.

Coyne-Foresi, M., & Nowicki, E. (2021). Building connections and relationships at school: Youth reflect on mentoring their younger peers. *The Journal of Early Adolescence, 41*(2), 332-362.

Day, A. (2006). The power of social support: Mentoring and resilience. *Reclaiming children and youth, 14*(4), 196.

Farrar, J., & McColl, M. (2022). 'Meet my mentor'–the student teacher's view. In *Mentoring Teachers in Scotland* (pp. 49-60): Routledge.

Hardie, P., Darley, A., Langan, L., Lafferty, A., Jarvis, S., & Redmond, C. (2022). Interpersonal and Communication Skills Development in General Nursing Preceptorship Education and Training Programmes: A Scoping Review. *Nurse Education in Practice*, 103482.

Hussain, S., Tirmizi, S., & Mutahir, H. (2021). An Innovative Mentorship Behavior Model Imperative for Sustainable Higher Education. *Int. J. Innov. Creat. Change, 15*, 335-349.

Inzer, L. D., & Crawford, C. B. (2005). A review of formal and informal mentoring: Processes, problems, and design. *Journal of leadership Education, 4*(1), 31-50.

Jacob, R. A., Williams, P. N., & Chisty, A. (2023). Twelve tips for developing and maintaining a successful peer mentoring program for junior faculty in academic medicine. *Medical teacher, 45*(3), 252-256.

Kim, H. O., & Lee, I. (2022). The mediating effects of social support on the influencing relationship between grit and academic burnout of the nursing students. *Nursing Open, 9*(5), 2314-2324.

Kow, C. S., Teo, Y. H., Teo, Y. N., Chua, K. Z. Y., Quah, E. L. Y., Kamal, N. H. B. A., . . . Tay, K. T. (2020). A systematic scoping review of ethical issues in mentoring in medical schools. *BMC*

medical education, 20(1), 1-10.

Krishna, L., Toh, Y. P., Mason, S., & Kanesvaran, R. (2019). Mentoring stages: A study of undergraduate mentoring in palliative medicine in Singapore. *PloS one, 14*(4), e0214643.

Kumari, K., Ali, S. B., Batool, M., Cioca, L.-I., & Abbas, J. (2022). The interplay between leaders' personality traits and mentoring quality and their impact on mentees' job satisfaction and job performance. *Frontiers in Psychology, 13*, 937470.

Leary, J. C., Schainker, E. G., & Leyenaar, J. K. (2016). The unwritten rules of mentorship: facilitators of and barriers to effective mentorship in pediatric hospital medicine. *Hospital pediatrics, 6*(4), 219-225.

Lin, L., Cai, X., & Yin, J. (2021). Effects of mentoring on work engagement: Work meaningfulness as a mediator. *International Journal of Training and Development, 25*(2), 183-199.

Mahmud, A., & Islam, M. R. (2021). Social stigma as a barrier to Covid-19 responses to community well-being in Bangladesh. *International Journal of Community Well-Being, 4*, 315-321.

Mantzourani, E., Chang, H., Desselle, S., Canedo, J., & Fleming, G. (2021). Reflections of mentors and mentees on a national mentoring programme for pharmacists: An examination into relationships, personal and professional development. *Research in Social and Administrative Pharmacy*.

Martin, J. B., & Douglas, D. H. (2018). Faculty mentorship: Making it work across the career continuum through development, implementation, and evaluation of a formal mentorship program. *Nursing education perspectives, 39*(5), 317-318.

McLaughlin, C. (2010). Mentoring: what is it? How do we do it and how do we get more of it? *Health services research, 45*(3), 871.

Mikkonen, K., Utsumi, M., Tuomikoski, A. M., Tomietto, M., Kaučič, B. M., Riklikiene, O., . . . Inoue, M. (2022). Mentoring of nursing students—A comparative study of Japan and five European countries. *Japan Journal of Nursing Science, 19*(2), e12461.

Nick, J. M., Delahoyde, T. M., Del Prato, D., Mitchell, C., Ortiz, J., Ottley, C., . . . Reising, D. (2012). Best practices in academic mentoring: A model for excellence. *Nursing research and practice, 2012*.

Nowell, L., Norris, J. M., Mrklas, K., & White, D. E. (2017). A literature review of mentorship programs in academic nursing.

Journal of Professional Nursing, 33(5), 334-344.

Nowell, L., White, D., Benzies, K., & Rosenau, P. (2017). Factors that impact implementation of mentorship programs in nursing academia: A sequential-explanatory mixed methods study. *Journal of Nursing education and Practice, 7*(10), 1-11.

Nuel, O. I. E., Nwakoby, N. P., & Ifechi, A. N. (2021). Mentoring: The Way to Academic Excellence.

okeke-ezenyanwu, j. a., & enwere, i.-m. v. (2023). mentoring: a new paradigm for improving and sustaining the teaching and learning of business education. *multidisciplinary journal of vocational education & research, 5(1)*.

Rehman, R., Ali, T. S., & Ali, R. (2023). Progression of dyad mentorship to work driven model: Is this a value addition?

Roberts, S. E., Nehemiah, A., Butler, P. D., Terhune, K., & Aarons, C. B. (2021). Mentoring residents underrepresented in medicine: strategies to ensure success. *Journal of Surgical Education, 78*(2), 361-365.

Rohrich, R. J., & Durand, P. D. (2021). Mentors, Leaders, and Role Models: Same or Different? *Plastic and reconstructive surgery, 148*(5S), 127S-129S.

Sandi, G., & Chubinskaya, S. (2020). A faculty development model that promotes success of early career faculty in academic medicine. *Journal of continuing education in the health professions, 40*(1), 69-72.

Sarabipour, S., Niemi, N. M., Burgess, S. J., Smith, C. T., Bisson Filho, A. W., Ibrahim, A., & Clark, K. (2022). The faculty-to-faculty mentorship experience: a survey on challenges and recommendations for improvements. *bioRxiv*, 2022.2010.2017.512624.

Stoeger, H., Balestrini, D. P., & Ziegler, A. (2021). Key issues in professionalizing mentoring practices. *Annals of the New York Academy of Sciences, 1483*(1), 5-18.

Sulimani-Aidan, Y. (2018). Present, protective, and promotive: Mentors' roles in the lives of young adults in residential care. *American Journal of Orthopsychiatry, 88*(1), 69.

Ughasoro, M., Musa, A., Yakubu, A., Adefuye, B., Folahanmi, A., Isah, A., . . . Mamud, J. D. (2022). Barriers and solutions to effective mentorship in health research and training institutions in Nigeria: Mentors, mentees, and organizational perspectives. *Nigerian Journal of Clinical Practice, 25*(3), 215-225.