

# Health Professions Students as Emerging Leaders: An Appreciative Inquiry into Leadership Experiences and Aspirations at Qatar University

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**Introduction:** Leadership is central to health professions education, yet student perspectives remain underdescribed. This study examined how leadership is enacted and developed by students within Qatar University Health sector, using an Appreciative Inquiry lens to surface strengths and scalable practices.

**Methods:** Six online focus group discussions were conducted with 35 undergraduate and postgraduate students across medicine, pharmacy, health sciences, and dental medicine. Discussions followed the Appreciative Inquiry 5D cycle and were analysed inductively using Braun and Clarke's thematic analysis.

**Results:** A developmental pathway emerged: (1) motivations for pursuing student leadership, highlighting personal growth aspirations and a desire to create impact; (2) success factors, including prior experience, leadership competencies, team dynamics, and organisational support; (3) professional growth and impact, encompassing skill development, recognition, and indicators of achievement; and (4) future vision and sustainability, addressing strategic growth, development needs, and institutional support requirements.

**Discussion:** Findings point to actionable design principles rather than context-bound procedures: embed authentic leadership responsibilities, pair them with mixed mentorship, make contributions visible through formal recognition, and close the loop with simple evaluation. Future work should prospectively evaluate these strategies and track longitudinal outcomes into early practice to refine integrated, equitable leadership development in health professions education.

**Keywords:** student leadership, health professions education, appreciative inquiry, interprofessional education, IPE, qualitative study, Qatar

## Introduction

Leadership has been conceptualised in numerous ways across theoretical frameworks and scholarly traditions.<sup>1</sup> Despite varying definitions, several principles recur: leadership is a learned behaviour, operates as a relational process, present at all organisational levels, oriented towards purposeful change, and develops across the lifespan.<sup>2-4</sup> Hilliard defined leadership as “the art of motivating a group or team of people to work toward a common goal based on the needs of the organisation or university”.<sup>5</sup> This definition aligns with the view that leaders act as change agents and that current leaders bear the responsibility of developing future leaders by transferring their skills, knowledge, and qualities to sustain organisational success.<sup>6</sup> As such, expanding student leadership has emerged as a critical educational objective and an expected outcome of higher education, as evidenced by the increase of leadership development programmes and courses across universities.<sup>7-9</sup>

Healthcare is complex and continually evolving, through policy shifts, service re-design, and digital transformation, significantly impacting care quality, delivery, and costs. This dynamic environment necessitates skilled health professional leaders capable of navigating system change.<sup>9,10</sup> Among available leadership frameworks is the Medical

Leadership Competency Framework (MLCF), developed jointly by the UK's National Health Service Institute for Innovation and Improvement and the Academy of Medical Royal Colleges, positions leadership competencies as foundational for medical education and relevant across health professions. The framework outlines specific capabilities required across career levels from undergraduate through continuing practice.<sup>8</sup> The framework organises these competencies into five domains: demonstrating personal qualities, working with others, managing services, improving services, and setting direction. These domains ensure that medical professionals not only excel clinically but also serve as leaders who can contribute to the evolution of healthcare systems by promoting collaboration, innovation and patient-centred care.<sup>8</sup> Recent and system level frameworks including the AAMC leadership competencies for graduate medical education highlighting institutional stewardship and culture;<sup>11</sup> NHS England leadership competencies emphasising organisational stewardship and culture,<sup>12</sup> and the evolving CanMEDS framework (with an ongoing 2025 update) offer broader, system level perspectives. This positioning signposts areas foregrounded in newer frameworks such as equity, digital transformation, and governance that are pertinent to future curriculum design. While newer frameworks provide broader or system level perspectives, the MLCF remains a strong foundation for exploring how leadership skills are cultivated within health professions education, particularly in contexts where structured leadership training is still emerging.

In recent years, leadership education in health professions has undergone substantial transformation, particularly in response to the COVID-19 pandemic highlighting the need for crisis preparedness, emotional resilience, and digital adaptability. Institutions rapidly adapted by integrating e-learning and virtual leadership training into their curricula. While students largely demonstrated positive attitudes toward these digital platforms, challenges related to clinical skill acquisition and practical application remained, suggesting mixed progress post pandemic.<sup>13,14</sup> Qualitative reflections, by<sup>15</sup>, illustrated how clinical leaders swiftly transitioned to virtual communication, employed servant leadership approaches, and prioritised clinician wellbeing during times of stress.<sup>15</sup> Systematic literature further highlighted that e-learning became a fundamental vehicle for educational continuity, with health professions students showing increased engagement despite challenges related to internet access and acquisition of practical skills.<sup>14</sup> Moreover, Co-Curricular initiatives aligned with frameworks such as the CAPE Educational Outcomes have shown promise in fostering self-awareness and core leadership competencies among students, yet access to such structured programmes varies widely across institutions.<sup>16</sup> At the same time, the shift to hybrid models of work and education has introduced new leadership demands, particularly around adaptability, affective wellbeing, and digital communication skills, that traditional curricula may not fully address.<sup>17</sup>

Studies of student leadership indicate that student-led organisation can catalyse positive change<sup>18</sup> and that transformational leadership in higher education is associated with improvements across local, national, and international contexts.<sup>19</sup> However, despite recognising leadership's significance, implementation challenges persist. A systematic review of postgraduate medical education reported variable and often inadequate leadership interventions, highlighting the need to restructure curricula to emphasise character development and soft skills grounded in established conceptual frameworks.<sup>20</sup> Similarly, undergraduate medical education programmes shows considerable variation, limited use of competency frameworks, and a lack of professional consensus on scope and delivery.<sup>21</sup>

Research on health professions students' perceptions of leadership indicates that understanding of leadership roles and their perceived readiness for leadership responsibilities vary significantly across educational levels and disciplines.<sup>22,23</sup> While students generally recognize the importance of leadership skills, they often report feeling underprepared for leadership roles and express desire for more structured leadership development opportunities during their education.<sup>22,24</sup> For example, pharmacy schools increasingly incorporate leadership through courses and structured initiatives; however, approaches and depth still vary widely across institutions.<sup>25</sup>

A recent scoping review of student-led clinical and community initiatives found that leadership is often implicit rather than explicitly taught or assessed, with substantial variability in how it is defined, facilitated, and evaluated across curricula.<sup>26</sup> The authors highlight the need to make explicit how students conceptualise and develop leadership within authentic learning environments, an agenda aligned with this study's focus on students' experiences and aspirations. Evidence from a large Health Collaboration Challenge shows that students exhibit distinct situational leadership styles during team tasks, suggesting that explicit framing and feedback can cultivate leadership within IPE settings.

Qatar presents a unique and dynamic context for examining leadership development in health professions education. The national health system is centrally organised with strong public provision and a growing private sector, operating

within an environment of rapid service expansion, technological adoption, and quality-improvement expectations. Qatar's National Health Strategy 2024–2030 (Health for All) sets three priority areas: population health and wellbeing, excellence in service delivery and patient experience, and system efficiency and resilience underpinned by governance, digitalisation, workforce capability, innovation, and operational efficiency as system enablers. Care delivery and education are shaped by a highly multicultural workforce and patient population, requiring cultural competence, collaborative practice, and adaptive leadership across professional boundaries. Qatar's principal public provider, Hamad Medical Corporation, which oversees various hospitals all of which are accredited by the Joint Commission International (JCI) in which governance and leadership are core standards.

Within the landscape of higher education, Qatar University (QU) occupies a key position in advancing the national health workforce. The institution's health sector encompasses five colleges: Dental Medicine, Health Sciences, Medicine, Nursing, and Pharmacy facilitating structured interprofessional education (IPE) and student leadership opportunities across diverse programmes and stages of training. A recent mixed-methods study at Qatar University's College of Pharmacy reported fair levels of leadership knowledge and skills, with students identifying IPE, clinical rotations, and integrated coursework as key enablers, and recommending standalone leadership courses and expanded IPE within rotations to strengthen development.<sup>27</sup> However, students also called for more explicit, longitudinal leadership training and additional experiential opportunities, highlighting both progress and persisting needs in the local context.

This study directly continues our recent cross-sectional investigation at Qatar University, which identified four behavioural determinants of leadership engagement: intention and self-efficacy, awareness of opportunities, perceived benefits/outcomes, and perceived barriers with variation by college affiliation and prior leadership experience.<sup>28</sup> Only about a quarter of respondents held leadership roles, and over half of these had no formal leadership training, highlighting uneven access to opportunities and training, and pointed to the need for longitudinal, explicitly scaffolded leadership development within interprofessional settings.<sup>28</sup> The present study extends that work from identifying which determinants matter to understanding what works well in practice and how students envision scaling those strengths.

Building on those findings, we now take a strength-based, qualitative Appreciative Inquiry approach to explore how students experience and envision leadership development, and how these insights can inform programme design. Appreciative Inquiry is a strength-based approach that assumes every programme contains a positive core and focuses on identifying and building upon existing strengths rather than addressing deficits. The methodology follows a structured 5D-cycle: Definition (identifying the focus), Discovery (exploring what works well), Dream (envision a positive future), Design (planning how to achieve that future), and Destiny (implementing and sustaining changes), all centred around identifying and leveraging positive core elements.<sup>29–31</sup> This approach has been successfully applied in previous leadership studies across various settings, demonstrating its effectiveness in organisational transformation.<sup>32,33</sup> Unlike traditional problem-solving approaches, appreciative inquiry generates change by reinforcing successful practices and experiences, making it particularly effective in educational and healthcare settings where building on existing strengths can lead to sustainable improvements.

This combination of a compact, rapidly developing health system and an integrated educational sector provides a fertile, transferable setting to observe how student leaders acquire, practise, and translate leadership behaviours. Therefore, this study aimed to explore QU health professions students' leadership strengths and future visions using an Appreciative Inquiry approach, and to generate context specific, actionable recommendations for formal, longitudinal, and interprofessional leadership development.

## Methods

### Study Design

This study employed a qualitative methodology based on using focus group discussions. A qualitative approach was selected because it is well suited to unpacking socially constructed meanings and context-specific experiences both central to how students define and enact leadership in interprofessional settings.<sup>34,35</sup>

## Data Collection

Focus group discussions were chosen to capture collective perspectives and generate rich interactive data through participants' dialogue as it allows participants to build upon each other's responses and reveal shared understandings of leadership development.<sup>35,36</sup> To support comparative depth while preserving interaction quality, groups were deliberately composed to mix discipline, level (undergraduate/postgraduate), and gender within each session, while ensuring representation from Medicine, Pharmacy, Health Sciences, and Dental Medicine. This method is especially valuable when exploring leadership experiences, as it allows participants to build upon each other's responses and reveal shared understandings of leadership development.<sup>35</sup>

The focus group discussion guide was developed and explicitly mapped to the "Appreciative Inquiry" model, then operationalized by aligning each stage of the 5D cycle with question blocks. For example, "Discovery" questions prompted students to reflect on positive leadership experiences and enabling conditions, while "Dream" and "Design" questions encouraged them to envision ideal leadership futures and necessary strategies and resources to get there. The guide ensured that the positive framing of Appreciative Inquiry was maintained throughout the sessions, allowing participants to focus on strengths while also identifying development areas (see Table 1).

Conducting the discussions virtually through Cisco Webex required addressing specific logistical and engagement challenges. Prior to each session, participants were given technical instructions to ensure smooth access and participation. Participants received a brief on-boarding at the start that covered the purpose of the research, confidentiality, ground rules (one speaker at a time; no right or wrong answer), and consent. Features such as screen sharing of the presentation that included questions were used to facilitate interaction. While the virtual format may have limited some forms of non-verbal communication, it also increased accessibility for students with demanding schedules. To sustain group dynamics, the facilitator used staggered turn-taking, and explicit prompts to draw in multiple professions. Pre-session reminders and rapport-building at the outset were used to support data quality.

## Participants and Recruitment

All QU Health student leaders were eligible to participate. Student leaders were defined a priori as (i) office-holders in recognised student associations (eg, executive boards, class representatives), and/or (ii) leaders of student-initiated academic or community projects within QU Health. This definition encompasses students who demonstrated leadership through formal positions as well as those who led specific academic or community service projects. Recruitment was conducted through emails, contacting class representatives, and contacting QU health student associations. Purposive sampling was used to ensure college and level representation, supplemented by snowball referrals from invited leaders. Postgraduate students who had previously served as student leaders in the past were included to provide retrospective insights into leadership experiences. Invitations were sent to student leaders identified through class representative lists, leadership club memberships, and previous

**Table 1** Focus Group Interview Guide Structured Using Appreciative Inquiry Domains

Appreciative Inquiry Domains	Focus Group Questions
Define	<ul style="list-style-type: none"> <li>• What were your expectations for becoming a student leader?</li> </ul>
Discover	<ul style="list-style-type: none"> <li>• What do you like best about being a student leader?</li> <li>• What do you think contributes to the success of your role?</li> <li>• What skills do you feel were developed during your experience as a student leader?</li> </ul>
Dream	<ul style="list-style-type: none"> <li>• What would the future of student leadership look like if we had more of the strengths you described earlier?</li> </ul>
Design	<ul style="list-style-type: none"> <li>• What could be provided to you to support you to be a better student leader?</li> </ul>
Deliver	<ul style="list-style-type: none"> <li>• What do we need to do to ensure that these positive changes continue?</li> </ul>
Final Question	<ul style="list-style-type: none"> <li>• If a new student leader wanted to learn from your experience, what is the best piece of advice you could give them?</li> </ul>

involvement in student organisations. Focus group sizes ranged from 5 to 7 participants. We sought diversity within each group (gender, programme level, health profession) while ensuring all QU Health colleges named were represented across the interviews. The overall response rate to invitations was approximately 42%.

Participants received personal email invitations, which included informed consent forms detailing the use of anonymized responses and direct quotations for publication. A reminder email was distributed one day prior to the scheduled discussions. Prior to each discussion, verbal consent was obtained for session recording, and participants were then briefed on the study objective and the Appreciative Inquiry model. The initial three discussions were facilitated by AE who had expertise in leadership research and qualitative research methodologies, with DM and MR present for training purposes and note-taking, while subsequent discussions were led alternatively by DM and MR under the supervision of AE. Focus groups were conducted online in English via Cisco Webex until the research team judged that no substantively new codes were arising across two consecutive groups.

## Data Analysis

An inductive thematic analysis approach was employed, following Braun and Clarke's six steps framework (familiarisation, coding, theme development, review, definition/naming, reporting).<sup>37</sup> In the first phase, audio from Cisco Webex was transcribed verbatim using the platform's speech-to-text feature and then human-verified. Two researchers (DA, MR) listened to each recording while reviewing the auto-generated text, corrected errors, standardised speaker labelling, and anonymised identifiers before analysis. They then familiarised themselves with the data by listening to the audio and reading and re-reading the transcripts to identify initial patterns and document contextual observations relevant to leadership experiences. In the second phase, DA and MR independently performed open, line-by-line coding on an initial subset of transcripts. Codes were then collated and reviewed during a series of consensus meetings to ensure consistency and resolve discrepancies. In the third phase, codes were collated into broader candidate themes by grouping conceptually related codes and mapping relationships among them. At this stage, MJ re-organised the coded dataset to refine code clustering and propose an initial thematic structure, accompanied by brief theme summaries and illustrative extracts. The research team (AE, DA, MR, MJ) then met to compare structures and agree a working set of themes and subthemes aligned with the study aims. In Phase 4, themes were reviewed against the coded extracts and the full dataset to ensure coherence (internal consistency within themes) and distinctiveness (clear boundaries between themes). Where needed, themes were collapsed, split, or re-named; discrepant cases were revisited to test theme robustness. Cross-group comparison (college/level) was used to check the stability and breadth of themes across participant subgroups. Final themes were reviewed and agreed by all research team members. While analysis remained inductive, we sensitised interpretation to the Appreciative Inquiry focus (eg, attending to strengths/enablers alongside development needs) to preserve the study's strengths-based orientation.

## Researcher Reflexivity

The research team engaged in ongoing reflexivity throughout data collection and analysis to surface and mitigate potential biases and to strengthen interpretive rigor. The team brought disciplinary diversity and varied proximities to student leadership: the principal investigator (AE) holds a PhD in interprofessional education with qualitative expertise and, at the time of the study, served as Assistant Dean for Student Affairs and chair of the IPE programme, providing intimate contextual knowledge of student leadership. Two student researchers (DA and MR) were final-year pharmacy students conducting this work as part of their capstone projects; neither held a student leadership role during data collection, which offered a learner-insider yet non-leader perspective. MJ had previously served as a student leader and IPE student-association president, contributing an experienced-insider lens. DS brought extensive qualitative research experience and sector-level quality leadership, and MD, as Dean of the College of Pharmacy, contributed institutional oversight and proximity to student leadership practice.

To balance access and openness, the first three focus groups were facilitated by AE (leadership/qualitative expertise) with DM and MR present for training and note-taking; subsequent groups were led alternately by DM and MR under AE's supervision. Peer-led focus groups were used to enable more open student talk; within each group, DA and MR alternated moderator/observer roles, followed a shared topic guide with prompts, and were trained to bracket personal

views. Field notes were taken during all sessions and discussed with the full team to document early impressions and potential blind spots.

To reduce bias and enhance trustworthiness, DA and MR coded transcripts independently, followed by checking and validation with a faculty member. The team met iteratively to review extracts, compare codes and candidate themes, challenge assumptions, and refine the analysis until consensus was reached. Rigor was strengthened through analyst triangulation (multiple coders across phases), consensus meetings, cross-validation among team members, and peer debriefing with qualitative researchers external to data collection. Member checking was considered but not undertaken due to examination-period timing and is acknowledged as a limitation. Collectively, the team's diverse expertise and roles enabled multi-perspective sense-making, while reflexive practices and audit trails helped ensure that interpretations were supported by the data and that researchers' positionalities were recognized and accounted for.

## Ethical Approval

Ethical approval for this research was obtained from Qatar University Institutional Review Board (QU-IRB1456-EA/21).

## Results

Six focus group discussions were conducted, each lasting 90 minutes, with a total of 35 participants. Most participants were female (n=31, 88.6%) and enrolled in the pharmacy programme (n=24, 68.6%). Saturation was judged when two consecutive groups yielded no substantively new codes, which was observed by the sixth focus group. Given the predominance of female participants and pharmacy students, we examined theme stability across subgroups (college/level) to assess transferability beyond the largest subgroup. Participant characteristics are presented in [Table 2](#).

**Table 2** Participants' Characteristics (n = 35)

Characteristic	Frequency, n
Gender	
Female	31
Male	4
Profession	
Public Health	1
Pharmacy	24
Biomedical Science	2
Human Nutrition	1
Physiotherapy	1
Medicine	5
Dental Medicine	1
Year of Study	
General Year	3
Year 1	3
Year 2	9
Year 3	8

(Continued)

**Table 2** (Continued).

Characteristic	Frequency, n
Year 4	6
Year 5	2
Graduate	3
Leadership Role (students can hold multiple roles)	
President	6
Vice president	9
University board student representative	5
Treasurer	6
Secretary	7
Contact person	1
Media and marketing director	1
Public relations officer	1
Leader of a committee	1
Student representative at a committee/association	5
Member of a club	1
Class representative	9
Leader of volunteering activities	1

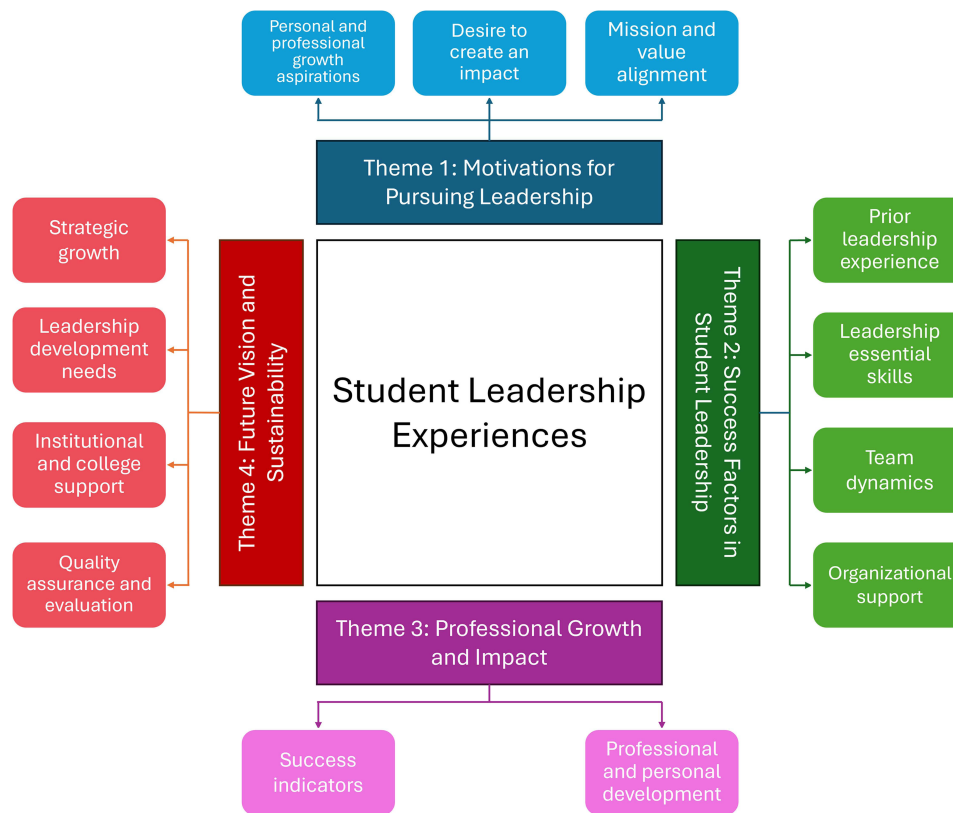
Thematic analysis revealed four major themes: (1) Motivations for pursuing student leadership; (2) Success factors in student leadership; (3) Professional growth and impact; and (4) Future vision and sustainability. The themes were further subdivided into subthemes (Figure 1). Quotes supporting themes and subthemes are presented in Table 3. Although these themes align with international leadership literature, participants' accounts in our dataset reflected distinctive manifestations within Qatar's multicultural, multilingual setting and the themes related in a developmental sequence from motivations to success factors to growth and then finally future vision; we elaborate contextual specifics in the Discussion.

Across groups, themes operated as a connected chain: Motivations (why students step forward) informed Success factors (conditions/skills enabling action), which yielded Professional growth and impact (capabilities and identity shifts), feeding into Future vision and sustainability (how to scale and formalise what works). Overlaps were expected, for example, a motivation such as career readiness later appeared as a growth outcome (confidence, communication) and as a success indicator (event delivery, peer uptake). We keep themes analytically distinct to aid clarity and indicate linkages in Figure 1. Because the study used an Appreciative Inquiry (AI) approach, success conditions and scalable practices were especially salient; nonetheless, students also described development needs and structural constraints within each theme.

## Theme 1: Motivations for Pursuing Student Leadership

### Subtheme: Personal and Professional Growth Aspiration

Students viewed leadership positions as opportunities for both personal development and professional advancement. At the personal level, these roles offered chances to expand beyond comfort zones and enrich the university experience beyond academics. As highlighted by one pharmacy student



**Figure 1** Thematic framework showing the major themes and associated subthemes identified from the focus group data.

My main focus was to get out of my comfort zone and just to prove that being a pharmacist student isn't just being good at studying. [Pharmacy Student 10]

Many students understood that meaningful professional development goes beyond the classroom, highlighting the importance of diverse learning experiences.

The professional development aspect was equally important, with students seeing these positions as valuable opportunities to develop workplace skills. They particularly valued the development of interpersonal skills, viewing leadership experiences as essential additions to their academic education. Career preparation was a strong motivator, with students viewing leadership roles as important additions to their professional portfolios, especially given the competitive job market. Several students explicitly connected these roles to future employment prospects, expressing awareness of the job market's demands and the value of demonstrating leadership experience.

### Subtheme: Desire to Create Impact

Participants pursued leadership roles with a dual purpose: enhancing the university environment and promoting their health professions. Within the university context, students sought to create a more dynamic campus experience, driven by their observations of areas needing improvement. They took on leadership positions to represent peer interests and implement changes based on student feedback, aiming to enhance the overall university experience.

Beyond campus improvements, students were motivated by the opportunity to advance their health professions. They saw leadership roles as platforms to showcase their professional capabilities and promote interprofessional collaboration as highlighted by one student

I wanted to present that pharmacy students can do amazing stuff and we can collaborate and we have like, the good intentions to collaborate with other health professions students and, promote our picture and show that we have a good impact in this society. [Pharmacy Student 11]

**Table 3** Themes, Subthemes and Supporting Quotes Related to Student Leadership Experiences

Theme	Subtheme	Supporting Quote
<b>Theme 1: Motivations for Pursuing Student Leadership</b>	Personal and professional growth aspirations	<p>Personal Growth            “my main focus was to get out of my comfort zone and just to prove that being a pharmacist student isn’t just being good at studying.” [Pharmacy Student 10]</p> <p>Skill development            “...what your education gives you is definitely important, but the life skills that you gain through being in leadership positions, it gives you people’s skills and so many things and I think that’s something that I feel like I was lacking and I wanted to improve myself. And that’s why that was another of my driving factors for applying.” [Biomedical Student 4]</p> <p>Employability            “I have this fear of not getting a job so I always work hard to have like a CV full of achievements” [Public Health Student 1]</p>
	Desire to create an impact	<p>Enriching university life            “I wanted to try something different. You can’t only learn from books and studying and everything related to academia. You need the extracurricular activities. You need events. You need to meet new people, be able to think out of the box.” [Pharmacy Student 4]</p> <p>Advocating for student voices            “I wanted to get in more contact with the other students in our college. So, my position now allows me to get their feedback, their opinions and try to work with them to make some change that they would like to see and the college and the university in general.” [Pharmacy Student 19]</p> <p>Profession advocacy            “I wanted to present that pharmacy students can do amazing stuff and we can collaborate and we have like, the good intentions to collaborate with other healthcare students and, promote our picture and show that we have a good impact in this society” [Pharmacy Student 11]</p>
	Mission and value alignment	<p>Organizational mission alignment            “seeing ... there is such an organization that can really have all the healthcare professions in Qatar incorporated in it. So, this was really a nice thing that I really got motivated.” [Medical Student 1]</p>
<b>Theme 2: Success factors in leadership</b>	Prior leadership experiences	<p>Experiential learning and skill development            “In the 2nd round, we tried to fix what we could not do in the 1st round. We had things more organized, we established, let us say what events we needed to do, we kind of got the idea, how to access people, how to promote events ...So, the 2nd round was much easier... it was easier to cope with it because I did have experience from the last year” [Pharmacy Student 4]</p> <p>Confidence building through success            “That was a very proud moment for me because I was able to represent the university as a whole to external communities out there and we all worked really hard on preparation for this. So, this was something that gave me the motivation to pursue more, to go for more challenging things.” [Pharmacy Student 16]</p>

(Continued)

Table 3 (Continued).

Theme	Subtheme	Supporting Quote
	Leadership essential skills	<p>Resilience            “One [key attribute] is resilience, because, you know, you can plan something and you can imagine something a certain way. But then it’s not going to turn out the way you want it to. So you always have to think ahead of time and you have to be resilient...you still need to keep going and find a way around it.” [Pharmacy Student 1]</p> <p>Time management            “spending time between your studying and the college, and, uh, at the same time, coming to the events, uh, planning, executing all of this. So time management is one of the contributing factors.” [Medical Student 2]</p> <p>Strategic vision            “A leader should be someone who plans or has a long vision, someone who knows what is the goal that they want to achieve and putting a proper plan then moving with it.” [Pharmacy Student 18]</p>
	Team dynamics	<p>Trust and role clarity            “Trusting the team members, always trying to find the best in each member ... filling the gaps whenever one member falls off, and always, always, trying to think together because thinking alone does not help” [Pharmacy Student 4]</p> <p>Communication            “And what contributes to the success, communication, communication, and communication. The better and the more effective and efficient communication among team members, the better the management and the organization, and the overall outcome of the event.” [Pharmacy Student 3]</p> <p>Transparency            “I think being open and transparent with all the team members is very, very, very crucial...[it] will make the relationship between the leader and the members much more lenient ...and consequently it will be easier for the whole team to accomplish an objective.” [Health Science Student 1]</p> <p>Feedback culture            “We have like, a meeting every time ... to hear from them, to see their feedback, and they always appreciate that, they like being heard.” [Public Health Student 1]</p>
	Organizational support	<p>Multilevel institutional support            “Support from faculty members. they were very collaborative. and not only faculty member, even the administration. plus the students support, your colleagues support. contributed to the success” [Pharmacy Student 3].</p> <p>Peer collaboration            “Collaboration between, like, not only the QPHUS team, but all of the students in the college because, as I said before, it was like, most of the students from pharmacy and different batches ... were giving their opinion” [Pharmacy Student 14]</p>

<b>Theme 3: Professional growth and impact</b>	Professional and personal development	<p>Professional skill development          “And I see where [student] was before ... and now she really can listen to people. She is a good listener. She is a good communicator now.” [Medical Student 1]</p> <p>Cultural competency          “The greatest skill that I learned is my ability to ...work in a multicultural environment... I learned how to deal with these barriers. And I think that’s the most important thing. I learned like how to deal with people, like, different types of people coming in from different backgrounds.” [Public Health Student 1]</p> <p>Transformative personal growth          “It was like a turning point in my life... I never imagined that I’m going to stand in between... 400 international student...and this make me, like, love what I’m doing and love pharmacy more” [Pharmacy Student 17]</p> <p>Network development          “I get the chance to meet and collaborate with pharmacy students from around the world. I learned a lot about my practice there... and I made friends with other people from different countries.” [Pharmacy Student 9]</p>
	Success indicators	<p>Recognition and awards          “When I asked one of my professors, to write me a recommendation letter and they mentioned my role... at that point. I really felt like... I contributed to doing something big” [Public Health Student 1]</p> <p>Event success          “When you like plan an event and you put in so much energy ...and finally, the day comes for the event, and it is successful ... I think that’s the best part and it motivates you to do more.” [Biomedical Student 4]</p> <p>Stakeholder feedback          “Some professors called me out on the side to thank me for, like, organizing everything to tell me that they had a great time.” [Pharmacy Student 1]</p> <p>Inspiring others          “When they look at a student being a leader, they get motivated and inspired to actually themselves turn into a leader” [Pharmacy Student 2]</p>

(Continued)

**Table 3** (Continued).

Theme	Subtheme	Supporting Quote
<b>Theme 4: Future vision and sustainability</b>	Strategic growth	<p>International impact            “We can make Qatar known for its students’ achievements ...and we can make Qatar University or Qatar you know, more known for the quality of the pharmacy students that come out of it... we can be more active on an international level, rather than just the local level within our own community” [Pharmacy Student 1]</p> <p>Cross sector impact            “...to be known more in the country and internationally from not only people in the health sector. people from business sectors, people from education sector... being known more to people, normal people, not from health sector would be great” [Pharmacy Student 12]</p> <p>Government involvement            “To take part in, for example, the Ministry of Public Health conferences ...to be known or recognized in the country will have more impact.” [Pharmacy Student 9]</p> <p>Expanding opportunities            “If we give more opportunities to students, they will practice more and they will become better leaders. if the institution leadership, like university leadership, if they allow us to make more student clubs, this will also, um, give more opportunities to students to be leaders and practicing leadership.” [Medical Student 3]</p> <p>Challenging misconceptions            “When you set an example ...you can still get good grades. You can still do your assignments. You can still do all that stuff and still do something on the side. When you are like a living example of that, it probably motivates them to kind of do it themselves too.” [Pharmacy Student 1]</p>
	Leadership development needs	<p>Formal leadership training            “When I filled in the position, I felt like no, no, no I would’ve done a much better job if I was offered that kind of that kind of session by a professional coach” [Pharmacy Student 1]</p> <p>Alternative development approaches            “I don’t believe in training for leadership. You don’t give a session to someone and then he becomes a leader. It’s the continuous support and advice from a senior that will help us going through this experience.” [Medical Student 3]</p> <p>Peer mentorship            “I think people who have been exposed to the same environment and same role will be better” [Public Health Student 1]</p> <p>Faculty mentorship            “I think a faculty who has had experience and leadership positions... would be so much better than having the person right before you.” [Pharmacy Student 1]</p> <p>Hybrid mentorship            “Maybe they can have a mixture of both. Maybe some of the workshops can be conducted by faculty, and some of the workshops can be conducted by people who did the role before.” [Pharmacy Student 2]</p>

	<p>Institutional support requirements</p>	<p>Financial and logistic resources                  “We can’t really do what we really want, unless we have a very big financial support.” [Pharmacy Student 4]                  Structured leadership transition                  “I didn’t feel the handover was enough... if we had a session and everything was explained... sessions to explain the positions ... how can you run a meeting... those simple things... I think it would be beneficial” [Pharmacy Student 8]                  Formal recognition system                  “what’s the reward or the benefit from doing this? Apart from the unrecognized or the unofficial recognition by the college ... having something officially...recognize the students and the student effort and time in being a student leader.” [Pharmacy Student 3]</p>
	<p>Quality assurance and evaluation</p>	<p>Research based assessments                  “Doing research as what we’re doing now. It’s a great idea and ensuring that all positive initiatives are recognized.” [Pharmacy Student 3]                  Event specific evaluations                  “For example, if I do a pre- and post-event survey, and I would see improvement in the goals or the objectives that are met in the event by the students.” [Health Science Student 1]</p>

This professional advocacy extended beyond the university, as students worked to increase the visibility of their health professions and demonstrate their potential impact on society.

#### **Subtheme: Mission and Value Alignment**

Students were drawn to organisations whose missions aligned with their professional values, particularly those focused on interprofessional collaboration. The opportunity to participate in innovative initiatives attracted them, especially programmes working to integrate health professions across the Arab region. They valued being part of new developments that could shape the future of health professions education and practice in their region.

## **Theme 2: Success Factors in Student Leadership**

#### **Subtheme: Prior Leadership Experience**

Previous leadership experience emerged as a significant factor in student leadership success. Students with prior experience demonstrated greater efficiency in their roles, particularly in organizing events and managing challenges. Their past experiences enabled them to implement improvements more effectively, drawing from their established knowledge of event organisation, resource management, and promotional strategies. Second-year leaders especially benefited from their previous experience, showing enhanced ability to navigate leadership responsibilities and organisational processes.

#### **Subtheme: Leadership Essential Skills**

Certain skills were highlighted during the focus groups related to essential skills needed for a successful leader. Resilience enabled students to handle unexpected challenges and adapt to changing circumstances. Cultural competence allowed them to work effectively in their diverse university environment, successfully navigating and bridging cultural differences. Time management emerged as a critical skill, particularly for health professions students who needed to balance demanding academic schedules with leadership responsibilities. Strategic vision rounded out these competencies, with successful leaders showing the ability to set clear, achievable goals and maintain organisational direction.

#### **Subtheme: Team Dynamics**

Effective leadership was built on strong team relationships characterized by mutual trust, clear role definition, and transparent communication.

I think being open and transparent with all the team members is very, very, very crucial...[it] will make the relationship between the leader and the members much more lenient ...and consequently it will be easier for the whole team to accomplish an objective. [Health Science Student 1]

Leaders focused on identifying and leveraging team members' strengths while providing support as needed. Regular communication through meetings and feedback sessions emerged as essential for maintaining team engagement and effectiveness.

The practice of open dialogue ensured all team members' voices were heard and considered in decision-making processes. This inclusive approach, combined with the willingness to learn from different perspectives and challenges, strengthened team cohesion and enhanced goal achievement. Regular feedback exchanges helped maintain team engagement and provided opportunities for continuous improvement.

#### **Subtheme: Organisational Support**

A comprehensive support system emerged as crucial for leadership success, with faculty mentorship and administrative backing playing key roles in facilitating student initiatives. Students benefited from faculty collaboration that enhanced their leadership effectiveness through guidance and resource access. The broader student community's engagement strengthened these initiatives, particularly evident in pharmacy programmes where collaboration across different academic years created stronger leadership outcomes.

## Theme 3: Professional Growth and Impact

### Subtheme: Professional and Personal Development

Student leaders experienced significant growth in their professional capabilities through their leadership roles. Their communication abilities improved markedly as they gained experience in listening and expressing ideas effectively. Through practical experience in event coordination and team leadership, they developed strong organisational and management skills. Working in diverse environments enhanced their cultural competency, preparing them for future professional settings. This was highlighted by a public health student

The greatest skill that I learned is my ability to ...work in multicultural environment... I learned how to deal with these barriers. And I think that's the most important thing. I learned like how to deal with people, like, different types of people coming in from different backgrounds. [Public Health Student 1]

The personal impact of these leadership experiences proved transformative for many students. Their roles often led to meaningful self-discovery and personal growth, particularly through managing large-scale events and representing their institution internationally. These experiences served as significant turning points in their professional journeys.

Leadership positions also opened doors to valuable international networking opportunities as one student said

I get the chance to meet and collaborate with pharmacy students from around the world. I learned a lot about my practice there... and I made friends with other people from different countries. [Pharmacy Student 9]

Through collaboration with peers from different countries, students gained exposure to diverse professional perspectives and practices. These international connections not only broadened their understanding of their professions but also established lasting professional relationships that extended beyond their immediate academic environment.

### Subtheme: Success Indicators

From students' perspectives, success was measured through both formal recognition and practical achievements. Institutional acknowledgment, particularly through recommendation letters and official records, provided important validation of their leadership contributions. The successful execution of events and positive feedback from participants served as tangible evidence of their leadership effectiveness. This was reflected in the discussions as one biomedical student said

When you like plan an event and you put in so much energy ...and finally, the day comes for the event, and it is successful ... I think that's the best part and it motivates you to do more. [Biomedical Student 4]

Beyond formal recognition, leaders found meaningful validation in their ability to inspire peers to pursue leadership roles. Personal acknowledgment from faculty members further reinforced their sense of achievement and impact on the university community.

## Theme 4: Future Vision and Sustainability

### Subtheme: Strategic Growth

Few students described aspirations to expand their influence beyond the university environment in several meaningful ways. Within the healthcare sector, they seek greater involvement in national initiatives and professional advocacy, aiming to bridge the gap between academic training and professional practice. This includes plans to involve practicing professionals in student organisations and advocate for their professions at the national level.

Their vision extends beyond healthcare, as they aim to enhance their institution's global reputation through student achievements and cross-sector engagement. At the university level, leaders envision expanding leadership opportunities for more students as one medical student indicated

If we give more opportunities to students, they will practice more and they will become better leaders. if the institution leadership, like university leadership, if they allow us to make more student clubs, this will also, um, give more opportunities to students to be leaders and practicing leadership. [Medical Student 3]

They plan to actively challenge misconceptions about leadership activities interfering with academic performance, using successful examples of students balancing these responsibilities.

### Subtheme: Leadership Development Needs

Training and mentorship were identified as key areas for future leadership development. Students emphasised the importance of professional coaching and healthcare-specific leadership training, recognizing these as essential components for enhancing leadership effectiveness. While many students advocated for formal training programmes, others expressed preference for hands-on learning and mentorship opportunities, suggesting both approaches should be integrated into the development framework.

Students proposed a mixed mentorship model as an effective approach, combining faculty expertise with peer guidance

Maybe they can have a mixture of both. Maybe some of the workshops can be conducted by faculty, and some of the workshops can be conducted by people who did the role before. [Pharmacy Student 2]

Some participants highlighted the value of learning from previous student leaders who understood their specific context, while others emphasised the benefits of experienced faculty mentors. Through their discussions, students indicated that this integrated approach would provide the most comprehensive support for future student leaders.

### Subtheme: Institutional and College Support

Institutional support was identified as essential for future leadership programme sustainability. Students emphasised that enhanced resource allocation would be crucial, specifically highlighting the need for both financial support and improved access to logistical resources like event spaces. Students also advocated for structured leadership transition processes, suggesting comprehensive handover procedures and orientation programmes for incoming leaders.

The participants stressed the importance of establishing formal recognition systems within their institutions. Given the significant time demands on health science students, they proposed implementing awards and incentives to acknowledge leadership contributions and encourage continued participation in leadership roles.

### Subtheme: Quality Assurance and Evaluation

Students emphasised the need for systematic evaluation approaches to ensure future programme effectiveness. They advocated for formal research initiatives to examine leadership effectiveness, alongside regular surveys and feedback collection. Participants specifically highlighted the value of conducting pre- and post-event evaluations to measure impact and guide improvements

For example, if I do a pre- and post-event survey, and I would see improvement in the goals or the objectives that are met in the event by the students. [Health Science Student 1]

Through their discussions, students recognized that continuous evaluation would be essential for identifying areas needing enhancement and ensuring long-term programme sustainability. They viewed this systematic approach to assessment as a key component in developing and maintaining effective student leadership programmes.

## Discussion

This study explored health professions students' leadership experiences at Qatar University using appreciative inquiry. While leadership is widely recognized as crucial in health professions education, research examining student leadership experiences, particularly in healthcare contexts, remains limited.<sup>38</sup> Our findings provide important insights into how students experience leadership in health professions education settings. Considered together, the four themes that emerged from this study, describe a developmental pathway in which students step forward for leadership (motivations), learn to operate effectively through the conditions and skills they identify (success factors), consolidate identity and capability through practice (professional growth and impact), and then propose concrete mechanisms to scale and sustain what works (future vision and sustainability). Appreciative Inquiry shaped both the tone and content of what students emphasised. This appreciative inquiry guided progression through the phases of Discover → Dream → Design/Deliver.

This aligns with the developmental sequence we observed (motivations → success factors → growth/impact → future vision), helping convert positive exemplars into concrete proposals for scaling. Collectively, appreciative inquiry encouraged identification of strengths and scalable conditions, likely increasing the salience of actionable solutions (mentorship, recognition, evaluation, authentic responsibility) that might be less visible in problem focused designs, while still allowing students to name development needs.

Findings revealed an interplay between individual competencies and organisational conditions. Students consistently described resilience, cultural competence, time management, and strategic vision, which both align with and expand upon established frameworks. While identified skills resonated strongly with personal qualities and interpersonal domains, the prominent emergence of cultural competence reflects our diverse educational context and growing recognition of this skill's importance in healthcare leadership.<sup>39</sup> The salience of cultural competence in our data aligns with local evidence from Qatar University/QU Health: students have called for stronger embedding of cultural awareness and competence in curricula,<sup>40</sup> and educators view cultural competence as central to programme delivery.<sup>41</sup> Considered alongside our findings, this suggests cultural competence operates as an enacted leadership capability in this setting supporting inclusive communication and collaboration across diverse, interprofessional student groups.

The emphasis on resilience and adaptability in our findings aligns with recent research highlighting emotional intelligence in healthcare leadership<sup>42,43</sup> and with recent syntheses of adaptive leadership in crisis contexts, which highlight adaptability, rapid learning, team coordination, and enabling organisational conditions as drivers of effectiveness under uncertainty.<sup>44</sup> Furthermore, time management and strategic vision also featured strongly, likely reflecting the unique challenges of balancing leadership responsibilities with demanding health professions curricula. These competencies were developed through a blend of formal training and authentic experience, reinforcing calls for integrated approaches in health-professions leadership education.<sup>21,45,46</sup>

Our findings regarding development needs and learning preferences provide important insights for leadership programme design. Students' preference for mixed learning approaches combining formal training with practical experience aligns with Thomas and Cheese's experiential learning model.<sup>47</sup> The emphasis on mentorship supports Day's leader development framework, which positions mentoring as crucial in early leadership development.<sup>2</sup> Furthermore, students' preference for combining faculty expertise with peer mentorship reflects emerging multilevel approaches where learning occurs through various channels.<sup>48</sup> Local qualitative evidence from QU Health during COVID-19 similarly identified mentoring relationships and supportive networks as replenishing influences within the Coping Reservoir Model, emphasising mentorship's protective and developmental role for students in our setting.<sup>49</sup>

These insights have practical implications for health professions education. They highlight the need for structured yet flexible leadership development programmes that balance formal training with experiential learning. The Chartered Institute of Personnel and Development (CIPD)'s recent report emphasizes this balance, noting the importance of practical experiences and supportive learning environments.<sup>50</sup> Our findings suggest that successful leadership development programmes should: integrate leadership training throughout health professions curricula rather than treating it as an add-on; provide early exposure to leadership roles and responsibilities; include both formal training and practical experience; incorporate strong mentorship components; foster interprofessional collaboration; support intentional opportunities to develop cultural competence within interprofessional activities, prioritise longitudinal integration of leadership learning and ensure institutional support and systematic evaluation. In parallel, the same QU Health study highlighted mentorship as a key replenishing factor, complementing our participants' calls for mixed mentoring and reinforcing its salience in our context.<sup>49</sup> Practically, the appreciative inquiry lens suggests moving beyond isolated training to amplify existing strengths, codifying effective mentorship and peer handover practices, formalising recognition, and embedding authentic responsibilities, so that "what works" becomes routine, visible, and sustainable. The emphasis on interprofessional collaboration in our findings particularly resonates with current health professions education trends. Evidence increasingly demonstrates the positive impact of interprofessional experiences on leadership skill development<sup>51</sup> suggesting this should be a key component of leadership development programmes.

Drawing on students' suggestions and aligned with previously identified behavioural determinants at QU (intention/self-efficacy, awareness of opportunities, perceived benefits, perceived barriers), we advance a focused set of context-specific priorities for QU Health.<sup>28</sup> These recommendations operationalise what students valued (inclusive teamwork,

clear roles, mentorship, recognition, and evaluation) while directly addressing QU-specific determinants observed previously (limited formal training, uneven awareness of opportunities, and the importance of networks and perceived benefits), translating strengths-based insights into practical, scalable steps for a multicultural, interprofessional environment.

## Strengths and Limitations

While this study provides valuable insights, several limitations should be considered. Our sample primarily consisted of female participants from pharmacy programmes, cross-group comparisons suggested the core themes were consistent, but transferability should be considered accordingly. The single institution setting offers depth of understanding within Qatar's health professions education system but may not fully represent experiences across different cultural and educational settings. Additionally, while appreciative inquiry effectively highlighted strengths and solutions, it may have under-represented some challenges; we note this alongside the benefits of a strengths-based lens.

The study's strengths include its methodological rigor in using focus groups guided by appreciative inquiry. The appreciative inquiry approach proved particularly valuable in understanding student leadership development. Unlike traditional problem-focused methodologies, this strength-based approach enabled identification of successful practices and facilitated rich discussions about future possibilities.<sup>30</sup> In health professions education research, where deficit-based approaches often predominate, appreciative inquiry helped uncover innovative practices and potential pathways for organisational development.<sup>52</sup>

Researchers should conduct longitudinal studies that track the transition from student leadership to professional practice to assess the long-term impact of early leadership experiences. Additionally, intervention studies should implement and rigorously evaluate targeted strategies in curricular and co-curricular settings. External validity should be tested through multi-site/comparative studies (including more culturally homogeneous programmes) and by examining links between student leadership practice and early clinical performance. Together, these steps will refine best practices for integrated leadership development in health professions education.

## Conclusion

This study offers a context-specific account of student leadership at QU Health. Students described leadership as lived practice within diverse, interprofessional groups and outlined a developmental pathway: motivations prompted role uptake; success factors (inclusive teamwork, clear roles, cultural competence, time management, mentorship) enabled effective practice; this generated professional growth and impact and informed a future vision focused on widening access, structured mentorship, recognition that counts, and routine feedback loops that turn activity into learning. Guided by appreciative inquiry, participants highlighted strengths worth scaling, authentic responsibility, inclusive teamwork, and clear role pathways, while signalling where targeted scaffolds remain necessary.

These findings are transferable beyond Qatar because they distil design principles, not context-bound procedures. In multicultural or increasingly diverse health professions education settings, programmes can embed authentic leadership responsibilities, pair them with structured support, make contributions visible, and close the loop with simple evaluation. These low-cost, adaptable levers align with students' lived experience and fit within existing curricula across professions. Accordingly, leadership development should integrate formal learning with authentic experience, underpinned by institutional commitment and systematic evaluation to graduate health professionals who can collaborate across professions and lead improvement from day one, essential for any health-education system preparing a diverse, future-ready workforce.

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