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COMMENTARY

STRATEGIC POLICY APPROACHES TO ADVANCING INTERDISCIPLINARY NURSING RESEARCH: CHALLENGES AND DIRECTIONS FOR SYSTEMIC CHANGE

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ABSTRACT

As a response to the complex demands of contemporary health systems, interdisciplinary research has been a central strategy in the development of nursing practice, education, and scholarship in Iran. Despite being pivotal, the advancement of interdisciplinary research in nursing is impeded by a lack of enduring institutional infrastructure and restricted faculty capacity to perform successful cross-disciplinary collaboration. This policy analysis examines the structural barriers to interdisciplinary nursing research in Iran and proposes a phased set of policy responses.

Nursing's four pillars education, clinical practice, research, and leadership/management are significant opportunities for strengthening its interdisciplinary nature. Each pillar overlaps naturally with adjacent disciplines, including educational sciences, psychology, health sociology, ethics, and public policy. The "Four-Season-Symphony" conceptual model of intellectuality, spirituality, ethics, and aesthetics provides both philosophical justification and practical guidance for integrating interdisciplinary perspectives into nursing research. The model promotes a richer epistemological understanding of nursing.

To implement this vision, we recommend revising academic and research policies in all medical universities to highlight building interdisciplinary competencies among nursing faculty. Approaches include establishing interschool research centers that transcend faculties, developing interdisciplinary curricula for academics, initiating targeted research funding for interdisciplinary projects, revising faculty promotion criteria to recognize interdisciplinary work, and establishing international research partnerships. Collectively, these measures will facilitate innovative, impactful nursing scholarship and its contribution to interdisciplinary health research.

KEYWORDS

nursing faculty, interdisciplinary research, research policy, nursing education, policy analysis

INTRODUCTION

In the recent decades, interdisciplinary research has been a viable approach to addressing the complex and multidimensional concerns of healthcare systems, such as chronic diseases, aging population, mental illness, and global health pandemics [1]. Global evidence shows that countries that managed to institutionalize interdisciplinary strategies in their healthcare research systems have registered significant innovations towards improving quality care, designing

inclusive interventions, and informing health-enabling policies [2, 3]. For instance, in the major nations such as the United States and Canada, a large proportion of the product of nursing research is published with other disciplines [4].

Despite the significance of this approach, nursing faculty involvement in interdisciplinary research in Iran is confronted with multiple obstacles. Lack of strategic empowerment policies, no proper training for interdisciplinary methods, limited exposure to scientific networks, and lack of supporting infrastructure are some of the main areas of difficulty in propelling such research. In addition, Iran's system of faculty promotion in medical universities is essentially discipline-oriented, which reduces the motivation to work interdisciplinarity and hinders nursing's ability to offer creative solutions to healthcare system problems [5, 6].

If the trend persists, it can potentially lead to missed opportunities to address unprecedented and multifaceted challenges such as population aging, control of chronic diseases, mental health crises, and climate change problems that by definition require cross-disciplinary collaboration and the creation of integrated expertise. For this reason, strategic faculty empowerment in nursing for successful involvement in interdisciplinary research must be considered a national imperative. Policy officials responsible in both the health and the higher education sectors must make strategic capacity-building issues priorities. In doing so, it will be possible to achieve systematic advancement in nursing research, increase its international prominence, and position the profession in a better position to address the increasingly complex challenges posed by modern healthcare systems [7, 8].

CURRENT POLICIES

Although Iran's scientific production in the field of nursing has increased numerically over the last two decades, the global influence of Iranian nursing research remains limited. In addition, according to the Ministry of Health scientometric database, the average research performance indicators of faculty members of nursing such as the number of published papers, citation, and H-index are still below in a broad scope of clinical and basic sciences disciplines [9].

To overcome such dilemmas, the National Nursing Research Network (NNRN) as the representative organization commissioned with enhancing nursing research in Iran has been charged with coordinating scholarly efforts in nursing with the evolving demands of the national health system [10]. In particular, NNRN has also been designated as a World Health Organization (WHO) Collaborating Center for the Eastern Mediterranean Region (EMRO), positioning it as a focal institution capable of enabling interdisciplinary research and international collaboration.

Despite the institutional capacities at hand, the proportion of interdisciplinary studies in Iranian nursing is very low. A systematic review found that only roughly 0.09% of Iranian nursing papers represent interdisciplinary scholarship. This figure sharply differs from that of developed countries such as Canada and Japan, with their respective figures standing at 35% and 29% [11, 12]. This represents a substantial structural deficiency that has undermined cross-disciplinary collaboration and limited most of the research production to descriptive and clinically oriented work.

On the other hand, research high-performance countries such as members of the Florence Network in Europe, with more than 38 institutions spread across 18 countries have established robust infrastructures that support multidisciplinary research. These have been attained through joint development and operation of common research and educational programs [13]. It is estimated that the body of interprofessional nursing scholarship in Iran is at least 30 to 400 times smaller than in these high-performing systems, a discrepancy with profound implications for the quality of health policy making, educational advancement, and performance of healthcare delivery systems.

Several key factors explain this underdevelopment. These include the absence of institutional incentives for interdisciplinary work, a lack of sustainable infrastructure for planning and governance of team-based research projects, and narrow interdisciplinary skills sets among the nursing faculty. Furthermore, existing academic promotion criteria built mainly on mono-disciplinary publication also discourage faculty members from engaging in interdisciplinary work [1].

Furthermore, the current structure of nursing education in Iran offers limited preparation for developing interdisciplinary research skills. Current curricula are dominated by clinical training and technical skill building, with limited opportunity for theoretical depth, macro-level project work, or collaborative research participation. Moreover, professional development courses that are framed to advance faculty capacity in interdisciplinary research design, coordination, and implementation are few, poorly integrated, and institutionally underdeveloped [14].

Moreover, the lack of national nursing megaprojects rooted in interdisciplinary traditions with the potential for addressing challenging issues such as population aging, mental illness, and management of chronic diseases is a crucial structural deficiency. In contrast, several countries have used the conceptualization and execution of national nursing megaprojects as strategic instruments to help solidify the position of the profession in the field of health policy.

In addition, the absence of basic infrastructures for foundation like interdisciplinary data banks, computer platforms for support of research collaboration, and direct financial investment has effectively nullified nurses' involvement in collaborative research. Taken collectively, all these constraints reinforce a paradox: while nursing carries gigantic potential in furnishing integral information regarding patient needs, its authentic input toward interdisciplinary knowledge advancement is disproportionately wasted. Addressing this gap warrants urgent, concerted, and evidence-based policy intervention [10-12].

The aim of this policy analysis is to examine the structural, educational, and institutional barriers that constrain interdisciplinary nursing research in Iran and to propose a phased set of policy responses to address them. The analysis is centered specifically on the Iranian context; evidence from other national systems, such as Canada, Japan, and the Florence Network countries, is drawn upon only as comparative benchmarking to inform recommendations relevant to Iran, and this work does not aim to produce generalizable findings for other national settings.

METHODOLOGY

This policy analysis utilized a documentary and policy discourse analysis approach to gather and analyze pertinent information systematically. Literature searches were conducted in PubMed, Scopus, and Google Scholar using combinations of the terms "interdisciplinary," "nursing research," "research policy," "faculty promotion," "nursing education," and "Iran," restricted to sources published between 2010 and 2026, with priority given to publications from the most recent five-year window (2021–2026) to ensure contemporaneity. As this study is centered on the Iranian context, records were included if they (a) directly addressed nursing faculty involvement in interdisciplinary research, research policy, or academic promotion criteria within Iran, or (b) described the policies, structures, or outcomes of interdisciplinary nursing/health research in other national systems that could serve as comparative benchmarks for the Iranian context. Records were excluded if they lacked policy relevance, were non-peer-reviewed opinion pieces, or were duplicates.

Then, major national policy papers related to higher education and health were carefully studied. These documents included the Country's Comprehensive Scientific Map, the Medical Education Transformation Plan, overall national health policies, and significantly, the National Nursing Comprehensive Map, prepared and released by the Deputy of the Ministry of Health for Nursing.

In addition, strategic reports of the Iranian National Nursing Research Network aimed at promoting and developing interdisciplinary research were studied and thoughtfully considered. To contextualize these results and inform practical recommendations, best practices and best practice experiences from pioneer nations such as the United States, Canada, and Australia and member institutions of the Florence Network were also structured for systematic review.

Finally, informal consultative discussions were held with nursing educators, health policy specialists, and active participants of the National Nursing Research Network to contextualize the documentary findings; these consultations were exploratory and advisory in nature and did not constitute a formal qualitative research design with structured participant sampling, a

defined sample size, or a thematic coding framework. The aggregate data from these different sources were utilized to develop evidence-based policy recommendations guided by the scientific literature, official policy documentation, and best national and international models. Data extracted from national policy documents and international benchmarks were synthesized using a directed content-analysis approach, in which recurring themes were organized according to nursing's four pillars (education, clinical practice, research, and leadership/management) and cross-referenced against the four domains of the Four-Season-Symphony model [38] (intellectuality, spirituality, ethics, and aesthetics) to inform the policy recommendations presented below (see Table 1).

Overall, the evidence base drawn upon for this analysis comprised three broad categories of material: peer-reviewed literature retrieved from PubMed, Scopus, and Google Scholar addressing interdisciplinary research policy, nursing faculty development, and comparator health-system models; national policy and institutional documents, including the Ministry of Health and Medical Education scientometric database, the Country's Comprehensive Scientific Map, the Medical Education Transformation Plan, and National Nursing Research Network strategic planning materials; and international benchmarking sources describing interdisciplinary research infrastructures, such as the Florence Network and university-based interdisciplinary nursing research centers. These sources were jointly used, together with the consultative discussions described above, to characterize the current state of interdisciplinary nursing research policy in Iran and to derive the phased policy recommendations presented in the following section.

POLICY IMPLICATIONS AND RECOMMENDATIONS

DEVELOPMENT OF INTERDISCIPLINARY RESEARCH CENTERS IN MEDICAL UNIVERSITIES (MEDIUM-TERM, STRUCTURAL ACTION)

Given the comparatively low international status of Iranian nursing in interdisciplinary collaboration and co-authored scientific output, the development of interdisciplinary research centers in medical universities is a strategic necessity. They are necessary to enhance the quality of education and research as well as to address complex problems in the healthcare system [15]. These centers should adopt an integrative model that involves meshing nursing competencies with other supporting fields such as psychology, health management, social sciences, and health technologies, thereby becoming sites of innovation particularly in the framing and solution of complex issues such as population aging, chronic illness, mental health, and long-term care.

Such institutes can develop a structured environment favorable to inter-disciplinary knowledge generation by creating strategic research blueprints, establishing technology-supported infrastructure and intrinsic data warehouses, knowledge sharing through databases, and driving massive national initiatives. This endeavor requires collective action from nurses, physicians, data scientists, biomedical engineers, and sociologists. Benchmark centers such as the Health Innovation Research Center in the University of Toronto and others in the University of Oxford offer models on how centers can drive innovation, enhance the quality of health policy, and enhance the global prestige of the nursing profession [16, 17].

In Iran, initiatives like the National Nursing Research Network have offered infrastructural capacities for the creation of interdisciplinarity-based research centers; however, these initiatives have not developed into enduring systems due to insufficient institutional support, the absence of explicit financial policies, and the lack of explicit regulatory standards.
The key hindrances to the development of such institutions are scarcity of finance, lack of technical infrastructure, conservatism in interdisciplinary research activity especially among traditional academic fields and absence of research incentives. To offset these obstacles, the following are proposed:

- Dispensation of special funding packages procured from national grants and university budgets to support the establishment of interdisciplinary research centers for nursing;
- Awareness and advocacy for faculty members in rolling out such programs to highlight the benefits of interdisciplinary research;

- Develop interdisciplinary teams with the mandate to identify national health research priorities by an interdisciplinary approach;
- Establish partnerships with other institutions in the world for mobilization of external funding resources, including grants from Horizon Europe, WHO, UNDP in public health.

The establishment of these centers is expected not just to enhance the quality of evidence-based health policymaking but also to boost the global prestige of Iranian nursing, augment its contribution to global scientific production, and enable foreign funds for research. Therefore, the establishment of interdisciplinary research centers is both a scientific imperative and a strategic instrument to maximize the contribution of nursing in Iran's national health system [18, 19]. Concretely, this could be operationalized by having the Ministry of Health and Medical Education's Deputy of Research and Technology ring-fence a dedicated line within existing university research budgets for nursing-led interdisciplinary centers, with the National Nursing Research Network coordinating common accreditation criteria across universities. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Intellectuality domain, reflecting its emphasis on evidence-based, scientifically rigorous knowledge generation.

PLANNING AND IMPLEMENTATION OF INTERDISCIPLINARY SKILLS TRAINING PROGRAMS (SHORT-TERM, TACTICAL ACTION)

Based on the multi-dimensionality of problems confronting healthcare systems, it is essential to increase the interdisciplinary capacities of nursing instructors in order to support better quality research and proper reaction to the complex needs of society. The development and implementation of systematic training programs in this field will enable nurses to actively engage in innovative and integrative research projects. These programs should incorporate a wide range of competencies, such as:

- Developing interdisciplinary research proposals and co-authoring research-based scholarly articles;
- Mixed methods research skills;
- Proficiency in big data analytics and data mining
- Large-scale research project management leadership;
- Communication and teamwork skills for interdisciplinary settings [20].

Offering these programs through a combination of short- and long-term courses, experiential workshops, study fellowships, and online or blended learning modalities can enhance faculty participation while avoiding temporal and spatial constraints. Policies such as providing internationally recognized certifications, producing culturally relevant content, and forming alliances with leading international universities are proposed to enhance motivation and enhance the quality of education [21]. The absence of integrated and convergent training curricula in Iran and the insufficient financial and technical capacity as well as academic and research workload pressures on the faculty are significant barriers to the success of policy implementation. These challenges can be overcome only through direct assistance by the Ministry of Health, coordinated planning between foreign schools of medicine, and institution of professional incentives like academic progress credits for participation in these programs [14, 15, 18]. Concretely, university research deputies could be mandated to integrate accredited interdisciplinary training modules into existing continuing-education requirements for nursing faculty, coordinated nationally by the National Nursing Research Network. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Aesthetics domain, reflecting its emphasis on creativity, innovation, and humanistic scholarship.

DEDICATED ALLOCATION OF RESEARCH GRANTS FOR NURSING-ORIENTED INTERDISCIPLINARY PROJECTS (SHORT-TERM, TACTICAL ACTION)

Focused financial investments in inter-disciplinary nursing research specifically, in areas of healthcare priority such as aging, mental health, chronic disease management, and healthcare equity are a strategic approach to enhancing the quality and value of research. Although sporadic efforts have been made in Iran, a regular and transparent funding system for interdisciplinary nursing research remains unavailable, thereby discouraging the development of nurses' roles in scientific knowledge and innovation.

Experience from countries such as the Netherlands, Canada, and Australia indicates that reserving dedicated budget lines for interdisciplinary research projects and open calls for proposals and rigorous evaluation processes are success determinants. Further strengthening this framework is proposed through the following steps:

1. Developing targeted funding calls for interdisciplinary health and nursing research projects;
2. Establishing review committees with disciplinary representation to enable unbiased and rigorous scientific review.
3. Offering further incentives such as expert scientific counsel, access to national archives of data, and technology and publications services support;
4. Ensuring ongoing monitoring and assessment systems to assess the effectiveness and usefulness of funded research;
5. Increasing access to international funding by ensuring projects become consonant with global health priorities [22, 23].

The potential to motivate research teams, improve research quality, and secure international funding through cross-disciplinary coordination underscores the necessity of implementing these policies. Such policies would not only boost the rewards of research teams but also raise the international scientific and innovative reputation of Iranian nursing, hence creating the appeal for international scientific and financial investments. In contrast, the lack of these policies in the existing research setup threatens to underutilize nursing's inherent potential for confronting the multifaceted, multidimensional problems of health [14, 19]. Concretely, the Ministry of Health and Medical Education's Deputy of Research and Technology could establish an annual ring-fenced budget line for competitive interdisciplinary nursing research grants, administered jointly with the National Nursing Research Network. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Intellectuality domain, reflecting its emphasis on evidence-based, scientifically rigorous knowledge generation.

REVISION OF FACULTY PROMOTION REGULATIONS (LONG-TERM, STRATEGIC ACTION)

The promotion regulations of faculties operating in Iranian medical universities primarily concentrate on quantitative, individual-focused, and discipline-specific criteria and fail to equally take into account interdisciplinary research participation as a valuable criterion. This system discourages faculties' motivation particularly in areas such as nursing to join interdisciplinary activities and hinders cross-disciplinary scientific collaboration.

These regulations need to be revised in order to include qualitative indicators applicable to interdisciplinary research. These include co-authorship of inter-disciplinary papers, receiving sole grants for inter-disciplinary works, participating in large-scale national schemes, and producing inter-disciplinary policy reports. These measures would provide strong incentives to faculty members [24, 25]. Concretely, this requires the Ministry of Health and Medical Education's Deputy of Research and Technology to amend the central national faculty-promotion scoring rubric so that specific, quantified point weightings are assigned to interdisciplinary co-authorship, leadership of interdisciplinary grants, and authorship of interdisciplinary policy reports, rather than leaving such recognition to the discretion of individual university promotion committees.

Furthermore, training promotion committee members and evaluators in expert reviews of interdisciplinary research and creating scoring systems that capture the size and complexity of such projects appropriately are essential components of revision.

However, various obstacles stand in the way of regulatory reform. They include cultural and structural resistance from faculty to change, the need for coordination among diverse university departments, and the absence of standardized and transparent systems for assessing interdisciplinary research [26]. To overcome such obstacles, the following strategies are recommended:

- Creation of specialized interdisciplinary committees that will examine and redefine promotion standards;
- Development and mass dissemination of clear, easy-to-comprehend documentation of the modified promotion standards;

- Establishment and implementation of powerful, multi-dimensional evaluation models capable of properly measuring the impact of interdisciplinary research;
- Hosting training workshops to introduce evaluators and scholars to the significance and unique characteristics of interdisciplinary research [20, 25, 26].

Combined, these measures are aimed at strengthening the role of nursing and other medical science disciplines in interdisciplinary research and facilitating the long-term development of health research in Iran. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Ethics domain, reflecting its emphasis on justice, integrity, and equitable recognition of collaborative work.

FORMULATION OF NATIONAL POLICIES FOR THE DEVELOPMENT OF INTERDISCIPLINARY NURSING RESEARCH (LONG-TERM, STRATEGIC ACTION)

Despite cross-cutting orders in Iran's health system strategic documents such as the Comprehensive Scientific Map of the Country, the Medical Education Transformation Document, and national health policies that emphasize the expansion of applied research attuned to national demands, explicit, operational, and concentrated strategies for the advancement of interdisciplinary nursing research have not yet been formulated and executed. This gap is a significant barrier to the complete realization of nursing's potential role in solving complex, multilateral health problems.

On the other hand, more specialized documents like the National Nursing Comprehensive Map (developed by the Nursing Deputy of the Ministry of Health) highlights the central role of nurses in policymaking and interdisciplinary collaboration with particular emphasis on scientific collaboration between disciplines [27]. In addition, the strategic plan of the National Nursing Research Network of Iran places high priority on carrying out participatory and interdisciplinary research based on the health system needs [28]. Therefore, the formulation of definitive, operational, and targeted national policies aimed at enhancing nursing's role in major health initiatives, promoting interdisciplinary collaboration, and aligning research funding with integrated health priorities is a strategic imperative. Such policies need to have inherent financial support systems, make provision for coordinating bodies, and have clear evaluation criteria for interdisciplinary research. These steps will guarantee a transformative elevation of nursing's scientific and practical contributions to Iran's healthcare landscape [29]. Within the Four-Season-Symphony framework, this national-policy recommendation draws primarily on the Intellectuality domain, by grounding policy formulation in evidence-based, scientifically rigorous priority-setting, and on the Ethics domain, by ensuring that resulting funding and evaluation criteria recognize interdisciplinary contributions equitably.

INITIATION AND FACILITATION OF NATIONAL MEGA PROJECTS WITH AN INTERDISCIPLINARY ORIENTATION IN NURSING (LONG-TERM, STRATEGIC ACTION)

National mega projects that are health sector-focused and involve an interdisciplinary approach have been recognized in the developed world as potent answers for addressing complex public health issues such as aging, chronic diseases, mental illness, and long-term care [30]. Such projects typically come into being through a synthesis of inputs by different specialized fields such as medical science, social sciences, technology, and management. They play a critical role in enhancing high-level knowledge creation and enhancing the quality of healthcare delivery [31].

In Iran, despite extensive growth in the field of nursing research production, there remains an acute shortage of national mega projects grounded in interdisciplinary strategies. Such a lack has led to systematic under-investment in the potential of nursing towards effective response to the complexities and multi-dimensionality of the healthcare system [32]. Therefore, the gap hinders the scientific and practical advancement of nursing professionals simultaneously with lowering prospects for receiving domestic and foreign funding and multidisciplinary partnerships [33].

The creation of national mega projects in the field of nursing, with the backing of sufficient financial and administrative potentials most importantly, in priority fields like aging, chronic diseases, and mental health could be a determining factor in the scientific promotion of nursing in Iran and in creating overall solutions to Iran's formidable health problems [30]. These activities can prepare the ground for larger investment, facilitate international cooperation, and enhance the quality of health services across the country as a whole.

Thus, it is recommended that health and higher education policymakers establish robust support mechanisms and allocate sustainable resources to facilitate the initiation and successful completion of interdisciplinary-based national mega projects in nursing. In addition, repeated evaluation and monitoring of project outcomes will be essential to ensuring their sustained role in advancing the profession [34]. Concretely, this could begin with the Ministry of Health and Medical Education's Deputy of Research and Technology commissioning a single national interdisciplinary nursing mega-project on population aging, coordinated jointly with the National Nursing Research Network and university-affiliated research centers, with monitoring aligned to the program-evaluation framework already cited above [34]. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Spirituality domain, reflecting its emphasis on meaning, purpose, and holistic, person-centered inquiry.

ENHANCING INTERNATIONAL AND INTER-UNIVERSITY COLLABORATIONS IN INTERDISCIPLINARY NURSING RESEARCH (MEDIUM-TERM, STRUCTURAL ACTION)

While memoranda of understanding and cooperation exist between Iranian universities and other institutions from abroad in the nursing field, they are usually intermittent and lack systematic, target-oriented approaches. To improve interdisciplinary research capacity and benefit from global experience and expertise, it is important to establish international consortia with top-level universities and research centers. Furthermore, facilitating research fellowships, promoting faculty mobility, and building electronic platforms for information and ideas sharing are the most important strategies. These measures are bound to improve the quality and volume of scientific production in nursing and elevate the reputation of the discipline within the national health system [35, 36].

Nonetheless, there are economic deficiencies, administrative hurdles, foreign sanctions, and political constraints that present significant barriers to enhancing global cooperation. To overcome these barriers, supporting and strategic policies need to be put in place. These need to address formalized cooperation accords, establishing special mechanisms of funding to sponsor international research fellowships, and designing joint educational programs in collaboration with the world's leading universities. All these actions combined would offer a healthy environment for interdisciplinary studies and increasing the degree of scientific evidence in nursing in Iran [37]. Concretely, this could be formalized through a rolling annual budget line for outbound faculty fellowships, jointly administered by the Ministry of Health and Medical Education and university international offices. Within the Four-Season-Symphony framework, this recommendation corresponds primarily to the Aesthetics domain, reflecting its emphasis on creativity, innovation, and humanistic scholarship.

APPLICATION OF THE "FOUR-SEASON-SYMPHONY" CONCEPTUAL MODEL TO NURSING RESEARCH POLICY (MEDIUM-TERM, STRUCTURAL ACTION)

Advancing the quality and theoretical rigor of interdisciplinary nursing research demands the adoption of substantial, contextually relevant conceptual frameworks. The "Four-Season-Symphony" approach, grounded in four pillars of intellectuality, spirituality, ethics, and aesthetics, is an integrative and holistic structure for the design, direction, and evaluation of nursing research. In emphasizing the integration of humanistic, epistemological, and ethical aspects, the approach promotes the creation of interdisciplinary scholarship that is beyond those purely technical and quantitative paradigms.

It is suggested that this conceptual framework be incorporated into national nursing education and research policy and used as a working document for project planning and evaluation of research in the National Nursing Research Network and academic research institutions. It could contribute significantly to qualitative, integrative, and human-centered research in nursing, ultimately taking nurses' professional role in the healthcare system above traditional clinical service provision [38].

To translate this framework into concrete policy action, Table 1 maps each of the four domains onto the specific recommendations above.

TABLE 1. MAPPING OF THE FOUR-SEASON-SYMPHONY DOMAINS ONTO POLICY RECOMMENDATIONS AND IMPLEMENTATION TIMEFRAME

Domain	Core Focus	Corresponding Policy Recommendation(s)	Implementation Timeframe
Intellectuality	Evidence-based rigor, scientific reasoning	Interdisciplinary research centers; dedicated research grants; scientometric-informed promotion criteria; national interdisciplinary policy formulation	Short- to medium-term
Spirituality	Meaning, purpose, holistic and person-centered inquiry	National interdisciplinary mega projects addressing aging, chronic disease, and mental health	Long-term
Ethics	Justice, integrity, equitable recognition of collaborative work	Revision of faculty promotion regulations; disciplinary-representative grant-review committees; national interdisciplinary policy formulation	Long-term
Aesthetics	Creativity, innovation, humanistic scholarship	Interdisciplinary skills training programs; international and inter-university collaboration	Short- to medium-term

CONCLUSION

Despite its great scientific potential and strategic role in the health care system, Iranian nursing has thus far been unable to contribute a solid dividend to interdisciplinary knowledge production and innovative studies. An analysis of the current situation reveals that structural barriers such as inefficient policy incentives, absence of necessary research infrastructure, de-linkage of education courses with the needs of interdisciplinary research, and absence of mega national projects have dampened the research potential of the profession. Moreover, promotion criteria for faculty and the lack of specialized training programs have undermined interdisciplinary collaboration.

To overcome these barriers, it is essential to establish interdisciplinary research centers, develop training programs for interdisciplinary competence, offer targeted research grants, reform promotion rules, develop clear national policies, support large projects, and improve international collaborations. Additionally, the application of indigenous and substantive conceptual structures like the "Four-Season-Symphony" can significantly contribute to theoretical depth and overall excellence in nursing research.

Empowerment of nursing faculty members in these areas will become a motor for the scientific and practical progress of the profession of nursing in Iran. In addition to enhancing the standing of the profession in the health sector, empowerment will enlarge its capacity to tackle the complex, multidimensional challenges facing the health care system. Such change requires strategic vision, steady financial and ethical support, and a lot of collaboration among universities, research institutions, and policymakers. Long-term, nursing can be a proactive, innovative, and influential force in inter-professional health research, thereby contributing significantly to knowledge advancement and enhancing the quality of care nationwide [39].

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