Original Article

Transitional Care in Long Covid Patients, The Missing Link in the Healthcare Systems in Iran: A Qualitative Study

Abstract

Background: Long COVID, a chronic and multisystemic consequence of coronavirus infection, significantly reduces patients' quality of life due to persistent symptoms. Transitional care (TC) is essential to ensure continuity and coordination of care and to reduce the risk of hospital readmissions. This study aims to identify the barriers to providing effective TC for long COVID patients within the Iranian healthcare system. **Materials and Methods:** This qualitative descriptive study used thematic analysis. Participants—10 long COVID patients, 5 family caregivers, and 16 healthcare providers—were selected via purposeful sampling from outpatient clinics and rehabilitation centers affiliated with Isfahan University of Medical Sciences, Iran. Between November 2022 and May 2023, 33 semistructured, in-depth interviews (30–40 min each) were conducted, audio-recorded, transcribed verbatim, and analyzed using MAXQDA (v. 20) until data saturation. Trustworthiness was ensured using Guba and Lincoln's criteria. **Results:** Barriers to effective TC for long COVID patients were systematically classified into three main themes with 10 subthemes. The main theme included inefficient healthcare infrastructure, nonintegrated management, and lack of comprehensive continuous care. **Conclusions:** The findings revealed that the Iranian healthcare system lacks integrated TC for long COVID patients. Addressing these barriers requires policy-level reforms, standardized care pathways, and investment in community-based and rehabilitation services. Strengthening TC could bridge the current gaps and significantly improve outcomes for long COVID patients in Iran. The findings provide insights into structural and operational challenges in TC delivery and highlight the need for policy reforms to improve outcomes for long COVID patients.

Keywords: *Health services accessibility, postacute COVID-19 syndrome, qualitative research, transitional care*

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Introduction

The COVID-19 pandemic has challenged countries universally, revealing significant weaknesses and deficiencies within their health systems, particularly concerning the management of its long-term complications. Long Covid, or post-Covid, is a chronic and multisystemic sequela of Severe Acute Respiratory Syndrome Coronavirus 2 infection, characterized by a constellation of persistent or emergent symptoms.[1]

The World Health Organization defines the post-COVID condition as a syndrome typically manifesting with symptoms 3 months after the onset of COVID-19, or with symptoms lasting for at least 2 months that cannot be attributed to an alternative diagnosis.[2] The long-term consequences of this condition encompass a broad range of complications, including respiratory dysfunction (e.g., dyspnea and pulmonary fibrosis), cardiac involvement (e.g., myocarditis), renal impairment, neurological sequelae (e.g., cerebrovascular events and memory impairment), psychological effects (e.g., anxiety, depression, and irritability), persistent fatigue, and exercise intolerance, ultimately leading to a diminished quality of life for affected individuals.[3,4] The estimated prevalence of long COVID in Asia ranges from 35% to 51%.[1,5] The sequelae of long COVID-19 exhibit a significantly higher prevalence in individuals with a history of hospitalization.[1]

Long COVID significantly impairs both physical and psychological well-being, often leading to considerable limitations in patients' daily functioning.[6] Persistent

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symptoms such as sleep disturbances, and anxiety further undermine their overall well-being. Delays in accessing appropriate treatment and rehabilitation services can prolong symptoms, increase disability, and further deteriorate patients' quality of life. Following hospital discharge, patients who continue to experience symptoms frequently report a sense of abandonment.[7]

The weakest exchange point within the healthcare system is when a patient must transition from one healthcare service to the next.[8] Transitional care (TC) refers to a broad range of time-limited services developed to ensure the coordination and continuity of care for patients as they transfer between different locations, healthcare providers, or different levels of care within the same location.[9,10] TC has garnered significant engagement from researchers, health system managers, clinicians, and policymakers as they attempt to improve health outcomes and reduce preventable hospital readmissions.[8,11] In nursing and midwifery practice, effective TC requires coordinated efforts among healthcare professionals, patient education, and follow-up support to ensure seamless transitions from hospital to home or community-based care.[11]

Research on the delivery of TC for patients with long COVID-19 not only improves the efficacy of treatment and care but also generates critical data to inform public health policymaking, healthcare workforce training, and the mitigation of the disease's long-term consequences. Considering the importance of managing the long-term sequelae of COVID-19 in patients with a history of hospitalization through the implementation of continuous care approaches, this study aims to identify barriers within healthcare systems to the effective delivery of TC to long COVID-19 patients in Iran.

Materials and Methods

This study was conducted from November 2022 to May 2023 and employed a qualitative descriptive design. Thematic analysis, guided by the Braun and Clarke framework, was used to analyze the data. Thematic analysis is a widely used method for analyzing qualitative data, involving a systematic process of identifying, interpreting, and reporting recurrent patterns across a data set. While it focuses on summarizing the content of the data, it also incorporates interpretative elements during the coding and theme development stages.[12,13] The study was conducted at outpatient clinics and rehabilitation centers affiliated with Isfahan university of medical sciences, Iran. Participants were selected through purposive sampling. The inclusion criteria included having symptoms for at least 3 months' postdischarge, confirmed by a physician, and the ability to communicate. The exclusion criteria included severe cognitive impairments and a history of mental illness. The study involved 31 participants, consisting of 10 patients, 5 family members, and 16 healthcare professionals.

Data were collected using a semistructured interview guide, developed based on a literature review and expert consultations. After receiving information about the study and giving their informed consent, arrangements were made regarding the timing, format (in-person or telephone), and location of the interviews. Sampling occurred between November 2022 and May 2023. Interviews were conducted in-depth and semistructured, continuing until data saturation was achieved defined as the point when no new information emerged during analysis. All interviews were audiorecorded, transcribed verbatim, and promptly coded. The research team collaboratively reviewed and refined the initial codes, leading to the development of subthemes and overarching themes. A total of 33 interviews were conducted with 31 participants; two participants were interviewed twice to clarify ambiguities in their responses. The 25 interviews took place in person at Alzahra and Khorshid outpatient clinics, while eight were conducted via telephone. Each interview lasted approximately 30 to 40 min.

Following the initial coding phase, all members of the research team collaborated to refine the codes and identify emerging subthemes and overarching themes. The data were organized and managed using MAXQDA software (version 20) (MAXQDA 20 (VERBI Software GmbH, Berlin, Germany)). Thematic analysis was conducted based on the approach proposed by Braun and Clarke. This process involved six sequential stages: (1) becoming thoroughly familiar with the data, (2) generating initial codes, (3) identifying potential themes, (4) reviewing and refining themes, (5) defining and naming the final themes, and (6) producing the final report. The researchers moved iteratively between these steps to ensure comprehensive engagement with and deep insight into the data.[13]

Schwandt *et al*. (1985) trustworthiness criteria (credibility, dependability, confirmability, transferability) guided the research:[14] credibility was established through prolonged engagement (11 months), member checking, and peer debriefing of codes and categories. To ensure dependability, researcher reflexivity minimized bias, and colleagues audited coding to confirm data analysis accuracy. Transferability was maximized through purposeful sampling for participant diversity (age, gender, education, etc.) and detailed reporting of research procedures with participant quotes. Confirmability was ensured through comprehensive documentation of research stages (data collection, analysis) and audit of coding by two external researchers.

Ethical considerations

This research was conducted as part of a Ph.D. dissertation in Nursing and was approved by the Ethics Committee of Isfahan University of Medical Sciences (Ethics Code: IR.MUI.RESEARCH.REC.1399.659; Approval Date: December 23, 2020). Prior to participation, the study objectives were clearly explained to all participants. They

were assured that their identities would remain confidential. Written informed consent was obtained, and participants were notified that the interviews would be audiorecorded. Additionally, they were informed of their right to withdraw from the interview at any stage without any consequences.

Results

Our findings clarified the challenges encountered by healthcare providers and patients during the transition of patients with long COVID from hospital to home in Iran. The study involved 31 participants, comprising 10 patients, 5 family members, and 16 healthcare professionals, aged 25 to 80 years. Barriers to effective TC for long COVID patients were systematically classified into three main themes with 10 subthemes, as outlined in Table 1: inefficient healthcare infrastructure, nonintegrated management, and lack of comprehensive continuous care.

Inefficient healthcare infrastructure

This category encompasses barriers related to the lack of comprehensive rehabilitation services, underdeveloped telemedicine structure, insufficient home care facilities, limited insurance coverage, a lack of Non-Governmental Organization support, shortages of healthcare staff and equipment, and economic constraints.

Patients with long COVID frequently experience multisystem dysfunction, requiring referrals to multiple specialties for follow-up care. A key challenge reported by participants was the lack of integrated rehabilitation centers, compelling patients to travel between facilities to access adequate services. One family member stated: *"My father resisted physiotherapy, resulting in muscle weakness. He was referred to a psychologist and a nutritionist. Transporting him to the psychologist through heavy traffic left him exhausted. His nutritionist appointment is scheduled for next week."*

The absence of robust telemedicine infrastructure, including reliable high-speed internet and related services, further compromised patient care. A physiotherapist noted: *"The COVID-19 pandemic incited advancements in virtual healthcare services. However, platforms for telemedicine in pulmonary rehabilitation remain underdeveloped. While some progress has been made in major cities like Tehran, Iran, and research on application-based solutions is underway, these efforts are insufficient. Low internet speeds in certain areas remain a significant barrier."*

Inadequate home care facilities were also identified as a significant deficiency in effective TC. One participant stated: "*Home care services could reduce rehospitalization rates and enable comfortable at home care. Unfortunately, such centers are scarce, and their services are limited in scope."*

Healthcare system personnel faced additional challenges due to staffing shortages. One participant reported: *"With an influx of patients, two nurses from the discharge unit were reassigned to the Intensive Care Unit. An operating technician was tasked with post-discharge follow-up instead."*

One patient shared their feelings of isolation and concern regarding ongoing respiratory issues. *"I was concerned about my continued respiratory problems… accessing the doctor's office was difficult due to overcrowding. I felt isolated and abandoned."*

One of the pulmonologists stated: *"Due to the lack of staff and overcrowding of outpatient centers, there is insufficient supervision regarding the safety of discharged patients."*

Economic status and budget constitute crucial factors influencing all structures within a healthcare system. In developing countries, the need for supportive organizations becomes more pronounced during times of health crises.

One of the patients shared their internal distress caused by financial strain: *"I had heard that many people admitted to the ICU with Corona die. When I was admitted to the ICU, I was happy because dying would free me from the*

Table 1: Barriers to effective transitional care

	Main Themes	Subthemes	
Non effective transitional care	Inefficient healthcare infrastructure	Lack of comprehensive rehabilitation service	
		Underdeveloped telemedicine structure	
		Insufficient homecare facilities	
		Limited insurance coverage and NGO* support	
		Shortage of health care staff and equipment	
		Economic constraints	
	Nonintegrative management	Scarcity of formal transitional care program	
		disorganized teamwork	
	Lack of comprehensive continuous care	Discharge challenges	Improper discharge plan
			Fallow-up deficiency
			Educational barriers
		Nonresponsive care	Inadequate trust in HealthCare provider
			Incomplete response to inform and support the patient

*NGO=Non-Governmental Organization

heavy stress of my financial problems, but the day I was discharged marked the beginning of my tragedy."

Nonintegrated management

Nonintegrated management in the context of TC refers to the deficit in coordination and collaboration among various healthcare systems and organizations involved in patient follow-up. The second principal category identified in this study was nonintegrated management, which included the following subthemes: scarcity of formal TC programs and disorganized teamwork. The head of the education unit in one of the COVID centers reported on the lack of coordination: *"In this center, we are responsible for educating patients and following up after discharge. However, Dr. (Name)'s team in the pulmonary clinic also follows up with patients a few days after discharge. I do not know exactly what they record or what they teach."*

Suggestions for improving teamwork were also raised: *"If possible, adding a nutritionist, psychologist, physiotherapist, etc., to the follow-up team and monitoring post-discharge care would improve outcomes."*

The study findings showed that one of the most important factors contributing to nonintegrated management in TC is the absence of a formal program. The physiotherapist stated: *"Patients are often unsure about the next steps or where to turn after discharge or seeing a specialist. Without a validated continuous care program, –there is a high risk that patients will get lost - the process."*

Lack of comprehensive continuous care

This main category encompassed two key subthemes: nonresponsive care and discharge challenges. The first subtheme, nonresponsive care, included inadequate trust in healthcare providers and incomplete responses in informing and supporting patient. The second subtheme, discharge challenges, involved several interrelated subthemes, including educational challenges, improper discharge plan, and noneffective follow-up.

Findings associated with nonresponsive care highlighted participants' perceptions of inadequate attention to their needs and concerns, whereas discharge challenges pointed to the discontinuities and difficulties experienced during transitions between care settings or to home. Collectively, these factors painted a picture of continuous care that felt incomplete and fragmented to participants.

One of the barriers to the delivery of effective TC was linked to the performance and responsibility of health care staff. The nonresponsive care category was divided into two subthemes: inadequate trust in healthcare providers and incomplete responses in informing and supporting the patient. Mistrust in healthcare providers often formed during hospitalization and was influenced by the treatment team's relationship with the patient. Several participants expressed their belief that the patient is viewed as an object rather than a person during follow-up calls from their healthcare provider.

"After discharge, they called me and asked how I was doing… They speak so quickly…Nevertheless, I think the follow-up was unimportant to them; they just wanted to complete their assigned tasks as a matter of duty." (patient with a history of 20 days of hospitalization).

Another participant who worked in the hospital's education unit stated: *"when we called some patients for follow-up, they said 'tell the truth, what medicine did you test us in the hospital and are following up on now?"*

Discharge challenges

Discharge challenges were a key factor that undermined the comprehensive continuity of care. Based on the findings of this study, these challenges included educational challenges, improper discharge plan and noneffective follow-up.

One of the care managers stated: *"We discharge patients, but the reality is that there is no clear plan for post-discharge follow-up. As a result, many patients return home without the necessary support, and the likelihood of their readmission to the hospital is high."*

Healthcare professionals in education and follow-up units reported significant barriers to delivering effective educational support for long COVID patients. These included the disease's novelty, limited understanding of its long-term complications, inconsistent quality of available data, unrecognized patient and family needs, and systemic healthcare pressures. These challenges collectively delayed the development of strong educational strategies for care transitions.

A physician expressed: *"we don't have sufficient data about post-discharged problems in patients with Corona. We do not know the destiny of some of discharged patients with severe Corona…The huge of published article in low time and not confidence about their quality was a challenge for selected best evidence."*

In summary, this study identifies three overarching barriers to effective TC for long COVID patients in Iran: inefficient healthcare infrastructure, nonintegrated management systems, and a lack of comprehensive continuous care. These findings highlight systemic gaps that must be addressed through policy reforms, improved coordination among healthcare providers, and enhanced community-based rehabilitation services.

Discussion

This study identifies key systemic barriers to effective TC for long COVID patients in Iran, including inadequate healthcare infrastructure, fragmented interprofessional coordination, and insufficient continuity of postdischarge care. These findings align with global evidence on TC challenges and highlight unique contextual factors within

the Iranian healthcare system. Addressing these barriers requires policy reforms, standardized care pathways, and investment in rehabilitation and digital health services.

Patients with long COVID may experience a variety of symptoms, including fatigue, dyspnea, chest pain, joint discomfort, cognitive impairment, and psychological complications.[1] TC plays a critical role in supporting these patients by facilitating symptom management and promoting recovery from the long-term consequences of COVID-19.[15] This study explored the barriers to delivering effective TC for individuals with long COVID within the Iranian healthcare system, drawing on the perspectives of patients, their families, healthcare providers, and policymakers. The identified barriers were classified into three main themes: inadequate health system infrastructure, nonintegrative management, and incomprehensiveness of continuous care.

The findings of this study underscore significant infrastructure deficits within the Iranian healthcare system, which pose substantial barriers to the effective delivery of TC for patients recovering from long COVID-19. These deficits include shortages of comprehensive rehabilitation centers, insufficient home care services, limited support centers, inadequate healthcare provider staffing, underdeveloped telemedicine infrastructure, and limitations in essential medical equipment. Furthermore, the challenging economic landscape intensifies the impact of these infrastructure gaps.

Consistent with our findings, Week and colleagues highlighted the critical role of the structural foundation of health systems in the success of TC programs. The present study provides specific evidence from the Iranian context, demonstrating how deficits in this structural foundation, particularly concerning rehabilitation services, directly impede TC. Our participants reported that the scarcity of comprehensive rehabilitation centers and the limited availability of interprofessional services within existing facilities necessitated considerable time and effort to access required care, at times leading to the discontinuation of essential follow-up, a challenge also identified by Scott and colleagues regarding integrated TC centers.[16]

The underdeveloped telemedicine infrastructure emerged as another significant barrier in this study. While telemedicine holds considerable potential to bridge gaps in care, especially for managing long-term conditions like post-COVID,[17] its implementation in Iran is hindered by the lack of established legal frameworks and robust infrastructure. As our findings suggest, although some informal remote activities occur, the absence of approved regulations governing key aspects like presenters, content quality, and system evaluation risks the dissemination of impractical or incorrect information.[18] Furthermore, broader considerations such as reliable internet speed, patient digital literacy, necessary equipment, and ethical/legal responsibilities remain critical challenges for effective telemedicine integration, aligning with observations on the requirements for successful virtual care delivery.

Issues related to the availability of healthcare providers, home care services, and support resources were also prominent findings. The scarcity of care providers, coupled with limited support resources, was identified as a contributor to unsafe TC for diabetic patients in a prior study conducted in Iran by Nikbakht-nasrabadi and colleagues, corroborating similar challenges observed in the present study concerning long COVID patients.[19] These findings highlight persistent systemic weaknesses affecting the capacity to provide continuous and coordinated care across different patient populations requiring transitional support.

The overarching economic constraints within Iran, compounded by the economic burden of the pandemic and international sanctions,[20,21] significantly exacerbate these infrastructure challenges. As our results imply, the lack of sufficient financial resources hinders investment in developing comprehensive rehabilitation facilities, expanding home care services, increasing staffing levels, and upgrading technology like telemedicine infrastructure. Consistent with previous studies, the 8.89% Out-of-pocket rate found among hospitalized patients in the present study further highlights the significant financial pressures associated with COVID-19 hospitalization costs.[21] Beyond treatment expenses, COVID-19 also appeared to impose financial pressure on patients by depriving them of sources of income.[21] Collectively, the inadequate healthcare system infrastructure identified in this study represents a critical "missing link" in the chain of care for post-COVID patients in Iran.

This study identified nonintegrative management as a central barrier to effective TC for patients with long COVID in Iran's health system. This category contains two subthemes: the absence of formal TC programs and disorganized teamwork. These issues reflect deeper systemic challenges that are particularly evident during critical care transitions, such as hospital discharge or referral between service levels.

The lack of a structured TC program results in role ambiguity, poor follow-up coordination, and fragmented care delivery. As highlighted by a participant responsible for patient education, the absence of shared protocols leads to uncertainty about other teams' activities. These gaps align with global findings, including studies from the U.S. and Italy, which underscore the inefficiency and inconsistency of TC in the absence of standardized frameworks.[22,23]

Moreover, the lack of organized teamwork particularly across disciplines such as medicine, nursing, physiotherapy, and mental health contributes to fragmented service delivery and conflicting clinical guidance, leading to

patient confusion. International research suggests that forming well-defined multidisciplinary teams improves the coordination and quality of TC.[24]

These systemic deficiencies result in patient uncertainty and fragmented care continuity, thereby elevating the risk of clinical complications and hospital readmissions. Within Iran, such challenges may stem from bureaucratic inertia, limited interlevel communication, and insufficient investment in integrated care models. Addressing these issues requires the establishment of formal TC programs and multidisciplinary teams to support coordinated, patient-centered postdischarge care.

The findings of this study indicate that "lack of comprehensive continuous care," which itself is the result of a complex interaction between "nonresponsive care" and "discharge challenges," generates a major barrier to effective TC for long COVID patients.

Nonresponsive care highlights patients' perceptions of inadequate attention to their needs and concerns by healthcare providers, comprising two dimensions: Inadequate trust in healthcare providers: Mistrust, often stemming from prior experiences during hospitalization or postdischarge interactions, impedes effective communication and treatment adherence. Patients reported feeling overlooked or questioned the motives behind follow-up care, perceiving it as perfunctory. Incomplete response to information and support needs: Patients felt unsupported due to superficial or insufficient communication, exacerbating their sense of neglect.

These findings align with global reports on long COVID management, where patients frequently describe feeling misunderstood or dismissed by healthcare providers, faced with trust deficits due to poor communication.[7] In the Iranian context, this issue is amplified by systemic factors such as high workloads, time constraints, and a potential lack of specialized training for managing long COVID complications.[25] This resonates with the concept of "medical gas lighting" noted in prior studies, where patients' complaints are minimized or disregarded.[7]

Discharge challenges further contribute to care fragmentation, driven by educational challenges, improper discharge plan, and follow-up deficiencies. The absence of structured discharge protocols increases the risk of hospital readmissions, while educational barriers—stemming from the novelty of the disease, inconsistent data quality, and unrecognized patient needs—hinder effective support. Globally, similar issues, including the "infodemic" of unreliable evidence, complicate care delivery.[26] In Iran, the lack of national guidelines, limited access to credible international resources, and underdeveloped telemedicine infrastructure exacerbate these challenges, unlike systems in countries like the UK with specialized long COVID clinics.[27]

Addressing these barriers requires a multifaceted approach, including standardized discharge and follow-up protocols, enhanced telemedicine infrastructure, specialized training for healthcare providers, and dedicated long COVID care centers. Such strategies could align Iran's healthcare system with global best practices, improving TC outcomes.

This qualitative study, while offering deep insights, has limitations including restricted generalizability due to its small sample size and purposeful sampling. These limitations are considered inherent to the nature of qualitative studies.

Conclusion

This study identified main barriers to effective TC for long COVID patients in Iran's healthcare system: Inefficient healthcare infrastructure, nonintegrative management, and lack of comprehensive continuum care. These findings, based on qualitative data from select settings, are limited by the evolving nature of long COVID research. Future research should assess these results' feasibility, patient perspectives, and long-term impacts. Adopting these measures will advance equitable TC and enhance health outcomes for long COVID patients in Iran.

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Conflicts of interest

Nothing to declare.

References

1. Russell SJ, Parker K, Lehoczki A, Lieberman D, Partha IS, Scott SJ, *et al*. Post-acute sequelae of SARS-CoV-2 infection (long COVID) in older adults. Geroscience 2024;46:6563-81.
2. World Health Organization. A Clinical Case Definition of Post COVID-19 Condition by a Delphi Consensus. WHO; 2021. Available from: https://www.who.int/publications/i/item/WHO-2019-nCoV-Post_COVID-19_condition-Clinical_case_definition-2021.1. [Last accessed on 2024 Sep 05].
3. Nair CV, Moni M, Edathadathil F, Appukuttan A, Prasanna P, Raghavan RP, *et al*. Incidence and characterization of post-COVID-19 symptoms in hospitalized COVID-19 survivors to recognize Syndemic connotations in India: Single-center prospective observational cohort study. JMIR Form Res 2023;7:e40028.
4. Sk Abd Razak R, Ismail A, Abdul Aziz AF, Suddin LS, Azzeri A, Sha'ari NI. Post-COVID syndrome prevalence: A systematic review and meta-analysis. BMC Public Health 2024;24:1785.
5. Hanson SW, Abbafati C, Aerts JG, Al-Aly Z, Ashbaugh C, Ballouz T, *et al*. Estimated global proportions of individuals with

persistent fatigue, cognitive, and respiratory symptom clusters following symptomatic COVID-19 in 2020 and 2021. JAMA 2022;328:1604-15.
6. Makhluf H, Madany H, Kim K. Long COVID: Long-term impact of SARS-CoV2. Diagnostics 2024;14:711.
7. Kim C, Chen B, Mohandas S, Rehman J, Sherif ZA, Coombs K. The importance of patient-partnered research in addressing long COVID: Takeaways for biomedical research study design from the RECOVER Initiative's Mechanistic Pathways taskforce. Elife 2023;12:e86043.
8. Weeks LE, Barber B, MacDougall ES, Macdonald M, Martin-Misener R, Warner G. An exploration of Canadian transitional care programs for older adults. Healthc Manag Forum 2021;34:163-8.
9. Coffey A, Mulcahy H, Savage E, Fitzgerald S, Bradley C, Benefield L, *et al*. Transitional care interventions: Relevance for nursing in the community. Public Health Nurs 2017;34:454-60.
10. Nikbakht Nasrabadi A, Mardanian Dehkordi L, Taleghani F. Nurses' experiences of transitional care in multiple chronic conditions. Home Health Care Manag Pract 2021;33:239-44.
11. Naylor MD, Shaid EC, Carpenter D, Gass B, Levine C, Li J, *et al*. Components of comprehensive and effective transitional care. J Am Geriatr Soc 2017;65:1119-25.
12. Kiger ME, Varpio L. Thematic analysis of qualitative data: AMEE Guide No. 131. Med Teach 2020;42:846-54.
13. Bellan M, Soddu D, Balbo PE, Baricich A, Zeppegno P, Avanzi GC, *et al*. Respiratory and psychophysical sequelae among patients with COVID-19 4 months after hospital discharge. JAMA Netw Open 2021;4:e2036142-e.
14. Schwandt TA, Lincoln YS, Guba EG. Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. New Dir Eval 2007;2007:11-25.
15. Borgen I, Romney MC, Redwood N, Delgado B, Alea P, George BH, *et al*. From hospital to home: An intensive transitional care management intervention for patients with COVID-19. Popul Health Manag 2021;24:27-34.
16. Scott AM, Li J, Oyewole-Eletu S, Nguyen HQ, Gass B, Hirschman KB, *et al*. Understanding facilitators and barriers to care transitions: Insights from project ACHIEVE site visits. Jt Comm J Qual Saf 2017;43:433-47.
17. Lopez AM, Lam K, Thota R. Barriers and facilitators to telemedicine: Can you hear me now? Am Soc Clin Oncol Educ Book 2021;41:25-36.
18. Gharib M, Rahmani N. Telerehabilitation during the COVID-19 pandemic. Arch Rehabil 2021;22:2-9.
19. Nikbakht-Nasrabadi A, Mardanian-Dehkordi L, Taleghani F. Abandonment at the transition from hospital to home: Family caregivers' experiences. Ethiop J Health Sci 2021;31:525-32.
20. Ghaffari Darab M, Keshavarz K, Sadeghi E, Shahmohamadi J, Kavosi Z. The economic burden of coronavirus disease 2019 (COVID-19): Evidence from Iran. BMC Health Serv Res 2021;21:132.
21. Yusefi AR, Mehralian G, Khodamoradi A, Abbasi R, Vatankhah F, Heaidari F, *et al*. Out-of-pocket payments for treatment of COVID-19 in Iran. Cost Eff Resour Alloc 2022;20:12.
22. Giuliano M, Tiple D, Agostoni P, Armocida B, Biardi L, Bonfigli AR, *et al*. Italian good practice recommendations on management of persons with Long-COVID. Frontiers in Public Health 2023;11:1122141.
23. Naylor MD, Hirschman KB, McCauley K. Meeting the transitional care needs of older adults with COVID-19. J Aging Soc Policy 2020;32:387-95.
24. Driver JA, Strymish J, Clement S, Hayes B, Craig K, Cervera A, *et al*. Front-line innovation: Rapid implementation of a nurse-driven protocol for care of outpatients with COVID-19. J Clin Nurs 2021;30:1564-72.
25. Labaf A, Jalili M, Pooyan EJ, Mazinani M. Management of Covid-19 crisis in Tehran University of Medical Sciences Hospitals: Challenges and strategies. J School Public Health Inst Public Health Res 2021;18:355-72.
26. Vickery J, Atkinson P, Lin L, Rubin O, Upshur R, Yeoh EK, *et al*. Challenges to evidence-informed decision-making in the context of pandemics: Qualitative study of COVID-19 policy advisor perspectives. BMJ Global Health 2022;7:e008268.
27. Gil S, Gualano B, de Araújo AL, de Oliveira Júnior GN, Damiano RF, Pinna F, *et al*. Post-acute sequelae of SARS-CoV-2 associates with physical inactivity in a cohort of COVID-19 survivors. Sci Rep 2023;13:215.