

POST INTENSIVE CARE SYNDROME–FAMILY (PICS-F) IN SAUDI ARABIA: A CALL FOR POLICY REFORM AND TRAUMA-INFORMED CRITICAL CARE

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ABSTRACT

Background: post-intensive Care Syndrome-Family (PICS-F) refers to the psychological, social, and functional complications experienced by families of ICU patients after discharge. Globally, 30–50% of families develop anxiety or depression, and 20–40% experience post-traumatic stress, yet PICS-F remains under-researched in Saudi Arabia. Objective: This paper aims to determine the obstacles that PICS-F presents in the Saudi context and to recommend policies for trauma-informed and family-centered critical care. Methodology: A narrative literature review and policy analysis were conducted using international and regional research published between 2013 and 2025. Sources examined included studies on ICU family experiences, PICS-F prevalence, and Saudi or GCC healthcare policies. Findings: Results indicated a considerable degree of misunderstanding, the absence of mental health interventions in ICU routines, inadequate family involvement, and the lack of uniform support plans for caregivers. Conclusion: The paper proposes culturally sensitive interventions such as flexible visitation policies, structured family meetings, post-ICU multidisciplinary clinics, and the development of national guidelines to reduce policy-practice gaps and enhance family well-being. Addressing PICS-F in Saudi Arabia supports families in coping with prolonged emotional and psychological stress and aligns with Vision 2030 healthcare transformation goals by embracing a humane and trauma-informed approach to critical care.

Keywords: Post-Intensive Care Syndrome–Family (PICS-F); ICU Family Care; Trauma-Informed Care; Saudi Arabia; Critical Care Outcomes; Family-Centered ICU.

1. INTRODUCTION

1.1 Background

There is rising interest regarding Post Intensive Care Syndrome Family (PICS F), as the syndrome is being considered a major public health issue, involving those patients who are released after going through the Intensive Care Unit (ICU). It involves a range of psychological, physical, and social loads, including anxiety, depression, post-traumatic stress ailments, prostration, sleep complications, and role strain, which can carry on well after the patient has been released to the hospital ^{1, 2}. It is estimated that between 30-50 per cent of family members in the ICU are anxious/depressed and 20-40 per cent show PTSD symptoms which amount to a significant and mostly unresponsive burden (Petrinec & Daly, 2016; Putowski et al., 2023). This ^{3, 4}19 pandemic as international cohorts showed that nearly one third of the families of ICUs will develop PICS F with the psychological distress lasting even up to six months after discharge (Nosaka et al., 2024). This evidence supports the fact that such factors as family involvement, ⁵ication, and access to post ICU support programs are essential elements of emotional recovery.

Even though PICS F is gaining more recognition worldwide, it is still an issue that Saudi Arabia is fighting against due to the absence of research and a methodical approach to treatment. The procedures used in the local intensive care unit that restrict communication and visitation of families can increase the burden on emotional and mental levels of the caregivers ^{6, 7}. Such practices are affected by numerous factors, such as legislation on privacy, infection control, and cultural considerations. Also, there is no systematic program of family support and follow-up indicators on the prevalence and severity of PICS F on the national level in the Kingdom. This is an issue since Kingdom is a suffering country. That represents a remarkable dearth of evidence-based, family-centered critical care in Saudi Arabia, which is notable about the long historical tradition of centrality of family in Saudi Arabia and the increasingly high respiratory, cardiovascular, and infectious disease-based admissions to the intensive care units. The situation in the Saudi context requires knowledge about PICS F at the same time as healthcare systems change the way they provide an intensive care unit treatment to become trauma-informed and holistic.

Family-centered models of intensive care unit on the global scale have led to quantifiable advancements concerning the lessening of the emotional expense sickness has on patients throughout the world. Appropriate communication structure, flexibly the ability to visit, and shared decision-making may help to decrease the prevalence of post-intensive care unit psychological stress, as according to Berlin et al. (2017). The initiatives like the ABCDEF package that consider the involvement of families as a vital aspect give merit to this notion. Achieving a significant improvement in family necessitates a holistic and evidence-based strategy that addresses clinical outcomes as well as sociocultural realities. Existing evidence highlights that family involvement, such as education for caregivers on best behaviours at the bedside, appointing a single-family spokesperson to help communication flow and enabling flexible visiting schedules are associated with lower rates of delirium and better patient recovery outcomes ^{1, 8}. However, this must be done in a Saudi context taking into consideration cultural and religious norms to which the institutions are held accountable, including adhering to gender segregation and modesty requirement as well as reliance on spiritual coping mechanisms such Qur'anic recitation, and prayer (Alsharari 2019; Al-Mutair et al., 2018^{6,9}alth campaigns, trust can be built between families and healthcare providers to narrow the gap between societal perceptions and ICU realities, while raising awareness regarding patient rights and obligations among the people, as opposed to information deficiency. Importantly, the delivery of such culturally compatible family-based strategies is not just a clinical advance but also an ethical obligation within the healthcare services sector in Saudi

Arabia reflecting Islamic notions of humanistic care, social solidarity, and reduction of pain. Considered together, these strategies form a base for reducing the psychosocial burden of PICS-F, resourcing long-term family and patient recovery, and reassuring the prominent position of the family in Saudi culture (Davidson et al., 2018; Al-Mutair et al., 2018; Rose et al., 2022).^{1, 9, 8}

In line with Islamic values emphasizing mercy, caregiving, and the alleviation of suffering, implementing family-centered interventions and trauma-informed practices is not only a clinical imperative but also a moral and religious duty. Such strategies collectively reduce the psychosocial burden of PICS-F, support long-term recovery, and uphold the central role of the family in Saudi society (Davidson et al., 2018; Al-Mutair^{1, 9, 8}

Emerging research also shows how PICS F affects families' long-term social and economic well-being. Family members frequently endure career interruption, financial hardship, and diminished general quality of life, especially when attending to patients with extended ICU admissions or post-discharge disability^{12, 13}. In situations with a lot of stress, caregivers may develop chronic stress or burnout, which can make it harder for patients to recover and follow up on their treatment. These multifaceted implications underscore the pressing necessity for Saudi Arabia to include family-centered policies and trauma-informed therapies into its critical care system. Setting up standardized PICS F screening tools, culturally sensitive counseling services, and post-ICU family clinics could make a big difference for both patients and their families. It could also add important information to the global literature on family-centered ICU recovery (Perfetti et al., 2024).¹⁴

1.2 Problem Statement

Despite the growing awareness of PICS-F in the global context, Saudi Arabia does not have the framework of screening, awareness campaigns, and family support interventions. Effective policy-making cannot occur because there are no national statistics on the prevalence of PICS F¹⁵. Moreover, the cultural factors, such as the gender-role norms and modesty, and the institutional policies limiting visitation further increase the psychological burden of the families (Hetland et al.¹⁶

1.3 Research Question

- What are the main challenges and opportunities of implementing the family-centered, trauma-informed care to addressing post-intensive Care Syndrome-Family (PICS-F) in Saudi Arabian ICU environments?

1.4 Research Objectives

1. To look into international evidence on prevalence and risk factors of PICS-F as well as family-centered care interventions.
2. To determine the cultural, systematic, and policymaking obstacles to the identification and treatment of PICS-F in Saudi Arabia.
3. To suggest evidence Base, culturally customized interventions to enhance post-ICU family support and influence the national policies.t.

1.5 Significance of the Study

This research addresses a critical need in the field of intensive care unit (ICU) discharge

therapy by incorporating worldwide standards with Saudi Arabia's healthcare system and the cultural environment of the country. Based on the findings of worldwide research, it has been shown that coordinated family engagement, psychological support, and follow-up programs are effective in enhancing both the level of satisfaction and the psychological burden experienced by families. As argued by Putowski et al. (2023), regional adaptation of the traditional programs may be essential,

given that the application of these programs demands a range of modifications to suit the cultural practices, resource availability, institutional practices, among others. The role of the research is the contribution to the international acknowledgement of PICS F, as well as to give the framework of the empirical research in Gulf States. Also, it lays emphasis on policy change and offers solutions that are related to the situations.

2. LITERATURE REVIEW

PICS-F is a complex medical state that involves family, relatives and friends of both loved ones and cause lots of discomfort to the patient. It is the answer of the growing numbers of studies that point to the fact that PICS. Admission of patients to the critical care unit also places a huge emotional/psychological burden in their family and in most cases, it lasts a very long period after the patients have been released out of the hospital. As indicated by the results of the study, family members commonly display the following issues: anxiety, depression, symptoms of post-traumatic stress disorder (PTSD), disturbed sleep, fatigue, and disruption to their social obligations. Davidson et al. (2018) stress that, on the one hand, all these symptoms, in aggregate, can produce a harmful impact on the quality of life of the family and, on the other hand, they can become a long-term process. The impact is further appreciable when the healthcare facilities lack the resources, they need to administer official therapies which are rooted in familial treatment. Experience all over the world shows that rules of intensive care units, quality of communication, access to psychosocial support services all play some role in how the family of a patient reacts to the condition of the patient emotionally and psychologically. The research carried out by Putowski et al. (2023) has a recent character.

2.1 Conceptual Overview of PICS-F

Post Intensive care Syndrome-Family (PICS-F) is an acknowledged continuation of postintensive Care Syndrome (PICS) with the emphasis on psychological, emotional, and social consequences that are encountered by the relatives of patients who are coping with critical ailments. Family members often feel anxiety, depression, post-traumatic stress signs (PTSS), and trouble sleeping, caregiver exhaustion, and strain produced by fear of social role responsibility which is likely to last a long time even after the patient leaves the intensive care unit^{17, 18}. Due to the direct effect that the family distress has on patient recovery and medication compliance as well as the general well-being of the caring unit, this condition is emerging to be a public health issue. As the research conducted across the globe found out, between thirty and fifty percent of family members experience severe symptoms of anxiety or depression, and between twenty and forty percent develop the symptoms of the post-traumatic stress disorder within the first six months after the patient leaves the intensive care unit (Petrinec & Daly, 2016; Putowski et al.^{3,4} these risks because it happened at the time when there were strict bans on visitation, use of isolation, and ambiguity that resulted in greater psychological sequelae in caregivers. Some of these caregivers stated their suffering did not end after more than six months of their hospital admission to the intensive care unit (McPeake et al., 2022; Nosaka et al., 2024). When the survival rates in the intensive care unit^{13, 15} the longterm effects of critical illness will be transferred to the family. Consequently, the diagnosis and alleviation of PICS-F will enter into the course of thorough critical care.

2.2 Psychological and Social Impacts on Families

PICS-F is associated with a number of typical psychosocial consequences, including caregiver role pressure, social disengagement, financial difficulty, and a general decline in quality of life. In addition, family members may display avoidance behaviors and social isolation^{19, 20}. This may have a substantial influence on the patient's rehabilitation trajectory, which may be greatly damaged by untreated

anxiety and depression, which can progress to clinical syndromes. According to study, stress experienced by caregivers is linked to long-term health issues, such as sleeplessness and chronic stress, which in turn lead to issues within the family. On the other hand, the negative impacts of communication breakdowns in the critical care unit are more severe than the protective benefits of family unity and the provision of psychological support on the patient. According to the evidence, PICS-F as a condition cannot simply be a passing reaction, but indeed a psychosocial state that could end up harming future generations, which is clearly the case.

2.3 Global Interventions and Family-Centered ICU Care

Most of the interventions that have been witnessed by international organizations in reducing the effects of PICS-F have been on models of care that place the needs of families first. As mentioned by Shirasaki et al. (2024) and Lobato et al. (2020), the inclusion of family engagement as one of the key parts of the ABCDEF bundle has proved to enhance patient outcomes and minimize the level of suffering of family members. This is one of the recommendations which are endorsed by the society of critical care medicine (SCCM). Some of the interventions that are validated in North America and in Europe include structured family meetings, intensive care unit diaries, virtual communication during pandemics, and early psychological therapy to care givers. The results of the meta-analysis conducted by Duong et al. (2024) showed that the use of patient and family-oriented care interventions during treatment can minimize the psychological morbidity of patients after their release into the flow of an intensive care unit and increase satisfaction with treatment. Nevertheless, there are some disparities that persist in the world because mapping the execution of these therapies is highly dependent on numerous factors such as culture, health care facilities, and legislature. There is a definite mandate that contextual adaptation is necessary in the low-and middle-income environments since there is no established system of treating the postincident CHF. This is notwithstanding the fact that, the post-intensive care unit rehabilitation clinics as well as family follow-up programs are gaining popularity in high-income countries.

2.4 Regional and Saudi Arabian Evidence

PICS F in the Gulf Cooperation Council (GCC) region, and Saudi Arabia in particular, do not have many studies that revolve around them. This is particularly the case in Saudi Arabia. As indicated by Smith et al. (2025), and NORAZMAN (2022), most of the research conducted on the area of interest looks at the outcome of the patients rather than the experience of the caregivers. The presence of any practical hindrances is related to concern and a long-term unease that caregivers in Saudi intensive care units (ICUs) experience. Such issues as gender-related environments, limited visitation times, and possibilities to generate coordinated communication with the medical workers also are considered among them ^{6, 21}. Unlike the western hospitals, Saudi hospitals are lacking, in terms of procedure, in examinations on mental health, and follow up of lesser after patients have been discharged to the non-critical care units. This is compared to the western countries, where such projects have been tested.

According to Hetland et al. (2017), the methods to address the psychological problems that patients have to overcome after being discharged out of the intensive care unit (ICU) are severely underprovided in resources in terms of social workers, clinical psychologists, and multidisciplinary follow-up services. On matters pertaining to solutions to such problems, there exists a huge vacuum in terms of resource materials. Moreover, sociocultural barriers might be a reason why caregivers struggle with readiness to work with variables at home-based care. These variables entail the role of gender, modesty, and training inability to effectively liaise with families through free speech. The combination of these issues has a chance of causing challenges to caregivers to take care of the patients in the home. All these hardships being factored together, it is more than apparent that there

exists a serious gap in the volume of evidence-supported solutions that are suitable, culturally competent and intended at reducing the toll of PICS F in the area. This fact also indicates the importance of Saudi Arabia making changes to its regulations, instating on a national level data gathering, and embracing models of care that have a global trend of using the family unit as a center of care.

2.5 Barriers to Addressing PICS-F in Saudi Arabia

Regarding the way PICS F is treated, there are several problems in Saudi Arabia, with some of them being regarded as the systemic, cultural, professional, and institutional in their character. The family members are also unintentionally left in a more disturbed state due to the fact that the institutional level limitations expose them to restricted visiting access, they are not able to remain updated and emotionally attached to the patient ^{6, 16}. These restrictions were established to achieve the goal of enhancing privacy and infection control of the patient. The information exchange is more of the fragmentation and this comes about due to the fact there are usually no formal channels of communication in many Saudi intensive care units and these places the families in a manner where they lack information on the prognosis and how things are going to be after discharge. This will render the decision making of families hard. One of the most notable barriers that should be eliminated to identify and manage PICS F at the early stages is the fact that even the personnel of the intensive care units do not get adequate training on psychological assessment and familyapproaching care methods. Research conducted by NORAZMAN (2022) and Wilk and Petrinec (2024) indicates that doctors and other medical professionals tend to focus most of their aspects on the medical conditions of their patients and spend far too less time on asking questions about the psychological status of the relatives of the

patients. The issue becomes even worse bearing in mind that clinical psychologists and social workers are also in short supply on the teams that function in critical care units. This complicates the situation of being able to provide patients with psychological help and support.

The process of carrying out the care strategies to facilitate entry of the families is already fraught with difficulties due to the cultural and social barriers that exist. Due to gender segregation, modesty restrictions, and resistance to openly addressing emotional pain, there is a lack of early reporting of psychological symptoms and reduced family engagement in care discussions ²¹. This is a problem since families are less likely to be included in care conversations. It is common for members of the family to take on the responsibility of providing care for others without receiving the appropriate training, which can lead to feelings of stress, concern, and even burnout. When all of these challenges are considered together, they result in missing indicators of PICS F, delayed receipt of mental assistance, and an increased likelihood of long-term disease for caregivers. These difficulties will continue to exist in the lack of coordinated support from the government, which will make it more difficult for the Kingdom to build a comprehensive critical care system that places an emphasis on treating families.

2.6 Literature Synthesis and Identified Gaps

After doing a literature analysis, it was determined that there is a large information and practice gap in the field of PICS F in Saudi Arabia. Family-focused care treatments have been shown to be effective in reducing long-term psychological damage and alleviating anxiety, sadness, and post-traumatic stress among patients' loved ones who are receiving treatment in intensive care units, as indicated by research carried out by Barnes Daly et al. (2017) and Duong et al. (2014). According to Yousef (2024) and Alsharari (2019), research in the Saudi context is dispersed and mostly focuses on the outcomes of patients rather than the experiences of their families. A lack of standardized post-intensive care unit follow-up clinics, insufficient integration of psychological support into critical care pathways, and a lack of countrywide prevalence statistics are all factors that contribute to the enormous gaps that

exist in the current healthcare system. Additionally, the psychological fragility of caregivers is exacerbated, and, because of local hurdles like as legislative restraints, cultural norms, personnel shortages, and inadequate family education, worldwide best practices are not transferred into local contexts. There is a dearth of research on the long-term repercussions for caregivers following discharge from critical care units at the present time, and there are no Saudi-specific recommendations that deal with the

systematic screening for psychological distress within families. The purpose of this literature review is to highlight the crucial need to undertake empirical investigations, design policies, and implement treatments that are culturally responsive to bridge the gap that exists between worldwide norms and regional intensive care unit practices. To reduce the hidden burden of PICS F and bring the Saudi healthcare system in step with the norms of trauma informed care that are in place across the world, it is essential to build comprehensive critical care frameworks that emphasize the needs of families.

3. METHODOLOGY

3.1 Research Design

The research design adopted in this study was qualitative, comprising secondary research, and based on narrative literature review and policy analysis. Qualitative orientation was suitable given that the study was interested in the psychosocial effects and systemic obstacles concerning Post Intensive Care Syndrome-Family (PICS F) and not the production of quantitative data. Since no human subjects were used to capture new data, the research solely utilized secondary sources of information whose data base were peer reviewed research articles, clinical guidelines and regional healthcare reports. The given strategy is especially appropriate when it comes to emerging healthcare needs where there is a lack of local empirical research, like PICS F in Saudi Arabia ²². The narrative review element enabled the inclusion of the results of the observational research, interventional research, systematic research and meta-analysis; it offered a wide thematic synthesis of international and regional material. The component of policy analysis has been added to determine the rates at which current ICU practices and family involvement strategies in the leadership in Saudi Arabia are consistent or disagree with internationally developed family centered care models. Both these designs in combination give a holistic structure to gaining an understanding of the current status of PICS F management and the specifics of where there may be gaps on the practice and research levels.

3.2 Data Collection

The collection of the data included a comprehensive search of peer reviewed articles, clinical guidelines, and regional health reports following the criteria of 2013 to 2024 to capture the information both pre-COVID and post COVID on PICS F, and family psychological load in the critical care setting. The literature search was carried out in PubMed, Scopus, Web of Science, and

Google Scholar. Key words and Boolean phrases were Post Intensive Care Syndrome-Family (PICS F), family centered care in ICU, caregiver burden, and Saudi Arabia or Gulf Cooperation Council and critical care. Official guidelines on a global and regional level, also in the form of journal articles, were examined alongside journal articles, including the Society of Critical Care Medicine ²³ family centered care recommendations and World Health Organization (WHO) trauma informed critical care recommendations. The sources of local knowledge include the Saudi Medical Journal, Ministry of Health publications, and research documentations of family experiences in ICU, family visitation policy, and cultural barriers to family presence in Saudi Arabia (Alsharari^{6,15} with no clear mention of family psychological or social outcomes were discarded and the screening led to removal of duplicate studies.

3.3 Data Analysis

The thematic synthesis approach was utilized during the analysis since it is a method commonly used in qualitative literature reviews to capture the most important patterns, trends, and gaps ²⁴. First, the studies included were categorized by geographical source (global studies, GCC/Saudi studies) and by type (studies that were observational, interventional, meta-analysis or guideline/policy report). Second, it was possible to identify recurring themes that included the impact of ICU experiences on family psychology, the existence of systemic and cultural barriers in Saudi Arabia, and evidence based, supportive treatment of family members. These themes have been compared with international best practices and local ICU modes of operation which enabled this study to outline gaps and consequently provide context specific recommendations. The Results and Discussion sections were based on the thematic synthesis connecting world knowledge with the needs of local healthcare.

3.4 Sample Size

The research is secondary and qualitative, so it did not involve primary participants, which is why a typical sample size was irrelevant. The chosen unit of our analysis was the number of published studies, clinical guidelines and regional healthcare policy documents on the topic of Post Intensive Care Syndrome-Family (PICS F) and family centered critical care. The research synthesis was composed of international empirical studies, systematic reviews, meta-analyses, and global family centered care guidelines, Saudi and Gulf Cooperation Council (GCC) regional studies and health policy reports. Such a blend of sources guaranteed a rich insight into the topic taking both the global best practices into consideration and the local contextual insights onto the country of Saudi Arabia.

3.5 Ethical Consideration

The article has been carried out in compliance with the moral rules of the Declaration of Helsinki, which is the international guideline in terms of research ethical integrity and accountable researcher within the field of health and medicine ²⁵. The research did not entail direct contact with human subjects, as it has focused on the analysis of secondary sources of data including published bodies of literature, health policy reports, and clinical guidelines, and as such, it did not require formal informed consent. Also, there was no need to get an approval of the institutional review board as the primary data were not collected. However, the research was conducted in accordance with the academic and publication ethics, and it was clear that all information was properly described, the original authors credited, and the privacy and intellectual property of all the works shown in the research process setting.

4. RESULTS AND DISCUSSION

This part provides a detailed literature synthesis international as well as Saudi specific on Post Intensive Care Syndrome Family (PICS-F). It is deliberated upon the psychosocial, emotional and cultural effect of PICS F on families of ICU patients besides the structural and policy issues that influence family centered care in Saudi Arabia. The world has witnessed the evidence indicating that the families of ICU survivors are often affected by anxiety, depression, and post trauma stress symptoms, which may last months after a patient has been released ^{13, 4}. In Saudi Arabia, there is still limited awareness of PICS-F, and follow up programs or the existence of family support plans are not widespread at the given moment (Alsharari, 2019). The above gaps example ⁶ contrast between global best practice and local practice. The findings of this literature-based research point to the fact that, the family care practice in Saudi ICUs is limited by the cultural factors, restricted visitation and low literacy of healthcare practices leading to increase in the family distress. To complete the discourse, visual comparisons of prevalence and burden of symptoms are also included to show how the local

situation does not reflect what happens in the rest of the world regarding the psychosocial burden of PICS-F.

4.1 Global and Regional Prevalence of PICS-F

PICS-F is now accepted as a worldwide global concern of public health, with great diversity among regions in terms of its prevalence. The literature on family members of ICU survivors more generally suggests that family members of survivors are at risk of developing any clinically significant anxiety or depression in a range of 30-50 percent and reporting symptoms of PTSD in a range of 20-40 percent which persists even after the actual acute hospitalization^{3, 13}. Nevertheless, the psychological distress of the family after ICU admission is not well documented in Saudi Arabia and other GCC nations, and little research exists to quantify the psychological distress of the family of the ICU admissions. According to early Saudi reports, the apparent prevalence is lower probably because of the under recognition and the absence of systematic screening (Alsharari, 2019). To graphically understanding, a graph Chart Showing PICS F Prevalence Among ICU Family Members shows the difference between the estimated effects in the world and the meager Saudi data on the issue. This gap identifies a pressing need of conducting national epidemiological studies to delimit the real burden of PICS F in the Kingdom.

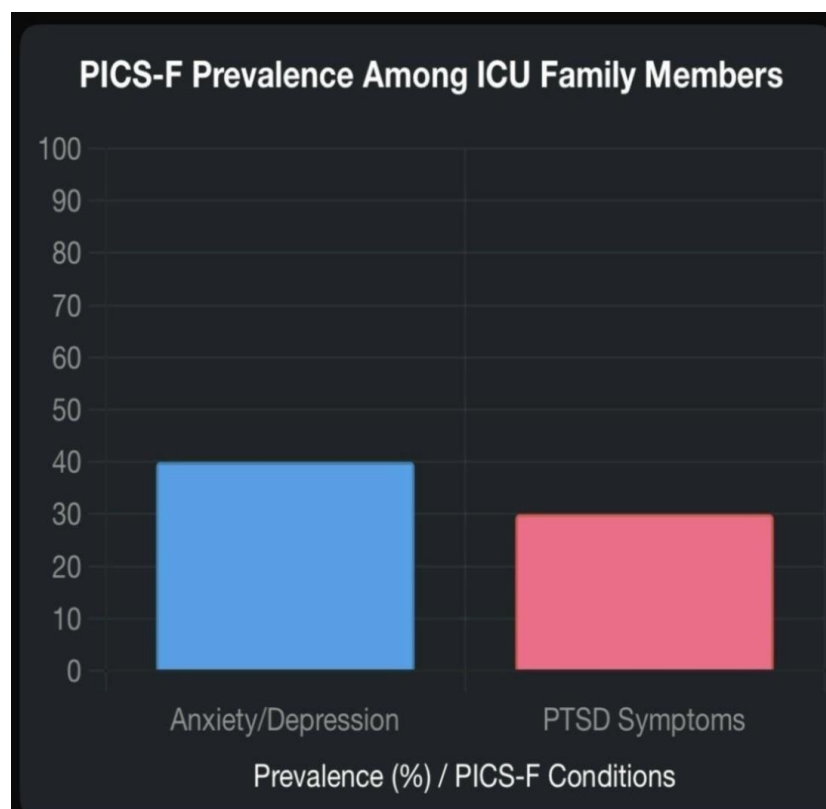


Figure 1: Chart showing PICS-F prevalence among ICU family members

4.2 Emotional and Psychosocial Burden on Saudi Families

The psychological impact of Saudi ICU families is a deep-seated and underreported phenomenon, which involves anxiety, depression, sleep disturbance, and post-traumatic stress. This is because families usually experience anticipatory grief, especially in situations where individuals are kept in an ICU over a long period and are exposed to the lack of knowledge regarding the outcomes. The caregivers referred to after discharge can experience chronic role strain, economic stress, and social

isolation, which are the main features of PICS F^{3, 4}. The family in Saudi culture mostly consists of women and it becomes the major care giving duty to be carried by the individual family members that can increase the stress situation without any arrangements or support provided by the mental health department. The knowledge gap in Saudi data is highlighted in the second graph Chart Comparing

PICS F Prevalence: Saudi Arabia vs. Global Estimates and it considers that the reality of the prevalence can potentially reach that of the international estimation should it be systematically analyzed. The lack of awareness of this emotional burden may lead to reoccurrence of invisible morbidity psychosocially that may jeopardize recovery of the patient and the well-being of their family.

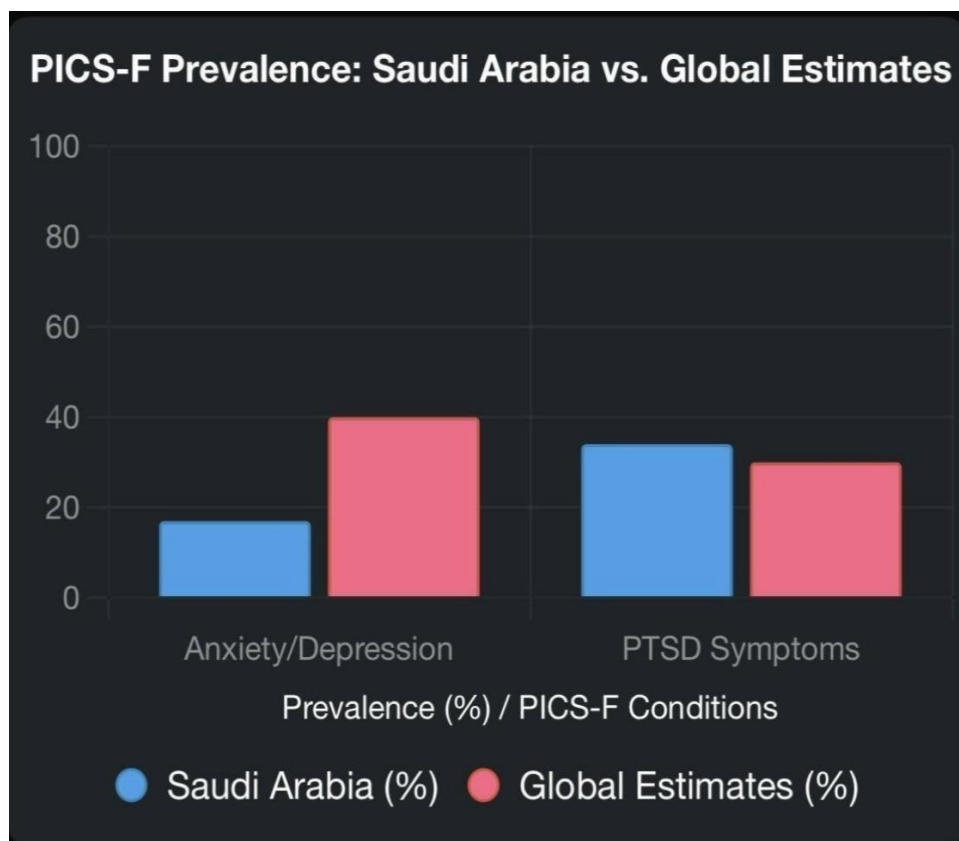


Figure 2: Chart comparing PICS-F prevalence: Saudi Arabia vs. Global Estimates

4.3 Policy and Organizational Barriers in the Saudi ICU System

In Saudi ICU, the practice does not have formal policies and structural means to help family members with their psychological health even though international evidence has shown the advantages of using family-centered ICU care. Duong et al., (2024) discovered with the use of patient-and family centered care (PFCC) interventions that they lead to such positive outcomes as a decreased length of stay in ICUs, enhanced satisfaction, and decreased rates of delirium, where the effects of anxiety/depression were incongruously diverse because of heterogeneity and low certainty evidence. Meta-analysis of family-centered interventions recorded better patient-related outcome in close to 60 percent of instances comprising mental health and satisfaction²⁶. By comparison, in Saudi settings the ICU remains largely focused on the patient with very little post ICU follow-up, little to no family screening, and psychosocial services to be part of the discharge plan. Such systemic discrepancies hinder the detection and provision of families with PICS-F at a relatively early stage and indicates one of the discrepancies between Saudi ICU practices and international family centered care frameworks.

4.4 Cultural Factors Influencing Family Experience

In Saudi culture, family support in the treatment of critical illness is entrenched and inshore belief systems like recitation of Quran, prayer, and spiritual reinforcement, are the principal components in reducing distressful impacts on caregivers ²¹. Nevertheless, cultural specifics present their own stressors: segregation between the genders can restrict the opportunity to communicate on the medical topic; the family system can become a barrier when it comes to sharing with the medical staff. According to Kynoch et al (2021), the Saudi families appreciate the interactions, proximity, information-sharing, reassurance, and spiritual healing most of all, but they often feel left out or uninformed in their treatment by ICU teams, which results in increased anxiety and helplessness. The results of international research in high-income environments demonstrate that regular family rounds and cultural-sensitive communication count as significant contributors to the improvement of satisfaction levels and decreased levels of emotional symptoms

4.5 Comparison with Global trauma-informed Care Models

Fixed care models in ICUs, including the ABCDEF bundle, encourage involvement of the family, the prevention of delirium and early mobilization as part of a comprehensive healing process ²⁷. The conduct and discussion of interdisciplinary bedside rounds and the teamwork of each other also play a significant role in reducing miscommunication and enhancing

family engagement ²⁸. According to many randomized controlled trials, family-centered interventions have a more positive impact by improving mental health outcomes of the patients, reduction in length of stay in the ICU, and satisfaction of both healthcare providers and families (Lau, 2023). When ²⁶the Saudi context, none of these global models consider a properly organized team collaboration, involvement of family in the process of rounds, and initiation of provider training in trauma-informed communication, which is why the strategic alignment with changes in healthcare evolution toward family-centered ICU healthcare necessitates the implementation of these aspects urgently.

4.6 Thematic Synthesis of Family Burden, Policy Gaps, and Global Care Comparisons

Thematic synthesis of findings results in three major challenges in the Saudi Arabian setting of Post Intensive Care Syndrome-Family (PICS-F): emotional burden on families, the lack of systemic and policy frameworks in the ICU practice, and the necessity to either match local care models to global best practices or implement new ones. The culture of caregiving has a profound impact on the burden of the family in Saudi Arabia representing caregivers to their relatives mostly as the main source of assistance with little professional psychological work. This is leading to an increase in anxiety, depression, and post-traumatic stress symptoms, especially when such patients are not provided with a structured post ICU support or counseling services ^{6,29}. Saudi practices of keeping families at a distance while mainly maintaining a patient centric approach lack structured family meetings and flexibility in visitation and continuity in multidisciplinary clinics after discharge, all of which are standard practice in recovery and family care models in other countries, potentially adding to long term psychosocial outcomes (Smith et al., 2025; Shirasaki et al.^{30,31} Weakness of the system as depicted in the comparative graphs of PICS F prevalence and Saudi/globally, reminds us of the fact that the underestimation of family psychological needs is severe and standard post ICU policies is not intact. Those gaps can be addressed by integrating the trauma informed and family centered approach into the national frameworks of decisions and policies in ICUs according to the suggestions of the World Health Organization (WHO) about holistic critical care and the vision of the Gulf Cooperation Council (GCC) regarding the wellbeing of patients and their families in health systems. To facilitate the mitigation of caregiver distress and improve PICS-F-affected family recovery trajectories, careful selection and cultural sensitivity of interventional programs is needed once the global evidence is temperately combined with local evidence.

5. CONCLUSION

The mental health of patients' families and their ability to recuperate after leaving the intensive care unit are both negatively impacted by post-intensive care syndrome familial (PICSF), a public health concern in Saudi Arabia that is both underappreciated and crucial. While studies elsewhere have found that 30–50% of intensive care unit (ICU) family members suffer from anxiety or depression, and 20–40% exhibit signs of post-traumatic stress disorder (PTSD), neither organized family support programs nor extensive epidemiological statistics are available in Saudi Arabia. Limited access to the intensive care unit (ICU), cultural obstacles to honest communication, and a lack of organized care following discharge all add stress to caregivers' already heavy emotional loads. Considering Vision 2030's emphasis on comprehensive healthcare reform, this study synthesizes regional and international literature to highlight the critical need for intensive care unit (ICU) frameworks that are trauma informed, and family focused.

5.1 Limitations

The narrative assertions made in this study are supported by secondary sources, such as published literature and policy assessments, rather than primary data, which were collected by the researchers themselves. One of the most significant limitations is that there is no study that is particular to Saudi Arabia on PICS F. Therefore, we are forced to assume the burden based on indirect regional data and worldwide prevalence estimates. It may be challenging to take into consideration cultural variations in caregiving obligations, guidelines for visits to critical care units, and mental health tracking when comparing the results of Saudi Arabia to those of other countries throughout the world. Although these limitations make it more difficult to arrive at definitive findings on the effectiveness of family-centered intensive care unit (ICU) therapy in the Kingdom, they also bring to light a significant knowledge gap that has to be filled.

5.2 Recommendations

In order for Saudi Arabia's healthcare facilities to properly mitigate the consequences of PICS-F, it is vital to have a multi-tiered strategy to family care. The incorporation of familycentered techniques is a crucial step that must be taken while performing treatments in the critical care unit. An example of them is regulations that enable more flexible visitations, family visits that are organized, and the systematic evaluation of caregiver distress throughout and after a hospital stay in an intensive care unit. Claims are made that after intensive care unit multidisciplinary clinics should be built with the intensivist, mental health professionals, and social workers. This would also confirm follow up on cases of families once they have been discharged in the intensive care unit. Third, the concept of trauma-informed treatment must be made institutionalized by development of guidelines and the development of a better national understating on the basis of enhanced awareness. This is going to guarantee that patients as well as their relatives are given psychological and emotional care in an organized fashion. Fourth, it is crucial to actively listen to healthcare practitioners' opinions and address the challenges they face in providing familycentered and trauma-informed care. Understanding the reasons that delay or prevent the implementation of these practices is necessary to improve the overall system and enhance the wellbeing of both families and staff. Fourth, incorporating the perspectives of healthcare practitioners is essential to the effective implementation of family-centered and trauma-informed care. Understanding the operational and emotional challenges faced by clinical staff, as well as identifying the systemic and logistical barriers that impede or delay these practices, is crucial. The aim of this study is to highlight that addressing these factors is likely to enhance staff efficiency, strengthen the quality and continuity of care, and ultimately support the well-being of both healthcare providers and patient's families, while closing the discrepancies between the policy and practice by the implementation of these steps.

5.3 Future Implications

The recognition and care of PICS-F in Saudi Arabia can have long-range consequences that will have an impact on clinical practice, health policy, and research-related contributions. By implementing processes in intensive care units that involve patients' families, it is possible to increase the likelihood of patients making a quick recovery, reduce the amount of stress experienced by caregivers, and reduce the number of unnecessary hospital readmissions. Policymakers should turn to national surveillance systems and multicenter research programs to gather data on local incidence and design intervention models that are culturally appropriate in order to promote the Kingdom as a trailblazer in trauma informed critical care in the region. This will allow the Kingdom to establish itself as a leader in the field. Providing caregivers with assistance and doing follow-up after discharge from intensive care units should be the primary focus of research that aims to lay the groundwork for long-term benefits. Randomized treatments and longitudinal studies should be given priority in this research. As soon as the gaps in knowledge, policy, and practice that now exist are overcome, it will be feasible to implement a more complete intensive care unit system that is centered on the family and adheres to worldwide standards as well as the changes in healthcare that are indicated in Vision 2030.

References

- 1) Davidson, J. E., Mendis, J. M., Huynh, T.-G., Farr, S. G., Jernigan, S., Strathdee, S. A., & Patterson, T. (2018). Family-centered care interventions to minimize family intensive care unit syndrome and post-intensive care syndrome-family. In G. Netzer (Ed.), *Families in the Intensive Care Unit* (pp. 187–215). Springer. https://doi.org/10.1007/978-3-319-94337-4_15
- 2) Padilla-Fortunatti, C., Rojas-Silva, N., Cortes-Maripangue, S., Palmeiro-Silva, Y., Rojas-Jara, V., Nilo-Gonzalez, V., ... Garcés-Brito, N. (2025). Incidence and factors associated with post-intensive care syndrome among caregivers of intensive care unit survivors: Protocol for a cohort study. *PLoS ONE*, 20(5), e0324013. <https://doi.org/10.1371/journal.pone.0324013>
- 3) Petrinec, A. B., & Daly, B. J. (2016). Post-traumatic stress symptoms in post-ICU family members: Review and methodological challenges. *Western Journal of Nursing Research*, 38(1), 57–78. <https://doi.org/10.1177/0193945914544176>
- 4) Putowski, Z., Rachfalska, N., Majewska, K., Megger, K., & Krzych, Ł. (2023). Identification of risk factors for post-intensive care syndrome in family members (PICS-F) among adult patients: A systematic review. *Anaesthesiology Intensive Therapy*, 55(3), 168–178.
- 5) Nosaka, N., Noguchi, A., Takeuchi, T., & Wakabayashi, K. (2024). Long-term prevalence of PTSD symptom in family members of severe COVID-19 patients: A serial follow-up study extending to 18 months after ICU discharge. *Journal of Intensive Care*, 12(1), 53.
- 6) Alsharari, A. F. (2019). The needs of family members of patients admitted to the intensive care unit. *Patient Preference and Adherence*, 13, 465–473.
- 7) Hetland, B., McAndrew, N., Perazzo, J., & Hickman, R. (2018). A qualitative study of factors that influence active family involvement with patient care in the ICU: Survey of critical care nurses. *Intensive and Critical Care Nursing*, 44, 67–75.
- 8) Rose, L., Yu, L., Casey, J., Cook, D., & Davidson, J. E. (2022). Communication and trust-building strategies for family engagement in adult intensive care units. *American Journal of Critical Care*, 31(4), 290–300.
- 9) Al-Mutairi, A. S., Plummer, V., Clerehan, R., & O'Brien, A. (2018). Attitudes of health care providers towards family involvement and presence in adult critical care units in Saudi Arabia. *Journal of Clinical Nursing*, 23(5–6), 744–755.
- 10) Alanazi, A. M. (2024). Objective and subjective long-term cognitive outcomes in COVID-19 survivors managed with ECMO: A case series.

- 11) Perfetti, A. R., Jacoby, S. F., Buddai, S., Kaplan, L. J., & Lane-Fall, M. B. (2022). Improving post-injury care: Key family caregiver perspectives of critical illness after injury. *Critical Care Explorations*, 4(8), e0685. <https://doi.org/10.1097/CCE.0000000000000685>
- 12) Yousef, N. (2024). The efficacy of sensation awareness-focused training in alleviating post-intensive care syndrome-family (PICS-F) among families stayed at ICU. *Gomal Journal of Medical Sciences*, 22(4), 365–372. (Pagination varies by index; DOI not available)
- 13) Hetland, B., Hickman, R., McAndrew, N., & Daly, B. (2017). Factors influencing active family engagement in care among critical care nurses. *AACN Advanced Critical Care*, 28(2), 160–170. <https://doi.org/10.4037/aacnacc2017118>
- 14) Davidson, J. E., Jones, C., & Bienvenu, O. J. (2012). Family response to critical illness: post-intensive care syndrome–family (PICS-F). *Critical Care Medicine*, 40(2), 618–624. <https://doi.org/10.1097/CCM.0b013e3182616e65>
- 15) Kang, J., & Lee, M. H. (2024). Incidence rate and risk factors for post-intensive care syndrome subtypes among critical care survivors three months after discharge: A prospective cohort study. *Intensive & Critical Care Nursing*, 81, 103605. <https://doi.org/10.1016/j.iccn.2023.103605>
- 16) Azoulay, É., Kentish-Barnes, N., Aboab, J., Adrie, C., Annane, D., Argaud, L., ... Schlemmer, B. (2021). Ten reasons for focusing on the care we provide for family members of critically ill patients. *Intensive Care Medicine*, 47(4), 452–461. <https://doi.org/10.1007/s00134-020-06319-5>
- 17) Norazman, F. U. B. (2022). The needs and satisfaction among family members during COVID-19 pandemic in the ICU, Hospital Universiti Sains Malaysia [Master's thesis, Universiti Sains Malaysia]. USM Institutional Repository. (No DOI available.)
- 18) Davidson, J. E., Aslakson, R. A., Long, A. C., Puntillo, K. A., Kross, E. K., Hart, J., ... Curtis, J. R. (2017). Guidelines for family-centered care in the neonatal, pediatric, and adult ICU. *Critical Care Medicine*, 45(1), 103–128. <https://doi.org/10.1097/CCM.0000000000002169>
- 19) Braun, V., & Clarke, V. (2021). *Thematic analysis: A practical guide*. SAGE Publications. ISBN: 9781473953246
- 20) Al-Mutair, A. S., & Plummer, V. (2013). Needs and experiences of families of intensive care patients in Saudi Arabia: A qualitative study. *Nursing in Critical Care*, 18(4), 200–209. <https://doi.org/10.1111/nicc.12027>
- 21) Bento, I., Ferreira, B., Baixinho, C. L., & Henriques, M. A. (2025). Effectiveness of early mobilization and bed positioning in the management of muscle weakness in critically ill people under invasive mechanical ventilation in intensive care: A systematic review of intervention literature protocol. *Nursing Reports*, 15(3), 75–82. <https://doi.org/10.3390/nursrep15030075>
- 22) Davidson, J. E., Mendis, J. M., Huynh, T. G., Farr, S. G., Jernigan, S., Strathdee, S. A., & Patterson, T. (2018). Family-centered care interventions to minimize family intensive care unit syndrome and post-intensive care syndrome-family. In *Families in the intensive care unit: A guide to understanding, engaging, and supporting at the bedside* (pp. 187–215). Springer International Publishing.
- 23) Duong, J., Wang, G., Lean, G., Slobod, D., & Goldfarb, M. (2024). Family-centered interventions and patient outcomes in the adult intensive care unit: A systematic review of randomized controlled trials. *Journal of Critical Care*, 83, 154829.
- 24) Kang, J., & Yun, S. (2025). Comparative Analysis of Differences in Functional Ability Among Older People Between Urban and Rural Areas: A Cross-sectional Study from China, 19(2), 102–111. <https://doi.org/10.1016/j.anr.2025.01.004>
- 25) Kleinpell, R., Zimmerman, J., Ely, E. W., Steelman, V. M., & others. (2018). Promoting family engagement in the ICU: Experience from a national collaborative of 63 ICUs. *Critical Care Medicine*, 46(8), 1254–1260. <https://doi.org/10.1097/CCM.0000000000003219>

- 26) Kynoch, K., Ramis, M. A., & McArdle, A. (2021). Experiences and needs of families with a relative admitted to an adult intensive care unit: A systematic review of qualitative studies. *JBIE Evidence Synthesis*, 19(7), 1499–1554. <https://doi.org/10.11124/JBIES-20-00232>
- 27) Lau, A. F. (2023). Come one, come all: Moderators of the relation between psychological difficulties and mental health treatment among caregiver-child dyads [Doctoral dissertation, Washington State University]. ProQuest Dissertations Publishing.
- 28) Lobato, C. T., Camões, J., Carvalho, D., Vales, C., Dias, C. C., Gomes, E., & Araújo, R. (2023). Risk factors associated with post-intensive care syndrome in family members (PICS-F): A prospective observational study. *Journal of the Intensive Care Society*, 24(3), 247–257.
- 29) Mclean, A., Ewens, B., & Towell-Barnard, A. (2025). Delirium in the acute care setting from the families' perspective: A scoping review. *Journal of Advanced Nursing*, 81(4), 1025–1038. <https://doi.org/10.1111/jan.15824>
- 30) Perfetti, A. R., Jacoby, S. F., Buddai, S., Kaplan, L. J., & Lane-Fall, M. B. (2022). Improving post-injury care: Key family caregiver perspectives of critical illness after injury. *Critical Care Explorations*, 4(8), e0685. <https://doi.org/10.1097/CCE.0000000000000685>
- 31) Sawicka-Gutaj, N., Gruszczyński, D., Guzik, P., Mostowska, A., & Walkowiak, J. (2022). Publication ethics of human studies in the light of the Declaration of Helsinki: A mini-review. *Journal of Medical Science*, 91(2), e700. <https://doi.org/10.20883/medical.e700>
- 32) Shirasaki, K., Hifumi, T., Nakanishi, N., Nosaka, N., Miyamoto, K., Komachi, M. H., ... Otani, N. (2024). Post-intensive care syndrome family: A comprehensive review. *Acute Medicine & Surgery*, 11(1), e939. <https://doi.org/10.1002/ams2.939>
- 33) Smith, A. C., Ferguson, H. N., Russell, R. M., Savsani, P., & Wang, S. (2025). Post-intensive care syndrome family. *Critical Care Clinics*, 41(1), 73–88. <https://doi.org/10.1016/j.ccc.2024.08.007>
- 34) Tshwaphe, T. (2025). Stress and coping strategies among family members of patients admitted to the intensive care unit at Princess Marina Hospital, Gaborone, Botswana (Doctoral dissertation, University of Zambia). UNZA Institutional Repository.
- 35) Wilk, C., & Petrinc, A. (2024). Psychometric evaluation of the Family Willingness for Caregiving Scale. *American Journal of Critical Care*, 33(3), 192–201. <https://doi.org/10.4037/ajcc2024691>.